Heavy Vehicle Percentages

		To			
		1 - Holiday Inn/Model Farm	2 - Port Road (South)	3 - Unnamed Road (Airport Car Park)	4 - Port Road (North)
From	1 - Holiday Inn/Model Farm	0	0	0	0
	2 - Port Road (South)	0	0	8	3
	3 - Unnamed Road (Airport Car Park)	0	0	0	2
	4 - Port Road (North)	0	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Holiday Inn/Model Farm	0.01	4.27	0.0	A	6	9
2 - Port Road (South)	0.24	3.01	0.3	A	378	567
3 - Unnamed Road (Airport Car Park)	0.05	2.81	0.0	A	64	96
4 - Port Road (North)	0.44	5.96	0.8	A	481	722

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
1 - Holiday Inn/Model Farm	6	2	476	850	0.007	6	11	0.0	0.0	4.262	A
2 - Port Road (South)	378	95	341	1577	0.240	377	141	0.0	0.3	2.997	A
3 - Unnamed Road (Airport Car Park)	64	16	354	1347	0.048	64	364	0.0	0.0	2.805	A
4 - Port Road (North)	481	120	9	1085	0.443	478	409	0.0	0.8	5.896	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Holiday Inn/Model Farm	6	2	479	849	0.007	6	11	0.0	0.0	4.271	A
2 - Port Road (South)	378	95	343	1575	0.240	378	142	0.3	0.3	3.006	A
3 - Unnamed Road (Airport Car Park)	64	16	355	1346	0.048	64	366	0.0	0.0	2.807	A
4 - Port Road (North)	481	120	9	1085	0.443	481	410	0.8	0.8	5.956	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Holiday Inn/Model Farm	6	2	479	849	0.007	6	11	0.0	0.0	4.271	A
2 - Port Road (South)	378	95	343	1575	0.240	378	142	0.3	0.3	3.006	A
3 - Unnamed Road (Airport Car Park)	64	16	355	1346	0.048	64	366	0.0	0.0	2.807	A
4 - Port Road (North)	481	120	9	1085	0.443	481	410	0.8	0.8	5.956	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
1 - Holiday Inn/Model Farm	6	2	479	849	0.007	6	11	0.0	0.0	4.271	A
2 - Port Road (South)	378	95	343	1575	0.240	378	142	0.3	0.3	3.006	A
3 - Unnamed Road (Airport Car Park)	64	16	355	1346	0.048	64	366	0.0	0.0	2.807	A
4 - Port Road (North)	481	120	9	1085	0.443	481	410	0.8	0.8	5.956	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
1 - Holiday Inn/Model Farm	6	2	479	849	0.007	6	11	0.0	0.0	4.271	A
2 - Port Road (South)	378	95	343	1575	0.240	378	142	0.3	0.3	3.006	A
3 - Unnamed Road (Airport Car Park)	64	16	355	1346	0.048	64	366	0.0	0.0	2.807	A
4 - Port Road (North)	481	120	9	1085	0.443	481	410	0.8	0.8	5.956	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
1 - Holiday Inn/Model Farm	6	2	479	849	0.007	6	11	0.0	0.0	4.271	A
2 - Port Road (South)	378	95	343	1575	0.240	378	142	0.3	0.3	3.006	A
3 - Unnamed Road (Airport Car Park)	64	16	355	1346	0.048	64	366	0.0	0.0	2.807	A
4 - Port Road (North)	481	120	9	1085	0.443	481	410	0.8	0.8	5.956	A

2033 + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.52	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2033 + Dev	PM	FLAT	16:45	18:15	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Holiday Inn/Model Farm		FLAT	✓	9	100.000
2 - Port Road (South)		FLAT	✓	150	100.000
3 - Unnamed Road (Airport Car Park)		FLAT	✓	137	100.000
4 - Port Road (North)		FLAT	✓	459	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Holiday Inn/Model Farm	2 - Port Road (South)	3 - Unnamed Road (Airport Car Park)	4 - Port Road (North)
From	1 - Holiday Inn/Model Farm	0	1	3	5
	2 - Port Road (South)	0	3	14	133
	3 - Unnamed Road (Airport Car Park)	0	22	1	114
	4 - Port Road (North)	11	382	64	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Holiday Inn/Model Farm	2 - Port Road (South)	3 - Unnamed Road (Airport Car Park)	4 - Port Road (North)
From	1 - Holiday Inn/Model Farm	0	0	0	0
	2 - Port Road (South)	0	0	8	2
	3 - Unnamed Road (Airport Car Park)	0	0	0	1
	4 - Port Road (North)	0	1	10	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Holiday Inn/Model Farm	0.01	4.27	0.0	A	9	14
2 - Port Road (South)	0.08	2.23	0.1	A	150	225
3 - Unnamed Road (Airport Car Park)	0.09	2.65	0.1	A	137	206
4 - Port Road (North)	0.43	5.83	0.7	A	459	688

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
1 - Holiday Inn/Model Farm	9	2	471	853	0.011	9	11	0.0	0.0	4.263	A
2 - Port Road (South)	150	38	75	1767	0.085	150	405	0.0	0.1	2.225	A
3 - Unnamed Road (Airport Car Park)	137	34	143	1494	0.092	137	82	0.0	0.1	2.653	A
4 - Port Road (North)	459	115	26	1077	0.426	456	253	0.0	0.7	5.776	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Holiday Inn/Model Farm	9	2	474	852	0.011	9	11	0.0	0.0	4.271	A
2 - Port Road (South)	150	38	75	1767	0.085	150	408	0.1	0.1	2.226	A
3 - Unnamed Road (Airport Car Park)	137	34	143	1493	0.092	137	82	0.1	0.1	2.653	A
4 - Port Road (North)	459	115	26	1077	0.426	459	254	0.7	0.7	5.829	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
1 - Holiday Inn/Model Farm	9	2	474	852	0.011	9	11	0.0	0.0	4.271	A
2 - Port Road (South)	150	38	75	1767	0.085	150	408	0.1	0.1	2.226	A
3 - Unnamed Road (Airport Car Park)	137	34	143	1493	0.092	137	82	0.1	0.1	2.653	A
4 - Port Road (North)	459	115	26	1077	0.426	459	254	0.7	0.7	5.829	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
1 - Holiday Inn/Model Farm	9	2	474	852	0.011	9	11	0.0	0.0	4.271	A
2 - Port Road (South)	150	38	75	1767	0.085	150	408	0.1	0.1	2.226	A
3 - Unnamed Road (Airport Car Park)	137	34	143	1493	0.092	137	82	0.1	0.1	2.653	A
4 - Port Road (North)	459	115	26	1077	0.426	459	254	0.7	0.7	5.829	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
1 - Holiday Inn/Model Farm	9	2	474	852	0.011	9	11	0.0	0.0	4.271	A
2 - Port Road (South)	150	38	75	1767	0.085	150	408	0.1	0.1	2.226	A
3 - Unnamed Road (Airport Car Park)	137	34	143	1493	0.092	137	82	0.1	0.1	2.653	A
4 - Port Road (North)	459	115	26	1077	0.426	459	254	0.7	0.7	5.829	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
1 - Holiday Inn/Model Farm	9	2	474	852	0.011	9	11	0.0	0.0	4.271	A
2 - Port Road (South)	150	38	75	1767	0.085	150	408	0.1	0.1	2.226	A
3 - Unnamed Road (Airport Car Park)	137	34	143	1493	0.092	137	82	0.1	0.1	2.653	A
4 - Port Road (North)	459	115	26	1077	0.426	459	254	0.7	0.7	5.829	A

2033 + Dev (Sens), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.88	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	2033 + Dev (Sens)	AM	FLAT	07:45	09:15	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Holiday Inn/Model Farm		FLAT	✓	6	100.000
2 - Port Road (South)		FLAT	✓	378	100.000
3 - Unnamed Road (Airport Car Park)		FLAT	✓	71	100.000
4 - Port Road (North)		FLAT	✓	528	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Holiday Inn/Model Farm	2 - Port Road (South)	3 - Unnamed Road (Airport Car Park)	4 - Port Road (North)
From	1 - Holiday Inn/Model Farm	0	0	1	5
	2 - Port Road (South)	0	1	28	349
	3 - Unnamed Road (Airport Car Park)	1	7	0	63
	4 - Port Road (North)	10	134	384	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Holiday Inn/Model Farm	2 - Port Road (South)	3 - Unnamed Road (Airport Car Park)	4 - Port Road (North)
From	1 - Holiday Inn/Model Farm	0	0	0	0
	2 - Port Road (South)	0	0	8	3
	3 - Unnamed Road (Airport Car Park)	0	0	0	2
	4 - Port Road (North)	0	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Holiday Inn/Model Farm	0.01	4.40	0.0	A	6	9
2 - Port Road (South)	0.24	3.09	0.3	A	378	567
3 - Unnamed Road (Airport Car Park)	0.05	2.82	0.1	A	71	106
4 - Port Road (North)	0.49	6.46	0.9	A	528	792

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
1 - Holiday Inn/Model Farm	6	2	522	825	0.007	6	11	0.0	0.0	4.393	A
2 - Port Road (South)	378	95	387	1545	0.245	377	141	0.0	0.3	3.078	A
3 - Unnamed Road (Airport Car Park)	71	18	354	1346	0.053	71	410	0.0	0.1	2.821	A
4 - Port Road (North)	528	132	9	1086	0.486	524	416	0.0	0.9	6.373	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Holiday Inn/Model Farm	6	2	526	823	0.007	6	11	0.0	0.0	4.404	A
2 - Port Road (South)	378	95	390	1544	0.245	378	142	0.3	0.3	3.088	A
3 - Unnamed Road (Airport Car Park)	71	18	355	1346	0.053	71	413	0.1	0.1	2.823	A
4 - Port Road (North)	528	132	9	1085	0.486	528	417	0.9	0.9	6.456	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Holiday Inn/Model Farm	6	2	526	823	0.007	6	11	0.0	0.0	4.404	A
2 - Port Road (South)	378	95	390	1544	0.245	378	142	0.3	0.3	3.088	A
3 - Unnamed Road (Airport Car Park)	71	18	355	1346	0.053	71	413	0.1	0.1	2.823	A
4 - Port Road (North)	528	132	9	1085	0.486	528	417	0.9	0.9	6.456	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
1 - Holiday Inn/Model Farm	6	2	526	823	0.007	6	11	0.0	0.0	4.404	A
2 - Port Road (South)	378	95	390	1544	0.245	378	142	0.3	0.3	3.088	A
3 - Unnamed Road (Airport Car Park)	71	18	355	1346	0.053	71	413	0.1	0.1	2.823	A
4 - Port Road (North)	528	132	9	1085	0.486	528	417	0.9	0.9	6.456	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
1 - Holiday Inn/Model Farm	6	2	526	823	0.007	6	11	0.0	0.0	4.404	A
2 - Port Road (South)	378	95	390	1544	0.245	378	142	0.3	0.3	3.088	A
3 - Unnamed Road (Airport Car Park)	71	18	355	1346	0.053	71	413	0.1	0.1	2.823	A
4 - Port Road (North)	528	132	9	1085	0.486	528	417	0.9	0.9	6.456	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
1 - Holiday Inn/Model Farm	6	2	526	823	0.007	6	11	0.0	0.0	4.404	A
2 - Port Road (South)	378	95	390	1544	0.245	378	142	0.3	0.3	3.088	A
3 - Unnamed Road (Airport Car Park)	71	18	355	1346	0.053	71	413	0.1	0.1	2.823	A
4 - Port Road (North)	528	132	9	1085	0.486	528	417	0.9	0.9	6.456	A

2033 + Dev (Sens), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	4.55	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	2033 + Dev (Sens)	PM	FLAT	16:45	18:15	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Holiday Inn/Model Farm		FLAT	✓	9	100.000
2 - Port Road (South)		FLAT	✓	150	100.000
3 - Unnamed Road (Airport Car Park)		FLAT	✓	150	100.000
4 - Port Road (North)		FLAT	✓	466	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Holiday Inn/Model Farm	2 - Port Road (South)	3 - Unnamed Road (Airport Car Park)	4 - Port Road (North)
From	1 - Holiday Inn/Model Farm	0	1	3	5
	2 - Port Road (South)	0	3	14	133
	3 - Unnamed Road (Airport Car Park)	0	23	1	126
	4 - Port Road (North)	11	382	71	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Holiday Inn/Model Farm	2 - Port Road (South)	3 - Unnamed Road (Airport Car Park)	4 - Port Road (North)
From	1 - Holiday Inn/Model Farm	0	0	0	0
	2 - Port Road (South)	0	0	8	2
	3 - Unnamed Road (Airport Car Park)	0	0	0	1
	4 - Port Road (North)	0	1	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Holiday Inn/Model Farm	0.01	4.29	0.0	A	9	14
2 - Port Road (South)	0.09	2.23	0.1	A	150	225
3 - Unnamed Road (Airport Car Park)	0.10	2.68	0.1	A	150	225
4 - Port Road (North)	0.43	5.90	0.8	A	466	699

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
1 - Holiday Inn/Model Farm	9	2	479	849	0.011	9	11	0.0	0.0	4.284	A
2 - Port Road (South)	150	38	81	1763	0.085	150	406	0.0	0.1	2.231	A
3 - Unnamed Road (Airport Car Park)	150	38	143	1493	0.100	150	88	0.0	0.1	2.679	A
4 - Port Road (North)	466	116	27	1076	0.433	463	265	0.0	0.8	5.841	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Holiday Inn/Model Farm	9	2	482	847	0.011	9	11	0.0	0.0	4.293	A
2 - Port Road (South)	150	38	82	1762	0.085	150	409	0.1	0.1	2.232	A
3 - Unnamed Road (Airport Car Park)	150	38	143	1493	0.100	150	89	0.1	0.1	2.679	A
4 - Port Road (North)	466	116	27	1076	0.433	466	266	0.8	0.8	5.897	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
1 - Holiday Inn/Model Farm	9	2	482	847	0.011	9	11	0.0	0.0	4.293	A
2 - Port Road (South)	150	38	82	1762	0.085	150	409	0.1	0.1	2.232	A
3 - Unnamed Road (Airport Car Park)	150	38	143	1493	0.100	150	89	0.1	0.1	2.679	A
4 - Port Road (North)	466	116	27	1076	0.433	466	266	0.8	0.8	5.897	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
1 - Holiday Inn/Model Farm	9	2	482	847	0.011	9	11	0.0	0.0	4.293	A
2 - Port Road (South)	150	38	82	1762	0.085	150	409	0.1	0.1	2.232	A
3 - Unnamed Road (Airport Car Park)	150	38	143	1493	0.100	150	89	0.1	0.1	2.679	A
4 - Port Road (North)	466	116	27	1076	0.433	466	266	0.8	0.8	5.897	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
1 - Holiday Inn/Model Farm	9	2	482	847	0.011	9	11	0.0	0.0	4.293	A
2 - Port Road (South)	150	38	82	1762	0.085	150	409	0.1	0.1	2.232	A
3 - Unnamed Road (Airport Car Park)	150	38	143	1493	0.100	150	89	0.1	0.1	2.679	A
4 - Port Road (North)	466	116	27	1076	0.433	466	266	0.8	0.8	5.897	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
1 - Holiday Inn/Model Farm	9	2	482	847	0.011	9	11	0.0	0.0	4.293	A
2 - Port Road (South)	150	38	82	1762	0.085	150	409	0.1	0.1	2.232	A
3 - Unnamed Road (Airport Car Park)	150	38	143	1493	0.100	150	89	0.1	0.1	2.679	A
4 - Port Road (North)	466	116	27	1076	0.433	466	266	0.8	0.8	5.897	A

Junctions 9

ARCADY 9 - Roundabout Module

Filename: Waycock Cross Roundabout V4.j9
Path: H:\Projects\W230000\237449 - CAVC Advanced Technology Centre, Vale of Glamorgan\Technical\B - ATC Site\Modelling\Arcady
Report generation date: 20/03/2024 11:56:46

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
	2023					
1 - Port Road (East)	1.2	6.57	0.55	1.3	6.97	0.57
2 - Pontypridd Road	1.4	6.08	0.59	1.1	5.74	0.53
3 - Port Road (West)	1.2	5.45	0.55	0.5	3.12	0.34
4 - Waycock Road	0.7	4.93	0.41	0.9	4.42	0.46
	2033 Future Year					
1 - Port Road (East)	13.2	50.76	0.94	2.2	9.98	0.69
2 - Pontypridd Road	6.5	25.21	0.87	1.2	6.09	0.54
3 - Port Road (West)	2.2	7.83	0.69	1.7	5.58	0.64
4 - Waycock Road	2.1	9.47	0.68	1.0	5.71	0.51
	2033 Future Year + Dev					
1 - Port Road (East)	97.7	323.69	1.05	3.0	12.78	0.75
2 - Pontypridd Road	20.6	76.24	0.97	1.3	6.48	0.56
3 - Port Road (West)	2.3	8.20	0.70	2.1	6.27	0.68
4 - Waycock Road	2.2	10.07	0.69	1.2	6.41	0.55
	2033 Future Year + Dev (Sens)					
1 - Port Road (East)	128.3	420.55	1.08	3.1	13.03	0.76
2 - Pontypridd Road	27.4	99.43	0.98	1.3	6.53	0.56
3 - Port Road (West)	2.4	8.25	0.70	2.1	6.40	0.68
4 - Waycock Road	2.2	10.15	0.69	1.2	6.48	0.55

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

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

File summary

File Description

Title	
Location	
Site number	
Date	13/12/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SLR\Tom.Monk
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	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2023	AM	FLAT	07:45	09:15	90	15	✓
D2	2023	PM	FLAT	16:45	18:15	90	15	✓
D3	2033 Future Year	AM	FLAT	07:45	09:15	90	15	✓
D4	2033 Future Year	PM	FLAT	16:45	18:15	90	15	✓
D5	2033 Future Year + Dev	AM	FLAT	07:45	09:15	90	15	✓
D6	2033 Future Year + Dev	PM	FLAT	16:45	18:15	90	15	✓
D7	2033 Future Year + Dev (Sens)	AM	FLAT	07:45	09:15	90	15	✓
D8	2033 Future Year + Dev (Sens)	PM	FLAT	16:45	18:15	90	15	✓

Analysis Set Details

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

2023, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Port Road (West) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.81	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Port Road (East)	
2	Pontypridd Road	
3	Port Road (West)	
4	Waycock Road	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Port Road (East)	4.20	7.13	7.1	23.9	52.0	39.6	
2 - Pontypridd Road	5.60	6.70	18.5	7.8	52.0	36.7	
3 - Port Road (West)	3.70	9.10	49.5	8.3	48.0	47.1	
4 - Waycock Road	6.30	7.29	1.6	22.0	48.0	46.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Port Road (East)	0.576	1614
2 - Pontypridd Road	0.586	1780
3 - Port Road (West)	0.644	2035
4 - Waycock Road	0.642	1907

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 period length (min)	Time segment length (min)	Run automatically
D1	2023	AM	FLAT	07:45	09:15	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Port Road (East)		FLAT	✓	677	100.000
2 - Pontypridd Road		FLAT	✓	846	100.000
3 - Port Road (West)		FLAT	✓	805	100.000
4 - Waycock Road		FLAT	✓	501	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Port Road (East)	2 - Pontypridd Road	3 - Port Road (West)	4 - Waycock Road
From	1 - Port Road (East)	9	289	245	134
	2 - Pontypridd Road	338	1	209	298
	3 - Port Road (West)	347	271	0	187
	4 - Waycock Road	143	227	131	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Port Road (East)	2 - Pontypridd Road	3 - Port Road (West)	4 - Waycock Road
From	1 - Port Road (East)	0	1	0	5
	2 - Pontypridd Road	2	0	3	2
	3 - Port Road (West)	5	2	0	4
	4 - Waycock Road	4	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Port Road (East)	0.55	6.57	1.2	A	677	1015
2 - Pontypridd Road	0.59	6.08	1.4	A	846	1269
3 - Port Road (West)	0.55	5.45	1.2	A	805	1207
4 - Waycock Road	0.41	4.93	0.7	A	501	751

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
1 - Port Road (East)	677	169	626	1227	0.552	672	832	0.0	1.2	6.431	A
2 - Pontypridd Road	846	211	516	1440	0.588	840	783	0.0	1.4	5.953	A
3 - Port Road (West)	805	201	775	1468	0.548	800	581	0.0	1.2	5.348	A
4 - Waycock Road	501	125	960	1235	0.406	498	615	0.0	0.7	4.871	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Port Road (East)	677	169	630	1225	0.553	677	837	1.2	1.2	6.565	A
2 - Pontypridd Road	846	211	519	1438	0.588	846	788	1.4	1.4	6.082	A
3 - Port Road (West)	805	201	780	1465	0.550	805	585	1.2	1.2	5.454	A
4 - Waycock Road	501	125	966	1231	0.407	501	619	0.7	0.7	4.931	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Port Road (East)	677	169	630	1225	0.553	677	837	1.2	1.2	6.565	A
2 - Pontypridd Road	846	211	519	1438	0.588	846	788	1.4	1.4	6.082	A
3 - Port Road (West)	805	201	780	1465	0.550	805	585	1.2	1.2	5.455	A
4 - Waycock Road	501	125	966	1231	0.407	501	619	0.7	0.7	4.932	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
1 - Port Road (East)	677	169	630	1225	0.553	677	837	1.2	1.2	6.566	A
2 - Pontypridd Road	846	211	519	1438	0.588	846	788	1.4	1.4	6.082	A
3 - Port Road (West)	805	201	780	1465	0.550	805	585	1.2	1.2	5.455	A
4 - Waycock Road	501	125	966	1231	0.407	501	619	0.7	0.7	4.932	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
1 - Port Road (East)	677	169	630	1225	0.553	677	837	1.2	1.2	6.566	A
2 - Pontypridd Road	846	211	519	1438	0.588	846	788	1.4	1.4	6.082	A
3 - Port Road (West)	805	201	780	1465	0.550	805	585	1.2	1.2	5.455	A
4 - Waycock Road	501	125	966	1231	0.407	501	619	0.7	0.7	4.932	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
1 - Port Road (East)	677	169	630	1225	0.553	677	837	1.2	1.2	6.566	A
2 - Pontypridd Road	846	211	519	1438	0.588	846	788	1.4	1.4	6.082	A
3 - Port Road (West)	805	201	780	1465	0.550	805	585	1.2	1.2	5.455	A
4 - Waycock Road	501	125	966	1231	0.407	501	619	0.7	0.7	4.932	A

2023, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Port Road (West) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.13	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2023	PM	FLAT	16:45	18:15	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Port Road (East)		FLAT	✓	690	100.000
2 - Pontypridd Road		FLAT	✓	715	100.000
3 - Port Road (West)		FLAT	✓	594	100.000
4 - Waycock Road		FLAT	✓	693	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Port Road (East)	2 - Pontypridd Road	3 - Port Road (West)	4 - Waycock Road
From	1 - Port Road (East)	15	138	402	135
	2 - Pontypridd Road	124	3	461	127
	3 - Port Road (West)	239	179	0	176
	4 - Waycock Road	185	347	161	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Port Road (East)	2 - Pontypridd Road	3 - Port Road (West)	4 - Waycock Road
From	1 - Port Road (East)	0	0	0	1
	2 - Pontypridd Road	0	0	1	4
	3 - Port Road (West)	1	1	0	2
	4 - Waycock Road	3	3	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Port Road (East)	0.57	6.97	1.3	A	690	1035
2 - Pontypridd Road	0.53	5.74	1.1	A	715	1072
3 - Port Road (West)	0.34	3.12	0.5	A	594	891
4 - Waycock Road	0.46	4.42	0.9	A	693	1040

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
1 - Port Road (East)	690	172	687	1208	0.571	685	560	0.0	1.3	6.815	A
2 - Pontypridd Road	715	179	708	1345	0.532	710	664	0.0	1.1	5.636	A
3 - Port Road (West)	594	149	401	1749	0.340	592	1017	0.0	0.5	3.105	A
4 - Waycock Road	693	173	558	1508	0.459	690	436	0.0	0.8	4.381	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Port Road (East)	690	172	690	1206	0.572	690	563	1.3	1.3	6.969	A
2 - Pontypridd Road	715	179	713	1342	0.533	715	667	1.1	1.1	5.740	A
3 - Port Road (West)	594	149	404	1748	0.340	594	1024	0.5	0.5	3.119	A
4 - Waycock Road	693	173	560	1507	0.460	693	438	0.8	0.8	4.423	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
1 - Port Road (East)	690	172	690	1206	0.572	690	563	1.3	1.3	6.972	A
2 - Pontypridd Road	715	179	713	1342	0.533	715	667	1.1	1.1	5.741	A
3 - Port Road (West)	594	149	404	1748	0.340	594	1024	0.5	0.5	3.119	A
4 - Waycock Road	693	173	560	1507	0.460	693	438	0.8	0.8	4.423	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
1 - Port Road (East)	690	172	690	1206	0.572	690	563	1.3	1.3	6.972	A
2 - Pontypridd Road	715	179	713	1342	0.533	715	667	1.1	1.1	5.741	A
3 - Port Road (West)	594	149	404	1748	0.340	594	1024	0.5	0.5	3.119	A
4 - Waycock Road	693	173	560	1507	0.460	693	438	0.8	0.8	4.423	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
1 - Port Road (East)	690	172	690	1206	0.572	690	563	1.3	1.3	6.972	A
2 - Pontypridd Road	715	179	713	1342	0.533	715	667	1.1	1.1	5.741	A
3 - Port Road (West)	594	149	404	1748	0.340	594	1024	0.5	0.5	3.119	A
4 - Waycock Road	693	173	560	1507	0.460	693	438	0.8	0.9	4.423	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
1 - Port Road (East)	690	172	690	1206	0.572	690	563	1.3	1.3	6.972	A
2 - Pontypridd Road	715	179	713	1342	0.533	715	667	1.1	1.1	5.741	A
3 - Port Road (West)	594	149	404	1748	0.340	594	1024	0.5	0.5	3.119	A
4 - Waycock Road	693	173	560	1507	0.460	693	438	0.9	0.9	4.423	A

2033 Future Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Port Road (West) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	23.73	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2033 Future Year	AM	FLAT	07:45	09:15	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Port Road (East)		FLAT	✓	976	100.000
2 - Pontypridd Road		FLAT	✓	951	100.000
3 - Port Road (West)		FLAT	✓	1001	100.000
4 - Waycock Road		FLAT	✓	791	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Port Road (East)	2 - Pontypridd Road	3 - Port Road (West)	4 - Waycock Road
From	1 - Port Road (East)	10	314	515	137
	2 - Pontypridd Road	349	1	312	289
	3 - Port Road (West)	404	302	0	295
	4 - Waycock Road	138	200	453	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Port Road (East)	2 - Pontypridd Road	3 - Port Road (West)	4 - Waycock Road
From	1 - Port Road (East)	0	1	0	5
	2 - Pontypridd Road	2	0	3	2
	3 - Port Road (West)	5	2	0	4
	4 - Waycock Road	4	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Port Road (East)	0.94	50.76	13.2	F	976	1464
2 - Pontypridd Road	0.87	25.21	6.5	D	951	1426
3 - Port Road (West)	0.69	7.83	2.2	A	1001	1502
4 - Waycock Road	0.68	9.47	2.1	A	791	1186

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
1 - Port Road (East)	976	244	947	1046	0.933	940	888	0.0	8.9	28.257	D
2 - Pontypridd Road	951	238	1086	1108	0.858	930	801	0.0	5.2	18.493	C
3 - Port Road (West)	1001	250	767	1473	0.680	993	1250	0.0	2.1	7.379	A
4 - Waycock Road	791	198	1052	1180	0.670	783	707	0.0	2.0	8.904	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Port Road (East)	976	244	956	1041	0.938	968	900	8.9	10.9	42.769	E
2 - Pontypridd Road	951	238	1110	1095	0.869	948	814	5.2	5.9	23.747	C
3 - Port Road (West)	1001	250	783	1462	0.685	1001	1275	2.1	2.1	7.790	A
4 - Waycock Road	791	198	1065	1172	0.675	791	719	2.0	2.0	9.433	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Port Road (East)	976	244	956	1041	0.938	972	901	10.9	11.8	46.585	E
2 - Pontypridd Road	951	238	1112	1093	0.870	950	816	5.9	6.2	24.595	C
3 - Port Road (West)	1001	250	785	1461	0.685	1001	1278	2.1	2.1	7.817	A
4 - Waycock Road	791	198	1066	1171	0.675	791	720	2.0	2.1	9.457	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
1 - Port Road (East)	976	244	956	1040	0.938	974	901	11.8	12.5	48.601	E
2 - Pontypridd Road	951	238	1113	1092	0.871	950	816	6.2	6.3	24.929	C
3 - Port Road (West)	1001	250	785	1461	0.685	1001	1279	2.1	2.2	7.824	A
4 - Waycock Road	791	198	1066	1171	0.675	791	720	2.1	2.1	9.464	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
1 - Port Road (East)	976	244	956	1040	0.938	974	901	12.5	12.9	49.876	E
2 - Pontypridd Road	951	238	1114	1092	0.871	951	816	6.3	6.4	25.107	D
3 - Port Road (West)	1001	250	786	1461	0.685	1001	1279	2.2	2.2	7.829	A
4 - Waycock Road	791	198	1066	1171	0.675	791	721	2.1	2.1	9.468	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
1 - Port Road (East)	976	244	956	1040	0.938	975	901	12.9	13.2	50.760	F
2 - Pontypridd Road	951	238	1114	1092	0.871	951	817	6.4	6.5	25.213	D
3 - Port Road (West)	1001	250	786	1461	0.685	1001	1279	2.2	2.2	7.830	A
4 - Waycock Road	791	198	1066	1171	0.675	791	721	2.1	2.1	9.468	A

2033 Future Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Port Road (West) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.79	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2033 Future Year	PM	FLAT	16:45	18:15	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Port Road (East)		FLAT	✓	812	100.000
2 - Pontypridd Road		FLAT	✓	699	100.000
3 - Port Road (West)		FLAT	✓	1131	100.000
4 - Waycock Road		FLAT	✓	655	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Port Road (East)	2 - Pontypridd Road	3 - Port Road (West)	4 - Waycock Road
From	1 - Port Road (East)	16	138	498	160
	2 - Pontypridd Road	124	3	513	59
	3 - Port Road (West)	510	257	0	364
	4 - Waycock Road	167	353	135	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Port Road (East)	2 - Pontypridd Road	3 - Port Road (West)	4 - Waycock Road
From	1 - Port Road (East)	0	0	0	1
	2 - Pontypridd Road	0	0	1	4
	3 - Port Road (West)	1	1	0	2
	4 - Waycock Road	3	3	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Port Road (East)	0.69	9.98	2.2	A	812	1218
2 - Pontypridd Road	0.54	6.09	1.2	A	699	1048
3 - Port Road (West)	0.64	5.58	1.7	A	1131	1696
4 - Waycock Road	0.51	5.71	1.0	A	655	982

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
1 - Port Road (East)	812	203	743	1175	0.691	803	812	0.0	2.2	9.476	A
2 - Pontypridd Road	699	175	801	1295	0.540	694	746	0.0	1.2	5.952	A
3 - Port Road (West)	1131	283	359	1778	0.636	1124	1136	0.0	1.7	5.454	A
4 - Waycock Road	655	164	904	1288	0.508	651	579	0.0	1.0	5.611	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Port Road (East)	812	203	748	1172	0.693	812	817	2.2	2.2	9.968	A
2 - Pontypridd Road	699	175	809	1290	0.542	699	751	1.2	1.2	6.088	A
3 - Port Road (West)	1131	283	362	1776	0.637	1131	1146	1.7	1.7	5.582	A
4 - Waycock Road	655	164	910	1285	0.510	655	583	1.0	1.0	5.714	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
1 - Port Road (East)	812	203	748	1172	0.693	812	817	2.2	2.2	9.978	A
2 - Pontypridd Road	699	175	809	1290	0.542	699	751	1.2	1.2	6.089	A
3 - Port Road (West)	1131	283	362	1776	0.637	1131	1146	1.7	1.7	5.584	A
4 - Waycock Road	655	164	910	1285	0.510	655	583	1.0	1.0	5.715	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
1 - Port Road (East)	812	203	748	1172	0.693	812	817	2.2	2.2	9.982	A
2 - Pontypridd Road	699	175	809	1290	0.542	699	751	1.2	1.2	6.089	A
3 - Port Road (West)	1131	283	362	1776	0.637	1131	1146	1.7	1.7	5.584	A
4 - Waycock Road	655	164	910	1285	0.510	655	583	1.0	1.0	5.715	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
1 - Port Road (East)	812	203	748	1172	0.693	812	817	2.2	2.2	9.982	A
2 - Pontypridd Road	699	175	809	1290	0.542	699	751	1.2	1.2	6.089	A
3 - Port Road (West)	1131	283	362	1776	0.637	1131	1146	1.7	1.7	5.584	A
4 - Waycock Road	655	164	910	1285	0.510	655	583	1.0	1.0	5.715	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
1 - Port Road (East)	812	203	748	1172	0.693	812	817	2.2	2.2	9.984	A
2 - Pontypridd Road	699	175	809	1290	0.542	699	751	1.2	1.2	6.089	A
3 - Port Road (West)	1131	283	362	1776	0.637	1131	1146	1.7	1.7	5.584	A
4 - Waycock Road	655	164	910	1285	0.510	655	583	1.0	1.0	5.715	A

2033 Future Year + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Port Road (West) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	112.22	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2033 Future Year + Dev	AM	FLAT	07:45	09:15	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Port Road (East)		FLAT	✓	1087	100.000
2 - Pontypridd Road		FLAT	✓	1017	100.000
3 - Port Road (West)		FLAT	✓	1028	100.000
4 - Waycock Road		FLAT	✓	798	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Port Road (East)	2 - Pontypridd Road	3 - Port Road (West)	4 - Waycock Road
From	1 - Port Road (East)	10	314	626	137
	2 - Pontypridd Road	349	1	378	289
	3 - Port Road (West)	420	312	0	296
	4 - Waycock Road	138	200	460	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Port Road (East)	2 - Pontypridd Road	3 - Port Road (West)	4 - Waycock Road
From	1 - Port Road (East)	0	1	0	5
	2 - Pontypridd Road	2	0	2	2
	3 - Port Road (West)	5	2	0	4
	4 - Waycock Road	4	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Port Road (East)	1.05	323.69	97.7	F	1087	1631
2 - Pontypridd Road	0.97	76.24	20.6	F	1017	1526
3 - Port Road (West)	0.70	8.20	2.3	A	1028	1542
4 - Waycock Road	0.69	10.07	2.2	B	798	1197

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
1 - Port Road (East)	1087	272	963	1037	1.048	994	897	0.0	23.2	54.006	F
2 - Pontypridd Road	1017	254	1162	1068	0.952	975	795	0.0	10.5	30.903	D
3 - Port Road (West)	1028	257	747	1485	0.692	1019	1390	0.0	2.2	7.591	A
4 - Waycock Road	798	200	1070	1168	0.683	790	696	0.0	2.1	9.322	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Port Road (East)	1087	272	973	1032	1.053	1022	911	23.2	39.3	121.306	F
2 - Pontypridd Road	1017	254	1187	1054	0.965	1002	808	10.5	14.2	52.675	F
3 - Port Road (West)	1028	257	768	1472	0.698	1028	1421	2.2	2.3	8.089	A
4 - Waycock Road	798	200	1086	1158	0.689	798	709	2.1	2.2	9.972	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Port Road (East)	1087	272	973	1032	1.054	1027	913	39.3	54.4	173.785	F
2 - Pontypridd Road	1017	254	1190	1052	0.967	1008	810	14.2	16.6	62.006	F
3 - Port Road (West)	1028	257	772	1469	0.700	1028	1426	2.3	2.3	8.147	A
4 - Waycock Road	798	200	1088	1157	0.690	798	712	2.2	2.2	10.024	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
1 - Port Road (East)	1087	272	973	1032	1.054	1028	914	54.4	69.0	224.422	F
2 - Pontypridd Road	1017	254	1191	1051	0.967	1010	810	16.6	18.3	68.155	F
3 - Port Road (West)	1028	257	774	1468	0.700	1028	1428	2.3	2.3	8.172	A
4 - Waycock Road	798	200	1089	1156	0.690	798	713	2.2	2.2	10.050	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
1 - Port Road (East)	1087	272	973	1032	1.054	1029	915	69.0	83.5	274.271	F
2 - Pontypridd Road	1017	254	1192	1051	0.968	1012	810	18.3	19.6	72.696	F
3 - Port Road (West)	1028	257	775	1467	0.701	1028	1429	2.3	2.3	8.187	A
4 - Waycock Road	798	200	1090	1156	0.691	798	713	2.2	2.2	10.060	B

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
1 - Port Road (East)	1087	272	973	1032	1.054	1030	915	83.5	97.7	323.690	F
2 - Pontypridd Road	1017	254	1192	1051	0.968	1013	811	19.6	20.6	76.240	F
3 - Port Road (West)	1028	257	776	1467	0.701	1028	1430	2.3	2.3	8.195	A
4 - Waycock Road	798	200	1090	1155	0.691	798	714	2.2	2.2	10.066	B

2033 Future Year + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Port Road (West) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.95	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2033 Future Year + Dev	PM	FLAT	16:45	18:15	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Port Road (East)		FLAT	✓	848	100.000
2 - Pontypridd Road		FLAT	✓	706	100.000
3 - Port Road (West)		FLAT	✓	1202	100.000
4 - Waycock Road		FLAT	✓	681	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Port Road (East)	2 - Pontypridd Road	3 - Port Road (West)	4 - Waycock Road
From	1 - Port Road (East)	16	161	511	160
	2 - Pontypridd Road	124	3	520	59
	3 - Port Road (West)	553	282	0	367
	4 - Waycock Road	167	353	161	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Port Road (East)	2 - Pontypridd Road	3 - Port Road (West)	4 - Waycock Road
From	1 - Port Road (East)	0	0	2	1
	2 - Pontypridd Road	0	0	1	4
	3 - Port Road (West)	1	1	0	2
	4 - Waycock Road	3	3	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Port Road (East)	0.75	12.78	3.0	B	848	1272
2 - Pontypridd Road	0.56	6.48	1.3	A	706	1059
3 - Port Road (West)	0.68	6.27	2.1	A	1202	1803
4 - Waycock Road	0.55	6.41	1.2	A	681	1022

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
1 - Port Road (East)	848	212	793	1133	0.749	837	854	0.0	2.8	11.759	B
2 - Pontypridd Road	706	176	838	1267	0.557	701	792	0.0	1.2	6.304	A
3 - Port Road (West)	1202	301	358	1778	0.676	1194	1180	0.0	2.0	6.079	A
4 - Waycock Road	681	170	971	1247	0.546	676	581	0.0	1.2	6.259	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Port Road (East)	848	212	799	1129	0.751	848	860	2.8	2.9	12.733	B
2 - Pontypridd Road	706	176	848	1261	0.560	706	799	1.2	1.3	6.477	A
3 - Port Road (West)	1202	301	362	1776	0.677	1202	1192	2.0	2.1	6.270	A
4 - Waycock Road	681	170	978	1243	0.548	681	586	1.2	1.2	6.409	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
1 - Port Road (East)	848	212	799	1129	0.751	848	860	2.9	3.0	12.766	B
2 - Pontypridd Road	706	176	848	1261	0.560	706	799	1.3	1.3	6.481	A
3 - Port Road (West)	1202	301	362	1776	0.677	1202	1192	2.1	2.1	6.273	A
4 - Waycock Road	681	170	978	1243	0.548	681	586	1.2	1.2	6.409	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
1 - Port Road (East)	848	212	799	1129	0.751	848	860	3.0	3.0	12.777	B
2 - Pontypridd Road	706	176	848	1261	0.560	706	799	1.3	1.3	6.481	A
3 - Port Road (West)	1202	301	362	1776	0.677	1202	1192	2.1	2.1	6.273	A
4 - Waycock Road	681	170	978	1243	0.548	681	586	1.2	1.2	6.410	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
1 - Port Road (East)	848	212	799	1129	0.751	848	860	3.0	3.0	12.782	B
2 - Pontypridd Road	706	176	848	1261	0.560	706	799	1.3	1.3	6.482	A
3 - Port Road (West)	1202	301	362	1776	0.677	1202	1192	2.1	2.1	6.273	A
4 - Waycock Road	681	170	978	1243	0.548	681	586	1.2	1.2	6.410	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
1 - Port Road (East)	848	212	799	1129	0.751	848	860	3.0	3.0	12.784	B
2 - Pontypridd Road	706	176	848	1261	0.560	706	799	1.3	1.3	6.482	A
3 - Port Road (West)	1202	301	362	1776	0.677	1202	1192	2.1	2.1	6.273	A
4 - Waycock Road	681	170	978	1243	0.548	681	586	1.2	1.2	6.410	A

2033 Future Year + Dev (Sens), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Port Road (West) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	145.81	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	2033 Future Year + Dev (Sens)	AM	FLAT	07:45	09:15	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Port Road (East)		FLAT	✓	1109	100.000
2 - Pontypridd Road		FLAT	✓	1030	100.000
3 - Port Road (West)		FLAT	✓	1034	100.000
4 - Waycock Road		FLAT	✓	798	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Port Road (East)	2 - Pontypridd Road	3 - Port Road (West)	4 - Waycock Road
From	1 - Port Road (East)	10	314	648	137
	2 - Pontypridd Road	349	1	391	289
	3 - Port Road (West)	424	314	0	296
	4 - Waycock Road	138	200	460	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Port Road (East)	2 - Pontypridd Road	3 - Port Road (West)	4 - Waycock Road
From	1 - Port Road (East)	0	1	0	5
	2 - Pontypridd Road	2	0	2	2
	3 - Port Road (West)	5	2	0	4
	4 - Waycock Road	4	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Port Road (East)	1.08	420.55	128.3	F	1109	1663
2 - Pontypridd Road	0.98	99.43	27.4	F	1030	1545
3 - Port Road (West)	0.70	8.25	2.4	A	1034	1551
4 - Waycock Road	0.69	10.15	2.2	B	798	1197

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
1 - Port Road (East)	1109	277	965	1036	1.070	1000	899	0.0	27.3	60.788	F
2 - Pontypridd Road	1030	258	1172	1063	0.969	982	793	0.0	12.1	34.162	D
3 - Port Road (West)	1034	258	741	1489	0.695	1025	1412	0.0	2.2	7.628	A
4 - Waycock Road	798	200	1074	1166	0.685	790	692	0.0	2.1	9.379	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Port Road (East)	1109	277	975	1031	1.076	1025	913	27.3	48.4	143.911	F
2 - Pontypridd Road	1030	258	1194	1050	0.981	1010	805	12.1	17.2	61.611	F
3 - Port Road (West)	1034	258	762	1476	0.701	1034	1442	2.2	2.3	8.134	A
4 - Waycock Road	798	200	1090	1155	0.691	798	706	2.1	2.2	10.046	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Port Road (East)	1109	277	975	1031	1.076	1028	915	48.4	68.7	213.926	F
2 - Pontypridd Road	1030	258	1197	1048	0.983	1016	806	17.2	20.7	75.164	F
3 - Port Road (West)	1034	258	767	1473	0.702	1034	1446	2.3	2.3	8.195	A
4 - Waycock Road	798	200	1092	1154	0.692	798	708	2.2	2.2	10.104	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
1 - Port Road (East)	1109	277	975	1031	1.076	1029	917	68.7	88.7	283.044	F
2 - Pontypridd Road	1030	258	1198	1048	0.983	1019	806	20.7	23.4	85.015	F
3 - Port Road (West)	1034	258	769	1471	0.703	1034	1448	2.3	2.3	8.223	A
4 - Waycock Road	798	200	1094	1153	0.692	798	709	2.2	2.2	10.128	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
1 - Port Road (East)	1109	277	975	1031	1.076	1030	917	88.7	108.5	351.866	F
2 - Pontypridd Road	1030	258	1198	1048	0.983	1021	806	23.4	25.6	92.873	F
3 - Port Road (West)	1034	258	770	1471	0.703	1034	1449	2.3	2.3	8.240	A
4 - Waycock Road	798	200	1094	1153	0.692	798	710	2.2	2.2	10.143	B

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
1 - Port Road (East)	1109	277	975	1031	1.076	1030	918	108.5	128.3	420.546	F
2 - Pontypridd Road	1030	258	1198	1047	0.983	1023	807	25.6	27.4	99.430	F
3 - Port Road (West)	1034	258	771	1470	0.703	1034	1450	2.3	2.4	8.251	A
4 - Waycock Road	798	200	1095	1152	0.692	798	710	2.2	2.2	10.153	B

2033 Future Year + Dev (Sens), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - Port Road (West) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	8.07	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	2033 Future Year + Dev (Sens)	PM	FLAT	16:45	18:15	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Port Road (East)		FLAT	✓	851	100.000
2 - Pontypridd Road		FLAT	✓	708	100.000
3 - Port Road (West)		FLAT	✓	1213	100.000
4 - Waycock Road		FLAT	✓	681	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Port Road (East)	2 - Pontypridd Road	3 - Port Road (West)	4 - Waycock Road
From	1 - Port Road (East)	16	161	514	160
	2 - Pontypridd Road	124	3	522	59
	3 - Port Road (West)	558	286	0	369
	4 - Waycock Road	167	353	161	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Port Road (East)	2 - Pontypridd Road	3 - Port Road (West)	4 - Waycock Road
From	1 - Port Road (East)	0	0	2	1
	2 - Pontypridd Road	0	0	1	4
	3 - Port Road (West)	1	1	0	2
	4 - Waycock Road	3	3	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Port Road (East)	0.76	13.03	3.1	B	851	1277
2 - Pontypridd Road	0.56	6.53	1.3	A	708	1062
3 - Port Road (West)	0.68	6.40	2.1	A	1213	1820
4 - Waycock Road	0.55	6.48	1.2	A	681	1022

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
1 - Port Road (East)	851	213	797	1130	0.753	839	859	0.0	2.9	11.948	B
2 - Pontypridd Road	708	177	841	1266	0.559	703	796	0.0	1.2	6.342	A
3 - Port Road (West)	1213	303	358	1778	0.682	1205	1185	0.0	2.1	6.189	A
4 - Waycock Road	681	170	980	1241	0.549	676	583	0.0	1.2	6.319	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Port Road (East)	851	213	803	1127	0.755	851	865	2.9	3.0	12.975	B
2 - Pontypridd Road	708	177	851	1260	0.562	708	803	1.2	1.3	6.521	A
3 - Port Road (West)	1213	303	362	1776	0.683	1213	1197	2.1	2.1	6.392	A
4 - Waycock Road	681	170	987	1237	0.551	681	588	1.2	1.2	6.472	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
1 - Port Road (East)	851	213	803	1127	0.755	851	865	3.0	3.0	13.010	B
2 - Pontypridd Road	708	177	851	1260	0.562	708	803	1.3	1.3	6.525	A
3 - Port Road (West)	1213	303	362	1776	0.683	1213	1197	2.1	2.1	6.395	A
4 - Waycock Road	681	170	987	1237	0.551	681	588	1.2	1.2	6.475	A

17:30 - 17:45

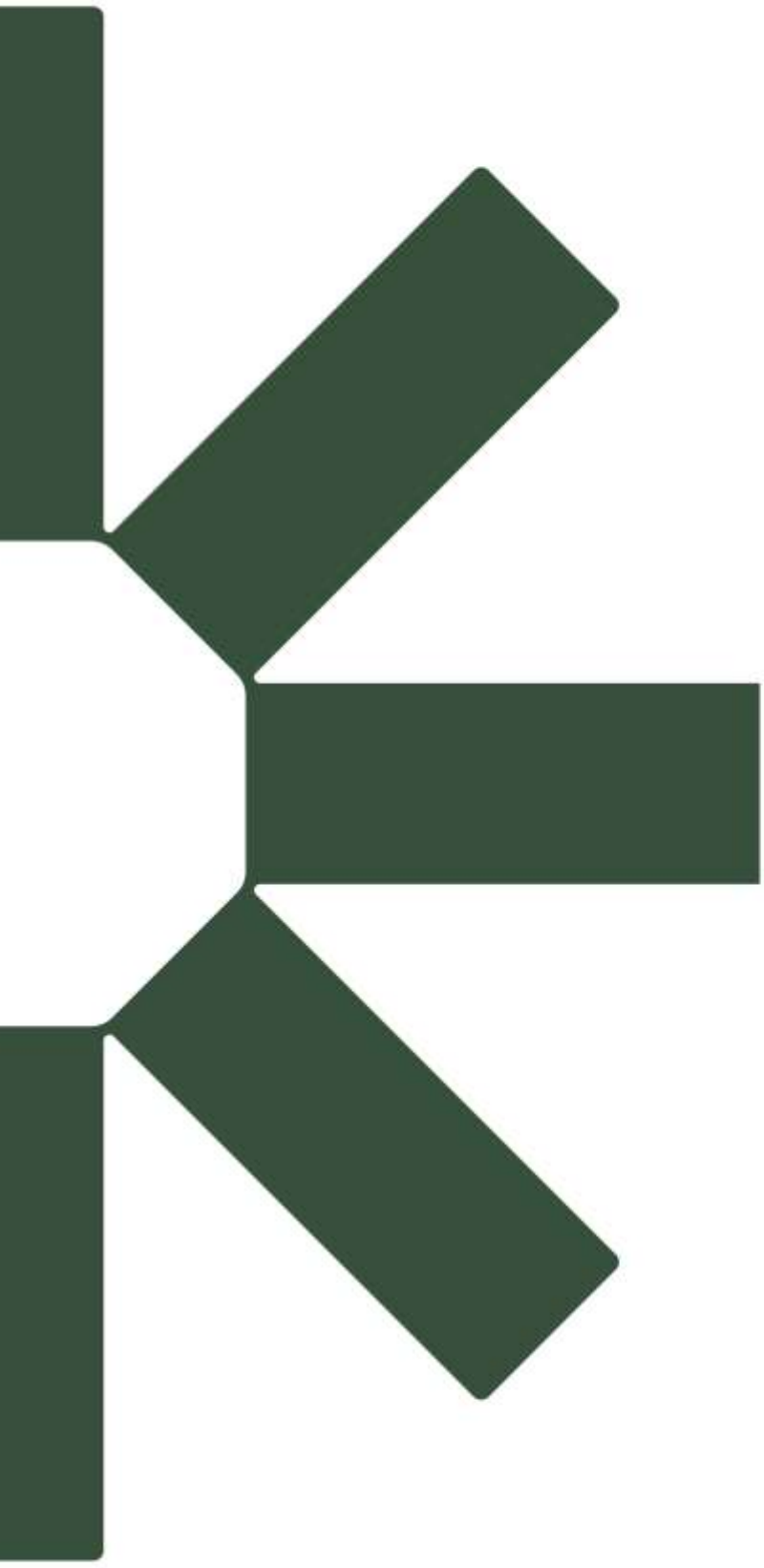
Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Port Road (East)	851	213	803	1127	0.755	851	865	3.0	3.0	13.020	B
2 - Pontypridd Road	708	177	851	1260	0.562	708	803	1.3	1.3	6.525	A
3 - Port Road (West)	1213	303	362	1776	0.683	1213	1197	2.1	2.1	6.395	A
4 - Waycock Road	681	170	987	1237	0.551	681	588	1.2	1.2	6.475	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
1 - Port Road (East)	851	213	803	1127	0.755	851	865	3.0	3.0	13.026	B
2 - Pontypridd Road	708	177	851	1260	0.562	708	803	1.3	1.3	6.525	A
3 - Port Road (West)	1213	303	362	1776	0.683	1213	1197	2.1	2.1	6.395	A
4 - Waycock Road	681	170	987	1237	0.551	681	588	1.2	1.2	6.475	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
1 - Port Road (East)	851	213	803	1127	0.755	851	865	3.0	3.1	13.031	B
2 - Pontypridd Road	708	177	851	1260	0.562	708	803	1.3	1.3	6.526	A
3 - Port Road (West)	1213	303	362	1776	0.683	1213	1197	2.1	2.1	6.395	A
4 - Waycock Road	681	170	987	1237	0.551	681	588	1.2	1.2	6.475	A



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