



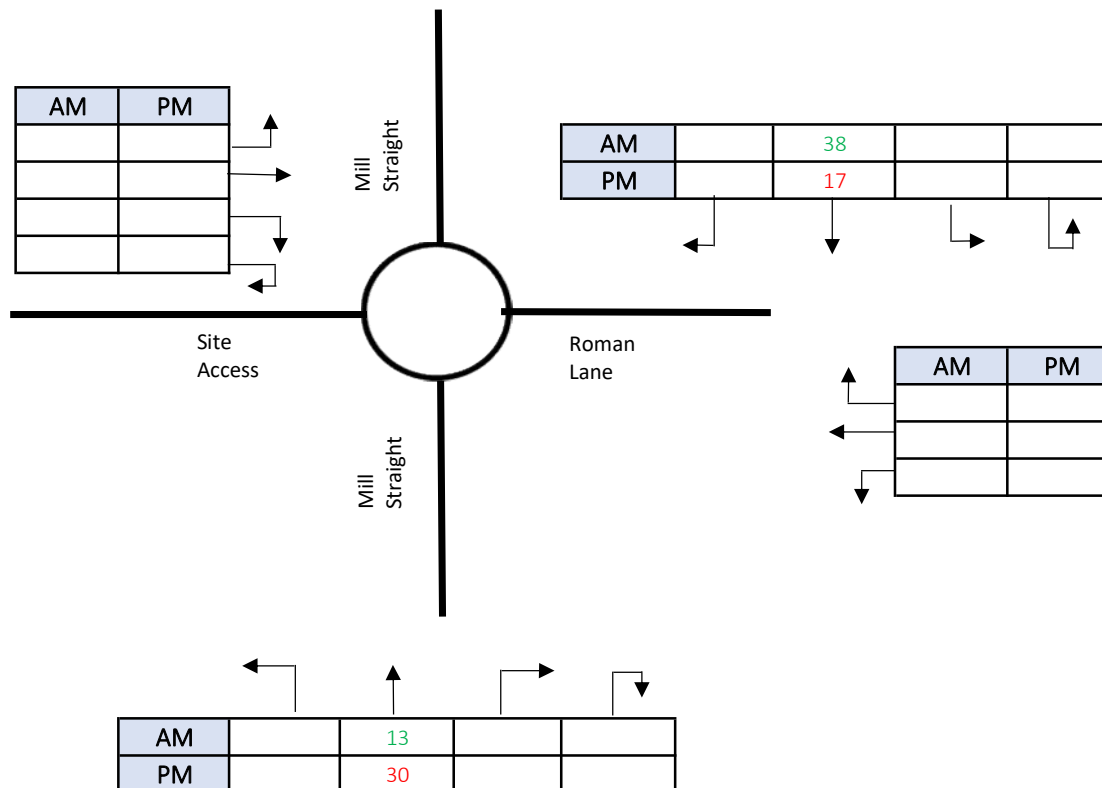
Project Name: Campsfield, Southwater

Project Number: 091.0018

Drawn By: EG

Approved By: CID

Scenario: Committed Development





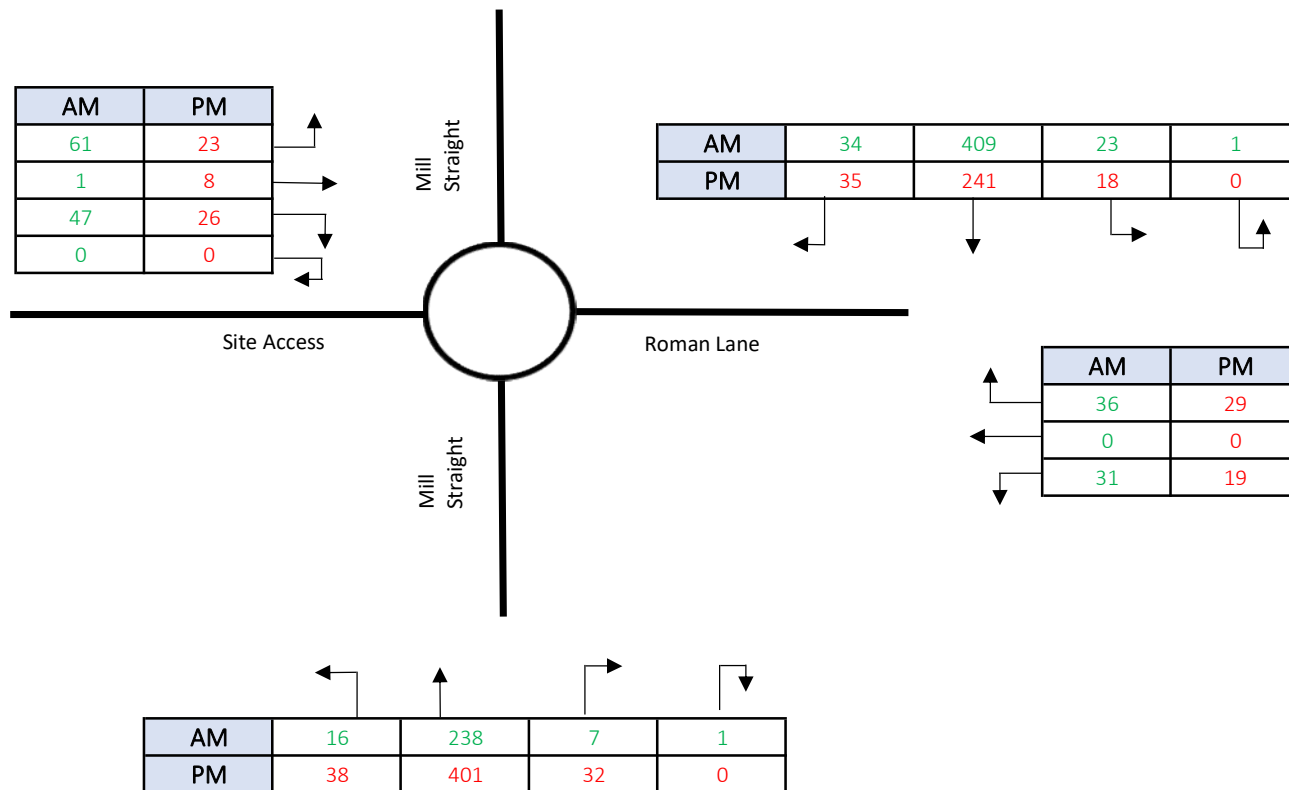
Project Name: Campsfield, Southwater

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Scenario: Baseline 2029 + CD





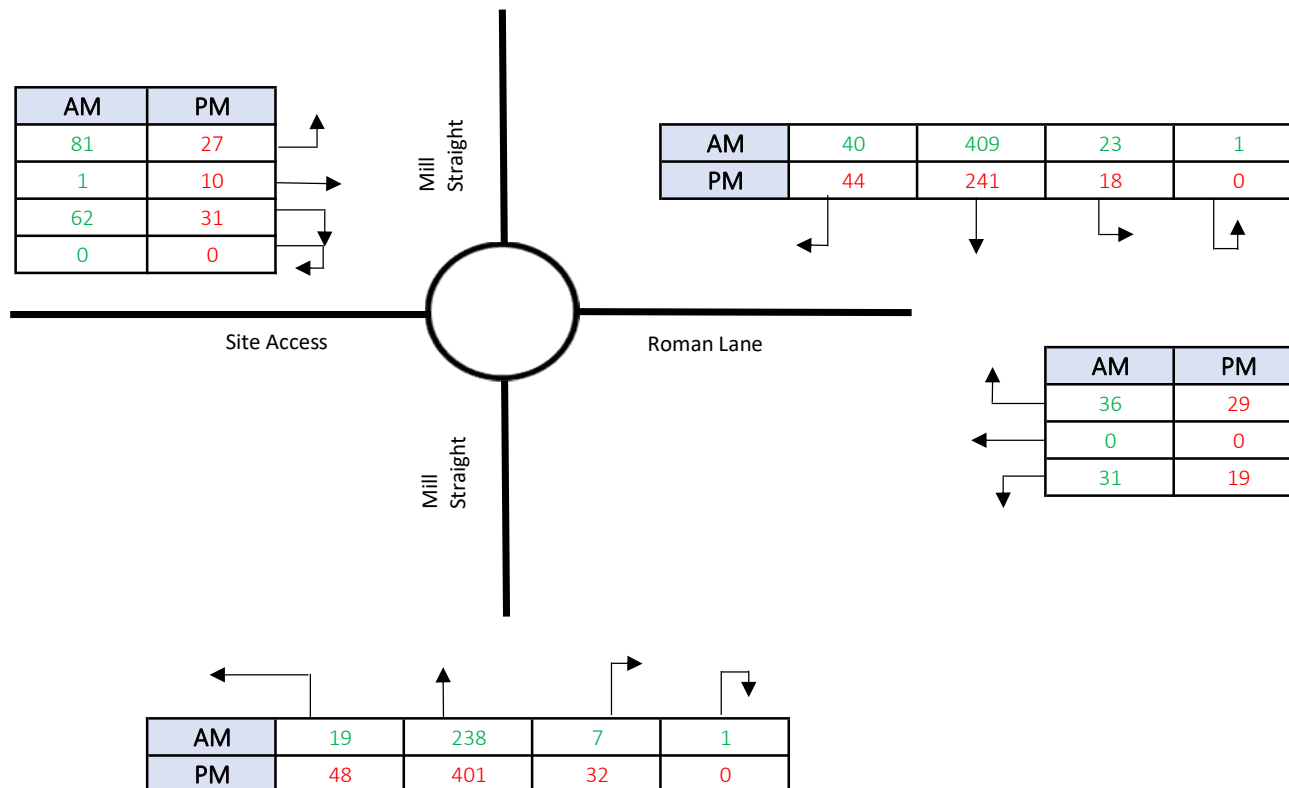
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Junctions 9							
ARCADY 9 - Roundabout Module							
Version: 9.0.2.5947							
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Filename: Roundabout mill straight - 82 units.j9

Path: P:\Southern\090-099\091 Miller Homes\091.0018 Campfield, Southwater\03 Technical\TPL\Modelling

Report generation date: 26/11/2024 11:56:37

«Baseline 2029 + Proposed Development + Committed Development , AM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Detailed Demand Data
- »Results

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
Baseline 2023								
1 - Roman Lane	0.1	4.79	0.08	A	0.1	4.20	0.05	A
2 - Mill Straight South	0.2	3.33	0.18	A	0.5	3.97	0.31	A
3 - Site Access	0.1	4.56	0.12	A	0.1	4.77	0.07	A
4 - Mill Straight North	0.5	3.75	0.30	A	0.3	3.28	0.19	A
Baseline 2024								
1 - Roman Lane	0.1	4.82	0.08	A	0.1	4.21	0.05	A
2 - Mill Straight South	0.2	3.34	0.18	A	0.5	4.00	0.32	A
3 - Site Access	0.1	4.59	0.12	A	0.1	4.78	0.07	A
4 - Mill Straight North	0.5	3.77	0.30	A	0.3	3.29	0.20	A
Baseline 2029								
1 - Roman Lane	0.1	4.91	0.08	A	0.1	4.26	0.05	A
2 - Mill Straight South	0.3	3.37	0.19	A	0.6	4.10	0.33	A
3 - Site Access	0.2	4.64	0.12	A	0.1	4.87	0.07	A
4 - Mill Straight North	0.5	3.85	0.31	A	0.3	3.33	0.20	A
Baseline 2029 + Committed Development								
1 - Roman Lane	0.1	5.06	0.09	A	0.1	4.30	0.05	A
2 - Mill Straight South	0.3	3.42	0.20	A	0.6	4.24	0.36	A
3 - Site Access	0.2	4.69	0.12	A	0.1	4.98	0.07	A
4 - Mill Straight North	0.6	4.02	0.34	A	0.3	3.39	0.22	A
Baseline 2029 + Proposed Development + Committed Development								
1 - Roman Lane	0.1	5.14	0.09	A	0.1	4.33	0.05	A
2 - Mill Straight South	0.3	3.44	0.20	A	0.6	4.32	0.37	A
3 - Site Access	0.2	4.91	0.16	A	0.1	5.05	0.09	A
4 - Mill Straight North	0.6	4.09	0.35	A	0.3	3.42	0.22	A

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

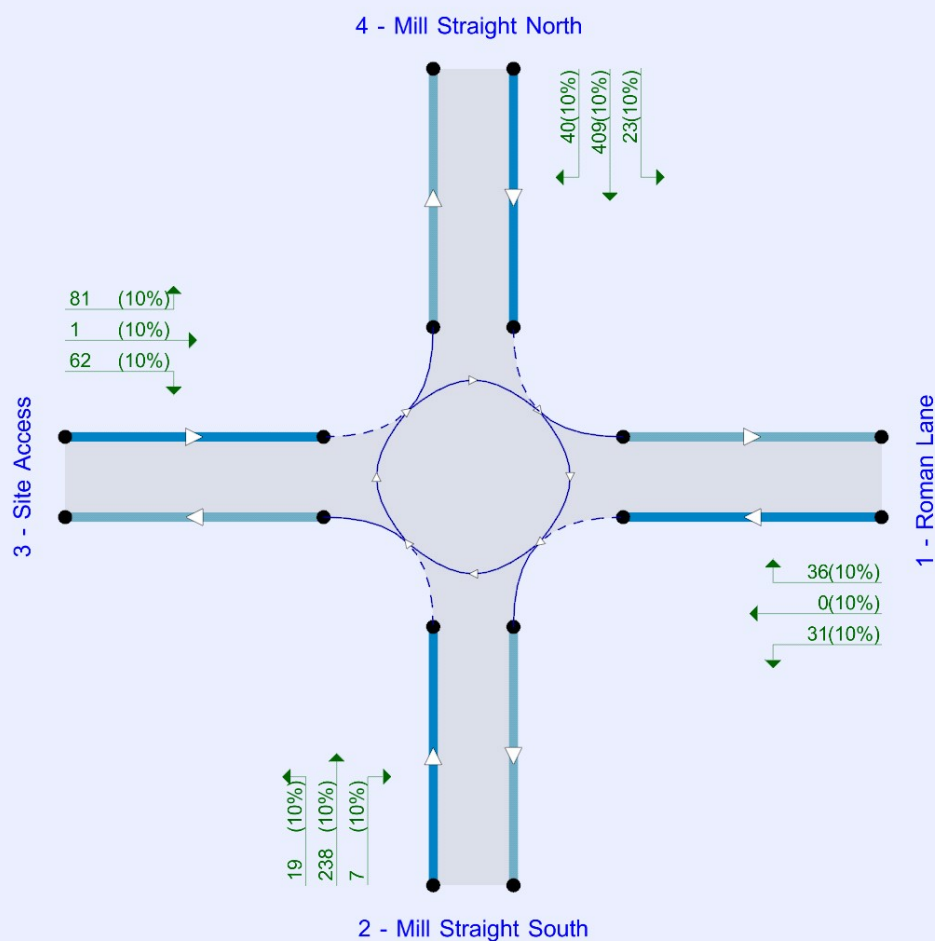
File summary

File Description

Title	Mill Straight Modelling
Location	Southwater
Site number	
Date	27/06/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AD\model.pc
Description	

Units

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



Analysis Options

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

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	Baseline 2029 + Proposed Development + Committed Development	AM	ONE HOUR	07:45	09:15	15

Baseline 2029 + Proposed Development + Committed Development , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	Mill Straight Roundabout	Standard Roundabout	1, 2, 3, 4	4.11	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Roman Lane	
2	Mill Straight South	
3	Site Access	
4	Mill Straight North	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Roman Lane	3.00	4.00	14.0	15.0	13.0	25.0	
2 - Mill Straight South	4.00	5.00	12.0	28.0	13.0	25.0	
3 - Site Access	3.00	4.00	18.0	23.0	13.0	40.0	
4 - Mill Straight North	4.00	5.00	25.0	17.0	13.0	16.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Roman Lane	0.554	1157
2 - Mill Straight South	0.634	1497
3 - Site Access	0.540	1133
4 - Mill Straight North	0.646	1540

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

Traffic Demand

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Roman Lane		✓	67	100.000
2 - Mill Straight South		✓	265	100.000
3 - Site Access		✓	144	100.000
4 - Mill Straight North		✓	473	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Roman Lane	2 - Mill Straight South	3 - Site Access	4 - Mill Straight North
From	1 - Roman Lane	0	31	0	36
	2 - Mill Straight South	7	1	19	238
	3 - Site Access	1	62	0	81
	4 - Mill Straight North	23	409	40	1

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Roman Lane	2 - Mill Straight South	3 - Site Access	4 - Mill Straight North
From	1 - Roman Lane	10	10	10	10
	2 - Mill Straight South	10	10	10	10
	3 - Site Access	10	10	10	10
	4 - Mill Straight North	10	10	10	10

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1 - Roman Lane	50	50
	2 - Mill Straight South	200	200
	3 - Site Access	108	108
	4 - Mill Straight North	356	356
08:00-08:15	1 - Roman Lane	60	60
	2 - Mill Straight South	238	238
	3 - Site Access	129	129
	4 - Mill Straight North	425	425
08:15-08:30	1 - Roman Lane	74	74
	2 - Mill Straight South	292	292
	3 - Site Access	159	159
	4 - Mill Straight North	521	521
08:30-08:45	1 - Roman Lane	74	74
	2 - Mill Straight South	292	292
	3 - Site Access	159	159
	4 - Mill Straight North	521	521
08:45-09:00	1 - Roman Lane	60	60
	2 - Mill Straight South	238	238
	3 - Site Access	129	129
	4 - Mill Straight North	425	425
09:00-09:15	1 - Roman Lane	50	50
	2 - Mill Straight South	200	200
	3 - Site Access	108	108
	4 - Mill Straight North	356	356

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1 - Roman Lane	0.09	5.14	0.1	A
2 - Mill Straight South	0.20	3.44	0.3	A
3 - Site Access	0.16	4.91	0.2	A
4 - Mill Straight North	0.35	4.09	0.6	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Roman Lane	50	385	944	0.053	50	0.1	4.431	A
2 - Mill Straight South	200	58	1460	0.137	199	0.2	3.138	A
3 - Site Access	108	212	1019	0.106	108	0.1	4.347	A
4 - Mill Straight North	356	53	1505	0.237	355	0.3	3.439	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Roman Lane	60	461	901	0.067	60	0.1	4.706	A
2 - Mill Straight South	238	69	1453	0.164	238	0.2	3.259	A
3 - Site Access	129	254	996	0.130	129	0.2	4.569	A
4 - Mill Straight North	425	64	1499	0.284	425	0.4	3.688	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Roman Lane	74	564	844	0.087	74	0.1	5.139	A
2 - Mill Straight South	292	85	1443	0.202	292	0.3	3.439	A
3 - Site Access	159	311	965	0.164	158	0.2	4.907	A
4 - Mill Straight North	521	78	1489	0.350	520	0.6	4.083	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Roman Lane	74	565	844	0.087	74	0.1	5.141	A
2 - Mill Straight South	292	85	1443	0.202	292	0.3	3.439	A
3 - Site Access	159	312	965	0.164	159	0.2	4.910	A
4 - Mill Straight North	521	78	1489	0.350	521	0.6	4.088	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Roman Lane	60	462	901	0.067	60	0.1	4.711	A
2 - Mill Straight South	238	69	1453	0.164	238	0.2	3.261	A
3 - Site Access	129	255	996	0.130	130	0.2	4.575	A
4 - Mill Straight North	425	64	1498	0.284	426	0.4	3.695	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1 - Roman Lane	50	387	943	0.054	51	0.1	4.439	A
2 - Mill Straight South	200	58	1460	0.137	200	0.2	3.144	A
3 - Site Access	108	213	1018	0.106	109	0.1	4.354	A
4 - Mill Straight North	356	54	1505	0.237	356	0.3	3.447	A