

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	860	215	209	2530	0.340	860	1155	0.4	0.5	2.155	A
B	154	38	675	713	0.216	153	394	0.2	0.3	6.431	A
C	1326	331	0	3010	0.441	1325	828	0.6	0.8	2.135	A
D	319	80	1046	1518	0.210	319	279	0.2	0.3	3.001	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1054	263	256	2491	0.423	1053	1415	0.5	0.7	2.501	A
B	188	47	826	641	0.294	188	483	0.3	0.4	7.936	A
C	1624	406	0	3010	0.540	1622	1014	0.8	1.2	2.592	A
D	391	98	1280	1351	0.289	390	342	0.3	0.4	3.747	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1054	263	257	2491	0.423	1054	1416	0.7	0.7	2.504	A
B	188	47	827	640	0.294	188	483	0.4	0.4	7.961	A
C	1624	406	0	3010	0.540	1624	1015	1.2	1.2	2.596	A
D	391	98	1282	1350	0.290	391	342	0.4	0.4	3.753	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	860	215	210	2530	0.340	861	1157	0.7	0.5	2.159	A
B	154	38	676	712	0.216	154	395	0.4	0.3	6.455	A
C	1326	331	0	3010	0.441	1327	830	1.2	0.8	2.141	A
D	319	80	1048	1517	0.210	320	280	0.4	0.3	3.009	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	720	180	176	2559	0.282	721	969	0.5	0.4	1.960	A
B	129	32	566	765	0.168	129	331	0.3	0.2	5.666	A
C	1110	278	0	3010	0.369	1111	695	0.8	0.6	1.895	A
D	267	67	877	1639	0.163	268	234	0.3	0.2	2.626	A

A4241 / Baglan Way Roundabout - 2023 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4241 / Baglan Way Roundabout	Standard Roundabout		A, B, C, D	3.18	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	44	Arm B

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)	Run automatically
D3	2023 Base	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1381	100.000
B		ONE HOUR	✓	113	100.000
C		ONE HOUR	✓	1226	100.000
D		ONE HOUR	✓	295	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		A	B	C	D
From	A	0	527	854	0
	B	0	0	113	0
	C	800	14	0	412
	D	95	61	139	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A	B	C	D
From	A	0	2	2	0
	B	0	0	4	0
	C	3	0	0	2
	D	9	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.60	3.56	1.5	A	1267	1901
B	0.25	9.46	0.3	A	104	156
C	0.46	2.24	0.8	A	1125	1688
D	0.21	2.86	0.3	A	271	406

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1040	260	161	2595	0.401	1037	672	0.0	0.7	2.307	A
B	85	21	746	669	0.127	84	452	0.0	0.1	6.157	A
C	923	231	0	2958	0.312	921	830	0.0	0.5	1.765	A
D	222	56	612	1786	0.124	222	310	0.0	0.1	2.302	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1241	310	192	2568	0.483	1240	804	0.7	0.9	2.708	A
B	102	25	892	600	0.169	101	541	0.1	0.2	7.221	A
C	1102	276	0	2958	0.373	1102	993	0.5	0.6	1.940	A
D	265	66	731	1700	0.156	265	370	0.1	0.2	2.509	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1521	380	235	2532	0.601	1518	985	0.9	1.5	3.544	A
B	124	31	1092	505	0.246	124	662	0.2	0.3	9.424	A
C	1350	337	0	2958	0.456	1349	1216	0.6	0.8	2.237	A
D	325	81	896	1582	0.205	325	453	0.2	0.3	2.863	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1521	380	236	2532	0.601	1520	985	1.5	1.5	3.558	A
B	124	31	1093	505	0.246	124	663	0.3	0.3	9.463	A
C	1350	337	0	2958	0.456	1350	1218	0.8	0.8	2.238	A
D	325	81	896	1581	0.205	325	454	0.3	0.3	2.864	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1241	310	193	2568	0.483	1244	805	1.5	0.9	2.722	A
B	102	25	894	599	0.170	102	542	0.3	0.2	7.259	A
C	1102	276	0	2958	0.373	1103	996	0.8	0.6	1.942	A
D	265	66	732	1699	0.156	265	371	0.3	0.2	2.513	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1040	260	161	2594	0.401	1041	674	0.9	0.7	2.320	A
B	85	21	748	667	0.128	85	454	0.2	0.1	6.187	A
C	923	231	0	2958	0.312	924	834	0.6	0.5	1.769	A
D	222	56	613	1785	0.124	222	310	0.2	0.1	2.305	A

A4241 / Baglan Way Roundabout - 2023 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4241 / Baglan Way Roundabout	Standard Roundabout		A, B, C, D	3.08	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	58	Arm B

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)	Run automatically
D4	2023 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	975	100.000
B		ONE HOUR	✓	174	100.000
C		ONE HOUR	✓	1503	100.000
D		ONE HOUR	✓	362	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A	B	C	D
	A	0	348	627	0
	B	0	0	174	0
	C	1164	20	2	317
	D	147	78	137	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A	B	C	D
	A	0	5	2	0
	B	0	0	3	0
	C	0	0	0	2
	D	2	3	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.43	2.54	0.8	A	895	1342
B	0.30	8.15	0.4	A	160	239
C	0.55	2.65	1.2	A	1379	2069
D	0.30	3.85	0.4	A	332	498

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	734	184	178	2558	0.287	732	985	0.0	0.4	1.970	A
B	131	33	575	761	0.172	130	335	0.0	0.2	5.701	A
C	1132	283	0	3011	0.376	1129	706	0.0	0.6	1.911	A
D	273	68	891	1630	0.167	272	238	0.0	0.2	2.649	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	877	219	213	2529	0.347	876	1178	0.4	0.5	2.178	A
B	156	39	688	707	0.221	156	401	0.2	0.3	6.532	A
C	1351	338	0	3011	0.449	1350	844	0.6	0.8	2.167	A
D	325	81	1066	1505	0.216	325	285	0.2	0.3	3.050	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1073	268	261	2489	0.431	1073	1442	0.5	0.8	2.540	A
B	192	48	843	633	0.302	191	491	0.3	0.4	8.126	A
C	1655	414	0	3011	0.550	1653	1034	0.8	1.2	2.648	A
D	399	100	1305	1334	0.299	398	349	0.3	0.4	3.843	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1073	268	261	2489	0.431	1073	1443	0.8	0.8	2.543	A
B	192	48	843	633	0.303	192	491	0.4	0.4	8.154	A
C	1655	414	0	3011	0.550	1655	1035	1.2	1.2	2.654	A
D	399	100	1306	1333	0.299	399	349	0.4	0.4	3.851	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	877	219	213	2528	0.347	877	1180	0.8	0.5	2.181	A
B	156	39	689	706	0.221	157	401	0.4	0.3	6.558	A
C	1351	338	0	3011	0.449	1353	846	1.2	0.8	2.174	A
D	325	81	1067	1504	0.216	326	285	0.4	0.3	3.057	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	734	184	179	2558	0.287	735	988	0.5	0.4	1.974	A
B	131	33	577	760	0.172	131	336	0.3	0.2	5.730	A
C	1132	283	0	3011	0.376	1132	708	0.8	0.6	1.919	A
D	273	68	894	1628	0.167	273	239	0.3	0.2	2.658	A

A4241 / Baglan Way Roundabout - 2028 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4241 / Baglan Way Roundabout	Standard Roundabout		A, B, C, D	3.39	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	38	Arm B

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)	Run automatically
D5	2028 Base	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1442	100.000
B		ONE HOUR	✓	118	100.000
C		ONE HOUR	✓	1281	100.000
D		ONE HOUR	✓	308	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To				
		A	B	C	D
	A	0	550	892	0
	B	0	0	118	0
	C	836	15	0	430
	D	99	64	145	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A	B	C	D
	A	0	2	2	0
	B	0	0	4	0
	C	3	0	0	3
	D	10	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.63	3.85	1.7	A	1323	1985
B	0.27	10.20	0.4	B	108	162
C	0.48	2.33	0.9	A	1175	1763
D	0.22	2.97	0.3	A	283	424

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1086	271	168	2587	0.420	1083	702	0.0	0.7	2.389	A
B	89	22	779	654	0.136	88	472	0.0	0.2	6.354	A
C	964	241	0	2956	0.326	962	867	0.0	0.5	1.803	A
D	232	58	639	1764	0.131	231	323	0.0	0.2	2.348	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1296	324	201	2560	0.506	1295	840	0.7	1.0	2.844	A
B	106	27	931	582	0.182	106	565	0.2	0.2	7.555	A
C	1152	288	0	2956	0.390	1151	1037	0.5	0.6	1.994	A
D	277	69	765	1674	0.165	277	386	0.2	0.2	2.576	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1588	397	246	2522	0.630	1585	1029	1.0	1.7	3.833	A
B	130	32	1140	484	0.269	129	691	0.2	0.4	10.142	B
C	1410	353	0	2956	0.477	1409	1269	0.6	0.9	2.326	A
D	339	85	936	1551	0.219	339	473	0.2	0.3	2.970	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1588	397	247	2521	0.630	1588	1029	1.7	1.7	3.855	A
B	130	32	1142	483	0.269	130	693	0.4	0.4	10.198	B
C	1410	353	0	2956	0.477	1410	1272	0.9	0.9	2.328	A
D	339	85	937	1550	0.219	339	473	0.3	0.3	2.971	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1296	324	202	2559	0.507	1299	841	1.7	1.0	2.861	A
B	106	27	934	581	0.183	107	567	0.4	0.2	7.598	A
C	1152	288	0	2956	0.390	1153	1041	0.9	0.6	1.996	A
D	277	69	766	1673	0.166	277	387	0.3	0.2	2.579	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1086	271	169	2587	0.420	1087	704	1.0	0.7	2.403	A
B	89	22	782	653	0.136	89	474	0.2	0.2	6.388	A
C	964	241	0	2956	0.326	965	871	0.6	0.5	1.807	A
D	232	58	641	1762	0.132	232	324	0.2	0.2	2.354	A

A4241 / Baglan Way Roundabout - 2028 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4241 / Baglan Way Roundabout	Standard Roundabout		A, B, C, D	3.26	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	51	Arm B

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)	Run automatically
D6	2028 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1019	100.000
B		ONE HOUR	✓	182	100.000
C		ONE HOUR	✓	1570	100.000
D		ONE HOUR	✓	378	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A	B	C	D
	A	0	364	655	0
	B	0	0	182	0
	C	1216	21	2	331
	D	153	82	143	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A	B	C	D
	A	0	5	2	0
	B	0	0	3	0
	C	0	0	0	2
	D	2	2	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.45	2.66	0.8	A	935	1403
B	0.33	8.66	0.5	A	167	251
C	0.57	2.80	1.3	A	1441	2161
D	0.32	4.10	0.5	A	347	520

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	767	192	186	2550	0.301	765	1028	0.0	0.4	2.016	A
B	137	34	601	749	0.183	136	351	0.0	0.2	5.861	A
C	1182	295	0	3012	0.392	1179	737	0.0	0.6	1.962	A
D	285	71	931	1604	0.177	284	249	0.0	0.2	2.726	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	916	229	223	2519	0.364	915	1230	0.4	0.6	2.245	A
B	164	41	719	693	0.236	163	420	0.2	0.3	6.788	A
C	1411	353	0	3012	0.469	1410	882	0.6	0.9	2.247	A
D	340	85	1113	1473	0.231	339	297	0.2	0.3	3.176	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1122	280	273	2477	0.453	1121	1506	0.6	0.8	2.653	A
B	200	50	880	616	0.325	200	514	0.3	0.5	8.628	A
C	1729	432	0	3012	0.574	1727	1080	0.9	1.3	2.798	A
D	416	104	1363	1294	0.322	415	364	0.3	0.5	4.091	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
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A	1122	280	273	2477	0.453	1122	1507	0.8	0.8	2.656	A
B	200	50	881	616	0.325	200	514	0.5	0.5	8.664	A
C	1729	432	0	3012	0.574	1729	1081	1.3	1.3	2.805	A
D	416	104	1364	1293	0.322	416	364	0.5	0.5	4.105	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	916	229	223	2519	0.364	917	1232	0.8	0.6	2.250	A
B	164	41	720	693	0.236	164	420	0.5	0.3	6.824	A
C	1411	353	0	3012	0.469	1413	884	1.3	0.9	2.256	A
D	340	85	1115	1471	0.231	341	298	0.5	0.3	3.187	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	767	192	187	2549	0.301	768	1032	0.6	0.4	2.021	A
B	137	34	603	749	0.183	137	352	0.3	0.2	5.892	A
C	1182	295	0	3012	0.392	1183	740	0.9	0.6	1.970	A
D	285	71	934	1602	0.178	285	249	0.3	0.2	2.736	A

A4241 / Baglan Way Roundabout - 2033 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4241 / Baglan Way Roundabout	Standard Roundabout		A, B, C, D	3.64	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	32	Arm B

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)	Run automatically
D7	2033 Base	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1505	100.000
B		ONE HOUR	✓	123	100.000
C		ONE HOUR	✓	1337	100.000
D		ONE HOUR	✓	321	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		A	B	C	D
From	A	0	574	931	0
	B	0	0	123	0
	C	872	16	0	449
	D	103	67	151	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A	B	C	D
From	A	0	2	2	0
	B	0	0	5	0
	C	3	0	0	2
	D	10	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.66	4.21	1.9	A	1381	2072
B	0.30	11.22	0.4	B	113	169
C	0.50	2.42	1.0	A	1227	1840
D	0.23	3.09	0.3	A	295	442

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1133	283	176	2581	0.439	1130	732	0.0	0.8	2.476	A
B	93	23	812	634	0.146	92	493	0.0	0.2	6.631	A
C	1007	252	0	2957	0.340	1005	904	0.0	0.5	1.841	A
D	242	60	667	1742	0.139	241	337	0.0	0.2	2.397	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1353	338	210	2552	0.530	1352	876	0.8	1.1	2.997	A
B	111	28	972	559	0.198	110	590	0.2	0.2	8.013	A
C	1202	300	0	2957	0.406	1201	1082	0.5	0.7	2.050	A
D	289	72	798	1648	0.175	288	403	0.2	0.2	2.647	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1657	414	257	2512	0.660	1654	1073	1.1	1.9	4.179	A
B	135	34	1189	457	0.296	135	722	0.2	0.4	11.139	B
C	1472	368	0	2957	0.498	1471	1324	0.7	1.0	2.419	A
D	353	88	977	1520	0.233	353	494	0.2	0.3	3.085	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1657	414	258	2512	0.660	1657	1073	1.9	1.9	4.210	A
B	135	34	1191	456	0.297	135	723	0.4	0.4	11.217	B
C	1472	368	0	2957	0.498	1472	1327	1.0	1.0	2.423	A
D	353	88	978	1519	0.233	353	494	0.3	0.3	3.087	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1353	338	211	2552	0.530	1356	877	1.9	1.1	3.018	A
B	111	28	975	558	0.198	111	592	0.4	0.2	8.074	A
C	1202	300	0	2957	0.406	1203	1086	1.0	0.7	2.055	A
D	289	72	799	1647	0.175	289	404	0.3	0.2	2.652	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1133	283	176	2580	0.439	1134	735	1.1	0.8	2.491	A
B	93	23	816	633	0.146	93	495	0.2	0.2	6.673	A
C	1007	252	0	2957	0.340	1007	908	0.7	0.5	1.845	A
D	242	60	669	1741	0.139	242	338	0.2	0.2	2.402	A

A4241 / Baglan Way Roundabout - 2033 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network**Junctions**

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4241 / Baglan Way Roundabout	Standard Roundabout		A, B, C, D	3.46	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	44	Arm B

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)	Run automatically
D8	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1063	100.000
B		ONE HOUR	✓	190	100.000
C		ONE HOUR	✓	1638	100.000
D		ONE HOUR	✓	395	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		A	B	C	D
From	A	0	380	683	0
	B	0	0	190	0
	C	1269	22	2	345
	D	160	86	149	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A	B	C	D
From	A	0	5	2	0
	B	0	0	3	0
	C	0	0	0	2
	D	2	2	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.47	2.78	0.9	A	975	1463
B	0.35	9.32	0.5	A	174	262
C	0.60	2.99	1.5	A	1503	2255
D	0.35	4.43	0.5	A	362	544

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	800	200	194	2543	0.315	798	1073	0.0	0.5	2.062	A
B	143	36	626	734	0.195	142	366	0.0	0.2	6.068	A
C	1233	308	0	3009	0.410	1230	768	0.0	0.7	2.022	A
D	297	74	971	1572	0.189	296	259	0.0	0.2	2.821	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	956	239	233	2511	0.381	955	1284	0.5	0.6	2.312	A
B	171	43	749	676	0.253	170	438	0.2	0.3	7.118	A
C	1473	368	0	3009	0.489	1471	920	0.7	1.0	2.340	A
D	355	89	1162	1436	0.247	355	310	0.2	0.3	3.330	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1170	293	285	2467	0.474	1169	1571	0.6	0.9	2.770	A
B	209	52	917	596	0.351	208	537	0.3	0.5	9.269	A
C	1803	451	0	3009	0.599	1801	1126	1.0	1.5	2.976	A
D	435	109	1422	1249	0.348	434	379	0.3	0.5	4.411	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1170	293	285	2467	0.474	1170	1573	0.9	0.9	2.776	A
B	209	52	918	595	0.351	209	537	0.5	0.5	9.319	A
C	1803	451	0	3009	0.599	1803	1127	1.5	1.5	2.985	A
D	435	109	1424	1248	0.348	435	380	0.5	0.5	4.426	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	956	239	233	2510	0.381	957	1287	0.9	0.6	2.320	A
B	171	43	751	675	0.253	172	439	0.5	0.3	7.159	A
C	1473	368	0	3009	0.489	1475	922	1.5	1.0	2.349	A
D	355	89	1164	1434	0.248	356	311	0.5	0.3	3.343	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	800	200	195	2542	0.315	801	1077	0.6	0.5	2.067	A
B	143	36	628	733	0.195	143	368	0.3	0.2	6.108	A
C	1233	308	0	3009	0.410	1234	772	1.0	0.7	2.029	A
D	297	74	974	1570	0.189	298	260	0.3	0.2	2.832	A

A4241 / Baglan Way Roundabout - 2023 Base + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4241 / Baglan Way Roundabout	Standard Roundabout		A, B, C, D	3.33	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	40	Arm B

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)	Run automatically
D9	2023 Base + Development	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1419	100.000
B		ONE HOUR	✓	119	100.000
C		ONE HOUR	✓	1234	100.000
D		ONE HOUR	✓	295	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		A	B	C	D
	A	0	565	854	0
	B	0	0	119	0
	C	806	16	0	412
	D	95	61	139	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A	B	C	D
	A	0	2	2	0
	B	0	0	9	0
	C	3	0	0	2
	D	9	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.62	3.73	1.6	A	1302	1953
B	0.27	10.24	0.4	B	109	164
C	0.46	2.27	0.9	A	1132	1699
D	0.21	2.89	0.3	A	271	406

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1068	267	162	2591	0.412	1066	677	0.0	0.7	2.355	A
B	90	22	746	639	0.140	89	482	0.0	0.2	6.539	A
C	929	232	0	2944	0.316	927	835	0.0	0.5	1.782	A
D	222	56	618	1778	0.125	222	310	0.0	0.1	2.312	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1276	319	194	2565	0.497	1275	810	0.7	1.0	2.788	A
B	107	27	892	573	0.187	107	577	0.2	0.2	7.714	A
C	1109	277	0	2944	0.377	1109	999	0.5	0.6	1.961	A
D	265	66	739	1691	0.157	265	370	0.1	0.2	2.524	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1562	391	238	2528	0.618	1560	991	1.0	1.6	3.709	A
B	131	33	1092	483	0.271	130	706	0.2	0.4	10.188	B
C	1359	340	0	2944	0.462	1358	1222	0.6	0.9	2.268	A
D	325	81	904	1571	0.207	325	453	0.2	0.3	2.888	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1562	391	238	2528	0.618	1562	992	1.6	1.6	3.727	A
B	131	33	1093	483	0.272	131	707	0.4	0.4	10.241	B
C	1359	340	0	2944	0.462	1359	1224	0.9	0.9	2.270	A
D	325	81	905	1570	0.207	325	454	0.3	0.3	2.889	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1276	319	194	2564	0.497	1278	811	1.6	1.0	2.803	A
B	107	27	894	572	0.187	108	578	0.4	0.2	7.759	A
C	1109	277	0	2944	0.377	1110	1002	0.9	0.6	1.964	A
D	265	66	740	1690	0.157	265	371	0.3	0.2	2.529	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1068	267	163	2591	0.412	1069	679	1.0	0.7	2.367	A
B	90	22	748	638	0.140	90	484	0.2	0.2	6.572	A
C	929	232	0	2944	0.316	930	838	0.6	0.5	1.786	A
D	222	56	619	1777	0.125	222	310	0.2	0.1	2.316	A

A4241 / Baglan Way Roundabout - 2023 Base + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4241 / Baglan Way Roundabout	Standard Roundabout		A, B, C, D	3.22	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	50	Arm B

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)	Run automatically
D10	2023 Base + Development	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	979	100.000
B		ONE HOUR	✓	204	100.000
C		ONE HOUR	✓	1531	100.000
D		ONE HOUR	✓	362	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		A	B	C	D
	A	0	352	627	0
	B	0	0	204	0
	C	1192	20	2	317
	D	147	78	137	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A	B	C	D
	A	0	6	2	0
	B	0	0	2	0
	C	0	0	0	2
	D	2	3	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.43	2.57	0.8	A	898	1348
B	0.35	8.76	0.5	A	187	281
C	0.56	2.72	1.3	A	1405	2107
D	0.30	3.94	0.4	A	332	498

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	737	184	178	2548	0.289	735	1006	0.0	0.4	1.984	A
B	154	38	575	764	0.201	153	338	0.0	0.2	5.878	A
C	1153	288	0	3011	0.383	1150	728	0.0	0.6	1.932	A
D	273	68	912	1615	0.169	272	238	0.0	0.2	2.678	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	880	220	213	2519	0.349	880	1203	0.4	0.5	2.195	A
B	183	46	688	710	0.258	183	404	0.2	0.3	6.827	A
C	1376	344	0	3011	0.457	1375	871	0.6	0.8	2.200	A
D	325	81	1091	1487	0.219	325	285	0.2	0.3	3.097	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1078	269	261	2479	0.435	1077	1473	0.5	0.8	2.566	A
B	225	56	843	636	0.353	224	495	0.3	0.5	8.716	A
C	1686	421	0	3011	0.560	1684	1066	0.8	1.3	2.709	A
D	399	100	1335	1312	0.304	398	349	0.3	0.4	3.935	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1078	269	261	2479	0.435	1078	1474	0.8	0.8	2.568	A
B	225	56	843	636	0.353	225	495	0.5	0.5	8.757	A
C	1686	421	0	3011	0.560	1686	1068	1.3	1.3	2.715	A
D	399	100	1337	1311	0.304	399	349	0.4	0.4	3.944	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	880	220	213	2519	0.349	881	1205	0.8	0.5	2.200	A
B	183	46	689	709	0.259	184	405	0.5	0.4	6.866	A
C	1376	344	0	3011	0.457	1378	874	1.3	0.8	2.208	A
D	325	81	1093	1486	0.219	326	285	0.4	0.3	3.107	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	737	184	179	2548	0.289	738	1009	0.5	0.4	1.988	A
B	154	38	577	763	0.201	154	339	0.4	0.3	5.915	A
C	1153	288	0	3011	0.383	1154	731	0.8	0.6	1.940	A
D	273	68	915	1613	0.169	273	239	0.3	0.2	2.685	A

A4241 / Baglan Way Roundabout - 2028 Base + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4241 / Baglan Way Roundabout	Standard Roundabout		A, B, C, D	3.55	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	34	Arm B

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)	Run automatically
D11	2028 Base + Development	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1480	100.000
B		ONE HOUR	✓	124	100.000
C		ONE HOUR	✓	1289	100.000
D		ONE HOUR	✓	308	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A	B	C	D
	A	0	588	892	0
	B	0	0	124	0
	C	842	17	0	430
	D	99	64	145	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A	B	C	D
	A	0	2	2	0
	B	0	0	9	0
	C	3	0	0	3
	D	10	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.65	4.05	1.8	A	1358	2037
B	0.30	11.05	0.4	B	114	171
C	0.48	2.36	0.9	A	1183	1774
D	0.22	3.00	0.3	A	283	424

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1114	279	170	2584	0.431	1111	707	0.0	0.8	2.439	A
B	93	23	779	626	0.149	93	502	0.0	0.2	6.737	A
C	970	243	0	2943	0.330	968	871	0.0	0.5	1.820	A
D	232	58	645	1756	0.132	231	323	0.0	0.2	2.359	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1330	333	203	2556	0.521	1329	845	0.8	1.1	2.932	A
B	111	28	931	557	0.200	111	601	0.2	0.2	8.064	A
C	1159	290	0	2943	0.394	1158	1043	0.5	0.6	2.017	A
D	277	69	772	1665	0.166	277	386	0.2	0.2	2.592	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1630	407	249	2518	0.647	1627	1035	1.1	1.8	4.027	A
B	137	34	1140	463	0.295	136	735	0.2	0.4	10.976	B
C	1419	355	0	2943	0.482	1418	1276	0.6	0.9	2.359	A
D	339	85	945	1540	0.220	339	473	0.2	0.3	2.997	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
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A	1630	407	249	2518	0.647	1629	1036	1.8	1.8	4.053	A
B	137	34	1142	462	0.295	137	737	0.4	0.4	11.048	B
C	1419	355	0	2943	0.482	1419	1278	0.9	0.9	2.361	A
D	339	85	946	1539	0.220	339	473	0.3	0.3	2.998	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1330	333	203	2556	0.521	1333	847	1.8	1.1	2.951	A
B	111	28	934	556	0.200	112	603	0.4	0.3	8.121	A
C	1159	290	0	2943	0.394	1160	1046	0.9	0.7	2.021	A
D	277	69	773	1664	0.166	277	387	0.3	0.2	2.595	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1114	279	170	2583	0.431	1116	709	1.1	0.8	2.456	A
B	93	23	782	625	0.149	94	504	0.3	0.2	6.778	A
C	970	243	0	2943	0.330	971	875	0.7	0.5	1.824	A
D	232	58	647	1755	0.132	232	324	0.2	0.2	2.363	A

A4241 / Baglan Way Roundabout - 2028 Base + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4241 / Baglan Way Roundabout	Standard Roundabout		A, B, C, D	3.40	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	43	Arm B

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)	Run automatically
D12	2028 Base + Development	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1023	100.000
B		ONE HOUR	✓	212	100.000
C		ONE HOUR	✓	1598	100.000
D		ONE HOUR	✓	378	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A	B	C	D
	A	0	368	655	0
	B	0	0	212	0
	C	1244	21	2	331
	D	153	82	143	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A	B	C	D
	A	0	6	2	0
	B	0	0	2	0
	C	0	0	0	2
	D	2	2	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.46	2.68	0.8	A	939	1408
B	0.38	9.35	0.6	A	195	292
C	0.58	2.87	1.4	A	1466	2200
D	0.33	4.21	0.5	A	347	520

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	770	193	186	2540	0.303	768	1049	0.0	0.4	2.030	A
B	160	40	601	752	0.212	159	354	0.0	0.3	6.051	A
C	1203	301	0	3012	0.399	1200	759	0.0	0.7	1.985	A
D	285	71	952	1589	0.179	284	249	0.0	0.2	2.758	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	920	230	223	2510	0.366	919	1255	0.4	0.6	2.263	A
B	191	48	719	696	0.274	190	423	0.3	0.4	7.112	A
C	1437	359	0	3012	0.477	1436	909	0.7	0.9	2.282	A
D	340	85	1138	1455	0.234	339	297	0.2	0.3	3.227	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1126	282	273	2468	0.456	1125	1536	0.6	0.8	2.680	A
B	233	58	880	619	0.377	233	518	0.4	0.6	9.303	A
C	1759	440	0	3012	0.584	1757	1112	0.9	1.4	2.869	A
D	416	104	1393	1272	0.327	415	364	0.3	0.5	4.199	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1126	282	273	2468	0.456	1126	1538	0.8	0.8	2.682	A
B	233	58	881	618	0.378	233	519	0.6	0.6	9.354	A
C	1759	440	0	3012	0.584	1759	1114	1.4	1.4	2.873	A
D	416	104	1395	1271	0.327	416	364	0.5	0.5	4.210	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	920	230	223	2509	0.367	921	1258	0.8	0.6	2.269	A
B	191	48	720	695	0.274	191	424	0.6	0.4	7.161	A
C	1437	359	0	3012	0.477	1439	912	1.4	0.9	2.291	A
D	340	85	1141	1453	0.234	341	298	0.5	0.3	3.238	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	770	193	187	2540	0.303	771	1053	0.6	0.4	2.035	A
B	160	40	603	751	0.212	160	355	0.4	0.3	6.093	A
C	1203	301	0	3012	0.399	1204	763	0.9	0.7	1.991	A
D	285	71	955	1587	0.179	285	249	0.3	0.2	2.766	A

A4241 / Baglan Way Roundabout - 2033 Base + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network**Junctions**

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4241 / Baglan Way Roundabout	Standard Roundabout		A, B, C, D	3.83	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	29	Arm B

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)	Run automatically
D13	2033 Base + Development	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1543	100.000
B		ONE HOUR	✓	129	100.000
C		ONE HOUR	✓	1345	100.000
D		ONE HOUR	✓	321	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		A	B	C	D
From	A	0	612	931	0
	B	0	0	129	0
	C	878	18	0	449
	D	103	67	151	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A	B	C	D
From	A	0	2	2	0
	B	0	0	9	0
	C	3	0	0	2
	D	10	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.68	4.45	2.1	A	1416	2124
B	0.32	12.17	0.5	B	118	178
C	0.50	2.46	1.0	A	1234	1851
D	0.23	3.12	0.3	A	295	442

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1162	290	177	2578	0.451	1158	737	0.0	0.8	2.531	A
B	97	24	812	608	0.160	96	523	0.0	0.2	7.020	A
C	1013	253	0	2945	0.344	1011	909	0.0	0.5	1.859	A
D	242	60	673	1734	0.139	241	337	0.0	0.2	2.409	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1387	347	212	2548	0.544	1386	881	0.8	1.2	3.091	A
B	116	29	972	537	0.216	116	626	0.2	0.3	8.543	A
C	1209	302	0	2945	0.411	1208	1087	0.5	0.7	2.072	A
D	289	72	805	1639	0.176	288	403	0.2	0.2	2.664	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1699	425	260	2508	0.677	1695	1079	1.2	2.1	4.408	A
B	142	36	1189	439	0.324	141	766	0.3	0.5	12.064	B
C	1481	370	0	2945	0.503	1480	1330	0.7	1.0	2.454	A
D	353	88	986	1509	0.234	353	494	0.2	0.3	3.114	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1699	425	260	2508	0.677	1699	1080	2.1	2.1	4.447	A
B	142	36	1191	438	0.324	142	767	0.5	0.5	12.168	B
C	1481	370	0	2945	0.503	1481	1333	1.0	1.0	2.458	A
D	353	88	987	1509	0.234	353	494	0.3	0.3	3.115	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1387	347	212	2548	0.544	1391	883	2.1	1.2	3.121	A
B	116	29	975	535	0.217	117	628	0.5	0.3	8.620	A
C	1209	302	0	2945	0.411	1210	1092	1.0	0.7	2.078	A
D	289	72	806	1638	0.176	289	404	0.3	0.2	2.667	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1162	290	178	2577	0.451	1163	739	1.2	0.8	2.550	A
B	97	24	816	607	0.160	97	525	0.3	0.2	7.069	A
C	1013	253	0	2945	0.344	1013	913	0.7	0.5	1.863	A
D	242	60	675	1733	0.139	242	338	0.2	0.2	2.415	A

A4241 / Baglan Way Roundabout - 2033 Base + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4241 / Baglan Way Roundabout	Standard Roundabout		A, B, C, D	3.62	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	38	Arm B

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)	Run automatically
D14	2033 Base + Development	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1067	100.000
B		ONE HOUR	✓	220	100.000
C		ONE HOUR	✓	1666	100.000
D		ONE HOUR	✓	395	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		A	B	C	D
	A	0	384	683	0
	B	0	0	220	0
	C	1297	22	2	345
	D	160	86	149	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A	B	C	D
	A	0	6	2	0
	B	0	0	3	0
	C	0	0	0	2
	D	2	2	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.48	2.80	0.9	A	979	1469
B	0.41	10.12	0.7	B	202	303
C	0.61	3.06	1.6	A	1529	2293
D	0.35	4.55	0.5	A	362	544

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	803	201	194	2534	0.317	801	1094	0.0	0.5	2.076	A
B	166	41	626	737	0.225	164	369	0.0	0.3	6.271	A
C	1254	314	0	3009	0.417	1251	791	0.0	0.7	2.044	A
D	297	74	992	1557	0.191	296	259	0.0	0.2	2.855	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	959	240	233	2502	0.383	959	1309	0.5	0.6	2.330	A
B	198	49	749	679	0.291	197	442	0.3	0.4	7.469	A
C	1498	374	0	3009	0.498	1497	946	0.7	1.0	2.379	A
D	355	89	1187	1418	0.250	355	310	0.2	0.3	3.386	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1175	294	285	2459	0.478	1174	1602	0.6	0.9	2.799	A
B	242	61	917	598	0.405	241	541	0.4	0.7	10.045	B
C	1834	459	0	3009	0.610	1832	1158	1.0	1.5	3.053	A
D	435	109	1453	1227	0.354	434	379	0.3	0.5	4.533	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1175	294	285	2458	0.478	1175	1604	0.9	0.9	2.804	A
B	242	61	918	598	0.405	242	542	0.7	0.7	10.117	B
C	1834	459	0	3009	0.610	1834	1160	1.5	1.6	3.062	A
D	435	109	1454	1226	0.355	435	380	0.5	0.5	4.549	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	959	240	233	2502	0.383	960	1312	0.9	0.6	2.337	A
B	198	49	751	678	0.292	199	443	0.7	0.4	7.528	A
C	1498	374	0	3009	0.498	1500	950	1.6	1.0	2.389	A
D	355	89	1189	1416	0.251	356	311	0.5	0.3	3.398	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	803	201	195	2533	0.317	804	1098	0.6	0.5	2.083	A
B	166	41	628	736	0.225	166	371	0.4	0.3	6.317	A
C	1254	314	0	3009	0.417	1255	795	1.0	0.7	2.053	A
D	297	74	995	1555	0.191	298	260	0.3	0.2	2.864	A

Appendix O Junctions 9 Outputs - A4241 / Afan Way / Seaway Parade Roundabout

Junctions 9											
ARCADY 9 - Roundabout Module											
Version: 9.5.1.7462 © Copyright TRL Limited, 2019											
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution											

Filename: Junction 4 Seaway Parade Rbt.j9

Path: C:\Users\beth1\EvokeTransport\Evoke Transport\Evoke Projects - Documents\R-21-0110
Baglan Junction Modelling\30 Technical\31 Modelling\Junction 4 - A4241 Seaway Parade
Roundabout

Report generation date: 25/01/2022 10:03:44

»Seaway Parade Rbt - 2021 Base, AM
 »Seaway Parade Rbt - 2021 Base, PM
 »Seaway Parade Rbt - 2023 Base , AM
 »Seaway Parade Rbt - 2023 Base , PM
 »Seaway Parade Rbt - 2028 Base , AM
 »Seaway Parade Rbt - 2028 Base , PM
 »Seaway Parade Rbt - 2033 Base , AM
 »Seaway Parade Rbt - 2033 Base , PM
 »Seaway Parade Rbt - 2023 Base + Development, AM
 »Seaway Parade Rbt - 2023 Base + Development, PM
 »Seaway Parade Rbt - 2028 Base + Development, AM
 »Seaway Parade Rbt - 2028 Base + Development, PM
 »Seaway Parade Rbt - 2033 Base + Development, AM
 »Seaway Parade Rbt - 2033 Base + Development, PM

Summary of junction performance

	AM						PM					
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Seaway Parade Rbt - 2021 Base											
Arm A	D1	1.4	4.31	0.59	A	33 % [Arm C]	D2	0.9	3.30	0.48	A	31 % [Arm C]
Arm B		0.8	3.56	0.43	A			1.2	4.22	0.55	A	
Arm C		1.5	8.06	0.61	A			1.4	8.25	0.58	A	
	Seaway Parade Rbt - 2023 Base											
Arm A	D3	1.5	4.44	0.60	A	30 % [Arm C]	D4	1.0	3.36	0.49	A	28 % [Arm C]
Arm B		0.8	3.64	0.44	A			1.3	4.35	0.56	A	
Arm C		1.6	8.44	0.62	A			1.5	8.68	0.60	A	
	Seaway Parade Rbt - 2028 Base											
Arm A	D5	1.7	4.78	0.63	A	25 % [Arm C]	D6	1.1	3.52	0.51	A	23 % [Arm C]
Arm B		0.9	3.85	0.47	A			1.4	4.70	0.59	A	
Arm C		1.9	9.53	0.66	A			1.7	9.84	0.64	A	
	Seaway Parade Rbt - 2033 Base											
Arm A	D7	1.9	5.21	0.66	A		D8	1.2	3.70	0.54	A	

Arm B		1.0	4.08	0.49	A	19 %		1.6	5.12	0.62	A	18 %
Arm C		2.3	11.00	0.70	B			[Arm C]	2.1	11.47	0.68	
	Seaway Parade Rbt - 2023 Base + Development											
Arm A	D9	1.5	4.53	0.61	A	29 %	D10	1.0	3.46	0.51	A	27 %
Arm B		0.8	3.67	0.44	A			1.3	4.45	0.56	A	
Arm C		1.7	8.61	0.63	A			[Arm C]	1.5	8.98	0.61	
	Seaway Parade Rbt - 2028 Base + Development											
Arm A	D11	1.7	4.88	0.63	A	24 %	D12	1.1	3.63	0.53	A	21 %
Arm B		0.9	3.88	0.47	A			1.4	4.81	0.59	A	
Arm C		2.0	9.74	0.67	A			[Arm C]	1.8	10.23	0.65	
	Seaway Parade Rbt - 2033 Base + Development											
Arm A	D13	2.0	5.33	0.66	A	19 %	D14	1.2	3.83	0.55	A	16 %
Arm B		1.0	4.11	0.49	A			1.6	5.26	0.62	A	
Arm C		2.4	11.27	0.71	B			[Arm C]	2.2	12.01	0.69	

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	Junction 4: Seaway Parade Rbt
Location	
Site number	
Date	06/01/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DESKTOP-IQT85C8\beth1
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	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)	Run automatically
D1	2021 Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	2021 Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2023 Base	AM	ONE HOUR	07:45	09:15	15	✓
D4	2023 Base	PM	ONE HOUR	16:45	18:15	15	✓
D5	2028 Base	AM	ONE HOUR	07:45	09:15	15	✓
D6	2028 Base	PM	ONE HOUR	16:45	18:15	15	✓

D7	2033 Base	AM	ONE HOUR	07:45	09:15	15	✓
D8	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓
D9	2023 Base + Development	AM	ONE HOUR	07:45	09:15	15	✓
D10	2023 Base + Development	PM	ONE HOUR	16:45	18:15	15	✓
D11	2028 Base + Development	AM	ONE HOUR	07:45	09:15	15	✓
D12	2028 Base + Development	PM	ONE HOUR	16:45	18:15	15	✓
D13	2033 Base + Development	AM	ONE HOUR	07:45	09:15	15	✓
D14	2033 Base + Development	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Seaway Parade Rbt	✓	100.000	100.000

Seaway Parade Rbt - 2021 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Seaway Parade Rbt	Standard Roundabout		A, B, C	5.07	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	33	Arm C

Arms

Arms

Arm	Name	Description
A	A4241 North	
B	A4241 South	
C	Seaway Parade	

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
A	7.30	7.30	0.0	23.0	82.7	33.0	
B	7.40	7.40	0.0	26.7	82.7	36.0	
C	3.90	8.50	4.0	24.3	82.7	16.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.539	2203
B	0.541	2223
C	0.459	1564

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)	Run automatically
D1	2021 Base	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1081	100.000
B		ONE HOUR	✓	697	100.000
C		ONE HOUR	✓	624	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
From	A	205	419	457
	B	568	0	129
	C	422	202	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	2	2	4
	B	2	0	2
	C	4	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.59	4.31	1.4	A	992	1488
B	0.43	3.56	0.8	A	640	959
C	0.61	8.06	1.5	A	573	859

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	814	203	151	2063	0.394	811	896	0.0	0.6	2.869	A
B	525	131	497	1904	0.276	523	466	0.0	0.4	2.605	A
C	470	117	580	1257	0.374	467	440	0.0	0.6	4.544	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	972	243	181	2048	0.475	971	1073	0.6	0.9	3.340	A
B	627	157	595	1851	0.339	626	558	0.4	0.5	2.937	A
C	561	140	694	1205	0.466	560	526	0.6	0.9	5.571	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1190	298	222	2026	0.587	1188	1313	0.9	1.4	4.285	A
B	767	192	728	1778	0.432	766	682	0.5	0.8	3.556	A
C	687	172	850	1134	0.606	684	644	0.9	1.5	7.966	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1190	298	222	2026	0.588	1190	1316	1.4	1.4	4.307	A
B	767	192	729	1777	0.432	767	684	0.8	0.8	3.564	A
C	687	172	851	1133	0.606	687	645	1.5	1.5	8.062	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	972	243	182	2047	0.475	974	1077	1.4	0.9	3.362	A
B	627	157	596	1850	0.339	628	560	0.8	0.5	2.949	A
C	561	140	696	1204	0.466	564	528	1.5	0.9	5.643	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	814	203	152	2063	0.395	815	901	0.9	0.7	2.886	A
B	525	131	499	1903	0.276	525	468	0.5	0.4	2.613	A
C	470	117	583	1256	0.374	471	442	0.9	0.6	4.590	A

Seaway Parade Rbt - 2021 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Seaway Parade Rbt	Standard Roundabout		A, B, C	4.78	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	31	Arm C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2021 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	921	100.000
B		ONE HOUR	✓	930	100.000
C		ONE HOUR	✓	547	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		A	B	C
	A	170	377	374
	B	841	0	89
	C	458	89	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A	B	C
	A	2	1	3
	B	1	0	0
	C	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.48	3.30	0.9	A	845	1268

B	0.55	4.22	1.2	A	853	1280
C	0.58	8.25	1.4	A	502	753

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	693	173	67	2121	0.327	691	1102	0.0	0.5	2.515	A
B	700	175	408	1981	0.353	698	350	0.0	0.5	2.800	A
C	412	103	759	1201	0.343	410	348	0.0	0.5	4.537	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	828	207	80	2114	0.392	827	1319	0.5	0.6	2.797	A
B	836	209	489	1937	0.432	835	419	0.5	0.8	3.266	A
C	492	123	908	1133	0.434	491	416	0.5	0.8	5.601	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1014	254	98	2104	0.482	1013	1614	0.6	0.9	3.296	A
B	1024	256	598	1877	0.546	1022	512	0.8	1.2	4.205	A
C	602	151	1111	1039	0.580	600	509	0.8	1.4	8.151	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1014	254	98	2104	0.482	1014	1617	0.9	0.9	3.302	A
B	1024	256	599	1876	0.546	1024	513	1.2	1.2	4.223	A
C	602	151	1113	1038	0.580	602	510	1.4	1.4	8.252	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	828	207	80	2113	0.392	829	1324	0.9	0.6	2.807	A
B	836	209	490	1936	0.432	838	420	1.2	0.8	3.280	A
C	492	123	911	1131	0.435	494	417	1.4	0.8	5.668	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	693	173	67	2120	0.327	694	1108	0.6	0.5	2.526	A
B	700	175	410	1980	0.354	701	351	0.8	0.5	2.815	A
C	412	103	762	1200	0.343	413	349	0.8	0.5	4.580	A

Seaway Parade Rbt - 2023 Base , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Seaway Parade Rbt	Standard Roundabout		A, B, C	5.25	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	30	Arm C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2023 Base	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1102	100.000
B		ONE HOUR	✓	710	100.000
C		ONE HOUR	✓	636	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
From	A	209	427	466
	B	579	0	131
	C	430	206	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	2	2	4
	B	2	0	2
	C	3	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.60	4.44	1.5	A	1011	1517
B	0.44	3.64	0.8	A	652	977
C	0.62	8.44	1.6	A	584	875

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	830	207	154	2063	0.402	827	914	0.0	0.7	2.907	A
B	535	134	507	1900	0.281	533	475	0.0	0.4	2.632	A
C	479	120	591	1253	0.382	476	448	0.0	0.6	4.608	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	991	248	185	2047	0.484	990	1094	0.7	0.9	3.402	A
B	638	160	606	1845	0.346	638	568	0.4	0.5	2.979	A
C	572	143	708	1200	0.477	571	536	0.6	0.9	5.713	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1213	303	226	2025	0.599	1211	1338	0.9	1.5	4.412	A
B	782	195	742	1771	0.441	781	695	0.5	0.8	3.632	A
C	700	175	866	1127	0.621	697	656	0.9	1.6	8.326	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1213	303	227	2025	0.599	1213	1341	1.5	1.5	4.437	A
B	782	195	743	1770	0.442	782	697	0.8	0.8	3.640	A
C	700	175	868	1126	0.622	700	657	1.6	1.6	8.441	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	991	248	186	2046	0.484	993	1098	1.5	0.9	3.426	A
B	638	160	608	1844	0.346	639	571	0.8	0.5	2.989	A
C	572	143	710	1199	0.477	575	538	1.6	0.9	5.792	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	830	207	155	2062	0.402	831	918	0.9	0.7	2.927	A
B	535	134	509	1899	0.282	535	477	0.5	0.4	2.640	A
C	479	120	594	1252	0.383	480	450	0.9	0.6	4.671	A

Seaway Parade Rbt - 2023 Base , PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Seaway Parade Rbt	Standard Roundabout		A, B, C	4.95	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	28	Arm C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2023 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	938	100.000
B		ONE HOUR	✓	948	100.000
C		ONE HOUR	✓	558	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		A	B	C
	A	173	384	381
	B	857	0	91
	C	467	91	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	2	1	3
	B	1	0	0
From	C	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.49	3.36	1.0	A	861	1291
B	0.56	4.35	1.3	A	870	1305
C	0.60	8.68	1.5	A	512	768

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	706	177	68	2121	0.333	704	1123	0.0	0.5	2.538	A
B	714	178	416	1978	0.361	711	356	0.0	0.6	2.838	A
C	420	105	773	1195	0.352	418	354	0.0	0.5	4.619	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	843	211	82	2113	0.399	843	1344	0.5	0.7	2.831	A
B	852	213	498	1932	0.441	851	427	0.6	0.8	3.326	A
C	502	125	925	1125	0.446	501	424	0.5	0.8	5.755	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1033	258	100	2104	0.491	1032	1644	0.7	1.0	3.355	A
B	1044	261	609	1871	0.558	1042	522	0.8	1.2	4.332	A
C	614	154	1132	1030	0.597	612	519	0.8	1.4	8.558	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1033	258	100	2104	0.491	1033	1648	1.0	1.0	3.361	A
B	1044	261	610	1871	0.558	1044	523	1.2	1.3	4.353	A
C	614	154	1134	1029	0.597	614	520	1.4	1.5	8.677	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	843	211	82	2113	0.399	844	1350	1.0	0.7	2.839	A
B	852	213	499	1932	0.441	854	428	1.3	0.8	3.347	A
C	502	125	928	1124	0.446	504	425	1.5	0.8	5.834	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	706	177	69	2120	0.333	707	1129	0.7	0.5	2.547	A
B	714	178	417	1977	0.361	715	358	0.8	0.6	2.853	A
C	420	105	776	1193	0.352	421	356	0.8	0.5	4.667	A

Seaway Parade Rbt - 2028 Base , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Seaway Parade Rbt	Standard Roundabout		A, B, C	5.75	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	25	Arm C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2028 Base	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1150	100.000
B		ONE HOUR	✓	742	100.000
C		ONE HOUR	✓	664	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	218	446	486
	B	605	0	137
From	C	449	215	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	2	2	4
	B	2	0	1
From	C	4	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.63	4.78	1.7	A	1055	1583
B	0.47	3.85	0.9	A	681	1021
C	0.66	9.53	1.9	A	609	914

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	866	216	161	2060	0.420	863	954	0.0	0.7	2.999	A
B	559	140	528	1887	0.296	557	496	0.0	0.4	2.702	A
C	500	125	618	1240	0.403	497	467	0.0	0.7	4.827	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1034	258	193	2043	0.506	1033	1142	0.7	1.0	3.557	A
B	667	167	632	1830	0.364	666	593	0.4	0.6	3.091	A
C	597	149	739	1185	0.504	596	559	0.7	1.0	6.097	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1266	317	236	2020	0.627	1264	1397	1.0	1.7	4.740	A

B	817	204	774	1753	0.466	816	726	0.6	0.9	3.837	A
C	731	183	905	1109	0.659	728	685	1.0	1.9	9.353	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1266	317	237	2020	0.627	1266	1400	1.7	1.7	4.776	A
B	817	204	775	1752	0.466	817	728	0.9	0.9	3.849	A
C	731	183	906	1108	0.660	731	686	1.9	1.9	9.532	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1034	258	194	2042	0.506	1036	1147	1.7	1.0	3.587	A
B	667	167	634	1829	0.365	668	596	0.9	0.6	3.103	A
C	597	149	741	1184	0.504	600	561	1.9	1.0	6.207	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	866	216	162	2059	0.420	867	959	1.0	0.7	3.024	A
B	559	140	531	1886	0.296	559	499	0.6	0.4	2.716	A
C	500	125	620	1239	0.403	501	470	1.0	0.7	4.890	A

Seaway Parade Rbt - 2028 Base , PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Seaway Parade Rbt	Standard Roundabout		A, B, C	5.41	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	23	Arm C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2028 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	980	100.000
B		ONE HOUR	✓	990	100.000
C		ONE HOUR	✓	582	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	181	401	398
	B	895	0	95
From	C	487	95	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	2	1	3
	B	1	0	0
From	C	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.51	3.52	1.1	A	899	1349
B	0.59	4.70	1.4	A	908	1363
C	0.64	9.84	1.7	A	534	801

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	738	184	71	2119	0.348	736	1172	0.0	0.5	2.600	A
B	745	186	435	1968	0.379	743	372	0.0	0.6	2.932	A
C	438	110	807	1180	0.371	436	370	0.0	0.6	4.826	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	881	220	85	2111	0.417	880	1403	0.5	0.7	2.923	A

B	890	222	520	1921	0.463	889	445	0.6	0.9	3.486	A
C	523	131	966	1107	0.473	522	443	0.6	0.9	6.145	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1079	270	104	2101	0.513	1078	1716	0.7	1.0	3.512	A
B	1090	273	637	1856	0.587	1088	545	0.9	1.4	4.672	A
C	641	160	1182	1007	0.636	638	542	0.9	1.7	9.651	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1079	270	105	2101	0.514	1079	1721	1.0	1.1	3.521	A
B	1090	273	637	1856	0.587	1090	546	1.4	1.4	4.700	A
C	641	160	1185	1006	0.637	641	543	1.7	1.7	9.839	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	881	220	86	2111	0.417	882	1410	1.1	0.7	2.934	A
B	890	222	521	1920	0.464	892	447	1.4	0.9	3.512	A
C	523	131	970	1105	0.473	526	444	1.7	0.9	6.254	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	738	184	72	2119	0.348	739	1179	0.7	0.5	2.611	A
B	745	186	436	1967	0.379	746	374	0.9	0.6	2.951	A
C	438	110	811	1178	0.372	439	372	0.9	0.6	4.883	A

Seaway Parade Rbt - 2033 Base , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Seaway Parade Rbt	Standard Roundabout		A, B, C	6.39	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	19	Arm C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2033 Base	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1200	100.000
B		ONE HOUR	✓	774	100.000
C		ONE HOUR	✓	693	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	228	465	507
	B	631	0	143
	C	469	224	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	3	2	4
	B	2	0	1
	C	4	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.66	5.21	1.9	A	1101	1652
B	0.49	4.08	1.0	A	710	1065
C	0.70	11.00	2.3	B	636	954

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
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A	903	226	168	2054	0.440	900	996	0.0	0.8	3.114	A
B	583	146	551	1876	0.311	581	517	0.0	0.4	2.777	A
C	522	130	645	1228	0.425	519	488	0.0	0.7	5.060	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1079	270	201	2036	0.530	1077	1192	0.8	1.1	3.750	A
B	696	174	660	1816	0.383	695	618	0.4	0.6	3.210	A
C	623	156	771	1170	0.533	621	584	0.7	1.1	6.550	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1321	330	245	2013	0.656	1318	1457	1.1	1.9	5.160	A
B	852	213	807	1735	0.491	851	756	0.6	1.0	4.064	A
C	763	191	944	1091	0.700	759	714	1.1	2.2	10.699	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1321	330	247	2012	0.657	1321	1462	1.9	1.9	5.211	A
B	852	213	809	1734	0.491	852	759	1.0	1.0	4.080	A
C	763	191	946	1090	0.700	763	716	2.2	2.3	10.995	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1079	270	203	2035	0.530	1082	1199	1.9	1.1	3.787	A
B	696	174	663	1815	0.383	697	622	1.0	0.6	3.224	A
C	623	156	774	1168	0.533	628	586	2.3	1.2	6.712	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	903	226	169	2053	0.440	905	1002	1.1	0.8	3.138	A
B	583	146	554	1874	0.311	583	520	0.6	0.5	2.792	A
C	522	130	648	1226	0.425	523	490	1.2	0.7	5.133	A

Seaway Parade Rbt - 2033 Base , PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Seaway Parade Rbt	Standard Roundabout		A, B, C	6.01	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	18	Arm C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1023	100.000
B		ONE HOUR	✓	1033	100.000
C		ONE HOUR	✓	608	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	189	419	415
	B	934	0	99
	C	509	99	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	2	1	3
	B	1	0	0
	C	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.54	3.70	1.2	A	939	1408
B	0.62	5.12	1.6	A	948	1422
C	0.68	11.47	2.1	B	558	837

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	770	193	74	2117	0.364	768	1224	0.0	0.6	2.663	A
B	778	194	453	1956	0.398	775	389	0.0	0.7	3.041	A
C	458	114	843	1164	0.393	455	386	0.0	0.6	5.062	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	920	230	89	2109	0.436	919	1465	0.6	0.8	3.023	A
B	929	232	543	1907	0.487	928	465	0.7	0.9	3.669	A
C	547	137	1008	1087	0.503	545	462	0.6	1.0	6.620	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1126	282	108	2099	0.537	1125	1791	0.8	1.1	3.689	A
B	1137	284	664	1840	0.618	1135	569	0.9	1.6	5.084	A
C	669	167	1234	984	0.680	665	565	1.0	2.1	11.154	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1126	282	109	2099	0.537	1126	1797	1.1	1.2	3.701	A
B	1137	284	665	1840	0.618	1137	570	1.6	1.6	5.124	A
C	669	167	1236	983	0.681	669	566	2.1	2.1	11.472	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	920	230	90	2109	0.436	921	1473	1.2	0.8	3.034	A
B	929	232	544	1907	0.487	931	467	1.6	1.0	3.700	A
C	547	137	1012	1086	0.503	551	463	2.1	1.0	6.781	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	770	193	75	2117	0.364	771	1231	0.8	0.6	2.676	A
B	778	194	455	1955	0.398	779	391	1.0	0.7	3.062	A
C	458	114	847	1162	0.394	459	387	1.0	0.7	5.135	A

Seaway Parade Rbt - 2023 Base + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Seaway Parade Rbt	Standard Roundabout		A, B, C	5.34	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	29	Arm C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2023 Base + Development	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1108	100.000
B		ONE HOUR	✓	710	100.000
C		ONE HOUR	✓	638	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		A	B	C
	A	215	427	466
	B	579	0	131
	C	432	206	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A	B	C
	A	5	2	4
	B	2	0	2
	C	3	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.61	4.53	1.5	A	1017	1525
B	0.44	3.67	0.8	A	652	977
C	0.63	8.61	1.7	A	585	878

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	834	209	154	2052	0.406	831	920	0.0	0.7	2.942	A
B	535	134	511	1895	0.282	533	475	0.0	0.4	2.641	A
C	480	120	596	1249	0.385	478	448	0.0	0.6	4.654	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	996	249	185	2036	0.489	995	1101	0.7	1.0	3.454	A
B	638	160	612	1840	0.347	638	568	0.4	0.5	2.993	A
C	574	143	713	1195	0.480	572	536	0.6	0.9	5.773	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1220	305	226	2015	0.606	1218	1347	1.0	1.5	4.504	A
B	782	195	748	1764	0.443	781	695	0.5	0.8	3.658	A
C	702	176	873	1121	0.627	700	656	0.9	1.6	8.479	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1220	305	227	2014	0.606	1220	1350	1.5	1.5	4.532	A
B	782	195	750	1763	0.443	782	697	0.8	0.8	3.666	A
C	702	176	874	1121	0.627	702	657	1.6	1.7	8.606	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	996	249	186	2036	0.489	998	1105	1.5	1.0	3.479	A
B	638	160	614	1838	0.347	639	571	0.8	0.5	3.004	A
C	574	143	715	1194	0.480	576	538	1.7	0.9	5.855	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	834	209	155	2052	0.407	835	924	1.0	0.7	2.963	A
B	535	134	513	1894	0.282	535	477	0.5	0.4	2.652	A

C	480	120	598	1248	0.385	482	450	0.9	0.6	4.707	A
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Seaway Parade Rbt - 2023 Base + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Seaway Parade Rbt	Standard Roundabout		A, B, C	5.08	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	27	Arm C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2023 Base + Development	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	968	100.000
B		ONE HOUR	✓	948	100.000
C		ONE HOUR	✓	558	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		A	B	C
	A	201	384	383
	B	857	0	91
	C	467	91	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	1	1	3
	B	1	0	0
From	C	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.51	3.46	1.0	A	888	1332
B	0.56	4.45	1.3	A	870	1305
C	0.61	8.98	1.5	A	512	768

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	729	182	68	2122	0.343	727	1144	0.0	0.5	2.577	A
B	714	178	438	1965	0.363	711	356	0.0	0.6	2.866	A
C	420	105	794	1185	0.354	418	356	0.0	0.5	4.678	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	870	218	82	2115	0.411	870	1369	0.5	0.7	2.889	A
B	852	213	525	1918	0.444	851	427	0.6	0.8	3.371	A
C	502	125	950	1114	0.450	501	426	0.5	0.8	5.863	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1066	266	100	2105	0.506	1065	1675	0.7	1.0	3.454	A
B	1044	261	642	1853	0.563	1042	522	0.8	1.3	4.425	A
C	614	154	1163	1016	0.605	612	521	0.8	1.5	8.845	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1066	266	100	2105	0.506	1066	1679	1.0	1.0	3.463	A
B	1044	261	643	1853	0.563	1044	523	1.3	1.3	4.448	A
C	614	154	1165	1015	0.605	614	522	1.5	1.5	8.981	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	870	218	82	2115	0.412	871	1375	1.0	0.7	2.900	A
B	852	213	526	1917	0.444	854	428	1.3	0.8	3.393	A
C	502	125	953	1112	0.451	504	427	1.5	0.8	5.947	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	729	182	69	2122	0.343	729	1150	0.7	0.5	2.588	A
B	714	178	440	1965	0.363	715	358	0.8	0.6	2.881	A
C	420	105	798	1184	0.355	421	357	0.8	0.6	4.729	A

Seaway Parade Rbt - 2028 Base + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Seaway Parade Rbt	Standard Roundabout		A, B, C	5.85	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	24	Arm C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2028 Base + Development	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1156	100.000
B		ONE HOUR	✓	742	100.000
C		ONE HOUR	✓	666	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	224	446	486
	B	605	0	137
From	C	451	215	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	5	2	4
	B	2	0	1
From	C	4	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.63	4.88	1.7	A	1061	1591
B	0.47	3.88	0.9	A	681	1021
C	0.67	9.74	2.0	A	611	917

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	870	218	161	2050	0.425	867	960	0.0	0.7	3.036	A
B	559	140	533	1882	0.297	557	496	0.0	0.4	2.712	A
C	501	125	622	1236	0.406	499	467	0.0	0.7	4.863	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1039	260	193	2033	0.511	1038	1149	0.7	1.0	3.612	A
B	667	167	638	1825	0.366	666	593	0.4	0.6	3.107	A
C	599	150	745	1180	0.507	597	559	0.7	1.0	6.163	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1273	318	236	2011	0.633	1270	1405	1.0	1.7	4.844	A

B	817	204	780	1746	0.468	816	726	0.6	0.9	3.865	A
C	733	183	911	1103	0.665	730	685	1.0	1.9	9.546	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1273	318	237	2010	0.633	1273	1409	1.7	1.7	4.882	A
B	817	204	782	1745	0.468	817	728	0.9	0.9	3.878	A
C	733	183	913	1102	0.665	733	686	1.9	2.0	9.739	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1039	260	194	2032	0.511	1042	1155	1.7	1.1	3.643	A
B	667	167	640	1823	0.366	668	596	0.9	0.6	3.121	A
C	599	150	747	1179	0.508	602	561	2.0	1.0	6.281	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	870	218	162	2049	0.425	872	965	1.1	0.7	3.062	A
B	559	140	535	1881	0.297	559	499	0.6	0.4	2.726	A
C	501	125	625	1235	0.406	503	470	1.0	0.7	4.927	A

Seaway Parade Rbt - 2028 Base + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Seaway Parade Rbt	Standard Roundabout		A, B, C	5.56	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	21	Arm C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2028 Base + Development	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1010	100.000
B		ONE HOUR	✓	990	100.000
C		ONE HOUR	✓	582	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	209	401	400
	B	895	0	95
From	C	487	95	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	1	1	3
	B	1	0	0
From	C	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.53	3.63	1.1	A	927	1390
B	0.59	4.81	1.4	A	908	1363
C	0.65	10.23	1.8	B	534	801

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	760	190	71	2120	0.359	758	1193	0.0	0.6	2.638	A
B	745	186	457	1956	0.381	743	372	0.0	0.6	2.962	A
C	438	110	828	1170	0.374	436	372	0.0	0.6	4.887	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
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A	908	227	85	2113	0.430	907	1428	0.6	0.7	2.985	A
B	890	222	547	1906	0.467	889	445	0.6	0.9	3.536	A
C	523	131	991	1095	0.478	522	445	0.6	0.9	6.265	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1112	278	104	2103	0.529	1111	1746	0.7	1.1	3.624	A
B	1090	273	670	1839	0.593	1088	545	0.9	1.4	4.780	A
C	641	160	1213	993	0.645	637	544	0.9	1.8	10.016	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1112	278	105	2102	0.529	1112	1752	1.1	1.1	3.634	A
B	1090	273	671	1838	0.593	1090	546	1.4	1.4	4.811	A
C	641	160	1215	992	0.646	641	545	1.8	1.8	10.230	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	908	227	86	2112	0.430	909	1436	1.1	0.8	2.998	A
B	890	222	548	1905	0.467	892	447	1.4	0.9	3.560	A
C	523	131	995	1094	0.478	527	446	1.8	0.9	6.388	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	760	190	72	2120	0.359	761	1200	0.8	0.6	2.652	A
B	745	186	459	1955	0.381	746	374	0.9	0.6	2.981	A
C	438	110	832	1168	0.375	439	373	0.9	0.6	4.949	A

Seaway Parade Rbt - 2033 Base + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Seaway Parade Rbt	Standard Roundabout		A, B, C	6.52	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	19	Arm C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2033 Base + Development	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1206	100.000
B		ONE HOUR	✓	774	100.000
C		ONE HOUR	✓	695	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		A	B	C
	A	234	465	507
	B	631	0	143
	C	471	224	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A	B	C
	A	5	2	4
	B	2	0	1
	C	4	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.66	5.33	2.0	A	1107	1660
B	0.49	4.11	1.0	A	710	1065
C	0.71	11.27	2.4	B	638	957

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	908	227	168	2044	0.444	905	1002	0.0	0.8	3.150	A
B	583	146	556	1871	0.311	581	517	0.0	0.5	2.787	A
C	523	131	649	1224	0.428	520	488	0.0	0.7	5.097	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1084	271	201	2027	0.535	1083	1199	0.8	1.1	3.809	A
B	696	174	665	1810	0.384	695	618	0.5	0.6	3.226	A
C	625	156	777	1165	0.536	623	584	0.7	1.1	6.626	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1328	332	245	2003	0.663	1325	1466	1.1	1.9	5.280	A
B	852	213	814	1728	0.493	851	756	0.6	1.0	4.095	A
C	765	191	951	1085	0.705	761	714	1.1	2.3	10.950	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1328	332	247	2003	0.663	1328	1471	1.9	2.0	5.332	A
B	852	213	816	1727	0.493	852	759	1.0	1.0	4.113	A
C	765	191	952	1084	0.706	765	716	2.3	2.4	11.270	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1084	271	203	2026	0.535	1087	1206	2.0	1.2	3.849	A
B	696	174	668	1809	0.385	697	622	1.0	0.6	3.243	A
C	625	156	779	1164	0.537	629	586	2.4	1.2	6.799	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	908	227	169	2043	0.444	909	1008	1.2	0.8	3.180	A
B	583	146	559	1869	0.312	583	520	0.6	0.5	2.802	A
C	523	131	652	1222	0.428	525	490	1.2	0.8	5.174	A

Seaway Parade Rbt - 2033 Base + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Seaway Parade Rbt	Standard Roundabout		A, B, C	6.21	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	16	Arm C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2033 Base + Development	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1053	100.000
B		ONE HOUR	✓	1033	100.000
C		ONE HOUR	✓	608	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		A	B	C
	A	217	419	417
	B	934	0	99
	C	509	99	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A	B	C
	A	1	1	3
	B	1	0	0
	C	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.55	3.83	1.2	A	966	1449

B	0.62	5.26	1.6	A	948	1422
C	0.69	12.01	2.2	B	558	837

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	793	198	74	2118	0.374	790	1245	0.0	0.6	2.706	A
B	778	194	476	1944	0.400	775	389	0.0	0.7	3.073	A
C	458	114	864	1154	0.397	455	387	0.0	0.7	5.132	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	947	237	89	2111	0.449	946	1490	0.6	0.8	3.089	A
B	929	232	569	1893	0.491	927	465	0.7	1.0	3.724	A
C	547	137	1033	1076	0.508	545	463	0.7	1.0	6.761	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1159	290	108	2100	0.552	1158	1821	0.8	1.2	3.813	A
B	1137	284	697	1823	0.624	1135	569	1.0	1.6	5.211	A
C	669	167	1264	970	0.690	665	567	1.0	2.1	11.637	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	1159	290	109	2100	0.552	1159	1827	1.2	1.2	3.826	A
B	1137	284	698	1822	0.624	1137	570	1.6	1.6	5.256	A
C	669	167	1267	969	0.691	669	568	2.1	2.2	12.006	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	947	237	90	2110	0.449	948	1499	1.2	0.8	3.102	A
B	929	232	571	1892	0.491	931	467	1.6	1.0	3.759	A
C	547	137	1038	1074	0.509	551	465	2.2	1.1	6.939	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	793	198	75	2118	0.374	794	1252	0.8	0.6	2.719	A
B	778	194	478	1943	0.400	779	391	1.0	0.7	3.094	A
C	458	114	868	1152	0.397	459	389	1.1	0.7	5.205	A