

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: Arcady - Purbrook Way - Site access - A3(M) (v7 Oct2021) Rev'd geometry - Final.j9

Path: H:\LIDL\PurbrookWay.1 & 2.1\05 Calculations\Junction modelling\Arcady - Purbrook Way dumbbell roundabouts

Report generation date: 11/10/2021 12:16:43

- »Revised layout - 2020 + devt, AM
- »Revised layout - 2025 + devt, AM
- »Revised layout - 2025 + devt (excl committed), AM
- »Revised layout - 2020 + devt, PM
- »Revised layout - 2025 + devt, PM
- »Revised layout - 2025 + devt (excl committed), PM
- »Revised layout - 2020 + devt, SAT
- »Revised layout - 2025 + devt, SAT
- »Revised layout - 2025 + devt (excl committed), SAT

Summary of junction performance

	AM						PM						SAT					
	Se t ID	Qu eue (Ve h)	Del ay (s)	R F C	L O S	Netwo rk Resid ual Capac ity	Se t ID	Qu eue (Ve h)	Del ay (s)	R F C	L O S	Netwo rk Resid ual Capac ity	Se t ID	Qu eue (Ve h)	Del ay (s)	R F C	L O S	Netwo rk Resid ual Capac ity
	Revised layout - 2020 + devt																	
1 - Eastern (B&Q) roundabout - 1 - B&Q / site	D 4	0.4	10.95	0.30	B	8 %	D9	0.9	12.23	0.47	B	9 %	D1 4	1.9	12.73	0.66	B	9 %
1 - Eastern (B&Q) roundabout - 2 - Purbrook Way (E)		2.3	6.81	0.70	A	[1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)]		1.3	4.21	0.56	A	[1 - Eastern (B&Q) roundabout - 1 - B&Q / site]		1.3	4.38	0.56	A	[1 - Eastern (B&Q) roundabout - 1 - B&Q / site]
1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)		4.8	10.13	0.83	B			4.0	8.57	0.80	A			2.2	5.64	0.69	A	
2 - Western roundabout - 1 - Purbrook Way (E)		0.8	3.66	0.45	A			0.6	3.20	0.37	A			0.5	2.88	0.31	A	
2 - Western roundabout - 2 - A3(M) off-slip		1.1	4.84	0.53	A			3.0	8.30	0.75	A			1.0	3.87	0.49	A	
2 - Western roundabout - 3 - Purbrook Way (W)		5.1	13.79	0.84	B			2.4	8.36	0.71	A			1.2	5.06	0.54	A	
	Revised layout - 2025 + devt																	
1 - Eastern (B&Q) roundabout - 1 - B&Q / site	D 5	0.8	19.87	0.45	C	-7 %	D1 0	1.7	23.44	0.64	C	1 %	D1 5	2.7	17.18	0.73	C	5 %
1 - Eastern (B&Q) roundabout - 2 - Purbrook Way (E)		4.3	12.12	0.82	B	[2 - Western roundabout - 1 - B&Q / site]		1.9	5.60	0.65	A	[2 - Western roundabout - 1 - B&Q / site]		1.5	4.93	0.61	A	[1 - Eastern (B&Q) roundabout - 1 - B&Q / site]
1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)		14.5	27.23	0.95	D			9.1	17.87	0.91	C			2.7	6.66	0.74	A	

2 - Western roundabout - 1 - Purbrook Way (E)		0.9	3.96	0.49	A	about - 3 - Purbrook Way (W)]		0.7	3.48	0.42	A	about - 2 - A3(M) off-slip]		0.5	2.96	0.33	A	round about - 1 - B&Q / site]
2 - Western roundabout - 2 - A3(M) off-slip		1.7	6.38	0.63	A			10.2	25.56	0.92	D			1.1	4.26	0.53	A	
2 - Western roundabout - 3 - Purbrook Way (W)		48.3	95.23	1.04	F			5.4	16.49	0.85	C			1.4	5.70	0.59	A	
Revised layout - 2025 + devt (excl committed)																		
1 - Eastern (B&Q) roundabout - 1 - B&Q / site	D6	0.6	13.96	0.36	B	3 %	D1	1.2	15.89	0.55	C	5 %	D1	2.7	17.18	0.73	C	5 %
1 - Eastern (B&Q) roundabout - 2 - Purbrook Way (E)		3.1	8.66	0.76	A	[2 - Western roundabout - 3 - Purbrook Way (W)]		1.5	4.68	0.60	A	[1 - Eastern (B&Q) roundabout - 1 - B&Q / site]		1.5	4.93	0.61	A	[1 - Eastern (B&Q) roundabout - 1 - B&Q / site]
1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)		7.2	14.58	0.89	B			5.5	11.35	0.85	B			2.7	6.66	0.74	A	
2 - Western roundabout - 1 - Purbrook Way (E)		0.9	3.87	0.48	A			0.6	3.31	0.39	A			0.5	2.96	0.33	A	
2 - Western roundabout - 2 - A3(M) off-slip		1.4	5.57	0.58	A			4.1	11.08	0.81	B			1.1	4.26	0.53	A	
2 - Western roundabout - 3 - Purbrook Way (W)		8.9	22.86	0.91	C			3.1	10.56	0.76	B			1.4	5.70	0.59	A	

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

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. 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	Purbrook Way - Site access
Location	
Site number	
Date	11/10/2021
Version	
Status	v2
Identifier	
Client	
Jobnumber	
Enumerator	MAYERBROWN2K\hiorwerth
Description	Geometry based on MB drawing b/LidlPurbrookWay2.1/06G

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
D4	2020 + devt	AM	ONE HOUR	07:45	09:15	15	✓
D5	2025 + devt	AM	ONE HOUR	07:45	09:15	15	✓
D6	2025 + devt (excl committed)	AM	ONE HOUR	07:45	09:15	15	✓

D9	2020 + devt	PM	ONE HOUR	16:15	17:45	15	✓
D10	2025 + devt	PM	ONE HOUR	16:15	17:45	15	✓
D11	2025 + devt (excl committed)	PM	ONE HOUR	16:15	17:45	15	✓
D14	2020 + devt	SAT	ONE HOUR	11:30	13:00	15	✓
D15	2025 + devt	SAT	ONE HOUR	11:30	13:00	15	✓
D16	2025 + devt (excl committed)	SAT	ONE HOUR	11:30	13:00	15	✓

Analysis Set Details

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

Revised layout - 2020 + devt, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	1 - Eastern (B&Q) roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.
Warning	Linked Roundabout	2 - Western roundabout - 1 - Purbrook Way (E)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	2 - Western roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern (B&Q) roundabout	Standard Roundabout		1, 2, 3, 4	8.88	A
2	Western roundabout	Standard Roundabout		1, 2, 3	8.63	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	8	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)

Arms

Arms

Junction	Arm	Name	Description
1 - Eastern (B&Q) roundabout	1	B&Q / site	
	2	Purbrook Way (E)	
	3	A3(M) on-slip	
	4	Purbrook Way (W)	
2 - Western roundabout	1	Purbrook Way (E)	
	2	A3(M) off-slip	
	3	Purbrook Way (W)	

Roundabout Geometry

Junction	Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Eastern (B&Q) roundabout	1 - B&Q / site	3.60	6.00	13.0	40.0	41.5	41.0	
	2 - Purbrook Way (E)	6.90	6.90	0.0	120.0	41.5	5.0	
	3 - A3(M) on-slip							✓
	4 - Purbrook Way (W)	7.10	7.10	0.0	36.0	41.5	23.0	
2 - Western roundabout	1 - Purbrook Way (E)	6.00	6.00	0.0	30.0	30.0	32.0	
	2 - A3(M) off-slip	6.70	7.50	9.3	32.0	30.0	27.0	
	3 - Purbrook Way (W)	6.00	6.00	0.0	90.0	30.0	11.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Final slope	Final intercept (PCU/hr)
1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.600	1527
	2 - Purbrook Way (E)	0.807	2357
	3 - A3(M) on-slip		
	4 - Purbrook Way (W)	0.761	2250
2 - Western roundabout	1 - Purbrook Way (E)	0.688	1835
	2 - A3(M) off-slip	0.786	2284
	3 - Purbrook Way (W)	0.753	2007

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
D4	2020 + devt	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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Eastern (B&Q) roundabout	4 - Purbrook Way (W)	2	1	Simple (vertical queueing)	Normal	0	100.00	
2 - Western roundabout	1 - Purbrook Way (E)	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Eastern (B&Q) roundabout	1 - B&Q / site		ONE HOUR	✓	126	100.000
	2 - Purbrook Way (E)		ONE HOUR	✓	1109	100.000
	3 - A3(M) on-slip					
	4 - Purbrook Way (W)	✓				
2 - Western roundabout	1 - Purbrook Way (E)	✓				

	2 - A3(M) off-slip		ONE HOUR	✓	775	100.000
	3 - Purbrook Way (W)		ONE HOUR	✓	1262	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Eastern (B&Q) roundabout

From	To				
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
	1 - B&Q / site	0	72	17	37
	2 - Purbrook Way (E)	55	0	384	670
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	95	930	539	15

Demand (Veh/hr)

2 - Western roundabout

From	To			
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
	1 - Purbrook Way (E)	3	0	708
	2 - A3(M) off-slip	357	0	418
	3 - Purbrook Way (W)	1257	0	5

Vehicle Mix

Heavy Vehicle Percentages

1 - Eastern (B&Q) roundabout

From	To				
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
	1 - B&Q / site	0	8	0	3
	2 - Purbrook Way (E)	2	0	1	3
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	5	4	4	7

Heavy Vehicle Percentages

2 - Western roundabout

From	To			
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
	1 - Purbrook Way (E)	0	0	3
	2 - A3(M) off-slip	4	0	1
	3 - Purbrook Way (W)	3	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
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1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.30	10.95	0.4	B	116	173
	2 - Purbrook Way (E)	0.70	6.81	2.3	A	1018	1526
	3 - A3(M) on-slip						
	4 - Purbrook Way (W)	0.83	10.13	4.8	B	1470	2206
2 - Western roundabout	1 - Purbrook Way (E)	0.45	3.66	0.8	A	663	995
	2 - A3(M) off-slip	0.53	4.84	1.1	A	711	1067
	3 - Purbrook Way (W)	0.84	13.79	5.1	B	1158	1737

Main Results for each time segment

07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	95	24	1125	783	0.121	94	113	0.0	0.1	5.223	A
	2 - Purbrook Way (E)	835	209	460	1928	0.433	832	759	0.0	0.8	3.275	A
	3 - A3(M) on-slip			583				709				
	4 - Purbrook Way (W)	1202	300	41	2131	0.564	1196	542	0.0	1.3	3.831	A
2 - Western roundabout	1 - Purbrook Way (E)	542	136	4	1779	0.305	540	1212	0.0	0.4	2.902	A
	2 - A3(M) off-slip	583	146	544	1801	0.324	582	0	0.0	0.5	2.953	A
	3 - Purbrook Way (W)	950	238	270	1743	0.545	945	856	0.0	1.2	4.486	A

08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	113	28	1349	650	0.174	113	136	0.1	0.2	6.701	A
	2 - Purbrook Way (E)	997	249	552	1853	0.538	995	910	0.8	1.2	4.191	A
	3 - A3(M) on-slip			698				850				
	4 - Purbrook Way (W)	1438	360	49	2125	0.677	1435	648	1.3	2.1	5.192	A
2 - Western roundabout	1 - Purbrook Way (E)	649	162	4	1779	0.365	648	1450	0.4	0.6	3.182	A
	2 - A3(M) off-slip	697	174	653	1715	0.406	696	0	0.5	0.7	3.530	A
	3 - Purbrook Way (W)	1135	284	323	1703	0.666	1131	1025	1.2	2.0	6.264	A

08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue	End queue (Veh)	Delay (s)	Unsignalled level of service
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									(Veh)			
1 - Eastern (B&Q) roundabout	1 - B&Q / site	139	35	1638	479	0.290	138	165	0.2	0.4	10.540	B
	2 - Purbrook Way (E)	1221	305	671	1755	0.696	1217	1105	1.2	2.2	6.632	A
	3 - A3(M) on-slip			852				1035				
	4 - Purbrook Way (W)	1753	438	60	2117	0.828	1743	792	2.1	4.5	9.383	A
2 - Western roundabout	1 - Purbrook Way (E)	793	198	5	1778	0.446	792	1768	0.6	0.8	3.647	A
	2 - A3(M) off-slip	853	213	797	1600	0.533	851	0	0.7	1.1	4.796	A
	3 - Purbrook Way (W)	1389	347	396	1648	0.843	1378	1253	2.0	4.9	12.777	B

08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Through put (Veh/hr)	Through put (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignaled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	139	35	1657	467	0.297	139	167	0.4	0.4	10.952	B
	2 - Purbrook Way (E)	1221	305	678	1749	0.698	1221	1118	2.2	2.3	6.810	A
	3 - A3(M) on-slip			856				1043				
	4 - Purbrook Way (W)	1765	441	61	2117	0.834	1764	795	4.5	4.8	10.129	B
2 - Western roundabout	1 - Purbrook Way (E)	796	199	6	1778	0.448	796	1780	0.8	0.8	3.663	A
	2 - A3(M) off-slip	853	213	801	1597	0.534	853	0	1.1	1.1	4.838	A
	3 - Purbrook Way (W)	1389	347	396	1647	0.843	1389	1258	4.9	5.1	13.792	B

08:45 - 09:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Through put (Veh/hr)	Through put (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignaled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	113	28	1377	633	0.179	114	138	0.4	0.2	6.943	A
	2 - Purbrook Way (E)	997	249	563	1844	0.541	1001	928	2.3	1.2	4.296	A
	3 - A3(M) on-slip			702				862				
	4 - Purbrook Way (W)	1455	364	50	2125	0.685	1465	652	4.8	2.2	5.538	A
2 - Western roundabout	1 - Purbrook Way (E)	653	163	5	1779	0.367	654	1467	0.8	0.6	3.202	A
	2 - A3(M) off-slip	697	174	658	1710	0.407	698	0	1.1	0.7	3.563	A
	3 - Purbrook Way (W)	1135	284	325	1702	0.667	1147	1032	5.1	2.0	6.622	A

09:00 - 09:15

Junction	Arm	Total Demand	Junction Arrivals	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Through put (Veh/hr)	Through put (exit side) (Veh/hr)	Start queue	End queue	Delay (s)	Unsignaled level of service
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		(Veh/ hr)	Is (Veh)						(Veh h)	(Veh h)		
1 - Eastern (B&Q) roundabout	1 - B&Q / site	95	24	1141	773	0.1 23	95	115	0.2	0.1	5.31 8	A
	2 - Purbrook Way (E)	835	209	467	1922	0.4 34	837	770	1.2	0.8	3.32 2	A
	3 - A3(M) on-slip			586				717				
	4 - Purbrook Way (W)	1211	303	41	2131	0.5 68	1214	545	2.2	1.3	3.94 2	A
2 - Western roundabout	1 - Purbrook Way (E)	545	136	4	1779	0.3 07	546	1221	0.6	0.4	2.92 2	A
	2 - A3(M) off-slip	583	146	550	1796	0.3 25	584	0	0.7	0.5	2.97 2	A
	3 - Purbrook Way (W)	950	238	271	1742	0.5 45	953	863	2.0	1.2	4.58 2	A

Revised layout - 2025 + devt, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	1 - Eastern (B&Q) roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.
Warning	Linked Roundabout	2 - Western roundabout - 1 - Purbrook Way (E)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	2 - Western roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern (B&Q) roundabout	Standard Roundabout		1, 2, 3, 4	21.36	C
2	Western roundabout	Standard Roundabout		1, 2, 3	48.33	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-7	2 - Western roundabout - 3 - Purbrook Way (W)

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	2025 + devt	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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Eastern (B&Q) roundabout	4 - Purbrook Way (W)	2	1	Simple (vertical queueing)	Normal	0	100.00	
2 - Western roundabout	1 - Purbrook Way (E)	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Eastern (B&Q) roundabout	1 - B&Q / site		ONE HOUR	✓	132	100.000
	2 - Purbrook Way (E)		ONE HOUR	✓	1202	100.000
	3 - A3(M) on-slip					
	4 - Purbrook Way (W)	✓				
2 - Western roundabout	1 - Purbrook Way (E)	✓				
	2 - A3(M) off-slip		ONE HOUR	✓	887	100.000
	3 - Purbrook Way (W)		ONE HOUR	✓	1535	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Eastern (B&Q) roundabout

	To				
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	76	18	38
	2 - Purbrook Way (E)	57	0	410	735
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	99	1040	715	16

Demand (Veh/hr)

2 - Western roundabout

	To			
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	3	0	774
	2 - A3(M) off-slip	380	0	507
	3 - Purbrook Way (W)	1529	0	6

Vehicle Mix

Heavy Vehicle Percentages

1 - Eastern (B&Q) roundabout

	To				
From		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
	1 - B&Q / site	0	9	0	3
	2 - Purbrook Way (E)	2	0	1	3
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	6	4	3	6

Heavy Vehicle Percentages

2 - Western roundabout

	To			
From		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
	1 - Purbrook Way (E)	0	0	3
	2 - A3(M) off-slip	4	0	1
	3 - Purbrook Way (W)	3	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.45	19.87	0.8	C	121	182
	2 - Purbrook Way (E)	0.82	12.12	4.3	B	1103	1654
	3 - A3(M) on-slip						
	4 - Purbrook Way (W)	0.95	27.23	14.5	D	1744	2616
2 - Western roundabout	1 - Purbrook Way (E)	0.49	3.96	0.9	A	724	1086
	2 - A3(M) off-slip	0.63	6.38	1.7	A	814	1221
	3 - Purbrook Way (W)	1.04	95.23	48.3	F	1409	2113

Main Results for each time segment

07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	99	25	1340	654	0.152	99	118	0.0	0.2	6.470	A
	2 - Purbrook Way (E)	905	226	595	1821	0.497	901	844	0.0	1.0	3.896	A
	3 - A3(M) on-slip			634				862				
	4 - Purbrook Way (W)	1423	356	43	2137	0.666	1415	591	0.0	2.0	4.934	A
2 - Western roundabout	1 - Purbrook Way (E)	592	148	4	1779	0.333	590	1431	0.0	0.5	3.022	A

	2 - A3(M) off-slip	668	167	594	1762	0.379	665	0	0.0	0.6	3.274	A
	3 - Purbrook Way (W)	1156	289	287	1730	0.668	1148	972	0.0	2.0	6.099	A

08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	119	30	1604	500	0.237	118	141	0.2	0.3	9.412	A
	2 - Purbrook Way (E)	1081	270	712	1726	0.626	1078	1010	1.0	1.6	5.528	A
	3 - A3(M) on-slip			759				1031				
	4 - Purbrook Way (W)	1700	425	51	2131	0.798	1693	708	2.0	3.8	8.088	A
2 - Western roundabout	1 - Purbrook Way (E)	708	177	5	1778	0.398	707	1709	0.5	0.7	3.360	A
	2 - A3(M) off-slip	797	199	713	1669	0.478	796	0	0.6	0.9	4.119	A
	3 - Purbrook Way (W)	1380	345	344	1687	0.818	1371	1165	2.0	4.2	11.069	B

08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	145	36	1858	351	0.414	144	166	0.3	0.7	17.255	C
	2 - Purbrook Way (E)	1323	331	828	1632	0.811	1314	1174	1.6	4.0	10.998	B
	3 - A3(M) on-slip			924				1218				
	4 - Purbrook Way (W)	1992	498	62	2123	0.938	1962	862	3.8	11.2	19.509	C
2 - Western roundabout	1 - Purbrook Way (E)	862	216	6	1778	0.485	861	2002	0.7	0.9	3.923	A
	2 - A3(M) off-slip	977	244	867	1546	0.632	974	0	0.9	1.7	6.250	A
	3 - Purbrook Way (W)	1690	423	420	1629	1.037	1588	1420	4.2	29.7	48.725	E

08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	145	36	1901	326	0.446	145	169	0.7	0.8	19.872	C
	2 - Purbrook Way (E)	1323	331	846	1617	0.818	1322	1200	4.0	4.3	12.119	B
	3 - A3(M) on-slip			930				1238				
	4 - Purbrook Way (W)	2021	505	63	2122	0.952	2008	867	11.2	14.5	27.233	D
2 - Western roundabout	1 - Purbrook Way (E)	868	217	6	1778	0.488	868	2031	0.9	0.9	3.958	A

	2 - A3(M) off-slip	977	244	874	1541	0.634	976	0	1.7	1.7	6.376	A
	3 - Purbrook Way (W)	1690	423	422	1628	1.038	1616	1429	29.7	48.3	95.234	F

08:45 - 09:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	119	30	1805	382	0.311	120	153	0.8	0.5	13.808	B
	2 - Purbrook Way (E)	1081	270	796	1658	0.652	1090	1129	4.3	1.9	6.446	A
	3 - A3(M) on-slip			769				1117				
	4 - Purbrook Way (W)	1882	471	52	2130	0.883	1906	717	14.5	8.4	17.391	C
2 - Western roundabout	1 - Purbrook Way (E)	718	180	6	1778	0.404	719	1892	0.9	0.7	3.405	A
	2 - A3(M) off-slip	797	199	725	1659	0.481	801	0	1.7	0.9	4.209	A
	3 - Purbrook Way (W)	1380	345	346	1686	0.818	1553	1180	48.3	5.1	44.945	E

09:00 - 09:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	99	25	1392	624	0.159	100	121	0.5	0.2	6.887	A
	2 - Purbrook Way (E)	905	226	617	1803	0.502	908	875	1.9	1.0	4.039	A
	3 - A3(M) on-slip			640				886				
	4 - Purbrook Way (W)	1445	361	43	2137	0.676	1470	597	8.4	2.1	5.592	A
2 - Western roundabout	1 - Purbrook Way (E)	597	149	5	1779	0.336	598	1452	0.7	0.5	3.050	A
	2 - A3(M) off-slip	668	167	603	1756	0.380	669	0	0.9	0.6	3.317	A
	3 - Purbrook Way (W)	1156	289	289	1729	0.668	1168	983	5.1	2.1	6.549	A

Revised layout - 2025 + devt (excl committed), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	1 - Eastern (B&Q) roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Warning	Linked Roundabout	2 - Western roundabout - 1 - Purbrook Way (E)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	2 - Western roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern (B&Q) roundabout	Standard Roundabout		1, 2, 3, 4	12.26	B
2	Western roundabout	Standard Roundabout		1, 2, 3	13.05	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	3	2 - Western roundabout - 3 - Purbrook Way (W)

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	2025 + devt (excl committed)	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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Eastern (B&Q) roundabout	4 - Purbrook Way (W)	2	1	Simple (vertical queueing)	Normal	0	100.00	
2 - Western roundabout	1 - Purbrook Way (E)	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Eastern (B&Q) roundabout	1 - B&Q / site		ONE HOUR	✓	132	100.000
	2 - Purbrook Way (E)		ONE HOUR	✓	1182	100.000
	3 - A3(M) on-slip					
	4 - Purbrook Way (W)	✓				
2 - Western roundabout	1 - Purbrook Way (E)	✓				
	2 - A3(M) off-slip		ONE HOUR	✓	826	100.000
	3 - Purbrook Way (W)		ONE HOUR	✓	1345	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Eastern (B&Q) roundabout

	To				
From		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
	1 - B&Q / site	0	76	18	38
	2 - Purbrook Way (E)	57	0	410	715
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	99	992	574	16

Demand (Veh/hr)

2 - Western roundabout

	To			
From		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
	1 - Purbrook Way (E)	3	0	754
	2 - A3(M) off-slip	380	0	446
	3 - Purbrook Way (W)	1339	0	6

Vehicle Mix

Heavy Vehicle Percentages

1 - Eastern (B&Q) roundabout

	To				
From		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
	1 - B&Q / site	0	9	0	3
	2 - Purbrook Way (E)	2	0	1	3
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	6	4	4	6

Heavy Vehicle Percentages

2 - Western roundabout

	To			
From		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
	1 - Purbrook Way (E)	0	0	3
	2 - A3(M) off-slip	4	0	1
	3 - Purbrook Way (W)	3	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.36	13.96	0.6	B	121	182
	2 - Purbrook Way (E)	0.76	8.66	3.1	A	1085	1627
	3 - A3(M) on-slip						
	4 - Purbrook Way (W)	0.89	14.58	7.2	B	1565	2348
2 - Western roundabout	1 - Purbrook Way (E)	0.48	3.87	0.9	A	706	1059
	2 - A3(M) off-slip	0.58	5.57	1.4	A	758	1137
	3 - Purbrook Way (W)	0.91	22.86	8.9	C	1234	1851

Main Results for each time segment

07:45 - 08:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignaled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	99	25	1198	735	0.135	99	118	0.0	0.2	5.652	A
	2 - Purbrook Way (E)	890	222	489	1905	0.467	886	808	0.0	0.9	3.524	A
	3 - A3(M) on-slip			619				755				
	4 - Purbrook Way (W)	1278	320	43	2129	0.601	1273	577	0.0	1.5	4.176	A
2 - Western roundabout	1 - Purbrook Way (E)	577	144	4	1779	0.324	575	1290	0.0	0.5	2.985	A
	2 - A3(M) off-slip	622	155	580	1772	0.351	620	0	0.0	0.5	3.118	A
	3 - Purbrook Way (W)	1013	253	287	1730	0.585	1007	912	0.0	1.4	4.940	A

08:00 - 08:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignaled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	119	30	1436	595	0.199	118	141	0.2	0.2	7.545	A
	2 - Purbrook Way (E)	1063	266	586	1825	0.582	1061	968	0.9	1.4	4.696	A
	3 - A3(M) on-slip			741				905				
	4 - Purbrook Way (W)	1530	382	51	2123	0.721	1526	690	1.5	2.5	5.986	A
2 - Western roundabout	1 - Purbrook Way (E)	691	173	5	1778	0.388	690	1543	0.5	0.6	3.306	A
	2 - A3(M) off-slip	743	186	695	1681	0.442	742	0	0.5	0.8	3.829	A
	3 - Purbrook Way (W)	1209	302	344	1687	0.717	1205	1093	1.4	2.5	7.393	A

08:15 - 08:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignaled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	145	36	1732	421	0.345	144	171	0.2	0.5	12.960	B
	2 - Purbrook Way (E)	1301	325	707	1726	0.754	1295	1169	1.4	3.0	8.243	A
	3 - A3(M) on-slip			905				1097				
	4 - Purbrook Way (W)	1856	464	62	2114	0.878	1840	842	2.5	6.5	12.467	B

2 - Western roundabout	1 - Purbrook Way (E)	843	211	7	1777	0.474	842	1873	0.6	0.9	3.845	A
	2 - A3(M) off-slip	909	227	849	1560	0.583	907	0	0.8	1.4	5.495	A
	3 - Purbrook Way (W)	1481	370	421	1629	0.909	1458	1335	2.5	8.1	19.013	C

08:30 - 08:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignaled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	145	36	1763	403	0.361	145	173	0.5	0.6	13.959	B
	2 - Purbrook Way (E)	1301	325	719	1716	0.758	1301	1189	3.0	3.1	8.659	A
	3 - A3(M) on-slip			909				1111				
	4 - Purbrook Way (W)	1876	469	63	2114	0.887	1873	847	6.5	7.2	14.581	B
2 - Western roundabout	1 - Purbrook Way (E)	847	212	7	1777	0.477	847	1893	0.9	0.9	3.870	A
	2 - A3(M) off-slip	909	227	854	1556	0.585	909	0	1.4	1.4	5.569	A
	3 - Purbrook Way (W)	1481	370	422	1628	0.909	1478	1341	8.1	8.9	22.859	C

08:45 - 09:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignaled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	119	30	1485	566	0.210	120	144	0.6	0.3	8.082	A
	2 - Purbrook Way (E)	1063	266	605	1810	0.587	1069	1000	3.1	1.4	4.903	A
	3 - A3(M) on-slip			748				926				
	4 - Purbrook Way (W)	1560	390	52	2122	0.735	1578	696	7.2	2.8	6.813	A
2 - Western roundabout	1 - Purbrook Way (E)	697	174	6	1778	0.392	698	1574	0.9	0.6	3.337	A
	2 - A3(M) off-slip	743	186	703	1675	0.443	745	0	1.4	0.8	3.881	A
	3 - Purbrook Way (W)	1209	302	345	1686	0.717	1234	1103	8.9	2.6	8.380	A

09:00 - 09:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignaled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	99	25	1219	723	0.138	100	119	0.3	0.2	5.783	A
	2 - Purbrook Way (E)	890	222	497	1898	0.469	892	822	1.4	0.9	3.589	A
	3 - A3(M) on-slip			624				765				
	4 - Purbrook Way (W)	1290	323	43	2129	0.606	1295	581	2.8	1.6	4.344	A

2 - Western roundabout	1 - Purbrook Way (E)	581	145	5	1779	0.3 27	582	1302	0.6	0.5	3.01 0	A
	2 - A3(M) off-slip	622	155	586	1767	0.3 52	623	0	0.8	0.5	3.14 7	A
	3 - Purbrook Way (W)	1013	253	289	1729	0.5 86	1017	920	2.6	1.4	5.09 1	A

Revised layout - 2020 + devt, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	1 - Eastern (B&Q) roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.
Warning	Linked Roundabout	2 - Western roundabout - 1 - Purbrook Way (E)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	2 - Western roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern (B&Q) roundabout	Standard Roundabout		1, 2, 3, 4	7.32	A
2	Western roundabout	Standard Roundabout		1, 2, 3	7.18	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	9	1 - Eastern (B&Q) roundabout - 1 - B&Q / site

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	2020 + devt	PM	ONE HOUR	16:15	17:45	15	✓

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Eastern (B&Q) roundabout	4 - Purbrook Way (W)	2	1	Simple (vertical queueing)	Normal	0	100.00	
2 - Western roundabout	1 - Purbrook Way (E)	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Eastern (B&Q) roundabout	1 - B&Q / site		ONE HOUR	✓	238	100.000
	2 - Purbrook Way (E)		ONE HOUR	✓	991	100.000
	3 - A3(M) on-slip					
	4 - Purbrook Way (W)	✓				
2 - Western roundabout	1 - Purbrook Way (E)	✓				
	2 - A3(M) off-slip		ONE HOUR	✓	1183	100.000
	3 - Purbrook Way (W)		ONE HOUR	✓	939	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Eastern (B&Q) roundabout

	To				
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	111	41	86
	2 - Purbrook Way (E)	107	6	365	513
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	107	1137	292	10

Demand (Veh/hr)

2 - Western roundabout

	To			
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	2	0	601
	2 - A3(M) off-slip	615	0	568
	3 - Purbrook Way (W)	935	0	4

Vehicle Mix

Heavy Vehicle Percentages

1 - Eastern (B&Q) roundabout

	To				
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	0	0	0
	2 - Purbrook Way (E)	0	0	1	2
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	0	2	1	0

Heavy Vehicle Percentages

2 - Western roundabout

	To			
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	50	0	2
	2 - A3(M) off-slip	0	0	1
	3 - Purbrook Way (W)	2	0	25

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.47	12.23	0.9	B	218	328
	2 - Purbrook Way (E)	0.56	4.21	1.3	A	909	1364
	3 - A3(M) on-slip						
	4 - Purbrook Way (W)	0.80	8.57	4.0	A	1418	2127
2 - Western roundabout	1 - Purbrook Way (E)	0.37	3.20	0.6	A	556	834
	2 - A3(M) off-slip	0.75	8.30	3.0	A	1086	1628
	3 - Purbrook Way (W)	0.71	8.36	2.4	A	862	1292

Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	179	45	1079	868	0.206	178	160	0.0	0.3	5.210	A
	2 - Purbrook Way (E)	746	187	321	2068	0.361	744	937	0.0	0.6	2.714	A
	3 - A3(M) on-slip			542				523				
	4 - Purbrook Way (W)	1159	290	85	2150	0.539	1154	457	0.0	1.2	3.600	A
2 - Western roundabout	1 - Purbrook Way (E)	455	114	3	1794	0.254	453	1164	0.0	0.3	2.683	A
	2 - A3(M) off-slip	891	223	456	1908	0.467	887	0	0.0	0.9	3.516	A
	3 - Purbrook Way (W)	707	177	463	1624	0.435	704	881	0.0	0.8	3.900	A

16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
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1 - Eastern (B&Q) roundabout	1 - B&Q / site	214	53	1294	737	0.290	213	192	0.3	0.4	6.870	A
	2 - Purbrook Way (E)	891	223	384	2017	0.442	890	1123	0.6	0.8	3.191	A
	3 - A3(M) on-slip			648				626				
	4 - Purbrook Way (W)	1387	347	101	2138	0.649	1385	547	1.2	1.8	4.763	A
2 - Western roundabout	1 - Purbrook Way (E)	544	136	4	1793	0.304	544	1393	0.3	0.4	2.881	A
	2 - A3(M) off-slip	1063	266	547	1835	0.580	1062	0	0.9	1.4	4.643	A
	3 - Purbrook Way (W)	844	211	554	1557	0.542	843	1055	0.8	1.2	5.029	A

16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	262	66	1576	565	0.464	260	234	0.4	0.8	11.763	B
	2 - Purbrook Way (E)	1091	273	468	1949	0.560	1089	1368	0.8	1.3	4.176	A
	3 - A3(M) on-slip			793				765				
	4 - Purbrook Way (W)	1694	424	124	2121	0.799	1687	669	1.8	3.8	8.147	A
2 - Western roundabout	1 - Purbrook Way (E)	666	166	4	1793	0.371	665	1701	0.4	0.6	3.191	A
	2 - A3(M) off-slip	1303	326	669	1737	0.750	1296	0	1.4	2.9	8.058	A
	3 - Purbrook Way (W)	1034	258	676	1466	0.705	1029	1290	1.2	2.3	8.152	A

17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	262	66	1590	556	0.471	262	236	0.8	0.9	12.227	B
	2 - Purbrook Way (E)	1091	273	472	1946	0.561	1091	1380	1.3	1.3	4.209	A
	3 - A3(M) on-slip			795				768				
	4 - Purbrook Way (W)	1702	425	124	2120	0.803	1701	670	3.8	4.0	8.565	A
2 - Western roundabout	1 - Purbrook Way (E)	667	167	4	1793	0.372	667	1708	0.6	0.6	3.198	A
	2 - A3(M) off-slip	1303	326	672	1735	0.751	1302	0	2.9	3.0	8.301	A
	3 - Purbrook Way (W)	1034	258	679	1464	0.706	1034	1295	2.3	2.4	8.356	A

17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
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1 - Eastern (B&Q) roundabout	1 - B&Q / site	214	53	1314	725	0.295	216	194	0.9	0.4	7.098	A
	2 - Purbrook Way (E)	891	223	390	2012	0.443	893	1140	1.3	0.8	3.220	A
	3 - A3(M) on-slip			651				632				
	4 - Purbrook Way (W)	1398	349	102	2137	0.654	1406	549	4.0	1.9	4.976	A
2 - Western roundabout	1 - Purbrook Way (E)	547	137	4	1793	0.305	547	1403	0.6	0.4	2.890	A
	2 - A3(M) off-slip	1063	266	551	1832	0.580	1070	0	3.0	1.4	4.759	A
	3 - Purbrook Way (W)	844	211	558	1554	0.543	849	1063	2.4	1.2	5.141	A

17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	179	45	1093	860	0.208	180	162	0.4	0.3	5.300	A
	2 - Purbrook Way (E)	746	187	324	2065	0.361	747	949	0.8	0.6	2.733	A
	3 - A3(M) on-slip			544				527				
	4 - Purbrook Way (W)	1167	292	85	2150	0.543	1170	459	1.9	1.2	3.685	A
2 - Western roundabout	1 - Purbrook Way (E)	457	114	3	1794	0.255	457	1171	0.4	0.3	2.696	A
	2 - A3(M) off-slip	891	223	461	1904	0.468	893	0	1.4	0.9	3.564	A
	3 - Purbrook Way (W)	707	177	466	1622	0.436	709	888	1.2	0.8	3.950	A

Revised layout - 2025 + devt, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	1 - Eastern (B&Q) roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.
Warning	Linked Roundabout	2 - Western roundabout - 1 - Purbrook Way (E)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	2 - Western roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern (B&Q) roundabout	Standard Roundabout		1, 2, 3, 4	13.96	B
2	Western roundabout	Standard Roundabout		1, 2, 3	17.59	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	1	2 - Western roundabout - 2 - A3(M) off-slip

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	2025 + devt	PM	ONE HOUR	16:15	17:45	15	✓

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Eastern (B&Q) roundabout	4 - Purbrook Way (W)	2	1	Simple (vertical queueing)	Normal	0	100.00	
2 - Western roundabout	1 - Purbrook Way (E)	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Eastern (B&Q) roundabout	1 - B&Q / site		ONE HOUR	✓	246	100.000
	2 - Purbrook Way (E)		ONE HOUR	✓	1098	100.000
	3 - A3(M) on-slip					
	4 - Purbrook Way (W)	✓				
2 - Western roundabout	1 - Purbrook Way (E)	✓				
	2 - A3(M) off-slip		ONE HOUR	✓	1394	100.000
	3 - Purbrook Way (W)		ONE HOUR	✓	1110	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
From		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
	1 - B&Q / site	0	115	42	89
	2 - Purbrook Way (E)	112	7	387	592
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	110	1236	396	11

Demand (Veh/hr)

2 - Western roundabout

	To			
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	2	0	684
	2 - A3(M) off-slip	652	0	742
	3 - Purbrook Way (W)	1106	0	4

Vehicle Mix

Heavy Vehicle Percentages

1 - Eastern (B&Q) roundabout

	To				
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	0	0	0
	2 - Purbrook Way (E)	0	0	1	2
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	0	2	1	0

Heavy Vehicle Percentages

2 - Western roundabout

	To			
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	50	0	2
	2 - A3(M) off-slip	0	0	1
	3 - Purbrook Way (W)	2	0	25

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.64	23.44	1.7	C	226	339
	2 - Purbrook Way (E)	0.65	5.60	1.9	A	1008	1511
	3 - A3(M) on-slip						
	4 - Purbrook Way (W)	0.91	17.87	9.1	C	1609	2413
2 - Western roundabout	1 - Purbrook Way (E)	0.42	3.48	0.7	A	632	948
	2 - A3(M) off-slip	0.92	25.56	10.2	D	1279	1919
	3 - Purbrook Way (W)	0.85	16.49	5.4	C	1019	1528

Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand	Junction Arrivals	Circulating flow (Veh/hr)	Capacity	RFC	Throughput (Veh/hr)	Throughput (exit)	Start queue	End queue	Delay (s)	Unsignalised level
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		(Veh/hr)	Is (Veh)		(Veh/hr)			side) (Veh/hr)	ue (Veh)	(Veh)		of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	185	46	1231	776	0.239	184	166	0.0	0.3	6.072	A
	2 - Purbrook Way (E)	827	207	402	2002	0.413	824	1013	0.0	0.7	3.047	A
	3 - A3(M) on-slip			608				617				
	4 - Purbrook Way (W)	1314	329	89	2147	0.612	1308	519	0.0	1.6	4.258	A
2 - Western roundabout	1 - Purbrook Way (E)	517	129	3	1794	0.288	515	1318	0.0	0.4	2.811	A
	2 - A3(M) off-slip	1049	262	518	1857	0.565	1044	0	0.0	1.3	4.401	A
	3 - Purbrook Way (W)	836	209	490	1604	0.521	831	1073	0.0	1.1	4.633	A

16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction on Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	221	55	1475	627	0.353	220	199	0.3	0.5	8.841	A
	2 - Purbrook Way (E)	987	247	481	1938	0.509	986	1214	0.7	1.0	3.774	A
	3 - A3(M) on-slip			728				739				
	4 - Purbrook Way (W)	1572	393	107	2134	0.737	1568	621	1.6	2.7	6.301	A
2 - Western roundabout	1 - Purbrook Way (E)	618	155	4	1794	0.345	618	1577	0.4	0.5	3.060	A
	2 - A3(M) off-slip	1253	313	621	1775	0.706	1249	0	1.3	2.3	6.790	A
	3 - Purbrook Way (W)	998	249	586	1533	0.651	995	1284	1.1	1.8	6.650	A

16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction on Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	271	68	1776	443	0.611	267	241	0.5	1.5	19.997	C
	2 - Purbrook Way (E)	1209	302	580	1859	0.650	1206	1462	1.0	1.8	5.482	A
	3 - A3(M) on-slip			889				897				
	4 - Purbrook Way (W)	1907	477	131	2116	0.901	1886	759	2.7	7.8	14.514	B
2 - Western roundabout	1 - Purbrook Way (E)	755	189	4	1793	0.421	755	1913	0.5	0.7	3.467	A
	2 - A3(M) off-slip	1535	384	759	1665	0.922	1508	0	2.3	9.1	20.219	C
	3 - Purbrook Way (W)	1222	306	707	1443	0.847	1209	1559	1.8	5.0	14.654	B

17:00 - 17:15

Junction	Arm	Total Demand	Junction on Arrivals	Circulating flow (Veh/hr)	Capacity	RF C	Throughput (Veh/hr)	Throughput (exit	Start queue	End queue	Delay (s)	Unsignalled level
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		(Veh/ hr)	Is (Veh)		(Veh/ hr)			side) (Veh/hr)	ue (Veh)	(Veh)		of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	271	68	1810	422	0.6 41	270	244	1.5	1.7	23.4 36	C
	2 - Purbrook Way (E)	1209	302	590	1851	0.6 53	1209	1490	1.8	1.9	5.60 4	A
	3 - A3(M) on- slip			892				907				
	4 - Purbrook Way (W)	1928	482	131	2116	0.9 11	1923	761	7.8	9.1	17.8 74	C
2 - Western roundabout	1 - Purbrook Way (E)	758	190	4	1793	0.4 23	758	1934	0.7	0.7	3.47 8	A
	2 - A3(M) off- slip	1535	384	763	1662	0.9 24	1530	0	9.1	10.2	25.5 58	D
	3 - Purbrook Way (W)	1222	306	718	1436	0.8 51	1221	1575	5.0	5.4	16.4 95	C

17:15 - 17:30

Junction	Arm	Total Dema nd (Veh/ hr)	Juncti on Arriva ls (Veh)	Circulat ing flow (Veh/hr)	Capac ity (Veh/h r)	RF C	Through put (Veh/hr)	Through put (exit side) (Veh/hr)	Star t que ue (Veh)	End que ue (Veh)	Del ay (s)	Unsignali sed level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	221	55	1533	591	0.3 74	226	203	1.7	0.6	9.94 8	A
	2 - Purbrook Way (E)	987	247	498	1925	0.5 13	990	1260	1.9	1.1	3.86 7	A
	3 - A3(M) on- slip			733				755				
	4 - Purbrook Way (W)	1605	401	107	2134	0.7 52	1629	626	9.1	3.1	7.44 7	A
2 - Western roundabout	1 - Purbrook Way (E)	623	156	4	1793	0.3 47	624	1610	0.7	0.5	3.08 1	A
	2 - A3(M) off- slip	1253	313	627	1770	0.7 08	1284	0	10.2	2.5	7.86 4	A
	3 - Purbrook Way (W)	998	249	602	1521	0.6 56	1012	1309	5.4	1.9	7.24 8	A

17:30 - 17:45

Junction	Arm	Total Dema nd (Veh/ hr)	Juncti on Arriva ls (Veh)	Circulat ing flow (Veh/hr)	Capac ity (Veh/h r)	RF C	Through put (Veh/hr)	Through put (exit side) (Veh/hr)	Star t que ue (Veh)	End que ue (Veh)	Del ay (s)	Unsignali sed level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	185	46	1254	762	0.2 43	186	168	0.6	0.3	6.27 1	A
	2 - Purbrook Way (E)	827	207	409	1997	0.4 14	828	1032	1.1	0.7	3.08 3	A
	3 - A3(M) on- slip			612				625				
	4 - Purbrook Way (W)	1326	332	90	2147	0.6 18	1332	522	3.1	1.6	4.45 1	A
2 - Western roundabout	1 - Purbrook Way (E)	520	130	3	1794	0.2 90	521	1331	0.5	0.4	2.82 7	A
	2 - A3(M) off- slip	1049	262	524	1853	0.5 66	1054	0	2.5	1.3	4.53 3	A
	3 - Purbrook Way (W)	836	209	495	1601	0.5 22	839	1083	1.9	1.1	4.74 8	A

Revised layout - 2025 + devt (excl committed), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	1 - Eastern (B&Q) roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.
Warning	Linked Roundabout	2 - Western roundabout - 1 - Purbrook Way (E)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	2 - Western roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern (B&Q) roundabout	Standard Roundabout		1, 2, 3, 4	9.34	A
2	Western roundabout	Standard Roundabout		1, 2, 3	9.16	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	5	1 - Eastern (B&Q) roundabout - 1 - B&Q / site

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	2025 + devt (excl committed)	PM	ONE HOUR	16:15	17:45	15	✓

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Eastern (B&Q) roundabout	4 - Purbrook Way (W)	2	1	Simple (vertical queueing)	Normal	0	100.00	
2 - Western roundabout	1 - Purbrook Way (E)	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Eastern (B&Q) roundabout	1 - B&Q / site		ONE HOUR	✓	246	100.000

	2 - Purbrook Way (E)		ONE HOUR	✓	1051	100.000
	3 - A3(M) on-slip					
	4 - Purbrook Way (W)	✓				
2 - Western roundabout	1 - Purbrook Way (E)	✓				
	2 - A3(M) off-slip		ONE HOUR	✓	1254	100.000
	3 - Purbrook Way (W)		ONE HOUR	✓	994	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Eastern (B&Q) roundabout

	To				
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	115	42	89
	2 - Purbrook Way (E)	112	7	387	545
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	110	1206	310	11

Demand (Veh/hr)

2 - Western roundabout

	To			
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	2	0	636
	2 - A3(M) off-slip	652	0	602
	3 - Purbrook Way (W)	990	0	4

Vehicle Mix

Heavy Vehicle Percentages

1 - Eastern (B&Q) roundabout

	To				
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	0	0	0
	2 - Purbrook Way (E)	0	0	1	2
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	0	2	1	0

Heavy Vehicle Percentages

2 - Western roundabout

	To			
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	50	0	2
	2 - A3(M) off-slip	0	0	1
	3 - Purbrook Way (W)	2	0	25

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.55	15.89	1.2	C	226	339
	2 - Purbrook Way (E)	0.60	4.68	1.5	A	964	1447
	3 - A3(M) on-slip						
	4 - Purbrook Way (W)	0.85	11.35	5.5	B	1502	2253
2 - Western roundabout	1 - Purbrook Way (E)	0.39	3.31	0.6	A	589	883
	2 - A3(M) off-slip	0.81	11.08	4.1	B	1151	1726
	3 - Purbrook Way (W)	0.76	10.56	3.1	B	912	1368

Main Results for each time segment

16:15 - 16:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	185	46	1145	828	0.224	184	166	0.0	0.3	5.582	A
	2 - Purbrook Way (E)	791	198	338	2054	0.385	789	992	0.0	0.6	2.839	A
	3 - A3(M) on-slip			573				553				
	4 - Purbrook Way (W)	1227	307	89	2147	0.572	1222	484	0.0	1.3	3.873	A
2 - Western roundabout	1 - Purbrook Way (E)	482	120	3	1794	0.268	480	1232	0.0	0.4	2.738	A
	2 - A3(M) off-slip	944	236	483	1886	0.500	940	0	0.0	1.0	3.789	A
	3 - Purbrook Way (W)	748	187	490	1604	0.467	745	933	0.0	0.9	4.175	A

16:30 - 16:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	221	55	1373	689	0.321	220	199	0.3	0.5	7.689	A
	2 - Purbrook Way (E)	945	236	405	2000	0.472	944	1189	0.6	0.9	3.404	A
	3 - A3(M) on-slip			686				663				
	4 - Purbrook Way (W)	1469	367	107	2133	0.688	1465	579	1.3	2.2	5.360	A
2 - Western roundabout	1 - Purbrook Way (E)	576	144	4	1793	0.321	576	1475	0.4	0.5	2.957	A
	2 - A3(M) off-slip	1127	282	580	1809	0.623	1125	0	1.0	1.6	5.240	A
	3 - Purbrook Way (W)	894	223	587	1533	0.583	892	1118	0.9	1.4	5.598	A

16:45 - 17:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignaled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	271	68	1668	509	0.532	268	243	0.5	1.1	14.810	B
	2 - Purbrook Way (E)	1157	289	492	1931	0.599	1155	1444	0.9	1.5	4.627	A
	3 - A3(M) on-slip			839				808				
	4 - Purbrook Way (W)	1791	448	131	2116	0.847	1780	708	2.2	5.1	10.360	B
2 - Western roundabout	1 - Purbrook Way (E)	705	176	4	1793	0.393	704	1798	0.5	0.6	3.305	A
	2 - A3(M) off-slip	1381	345	708	1706	0.809	1371	0	1.6	4.0	10.465	B
	3 - Purbrook Way (W)	1094	274	715	1438	0.761	1088	1364	1.4	3.0	10.099	B

17:00 - 17:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignaled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	271	68	1688	497	0.545	271	244	1.1	1.2	15.889	C
	2 - Purbrook Way (E)	1157	289	497	1926	0.601	1157	1461	1.5	1.5	4.681	A
	3 - A3(M) on-slip			841				813				
	4 - Purbrook Way (W)	1802	451	131	2115	0.852	1801	710	5.1	5.5	11.350	B
2 - Western roundabout	1 - Purbrook Way (E)	707	177	4	1793	0.394	707	1809	0.6	0.6	3.314	A
	2 - A3(M) off-slip	1381	345	711	1704	0.810	1380	0	4.0	4.1	11.076	B
	3 - Purbrook Way (W)	1094	274	720	1434	0.763	1094	1372	3.0	3.1	10.557	B

17:15 - 17:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignaled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	221	55	1402	671	0.330	224	202	1.2	0.5	8.101	A
	2 - Purbrook Way (E)	945	236	413	1994	0.474	947	1214	1.5	0.9	3.446	A
	3 - A3(M) on-slip			689				670				
	4 - Purbrook Way (W)	1484	371	107	2133	0.696	1497	582	5.5	2.3	5.762	A
2 - Western roundabout	1 - Purbrook Way (E)	580	145	4	1793	0.323	580	1490	0.6	0.5	2.970	A
	2 - A3(M) off-slip	1127	282	584	1806	0.624	1137	0	4.1	1.7	5.462	A
	3 - Purbrook Way (W)	894	223	593	1528	0.585	900	1128	3.1	1.4	5.800	A

17:30 - 17:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	185	46	1162	817	0.227	186	168	0.5	0.3	5.710	A
	2 - Purbrook Way (E)	791	198	342	2050	0.386	792	1006	0.9	0.6	2.863	A
	3 - A3(M) on-slip			576				558				
	4 - Purbrook Way (W)	1236	309	90	2146	0.576	1240	487	2.3	1.4	3.991	A
2 - Western roundabout	1 - Purbrook Way (E)	484	121	3	1794	0.270	485	1241	0.5	0.4	2.752	A
	2 - A3(M) off-slip	944	236	488	1883	0.501	947	0	1.7	1.0	3.858	A
	3 - Purbrook Way (W)	748	187	494	1601	0.467	751	941	1.4	0.9	4.242	A

Revised layout - 2020 + devt, SAT

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	1 - Eastern (B&Q) roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.
Warning	Linked Roundabout	2 - Western roundabout - 1 - Purbrook Way (E)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	2 - Western roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern (B&Q) roundabout	Standard Roundabout		1, 2, 3, 4	6.48	A
2	Western roundabout	Standard Roundabout		1, 2, 3	4.07	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	9	1 - Eastern (B&Q) roundabout - 1 - B&Q / site

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	2020 + devt	SAT	ONE HOUR	11:30	13:00	15	✓

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

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Eastern (B&Q) roundabout	4 - Purbrook Way (W)	2	1	Simple (vertical queueing)	Normal	0	100.00	
2 - Western roundabout	1 - Purbrook Way (E)	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Eastern (B&Q) roundabout	1 - B&Q / site		ONE HOUR	✓	499	100.000
	2 - Purbrook Way (E)		ONE HOUR	✓	955	100.000
	3 - A3(M) on-slip					
	4 - Purbrook Way (W)	✓				
2 - Western roundabout	1 - Purbrook Way (E)	✓				
	2 - A3(M) off-slip		ONE HOUR	✓	820	100.000
	3 - Purbrook Way (W)		ONE HOUR	✓	765	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Eastern (B&Q) roundabout

	To				
From		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
	1 - B&Q / site	0	231	112	156
	2 - Purbrook Way (E)	212	1	389	353
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	246	785	257	2

Demand (Veh/hr)

2 - Western roundabout

	To			
From		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
	1 - Purbrook Way (E)	1	0	510
	2 - A3(M) off-slip	528	0	292
	3 - Purbrook Way (W)	761	0	4

Vehicle Mix

Heavy Vehicle Percentages

1 - Eastern (B&Q) roundabout

	To				
From		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
	1 - B&Q / site	0	0	0	0
	2 - Purbrook Way (E)	0	0	0	2
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	0	1	1	0

Heavy Vehicle Percentages

2 - Western roundabout

	To			
From		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
	1 - Purbrook Way (E)	0	0	1
	2 - A3(M) off-slip	0	0	0
	3 - Purbrook Way (W)	1	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.66	12.73	1.9	B	458	687
	2 - Purbrook Way (E)	0.56	4.38	1.3	A	876	1314
	3 - A3(M) on-slip						
	4 - Purbrook Way (W)	0.69	5.64	2.2	A	1181	1771
2 - Western roundabout	1 - Purbrook Way (E)	0.31	2.88	0.5	A	470	706
	2 - A3(M) off-slip	0.49	3.87	1.0	A	752	1129
	3 - Purbrook Way (W)	0.54	5.06	1.2	A	702	1053

Main Results for each time segment

11:30 - 11:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	376	94	780	1054	0.356	373	343	0.0	0.5	5.269	A
	2 - Purbrook Way (E)	719	180	394	2023	0.355	717	759	0.0	0.5	2.751	A
	3 - A3(M) on-slip			543				568				
	4 - Purbrook Way (W)	966	241	160	2112	0.457	963	383	0.0	0.8	3.124	A
2 - Western roundabout	1 - Purbrook Way (E)	385	96	3	1815	0.212	384	968	0.0	0.3	2.514	A

	2 - A3(M) off-slip	617	154	387	1977	0.312	616	0	0.0	0.5	2.640	A
	3 - Purbrook Way (W)	576	144	397	1691	0.341	574	605	0.0	0.5	3.217	A

11:45 - 12:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	449	112	935	960	0.467	447	411	0.5	0.9	7.000	A
	2 - Purbrook Way (E)	859	215	472	1960	0.438	858	910	0.5	0.8	3.262	A
	3 - A3(M) on-slip			650				680				
	4 - Purbrook Way (W)	1156	289	191	2088	0.554	1154	459	0.8	1.2	3.850	A
2 - Western roundabout	1 - Purbrook Way (E)	460	115	4	1814	0.254	460	1158	0.3	0.3	2.658	A
	2 - A3(M) off-slip	737	184	464	1916	0.385	736	0	0.5	0.6	3.051	A
	3 - Purbrook Way (W)	688	172	475	1633	0.421	687	725	0.5	0.7	3.801	A

12:00 - 12:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	549	137	1143	835	0.658	545	502	0.9	1.9	12.288	B
	2 - Purbrook Way (E)	1051	263	576	1876	0.560	1050	1112	0.8	1.3	4.344	A
	3 - A3(M) on-slip			795				831				
	4 - Purbrook Way (W)	1415	354	234	2056	0.688	1411	561	1.2	2.2	5.552	A
2 - Western roundabout	1 - Purbrook Way (E)	563	141	4	1814	0.310	562	1418	0.3	0.4	2.876	A
	2 - A3(M) off-slip	903	226	567	1834	0.492	901	0	0.6	1.0	3.855	A
	3 - Purbrook Way (W)	842	211	582	1554	0.542	840	887	0.7	1.2	5.036	A

12:15 - 12:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	549	137	1148	831	0.661	549	504	1.9	1.9	12.733	B
	2 - Purbrook Way (E)	1051	263	579	1873	0.561	1051	1118	1.3	1.3	4.379	A
	3 - A3(M) on-slip			797				834				
	4 - Purbrook Way (W)	1417	354	235	2055	0.690	1417	563	2.2	2.2	5.640	A
2 - Western roundabout	1 - Purbrook Way (E)	565	141	4	1814	0.311	565	1420	0.4	0.5	2.881	A

	2 - A3(M) off-slip	903	226	569	1832	0.493	903	0	1.0	1.0	3.873	A
	3 - Purbrook Way (W)	842	211	582	1553	0.542	842	889	1.2	1.2	5.064	A

12:30 - 12:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	449	112	943	956	0.469	453	413	1.9	0.9	7.211	A
	2 - Purbrook Way (E)	859	215	477	1956	0.439	860	918	1.3	0.8	3.292	A
	3 - A3(M) on-slip			653				684				
	4 - Purbrook Way (W)	1160	290	192	2087	0.556	1164	461	2.2	1.3	3.913	A
2 - Western roundabout	1 - Purbrook Way (E)	463	116	4	1814	0.255	464	1162	0.5	0.3	2.667	A
	2 - A3(M) off-slip	737	184	467	1913	0.385	739	0	1.0	0.6	3.070	A
	3 - Purbrook Way (W)	688	172	476	1632	0.421	689	729	1.2	0.7	3.828	A

12:45 - 13:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	376	94	787	1050	0.358	377	345	0.9	0.6	5.360	A
	2 - Purbrook Way (E)	719	180	398	2020	0.356	720	767	0.8	0.6	2.772	A
	3 - A3(M) on-slip			546				572				
	4 - Purbrook Way (W)	970	243	161	2111	0.460	972	385	1.3	0.9	3.166	A
2 - Western roundabout	1 - Purbrook Way (E)	387	97	3	1815	0.213	387	972	0.3	0.3	2.523	A
	2 - A3(M) off-slip	617	154	390	1974	0.313	618	0	0.6	0.5	2.655	A
	3 - Purbrook Way (W)	576	144	399	1690	0.341	577	610	0.7	0.5	3.235	A

Revised layout - 2025 + devt, SAT

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	1 - Eastern (B&Q) roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.
Warning	Linked Roundabout	2 - Western roundabout - 1 - Purbrook Way (E)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.

Warning	Linked roundabouts	2 - Western roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.
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Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern (B&Q) roundabout	Standard Roundabout		1, 2, 3, 4	7.94	A
2	Western roundabout	Standard Roundabout		1, 2, 3	4.47	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	5	1 - Eastern (B&Q) roundabout - 1 - B&Q / site

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
D15	2025 + devt	SAT	ONE HOUR	11:30	13:00	15	✓

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Eastern (B&Q) roundabout	4 - Purbrook Way (W)	2	1	Simple (vertical queueing)	Normal	0	100.00	
2 - Western roundabout	1 - Purbrook Way (E)	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Eastern (B&Q) roundabout	1 - B&Q / site		ONE HOUR	✓	524	100.000
	2 - Purbrook Way (E)		ONE HOUR	✓	1015	100.000
	3 - A3(M) on-slip					
	4 - Purbrook Way (W)	✓				
2 - Western roundabout	1 - Purbrook Way (E)	✓				
	2 - A3(M) off-slip		ONE HOUR	✓	873	100.000
	3 - Purbrook Way (W)		ONE HOUR	✓	812	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Eastern (B&Q) roundabout

	To				
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	243	119	162
	2 - Purbrook Way (E)	223	1	414	377
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	257	838	274	2

Demand (Veh/hr)

2 - Western roundabout

	To			
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	1	0	541
	2 - A3(M) off-slip	562	0	311
	3 - Purbrook Way (W)	808	0	4

Vehicle Mix

Heavy Vehicle Percentages

1 - Eastern (B&Q) roundabout

	To				
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	0	0	0
	2 - Purbrook Way (E)	0	0	0	2
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	0	1	1	0

Heavy Vehicle Percentages

2 - Western roundabout

	To			
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	0	0	1
	2 - A3(M) off-slip	0	0	0
	3 - Purbrook Way (W)	1	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.73	17.18	2.7	C	481	721
	2 - Purbrook Way (E)	0.61	4.93	1.5	A	931	1397
	3 - A3(M) on-slip						
	4 - Purbrook Way (W)	0.74	6.66	2.7	A	1255	1882
2 - Western roundabout	1 - Purbrook Way (E)	0.33	2.96	0.5	A	498	747
	2 - A3(M) off-slip	0.53	4.26	1.1	A	801	1202
	3 - Purbrook Way (W)	0.59	5.70	1.4	A	745	1118

Main Results for each time segment

11:30 - 11:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignaled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	394	99	832	1023	0.386	392	359	0.0	0.6	5.684	A
	2 - Purbrook Way (E)	764	191	416	2005	0.381	762	808	0.0	0.6	2.889	A
	3 - A3(M) on-slip			574				604				
	4 - Purbrook Way (W)	1026	257	168	2105	0.488	1023	406	0.0	0.9	3.314	A
2 - Western roundabout	1 - Purbrook Way (E)	407	102	3	1815	0.224	406	1029	0.0	0.3	2.552	A
	2 - A3(M) off-slip	657	164	409	1959	0.335	655	0	0.0	0.5	2.758	A
	3 - Purbrook Way (W)	611	153	423	1672	0.366	609	642	0.0	0.6	3.379	A

11:45 - 12:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignaled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	471	118	997	923	0.511	469	430	0.6	1.0	7.915	A
	2 - Purbrook Way (E)	912	228	499	1938	0.471	911	968	0.6	0.9	3.502	A
	3 - A3(M) on-slip			687				723				
	4 - Purbrook Way (W)	1228	307	201	2080	0.590	1226	485	0.9	1.4	4.206	A
2 - Western roundabout	1 - Purbrook Way (E)	487	122	4	1814	0.269	487	1231	0.3	0.4	2.712	A
	2 - A3(M) off-slip	785	196	491	1894	0.414	784	0	0.5	0.7	3.241	A
	3 - Purbrook Way (W)	730	182	506	1610	0.453	729	769	0.6	0.8	4.081	A

12:00 - 12:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignaled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	577	144	1218	789	0.731	571	526	1.0	2.6	16.070	C
	2 - Purbrook Way (E)	1118	279	608	1851	0.604	1115	1181	0.9	1.5	4.876	A
	3 - A3(M) on-slip			839				884				
	4 - Purbrook Way (W)	1503	376	246	2046	0.734	1498	593	1.4	2.7	6.503	A

2 - Western roundabout	1 - Purbrook Way (E)	595	149	4	1814	0.328	595	1506	0.4	0.5	2.950	A
	2 - A3(M) off-slip	961	240	599	1808	0.532	960	0	0.7	1.1	4.232	A
	3 - Purbrook Way (W)	894	224	619	1526	0.586	892	940	0.8	1.4	5.656	A

12:15 - 12:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignaled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	577	144	1225	785	0.735	576	528	2.6	2.7	17.178	C
	2 - Purbrook Way (E)	1118	279	612	1847	0.605	1117	1189	1.5	1.5	4.934	A
	3 - A3(M) on-slip			842				888				
	4 - Purbrook Way (W)	1506	377	247	2046	0.736	1506	595	2.7	2.7	6.659	A
2 - Western roundabout	1 - Purbrook Way (E)	598	149	4	1814	0.330	598	1509	0.5	0.5	2.959	A
	2 - A3(M) off-slip	961	240	602	1806	0.532	961	0	1.1	1.1	4.262	A
	3 - Purbrook Way (W)	894	224	620	1525	0.586	894	944	1.4	1.4	5.703	A

12:30 - 12:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignaled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	471	118	1007	917	0.514	477	433	2.7	1.1	8.307	A
	2 - Purbrook Way (E)	912	228	505	1933	0.472	915	979	1.5	0.9	3.543	A
	3 - A3(M) on-slip			691				729				
	4 - Purbrook Way (W)	1233	308	202	2080	0.593	1238	489	2.7	1.5	4.303	A
2 - Western roundabout	1 - Purbrook Way (E)	491	123	4	1814	0.271	492	1236	0.5	0.4	2.721	A
	2 - A3(M) off-slip	785	196	495	1891	0.415	786	0	1.1	0.7	3.266	A
	3 - Purbrook Way (W)	730	182	507	1609	0.454	732	774	1.4	0.8	4.117	A

12:45 - 13:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignaled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	394	99	840	1018	0.388	396	362	1.1	0.6	5.810	A
	2 - Purbrook Way (E)	764	191	421	2001	0.382	765	816	0.9	0.6	2.916	A
	3 - A3(M) on-slip			577				609				
	4 - Purbrook Way (W)	1031	258	169	2105	0.490	1033	408	1.5	1.0	3.366	A

2 - Western roundabout	1 - Purbrook Way (E)	410	102	3	1815	0.2 26	410	1034	0.4	0.3	2.56 4	A
	2 - A3(M) off-slip	657	164	413	1956	0.3 36	658	0	0.7	0.5	2.77 5	A
	3 - Purbrook Way (W)	611	153	424	1671	0.3 66	612	647	0.8	0.6	3.40 3	A

Revised layout - 2025 + devt (excl committed), SAT

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	1 - Eastern (B&Q) roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.
Warning	Linked Roundabout	2 - Western roundabout - 1 - Purbrook Way (E)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	2 - Western roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern (B&Q) roundabout	Standard Roundabout		1, 2, 3, 4	7.94	A
2	Western roundabout	Standard Roundabout		1, 2, 3	4.47	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	5	1 - Eastern (B&Q) roundabout - 1 - B&Q / site

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
D16	2025 + devt (excl committed)	SAT	ONE HOUR	11:30	13:00	15	✓

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Eastern (B&Q) roundabout	4 - Purbrook Way (W)	2	1	Simple (vertical queueing)	Normal	0	100.00	

2 - Western roundabout	1 - Purbrook Way (E)	1	4	Simple (vertical queueing)	Normal	0	100.00	
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Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Eastern (B&Q) roundabout	1 - B&Q / site		ONE HOUR	✓	524	100.000
	2 - Purbrook Way (E)		ONE HOUR	✓	1015	100.000
	3 - A3(M) on-slip					
	4 - Purbrook Way (W)	✓				
2 - Western roundabout	1 - Purbrook Way (E)	✓				
	2 - A3(M) off-slip		ONE HOUR	✓	873	100.000
	3 - Purbrook Way (W)		ONE HOUR	✓	812	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Eastern (B&Q) roundabout

	To				
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	243	119	162
	2 - Purbrook Way (E)	223	1	414	377
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	257	838	274	2

Demand (Veh/hr)

2 - Western roundabout

	To			
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	1	0	541
	2 - A3(M) off-slip	562	0	311
	3 - Purbrook Way (W)	808	0	4

Vehicle Mix

Heavy Vehicle Percentages

1 - Eastern (B&Q) roundabout

	To				
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	0	0	0
	2 - Purbrook Way (E)	0	0	0	2
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	0	1	1	0

Heavy Vehicle Percentages

2 - Western roundabout

	To			
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	0	0	1
	2 - A3(M) off-slip	0	0	0
	3 - Purbrook Way (W)	1	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.73	17.18	2.7	C	481	721
	2 - Purbrook Way (E)	0.61	4.93	1.5	A	931	1397
	3 - A3(M) on-slip						
	4 - Purbrook Way (W)	0.74	6.66	2.7	A	1255	1882
2 - Western roundabout	1 - Purbrook Way (E)	0.33	2.96	0.5	A	498	747
	2 - A3(M) off-slip	0.53	4.26	1.1	A	801	1202
	3 - Purbrook Way (W)	0.59	5.70	1.4	A	745	1118

Main Results for each time segment

11:30 - 11:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	394	99	832	1023	0.386	392	359	0.0	0.6	5.684	A
	2 - Purbrook Way (E)	764	191	416	2005	0.381	762	808	0.0	0.6	2.889	A
	3 - A3(M) on-slip			574				604				
	4 - Purbrook Way (W)	1026	257	168	2105	0.488	1023	406	0.0	0.9	3.314	A
2 - Western roundabout	1 - Purbrook Way (E)	407	102	3	1815	0.224	406	1029	0.0	0.3	2.552	A
	2 - A3(M) off-slip	657	164	409	1959	0.335	655	0	0.0	0.5	2.758	A
	3 - Purbrook Way (W)	611	153	423	1672	0.366	609	642	0.0	0.6	3.379	A

11:45 - 12:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
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1 - Eastern (B&Q) roundabout	1 - B&Q / site	471	118	997	923	0.511	469	430	0.6	1.0	7.915	A
	2 - Purbrook Way (E)	912	228	499	1938	0.471	911	968	0.6	0.9	3.502	A
	3 - A3(M) on-slip			687				723				
	4 - Purbrook Way (W)	1228	307	201	2080	0.590	1226	485	0.9	1.4	4.206	A
2 - Western roundabout	1 - Purbrook Way (E)	487	122	4	1814	0.269	487	1231	0.3	0.4	2.712	A
	2 - A3(M) off-slip	785	196	491	1894	0.414	784	0	0.5	0.7	3.241	A
	3 - Purbrook Way (W)	730	182	506	1610	0.453	729	769	0.6	0.8	4.081	A

12:00 - 12:15

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	577	144	1218	789	0.731	571	526	1.0	2.6	16.070	C
	2 - Purbrook Way (E)	1118	279	608	1851	0.604	1115	1181	0.9	1.5	4.876	A
	3 - A3(M) on-slip			839				884				
	4 - Purbrook Way (W)	1503	376	246	2046	0.734	1498	593	1.4	2.7	6.503	A
2 - Western roundabout	1 - Purbrook Way (E)	595	149	4	1814	0.328	595	1506	0.4	0.5	2.950	A
	2 - A3(M) off-slip	961	240	599	1808	0.532	960	0	0.7	1.1	4.232	A
	3 - Purbrook Way (W)	894	224	619	1526	0.586	892	940	0.8	1.4	5.656	A

12:15 - 12:30

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	577	144	1225	785	0.735	576	528	2.6	2.7	17.178	C
	2 - Purbrook Way (E)	1118	279	612	1847	0.605	1117	1189	1.5	1.5	4.934	A
	3 - A3(M) on-slip			842				888				
	4 - Purbrook Way (W)	1506	377	247	2046	0.736	1506	595	2.7	2.7	6.659	A
2 - Western roundabout	1 - Purbrook Way (E)	598	149	4	1814	0.330	598	1509	0.5	0.5	2.959	A
	2 - A3(M) off-slip	961	240	602	1806	0.532	961	0	1.1	1.1	4.262	A
	3 - Purbrook Way (W)	894	224	620	1525	0.586	894	944	1.4	1.4	5.703	A

12:30 - 12:45

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
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1 - Eastern (B&Q) roundabout	1 - B&Q / site	471	118	1007	917	0.5 14	477	433	2.7	1.1	8.30 7	A
	2 - Purbrook Way (E)	912	228	505	1933	0.4 72	915	979	1.5	0.9	3.54 3	A
	3 - A3(M) on-slip			691				729				
	4 - Purbrook Way (W)	1233	308	202	2080	0.5 93	1238	489	2.7	1.5	4.30 3	A
2 - Western roundabout	1 - Purbrook Way (E)	491	123	4	1814	0.2 71	492	1236	0.5	0.4	2.72 1	A
	2 - A3(M) off-slip	785	196	495	1891	0.4 15	786	0	1.1	0.7	3.26 6	A
	3 - Purbrook Way (W)	730	182	507	1609	0.4 54	732	774	1.4	0.8	4.11 7	A

12:45 - 13:00

Junction	Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RF C	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalled level of service
1 - Eastern (B&Q) roundabout	1 - B&Q / site	394	99	840	1018	0.3 88	396	362	1.1	0.6	5.81 0	A
	2 - Purbrook Way (E)	764	191	421	2001	0.3 82	765	816	0.9	0.6	2.91 6	A
	3 - A3(M) on-slip			577				609				
	4 - Purbrook Way (W)	1031	258	169	2105	0.4 90	1033	408	1.5	1.0	3.36 6	A
2 - Western roundabout	1 - Purbrook Way (E)	410	102	3	1815	0.2 26	410	1034	0.4	0.3	2.56 4	A
	2 - A3(M) off-slip	657	164	413	1956	0.3 36	658	0	0.7	0.5	2.77 5	A
	3 - Purbrook Way (W)	611	153	424	1671	0.3 66	612	647	0.8	0.6	3.40 3	A