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Ashford Road, Maidstone: Traffic Impact Addendum

Ref: JCB/DF/RW/ITB15323-013A TN
Date: 19 May 2023

SECTION 1 Introduction

1.1 Overview

1.1.1 Wates Developments proposes to develop land to the north of A20 Ashford Road, Maidstone, to provide 11,368sqm of B8 warehousing/distribution space. A planning application was submitted to Maidstone Borough Council (MBC) for the proposal in February 2023 (*application reference: 23/500899/OUT*).

1.1.2 A Transport Assessment (TA) (*report reference: ITB15323-009C R*) and Framework Travel Plan (FTP) (*report reference: ITB15323-010C R*) were prepared by i-Transport to accompany the application and to assess the proposals in transport/highways terms.

1.1.3 This note provides an addendum to the traffic assessment presented in the TA. It presents further analyses to address comments issued by both National Highways (NH) and Kent County Council (KCC). The specific comments raised by NH and KCC are addressed in Technical Notes ITB15323-011 T and ITB15323-012 TN respectively (which this note is appended to and should be read in conjunction with). This note presents a combined traffic analysis of all requested scenarios for completeness.

1.2 Structure

1.2.1 The remainder of this note is structured as follows:

- Section 2 sets out the assessment parameters and derivation of traffic flows for all scenarios;
- Section 3 presents the results of the operational assessments;
- Section 4 provides the sensitivity test assessment (in line with that originally presented in the TA); and
- Section 5 provides a summary and conclusions.

SECTION 2 Assessment Parameters and Derivation of Traffic Flows

2.1 Overview

2.1.1 This section of the addendum presents the methodology used to assess the traffic impact of the proposed development, addressing the additional requests set out by KCC and NH.

2.1.2 The following parameters are set out:

- Assessment Scenarios;
- Future Year Traffic Flows – Without Development (including background traffic growth and committed developments);
- Development Traffic Generation, Distribution and Assignment; and
- Future Year Traffic Flows – With Development.

2.2 Assessment Scenarios

2.2.1 The assessment scenarios (for both the morning and evening peak hours) are as follows:

Requested by KCC:

- 2027 Without Development
- 2027 With Development
- 2037 Without Development
- 2037 With Development

2.2.2 The above scenarios now include additional committed developments, as requested by KCC. Further information is detailed in Technical Note ITB15323-012 TN.

Requested by NH

- 2031 Without Development
- 2031 With Development

2.2.3 These scenarios include the additional committed developments as requested by NH and an amended trip generation assessment for the proposed development. Further information is detailed in Technical Note ITB15323-011 TN.

2.3 Future Year Traffic Flows – Without Development

TEMPRO Traffic Growth

2.3.1 The TA uses the National Transport Model (NTM) with adjustments made for local factors from the TEMPRO database (NTS v.7.2 dataset) to derive factors to allow for traffic growth to 2027 and 2037. This same method has been used to derive a factor for traffic growth to 2031.

2.3.2 The TEMPRO growth factors between 2022 to 2027, 2031 and 2037 for the Maidstone 011 Middle Super Output Area (MSOA) layer are summarised in **Table 2.1**.

Table 2.1: TEMPRO Traffic Growth Factors

Data Range	Morning Peak	Evening Peak
2022-2027	1.0299	1.0325
2022-2031	1.0545	1.0571
2022-2037	1.0953	1.1024

Source: TEMPro (v.7.2) Maidstone 011 MSOA

2.3.3 The growth factors above have been applied to the observed traffic flows shown on Figures TF1 and TF2 of the submitted TA. Baseline future year traffic flows are presented on the following figures:

- **Figure TF1** – 2027 Baseline AM Peak Hour (0730 – 0830)
- **Figure TF2** – 2027 Baseline PM Peak Hour (1645 – 1745)
- **Figure TF3** – 2031 Baseline AM Peak Hour (0730 – 0830)
- **Figure TF4** – 2031 Baseline PM Peak Hour (1645 – 1745)
- **Figure TF5** – 2037 Baseline AM Peak Hour (0730 – 0830)
- **Figure TF6** – 2037 Baseline PM Peak Hour (1645 – 1745)

Committed Developments

2.3.4 A review of committed developments is set out in Technical Notes ITB15323-011 TN and ITB15323-012 TN. The following additional committed developments are now included:

- Land west of Church Road, Otham (*19/506182/FULL*) – 421 residential units (partially built)
- Land at Old Ham Lane, Lenham (*19/503995/EIFUL*) – 136 residential units (partially built)
- Land west of Loder Close, Ham Lane, Lenham (*18/506657/FULL*) – 53 residential units (partially built)
- Land off Old Ashford Road, Lenham (*17/500357/HYBRID*) – up to 100 residential units at outline (pending consideration) and 43 at full application (mostly built)

2.3.5 The traffic flows for the above developments have been obtained from relevant transport documents submitted as part of the associated planning applications and have been added to the traffic flows on **Figures TF1 – TF6**. The traffic flows for the study area are shown on the following figures:

- **Figure TF7** – 2027 'Without Development' AM Peak (0730 – 0830)
- **Figure TF8** – 2027 'Without Development' PM Peak (1645 – 1745)
- **Figure TF9** – 2031 'Without Development' AM Peak (0730 – 0830)
- **Figure TF10** – 2031 'Without Development' AM Peak (1645 – 1745)
- **Figure TF11** – 2037 'Without Development' AM Peak (0730 – 0830)
- **Figure TF12** – 2037 'Without Development' AM Peak (1645 – 1745)

2.3.6 For reference, the committed development traffic flows are included as **Appendix A**.

2.4 Development Traffic Generation, Distribution and Assignment

2.4.1 The trip generation for the 'with development' scenarios for 2027 and 2037 is as set out in Section 6 of the TA (Tables 6.2 – 6.4) and is agreed with KCC. For reference this trip generation is summarised in **Table 2.2** below.

Table 2.2: Proposed Development Trip Generation

Vehicle Type	Morning Peak Hour (0730 – 0830)			Evening Peak Hour (1645 – 1745)		
	Arr	Dep	2-Way	Arr	Dep	2-Way
Lights	27	10	37	7	26	33
HGVs	5	11	16	10	7	17
TOTAL	**32**	**21**	**53**	**17**	**33**	**50**

Source: TA Tables 6.2 – 6.4

2.4.2 NH requested a revised trip generation assessment which allows for the residual effects of travel planning and mode shift (as per the 'Development Vision'). Details of this trip generation assessment are set out in Section 3 of Technical Note ITB15323-011 TN (see Tables 3.1 – 3.3). For reference this trip generation is summarised in **Table 2.3** below.

Table 2.3: Proposed Development Trip Generation – Development Vision

Vehicle Type	Morning Peak Hour (0730 – 0830)			Evening Peak Hour (1645 – 1745)		
	Arr	Dep	2-Way	Arr	Dep	2-Way
Lights	23	9	32	6	23	29
HGVs	5	11	16	10	7	17
TOTAL	**28**	**20**	**48**	**16**	**30**	**46**

Source: Technical Note ITB15323-011 TN Tables 3.1 – 3.3

2.4.3 The development traffic generation has been assigned to the highway network as per the methodology set out in the TA and is agreed with KCC and NH. The development traffic flows are shown on the following traffic figures:

- **Figure TF13** - Development Traffic Assignment AM Peak Hour (0730 – 0830)
- **Figure TF14** – Development Traffic Assignment PM Peak Hour (1645 – 1745)
- **Figure TF15** – Development Traffic Assignment AM Peak Hour (0730 – 0830) – Development Vision
- **Figure TF16** – Development Traffic Assignment PM Peak Hour (1645 – 1745) – Development Vision

2.5 Future Year Traffic Flows – With Development

2.5.1 The assigned development traffic flows shown on **Figures TF13** and **TF14** have been added to the 2027 and 2037 'without development traffic flows shown on **Figures TF7 – TF8** and **Figures TF11 – TF12** to derive 'with development' traffic scenarios for these years. The assigned development traffic flows shown on **Figures TF15** and **TF16** have been added to the 2031 'without development traffic flows shown on **Figures TF9 – TF10** to derive 'with development' traffic scenarios for 2031.

2.5.2 The 'with development' traffic flows are shown on the following figures**:**

- **Figure TF17** – 2027 'With Development' AM Peak (0730 – 0830)
- **Figure TF18** – 2027 'With Development' PM Peak (1645 – 1745)
- **Figure TF19** – 2031 'With Development' AM Peak (0730 – 0830)
- **Figure TF20** – 2031 'With Development' PM Peak (1645 – 1745)
- **Figure TF21** – 2037 'With Development' AM Peak (0730 – 0830)
- **Figure TF22** – 2037 'With Development' PM Peak (1645 – 1745)

SECTION 3 Traffic Impact – Operational Assessments

3.1 Overview

3.1.1 This section of the addendum presents the results of the updated junction assessments using the traffic flow figures derived in Section 2.

Assessment Scenarios

3.1.2 The following scenarios have been assessed as per the KCC and NH comments:

- 2027 'Without Development'
- 2027 'With Development'
- 2031 'Without Development'
- 2031 'With Development'
- 2037 'Without Development'
- 2037 'With Development'

Modelling Tools

3.1.3 The junctions have been assessed using the TRL Junctions 10 software (the industry standard tool used for non-signalised junctions). The principal outputs derived from Junctions 10 are the Ratio of Flow to Capacity (RFC), queue lengths (in PCUs[1]) and delay (in seconds per vehicle).

3.1.4 The junction models have been calibrated to observed queue lengths where appropriate. All junction assessment outputs are included as **Appendix B**.

3.1.5 The modelling results are categorised as follows:

- **GREEN** – Operating within operational capacity.
- **LIGHT GREEN** – Operating within maximum capacity.
- **RED** – Operating over maximum capacity.

[1] Passenger Car Units

3.1.6 Operational capacity is equivalent to 90% of the maximum capacity for signalised junctions and 85% of the maximum capacity for roundabouts/priority junctions. Operational capacity is theoretical and desirable for newly constructed junctions. Maximum capacity is the correct threshold for existing junctions including where mitigation / improvements are proposed.

3.2 Future Year 2027 Operational Assessments

A20 Ashford Road / Site Access Priority Junction

3.2.1 **Table 3.1** summarises the results of the operational assessment at the site access junction.

Table 3.1: A20 Ashford Road / Site Access Junction Assessment Results

	Morning Peak Hour			Evening Peak Hour		
	Queue	Delay (s/veh)	RFC	Queue	Delay (s/veh)	RFC
2027 with Development						
Site Access	<1	11	0.06	<1	10	0.09
A20 Ashford Road right turn	<1	8	0.06	<1	12	0.05

Source: Junctions 10

3.2.2 The site access priority junction is expected to operate well within capacity.

A20 / M20 Link Roundabout

3.2.3 **Table 3.2** summarises the results of the operational assessment at the A20 / M20 Link Roundabout.

Table 3.2: A20 / M20 Link Roundabout Junction Assessment Results

	Morning Peak Hour			Evening Peak Hour		
	Queue	Delay (s/veh)	RFC	Queue	Delay (s/veh)	RFC
2027 without Development						
M20 Link Road	5	10	0.66	14	23	0.90
A20 (E)	11	22	0.92	5	10	0.78
A20 (W)	1	9	0.47	1	7	0.39
2027 with Development						
M20 Link Road	5	10	0.65	15	24	0.89
A20 (E)	12	22	0.94	5	10	0.79
A20 (W)	2	11	0.52	1	7	0.42

Source: Junctions 10

3.2.4 **Table 3.2** demonstrates that the junction will continue to operate within capacity with the addition of the proposed development (there are minor increases in queuing and delay that will not be noticeable).

M20 Junction 8 Roundabout

3.2.5 **Table 3.3** summarises the results of the operational assessment at the M20 Junction 8.

Table 3.3: M20 Junction 8 Roundabout

	Morning Peak Hour			Evening Peak Hour		
	Queue	Delay (s/veh)	RFC	Queue	Delay (s/veh)	RFC
2027 without Development						
Maidstone Services	<1	3	0.23	<1	4	0.25
M20 (E)	<1	5	0.30	1	7	0.34
A20 Link Road	1	3	0.59	1	2	0.47
M20 (W)	2	5	0.68	4	7	0.80
2027 with Development						
Maidstone Services	<1	3	0.23	<1	4	0.26
M20 (E)	<1	5	0.31	1	8	0.36
A20 Link Road	2	3	0.60	1	2	0.48
M20 (W)	2	6	0.69	4	8	0.81

Source: Junctions 10

3.2.6 **Table 3.3** demonstrates that the junction will continue to operate well within capacity with the addition of the proposed development (there are minor increases in queuing and delay that will not be noticeable).

3.3 Future Year 2031 Operational Assessments

A20 Ashford Road / Site Access Priority Junction

3.3.1 **Table 3.4** summarises the results of the operational assessments at the site access junction.

Table 3.4: A20 Ashford Road / Site Access Priority Junction Assessment Results

	Morning Peak Hour			Evening Peak Hour		
	Queue	Delay (s/veh)	RFC	Queue	Delay (s/veh)	RFC
2031 with Development						
Site Access	<1	11	0.06	<1	10	0.08
A20 Ashford Road right turn	<1	9	0.06	<1	12	0.05

Source: Junctions 10

3.3.2 The site access priority junction is expected to operate well within capacity.

A20 / M20 Link Roundabout

3.3.3 **Table 3.5** summarises the results of the operational assessment at the A20 / M20 Link Roundabout.

Table 3.5: A20 / M20 Link Roundabout Junction Assessment Results

	Morning Peak Hour			Evening Peak Hour		
	Queue	Delay (s/veh)	RFC	Queue	Delay (s/veh)	RFC
2031 without Development						
M20 Link Road	5	10	0.67	19	28	0.91
A20 (E)	13	25	0.96	5	10	0.80
A20 (W)	1	11	0.50	1	7	0.40
2031 with Development						
M20 Link Road	5	11	0.68	18	30	0.91
A20 (E)	16	29	0.96	5	11	0.80
A20 (W)	2	12	0.55	1	7	0.44

Source: Junctions 10

3.3.4 **Table 3.5** demonstrates that the junction will continue to operate within capacity with the addition of the proposed development (there are minor increases in queuing and delay that will not be noticeable).

M20 Junction 8 Roundabout

3.3.5 **Table 3.6** summarises the results of the operational assessment at the M20 Junction 8.

Table 3.6: M20 Junction 8 Roundabout

	Morning Peak Hour			Evening Peak Hour		
	Queue	Delay (s/veh)	RFC	Queue	Delay (s/veh)	RFC
2031 without Development						
Maidstone Services	<1	3	0.24	<1	4	0.27
M20 (E)	1	5	0.32	1	8	0.36
A20 Link Road	2	3	0.61	1	2	0.48
M20 (W)	2	6	0.70	5	8	0.82
2031 with Development						
Maidstone Services	<1	3	0.25	<1	4	0.27
M20 (E)	1	6	0.33	1	8	0.38
A20 Link Road	2	3	0.62	1	2	0.49
M20 (W)	3	6	0.71	5	9	0.83

Source: Junctions 10

3.3.6 **Table 3.6** demonstrates that the junction will continue to operate well within capacity with the addition of the proposed development (there are minor increases in queuing and delay that will not be noticeable).

3.4 Future Year 2037 Operational Assessments

A20 Ashford Road / Site Access Junction

3.4.1 **Table 3.7** summarises the results of the operational assessments.

Table 3.7: A20 Ashford Road / Site Access Junction Assessment Results

	Morning Peak Hour			Evening Peak Hour		
	Queue	Delay (s/veh)	RFC	Queue	Delay (s/veh)	RFC
2037 with Development						
Site Access	<1	11	0.07	<1	10	0.09
A20 Ashford Road right turn	<1	9	0.06	<1	12	0.05

Source: Junctions 10

3.4.2 The site access priority junction is expected to operate well within capacity.

A20 / M20 Link Roundabout

3.4.3 **Table 3.8** summarises the results of the operational assessments.

Table 3.8: A20 / M20 Link Roundabout Junction Assessment Results

	Morning Peak Hour			Evening Peak Hour		
	Queue	Delay (s/veh)	RFC	Queue	Delay (s/veh)	RFC
2037 without Development						
M20 Link Road	5	11	0.69	23	35	0.94
A20 (E)	22	36	0.99	6	12	0.84
A20 (W)	1	12	0.55	1	7	0.43
2037 with Development						
M20 Link Road	5	11	0.70	24	38	0.94
A20 (E)	25	39	0.99	6	12	0.83
A20 (W)	2	13	0.59	1	8	0.48

Source: Junctions 10

3.4.4 **Table 3.8** demonstrates that the junction will continue to operate at capacity in the morning peak hour with the addition of the proposed development (there are minor increases in queuing and delay that will not be noticeable). The junction is predicted to continue to operate within capacity in the evening peak hour.

M20 Junction 8 Roundabout

3.4.5 **Table 3.9** summarises the results of the operational assessments.

Table 3.9: M20 Junction 8 Roundabout

	Morning Peak Hour			Evening Peak Hour		
	Queue	Delay (s/veh)	RFC	Queue	Delay (s/veh)	RFC
2037 without Development						
Maidstone Services	<1	4	0.26	<1	5	0.29
M20 (E)	1	6	0.35	1	9	0.41
A20 Link Road	2	3	0.63	1	2	0.50
M20 (W)	3	6	0.73	6	11	0.86
2037 with Development						
Maidstone Services	<1	4	0.27	<1	5	0.30
M20 (E)	1	6	0.36	1	10	0.43
A20 Link Road	2	4	0.65	1	2	0.52
M20 (W)	3	7	0.74	7	12	0.87

Source: Junctions 10

3.4.6 **Table 3.9** demonstrates that the junction will continue to operate well within capacity with the addition of the proposed development (there are minor increases in queuing and delay that will not be noticeable).

3.5 Summary

3.5.1 **Table 3.10** provides a summary of the operational assessment results.

Table 3.10: Operational Assessment Results Summary

Junction	2027 without Development	2027 with Development	2031 without Development	2031 with Development	2037 without Development	2037 with Development
A20 Ashford Road / Site Access						
A20 / M20 On/Off-Slip Roundabout						
M20 Junction 8						

RFC < 0.85
RFC ≥ 0.85
RFC > 1.00

3.5.2 The traffic impact assessment demonstrates that the local highway network will continue to operate acceptably and that the proposed development has a minimal impact on the operation of local junctions in all assessed scenarios.

SECTION 4 Sensitivity Test Assessments – Parcel Distribution Warehouse

4.1 Overview

4.1.1 This section of the addendum provides a sensitivity test traffic impact assessment of the site should it come forward as a Parcel Distribution Centre, taking into account the parameters detailed in Section 2 of this note (as per the recent KCC and NH request) and the trip rates presented at Section 8 of the TA.

4.2 Parcel Distribution Warehouse Trip Generation

4.2.1 The trip generation for the Sensitivity Test scenarios for 2027 and 2037 is as set out in Section 8 of the TA (Tables 8.1 – 8.3) and is agreed with KCC. For reference this trip generation is summarised in **Table 4.1** below.

Table 4.1: Sensitivity Test Trip Generation

Vehicle Type	Morning Peak Hour (0730 – 0830)			Evening Peak Hour (1645 – 1745)		
	Arr	Dep	2-Way	Arr	Dep	2-Way
Lights	38	44	82	43	63	106
HGVs	9	17	26	5	9	14
TOTAL	**47**	**61**	**108**	**48**	**74**	**121**

Source: TA Tables 6.2 – 6.4

4.2.2 NH requested a revised trip generation assessment which allows for the residual effects of travel planning and mode shift (as per the 'Development Vision'). Details of this trip generation assessment, as a Parcel Distribution Centre, are set out in Section 3 of Technical Note ITB15323-011 TN (see Tables 3.4 – 3.6). For reference this trip generation is summarised in **Table 4.2** below.

Table 4.2: Sensitivity Test Trip Generation – Development Vision

Vehicle Type	Morning Peak Hour (0730 – 0830)			Evening Peak Hour (1645 – 1745)		
	Arr	Dep	2-Way	Arr	Dep	2-Way
Lights	33	38	71	37	56	93
HGVs	9	17	26	5	9	14
TOTAL	**42**	**55**	**97**	**42**	**65**	**107**

Source: Technical Note ITB15323-011 TN Tables 3.1 – 3.3

4.2.3 The sensitivity test traffic generation has been distributed and assigned to the local highway network and strategic highway network as per the methodology set out in the TA (this has been agreed with KCC and NH). The development traffic flows are shown on the following traffic figures:

- **Figure TF23** – Sensitivity Test Traffic Assignment AM Peak Hour (0730 – 0830)
- **Figure TF24** – Sensitivity Test Traffic Assignment PM Peak Hour (1645 – 1745)
- **Figure TF25** – Sensitivity Test Traffic Assignment AM Peak Hour (0730 – 0830) – Development Vision
- **Figure TF26** – Sensitivity Test Traffic Assignment PM Peak Hour (1645 – 1745) – Development Vision

4.3 Future Year Traffic Flows – With Development

4.3.1 The assigned development sensitivity test traffic flows shown on **Figures TF23** and **TF24** have been added to the 2027 and 2037 'without development traffic flows shown on **Figures TF7 – TF8** and **Figures TF11 – TF12** to derive 'with development' traffic scenarios for these years. The assigned development sensitivity test traffic flows shown on **Figures TF25** and **TF26** have been added to the 2031 'without development traffic flows shown on **Figures TF9 – TF10** to derive 'with development' traffic scenarios for 2031.

4.3.2 The 'with development' traffic flows are shown on the following figures**:**

- **Figure TF27** – 2027 'With Development' AM Peak (0730 – 0830) – Sensitivity Test
- **Figure TF28** – 2027 'With Development' PM Peak (1645 – 1745) – Sensitivity Test
- **Figure TF29** – 2031 'With Development' AM Peak (0730 – 0830) – Sensitivity Test
- **Figure TF30** – 2031 'With Development' PM Peak (1645 – 1745) – Sensitivity Test
- **Figure TF31** – 2037 'With Development' AM Peak (0730 – 0830) – Sensitivity Test
- **Figure TF32** – 2037 'With Development' PM Peak (1645 – 1745) – Sensitivity Test

4.4 Future Year 2027 Sensitivity Test Assessments – Parcel Distribution Warehouse

A20 Ashford Road / Site Access Junction

4.4.1 **Table 4.3** summarises the results of the Sensitivity Test assessment at the site access junction.

Table 4.3: A20 Ashford Road / Site Access Junction Sensitivity Test Assessment Results

	Morning Peak Hour			Evening Peak Hour		
	Queue	Delay (s/veh)	RFC	Queue	Delay (s/veh)	RFC
2027 with Development (Sensitivity Test)						
Site Access	<1	11	0.17	<1	11	0.19
A20 Ashford Road right turn	<1	9	0.10	<1	8	0.09

Source: Junctions 10

4.4.2 The site access priority junction is expected to operate well within capacity.

A20 / M20 Link Roundabout

4.4.3 **Table 4.4** summarises the results of the Sensitivity Test assessment at the A20 / M20 Link Roundabout.

Table 4.4: A20 / M20 Link Roundabout Junction Sensitivity Test Assessment Results

	Morning Peak Hour			Evening Peak Hour		
	Queue	Delay (s/veh)	RFC	Queue	Delay (s/veh)	RFC
2027 without Development						
M20 Link Road	5	10	0.66	14	23	0.90
A20 (E)	11	22	0.92	5	10	0.78
A20 (W)	1	9	0.47	1	7	0.39
2027 with Development (Sensitivity Test)						
M20 Link Road	5	11	0.66	15	24	0.90
A20 (E)	12	23	0.95	5	9	0.79
A20 (W)	1	14	0.58	1	7	0.45

Source: Junctions 10

4.4.4 **Table 4.4** demonstrates that the junction will continue to operate within capacity with the addition of the proposed development (there are minor increases in queuing and delay that will not be noticeable).

M20 Junction 8 Roundabout

4.4.5 **Table 4.5** summarises the results of the Sensitivity Test assessment at the M20 Junction 8.

Table 4.5: M20 Junction 8 Roundabout

	Morning Peak Hour			Evening Peak Hour		
	Queue	Delay (s/veh)	RFC	Queue	Delay (s/veh)	RFC
2027 without Development						
Maidstone Services	<1	3	0.23	<1	4	0.25
M20 (E)	<1	5	0.30	1	7	0.34
A20 Link Road	1	3	0.59	1	2	0.47
M20 (W)	2	5	0.68	4	7	0.80
2027 with Development (Sensitivity Test)						
Maidstone Services	<1	3	0.24	<1	4	0.26
M20 (E)	1	5	0.32	1	8	0.37
A20 Link Road	2	3	0.61	1	2	0.49
M20 (W)	2	6	0.70	5	8	0.82

Source: Junctions 10

4.4.6 **Table 4.5** demonstrates that the junction will continue to operate well within capacity with the addition of the proposed development (there are minor increases in queuing and delay that will not be noticeable).

4.5 Future Year 2031 Sensitivity Test Assessments

A20 Ashford Road / Site Access Junction

4.5.1 **Table 4.6** summarises the results of the Sensitivity Test assessments at the site access junction.

Table 4.6: A20 Ashford Road / Site Access Junction Sensitivity Test Assessment Results

	Morning Peak Hour			Evening Peak Hour		
	Queue	Delay (s/veh)	RFC	Queue	Delay (s/veh)	RFC
2031 with Development (Sensitivity Test)						
Site Access	<1	11	0.16	<1	10	0.17
A20 Ashford Road right turn	<1	9	0.09	<1	8	0.08

Source: Junctions 10

4.5.2 The site access priority junction is expected to operate well within capacity.

A20 / M20 Link Roundabout

4.5.3 **Table 4.7** summarises the results of the Sensitivity Test assessment at the A20 / M20 Link Roundabout.

Table 4.7: A20 / M20 Link Roundabout Sensitivity Test Assessment Results

	Morning Peak Hour			Evening Peak Hour		
	Queue	Delay (s/veh)	RFC	Queue	Delay (s/veh)	RFC
2031 without Development						
M20 Link Road	5	10	0.67	19	28	0.91
A20 (E)	13	25	0.96	5	10	0.80
A20 (W)	1	11	0.50	1	7	0.40
2031 with Development (Sensitivity Test)						
M20 Link Road	5	12	0.69	18	28	0.92
A20 (E)	17	28	0.97	5	11	0.80
A20 (W)	2	14	0.58	1	7	0.45

Source: Junctions 10

4.5.4 **Table 4.7** demonstrates that the junction will continue to operate within capacity with the addition of the proposed development (there are minor increases in queuing and delay that will not be noticeable).

M20 Junction 8 Roundabout

4.5.5 **Table 4.8** summarises the results of the Sensitivity Test assessment at the M20 Junction 8.

Table 4.8: M20 Junction 8 Roundabout Sensitivity Test Assessment Results

	Morning Peak Hour			Evening Peak Hour		
	Queue	Delay (s/veh)	RFC	Queue	Delay (s/veh)	RFC
2031 without Development						
Maidstone Services	<1	3	0.24	<1	4	0.27
M20 (E)	1	5	0.32	1	8	0.36
A20 Link Road	2	3	0.61	1	2	0.48
M20 (W)	2	6	0.70	5	8	0.82
2031 with Development (Sensitivity Test)						
Maidstone Services	<1	4	0.25	<1	5	0.27
M20 (E)	1	6	0.34	1	8	0.39
A20 Link Road	2	3	0.63	1	2	0.50
M20 (W)	3	6	0.72	5	9	0.84

Source: Junctions 10

4.5.6 **Table 4.8** demonstrates that the junction will continue to operate well within capacity with the addition of the proposed development (there are minor increases in queuing and delay that will not be noticeable).

4.6 Future Year 2037 Sensitivity Test Assessments

A20 Ashford Road / Site Access Priority Junction

4.6.1 **Table 4.9** summarises the results of the Sensitivity Test assessments.

Table 4.9: A20 Ashford Road / Site Access Junction Sensitivity Test Assessment Results

	Morning Peak Hour			Evening Peak Hour		
	Queue	Delay (s/veh)	RFC	Queue	Delay (s/veh)	RFC
Future Year 2037 with Development						
Site Access	<1	12	0.18	<1	11	0.20
A20 Ashford Road right turn	<1	9	0.10	<1	8	0.09

Source: Junctions 10

4.6.2 The site access priority junction is expected to operate well within capacity.

A20 / M20 Link Roundabout

4.6.3 **Table 4.10** summarises the results of the Sensitivity Test assessments.

Table 4.10: A20 / M20 Link Roundabout Sensitivity Test Assessment Results

	Morning Peak Hour			Evening Peak Hour		
	Queue	Delay (s/veh)	RFC	Queue	Delay (s/veh)	RFC
Future Year 2037 without Development						
M20 Link Road	5	11	0.69	23	35	0.94
A20 (E)	22	36	0.99	6	12	0.84
A20 (W)	1	12	0.55	1	7	0.43
Future Year 2037 with Development						
M20 Link Road	6	12	0.71	28	40	0.96
A20 (E)	25	42	0.99	6	13	0.85
A20 (W)	2	15	0.62	1	8	0.52

Source: Junctions 10

4.6.4 **Table 4.10** demonstrates that the junction will continue to operate at capacity under the Sensitivity Test assessment parameters (minor increases in queuing and delay are predicted but these will not be noticeable).

M20 Junction 8 Roundabout

4.6.5 **Table 4.11** summarises the results of the Sensitivity Test assessments.

Table 4.11: M20 Junction 8 Roundabout Sensitivity Test Assessment Results

	Morning Peak Hour			Evening Peak Hour		
	Queue	Delay (s/veh)	RFC	Queue	Delay (s/veh)	RFC
2037 without Development						
Maidstone Services	<1	4	0.26	<1	5	0.29
M20 (E)	1	6	0.35	1	9	0.41
A20 Link Road	2	3	0.63	1	2	0.50
M20 (W)	3	6	0.73	6	11	0.86
2037 with Development (Sensitivity Test)						
Maidstone Services	<1	4	0.27	<1	5	0.30
M20 (E)	1	6	0.37	1	10	0.44
A20 Link Road	2	4	0.66	1	2	0.53
M20 (W)	3	7	0.76	7	12	0.88

Source: Junctions 10

4.6.6 **Table 4.11** demonstrates that the junction will continue to operate well within capacity with the addition of the proposed development (there are minor increases in queuing and delay that will not be noticeable).

4.7 Summary

4.7.1 **Table 4.12** provides a summary of the Sensitivity Test assessment results of the Proposed Development should it come forward as a Parcel Distribution Centre in combination with planned and committed development within the study area.

Table 4.12: Operational Assessment Results Summary – Sensitivity Test

Junction	2027 without Development	2027 with Development	2031 without Development	2031 with Development	2037 without Development	2037 with Development
A20 Ashford Road / Site Access						
A20 / M20 On/Off-Slip Roundabout						
M20 Junction 8						

RFC < 0.85
RFC ≥ 0.85
RFC > 1.00

4.7.2 The Sensitivity Test assessments demonstrate that the local highway network will continue to operate acceptably and well within capacity should the site come forward as a parcel distribution centre. The results of the traffic impact assessment at Section 3 therefore remain valid.

4.7.3 All junction assessment outputs for the Sensitivity Test are included as **Appendix C**.

SECTION 5 Summary and Conclusions

5.1 This note sets out an addendum to the traffic assessment presented in the TA and presents further traffic assessments to address comments issued by both National Highways (NH) and Kent County Council (KCC).

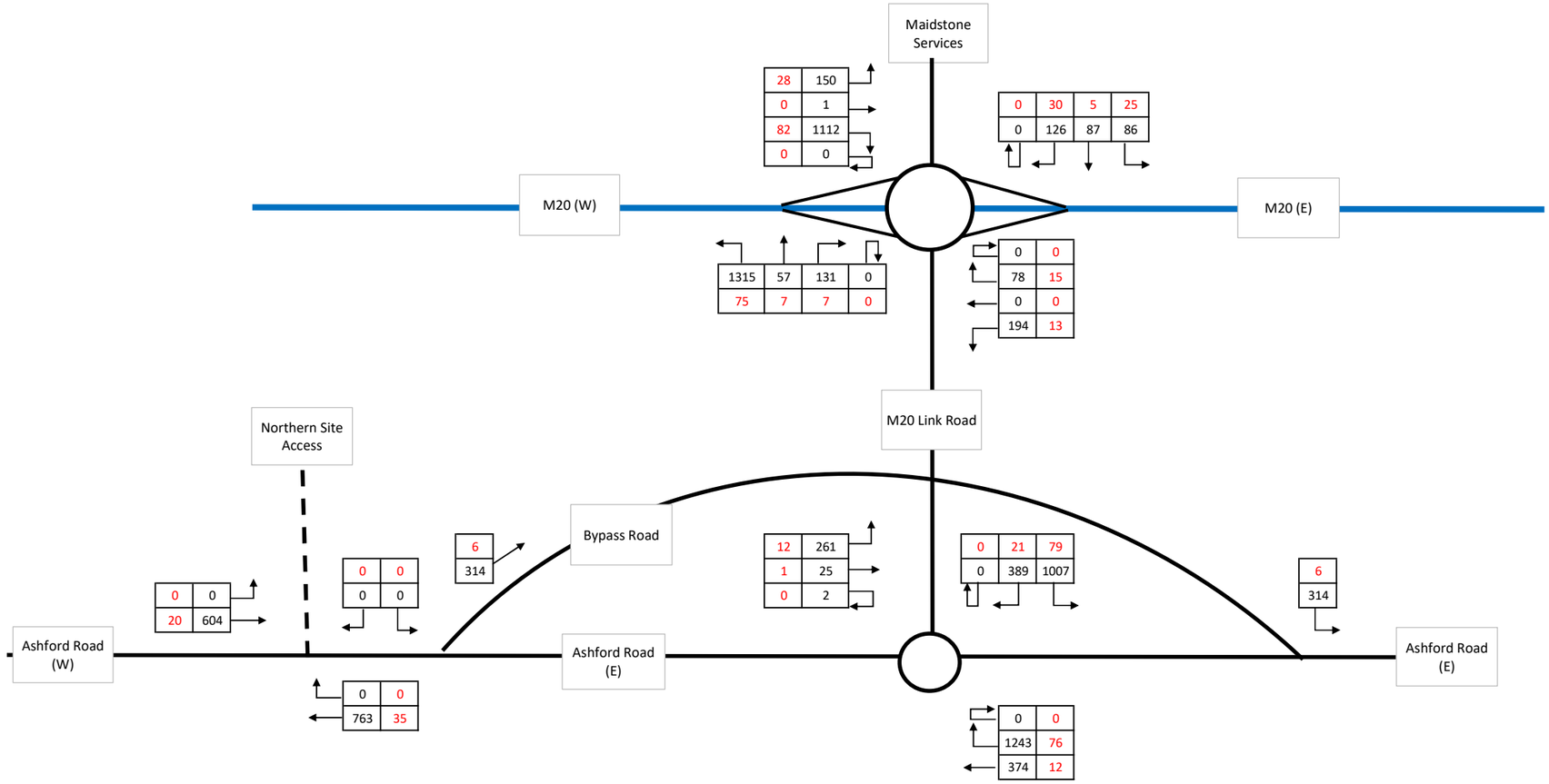
5.2 The updated assessment of the local highway network takes into account additional committed developments (at the request of both KCC and NH), alongside a revised trip generation assessment (at the request of NH), and assesses the following scenarios:

- 2027 'Without Development'
- 2027 'With Development'
- 2031 'Without Development'
- 2031 'With Development'
- 2037 'Without Development'
- 2037 'With Development'

5.3 The updated traffic impact assessment demonstrates that the local highway network will continue to operate acceptably and that the proposed development has a minimal impact on the operation of local junctions in all assessed scenarios.

5.4 In addition to the above assessments a sensitivity test has also been undertaken which assumes that the site comes forward as a parcel distribution centre. This assessment also demonstrates that the proposed development will have a minimal impact of the operation of local junctions in all assessed scenarios and that the local highway network will continue to operate acceptably.

TRAFFIC FIGURES



KEY

500 = TOTAL VEH

25 = HGVs

i-Transport

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RG24 8AG
Tel: 01256 338640
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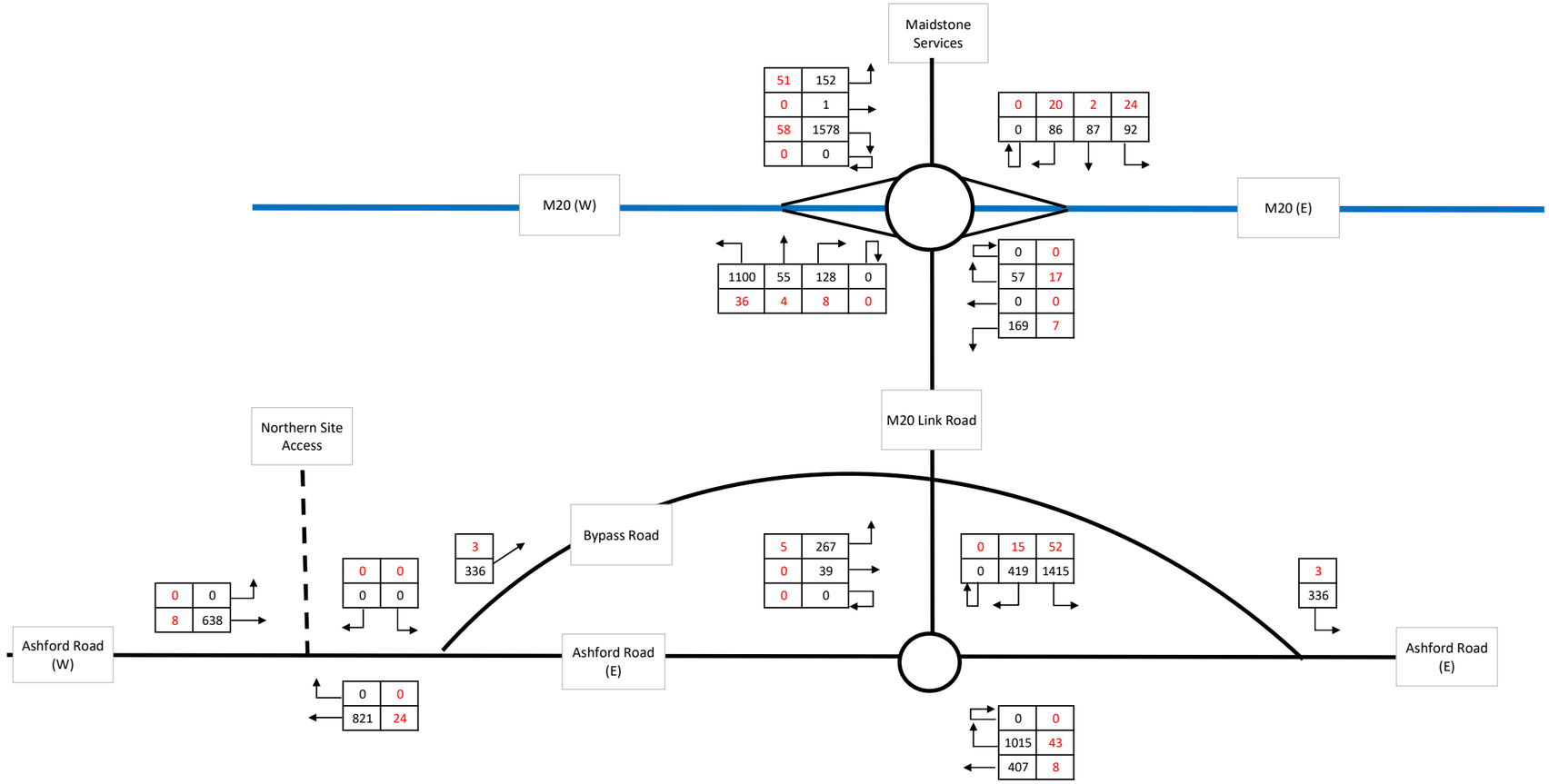
Ashford Road, Maidstone

TF1

2027 Baseline Traffic Flows - AM Peak Hour (0730-0830)



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500 = TOTAL VEH

25 = HGVs

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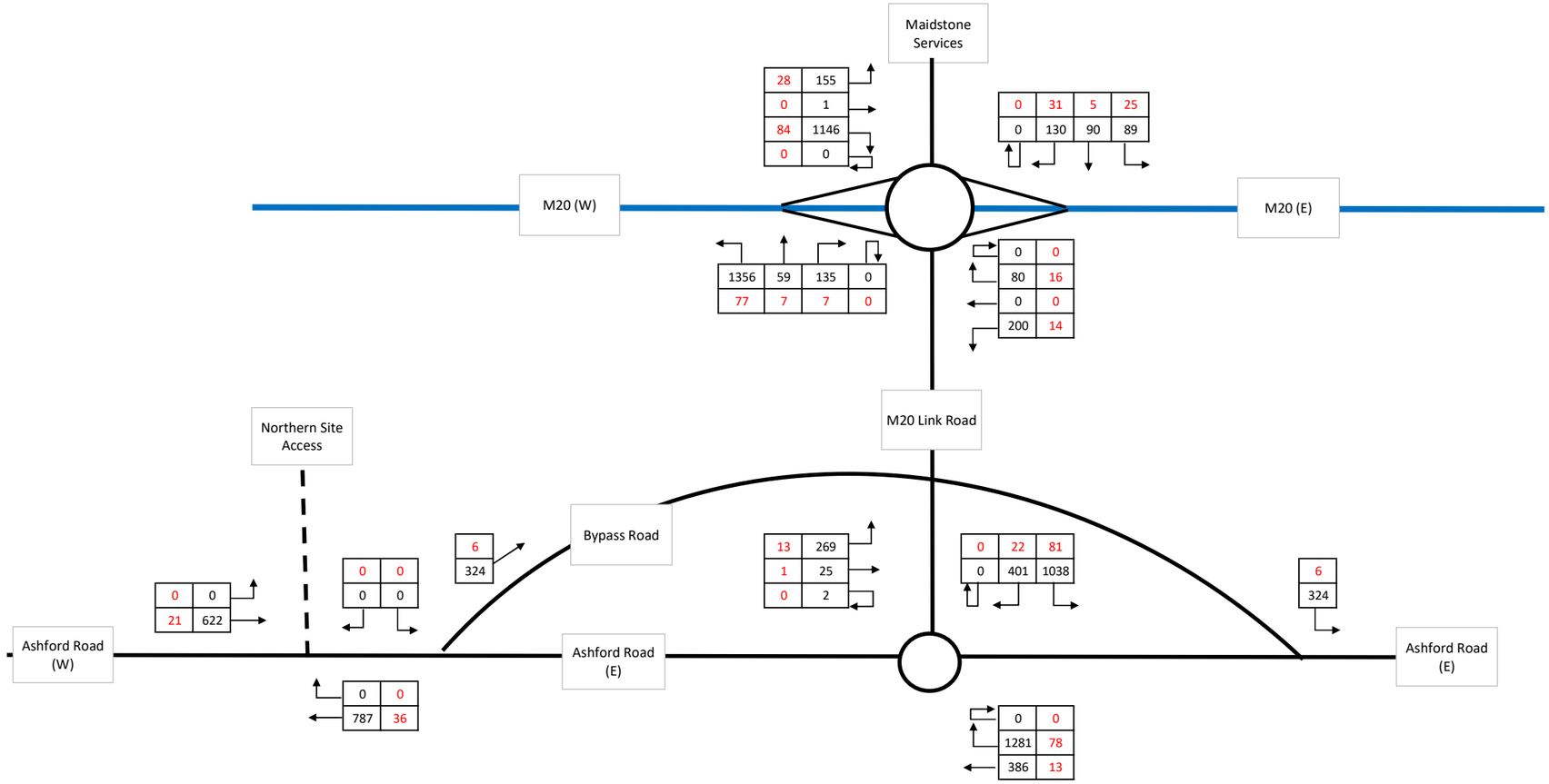
TF2

2027 Baseline Traffic Flows - PM Peak Hour (1645-1745)



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500 = TOTAL VEH

25 = HGVs

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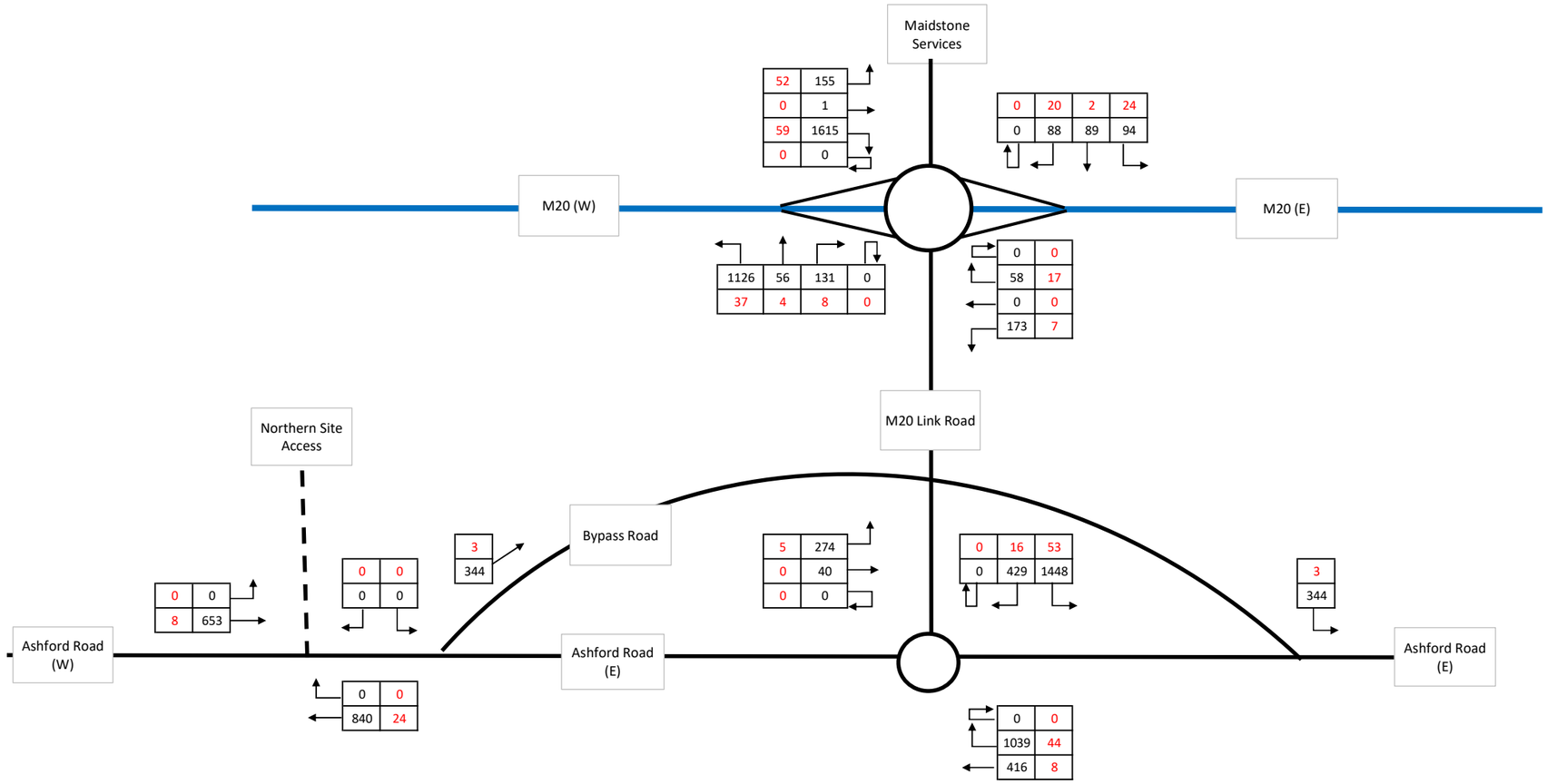
TF3

2031 Baseline Traffic Flows - AM Peak Hour (0730-0830)



KEY

500 = TOTAL VEH

25 = HGVs

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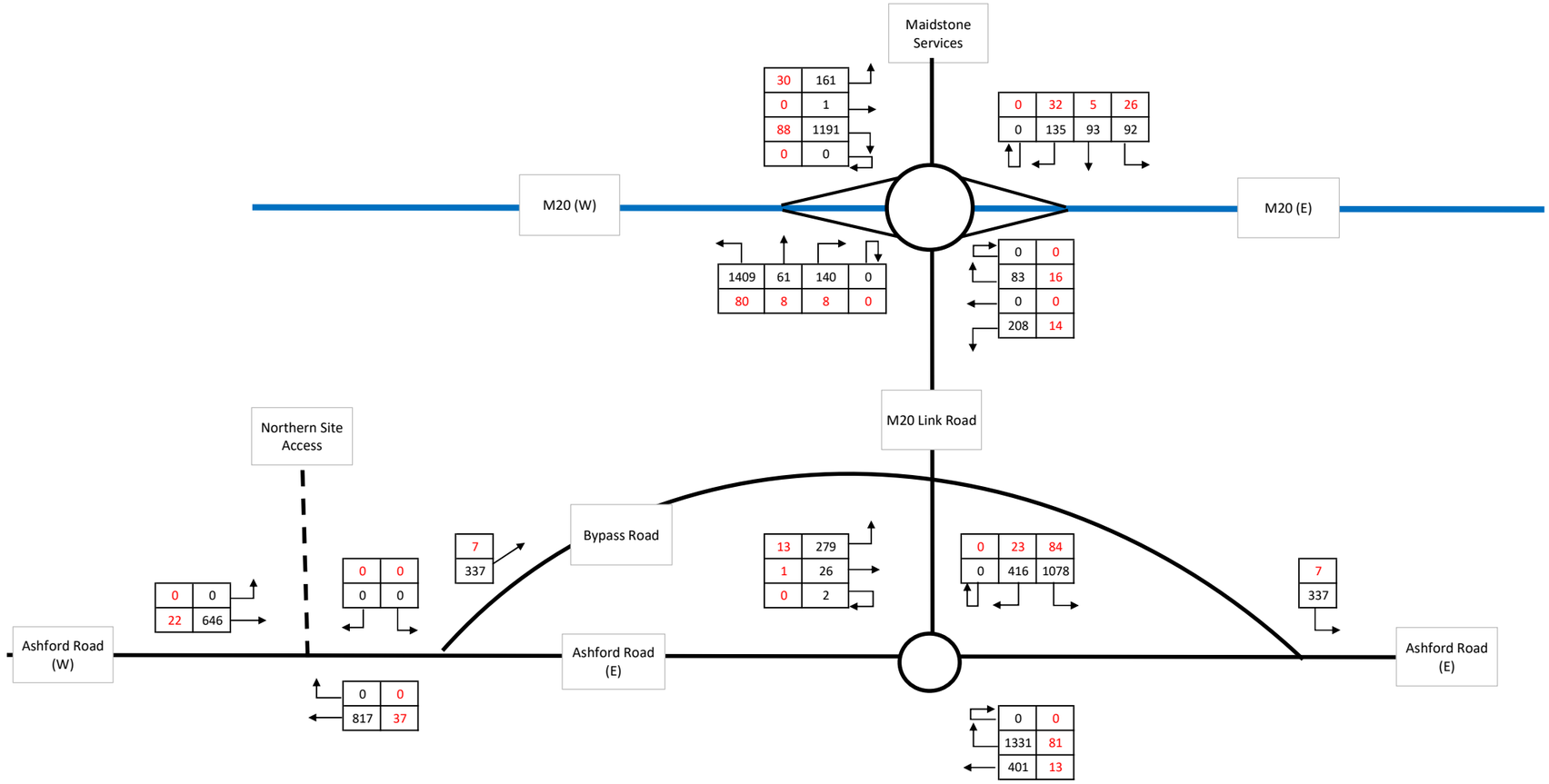
TF4

2031 Baseline Traffic Flows - PM Peak Hour (1645-1745)



KEY

500 = TOTAL VEH

25 = HGVs

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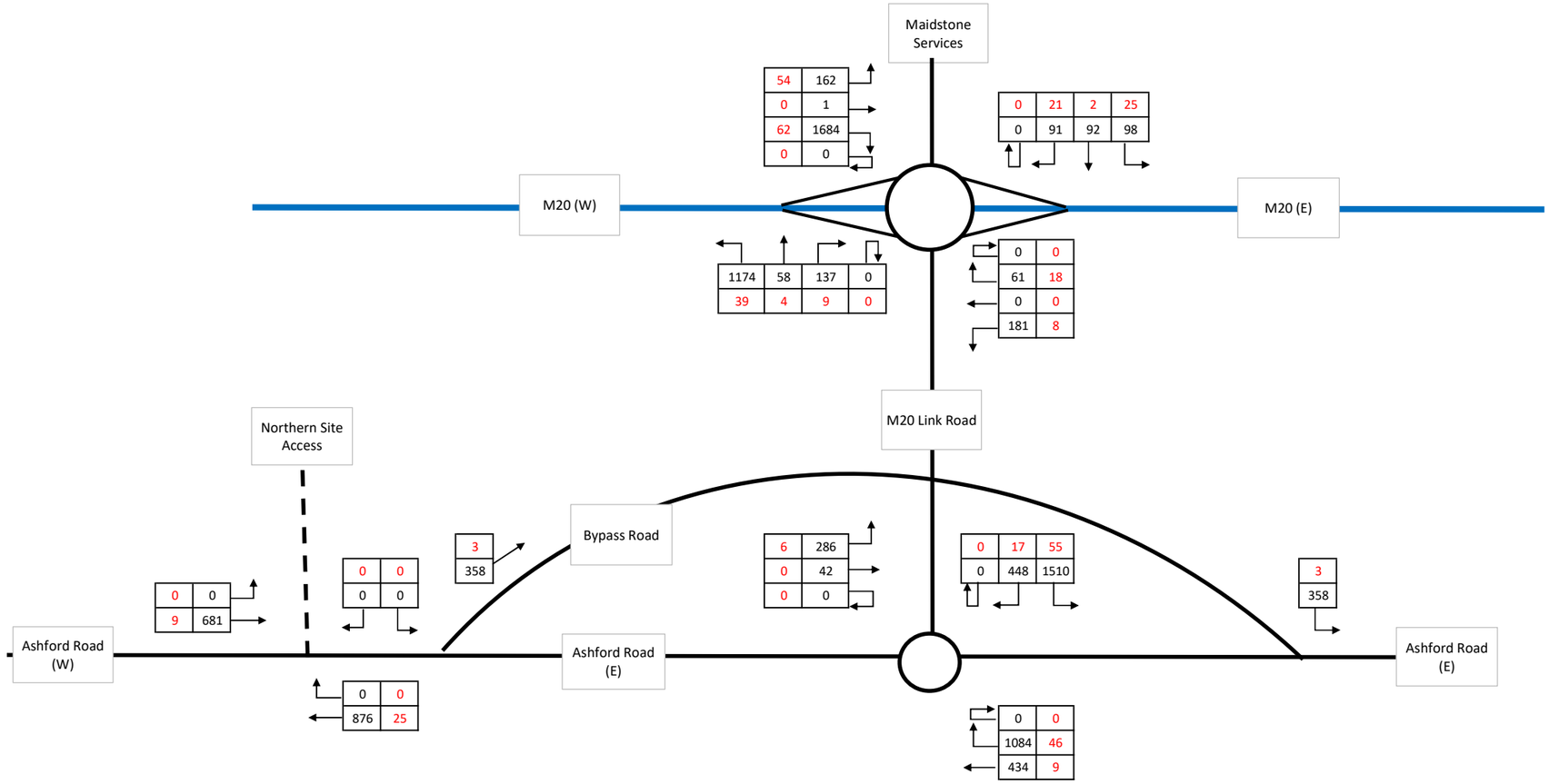
TF5

2037 Baseline Traffic Flows - AM Peak Hour (0730-0830)



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25 = HGVs

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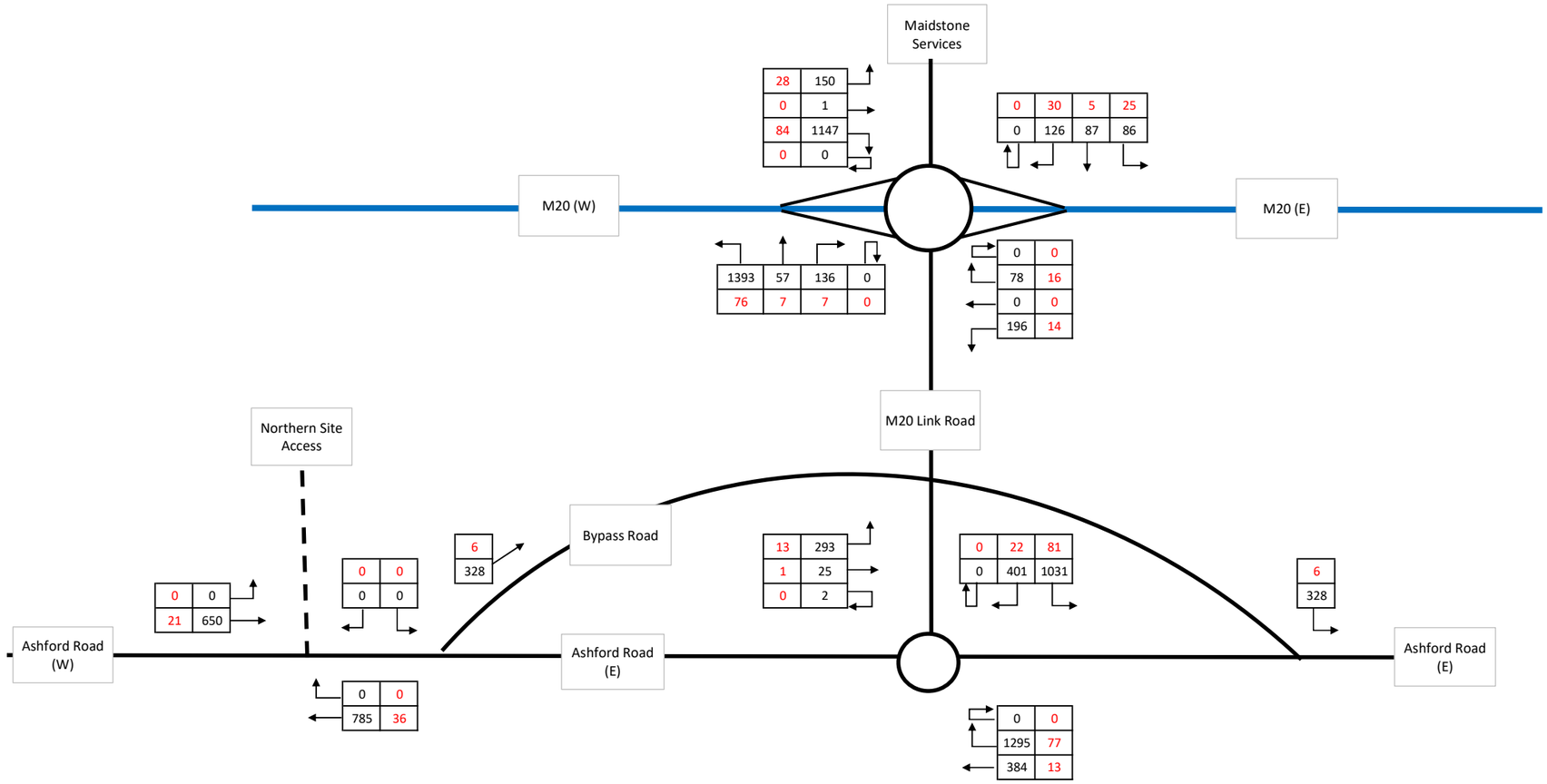
TF6

2037 Baseline Traffic Flows - PM Peak Hour (1645-1745)



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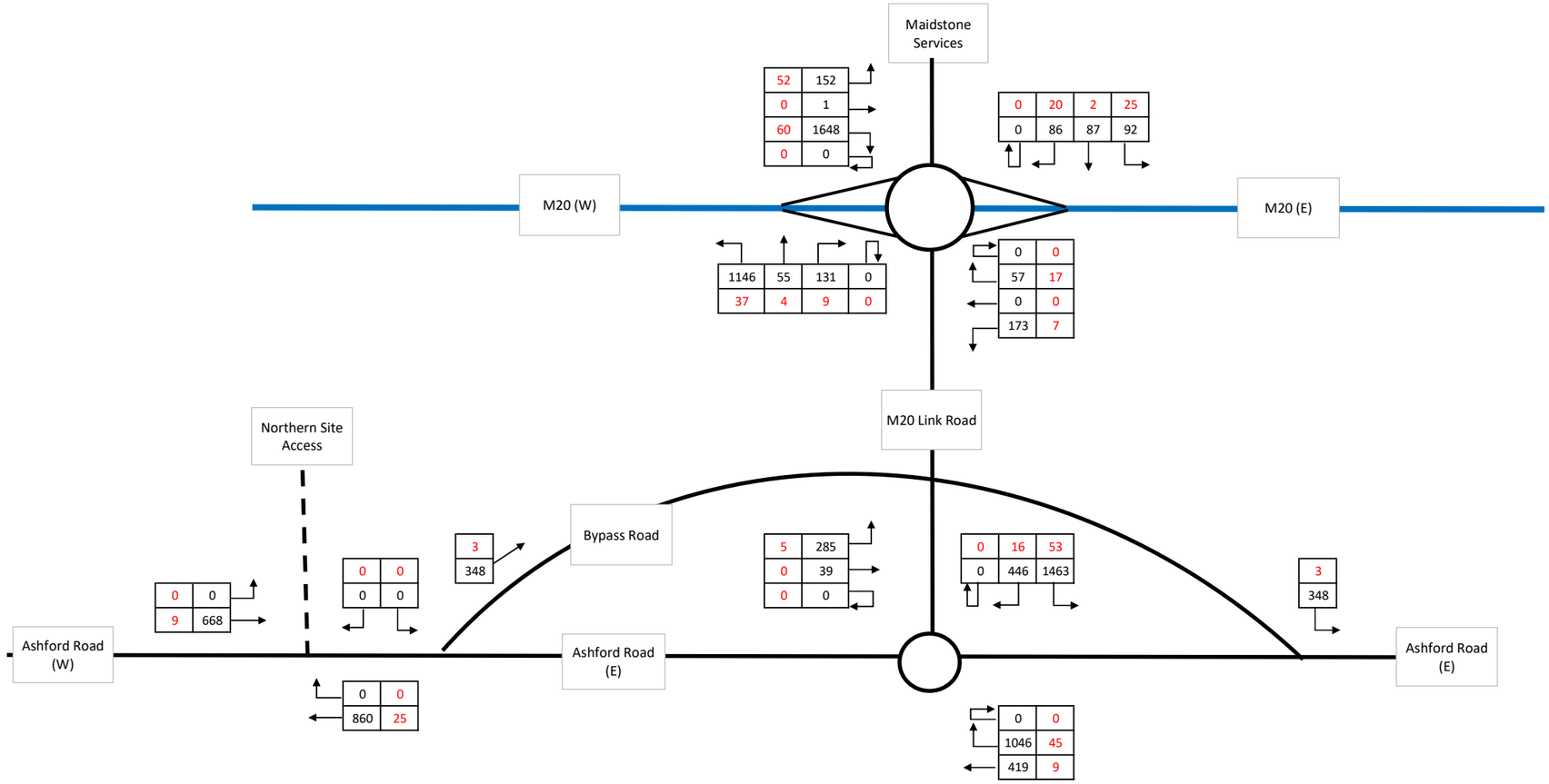
TF7

2027 Future Year + Committed Dev AM Peak (0730-0830)



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25 = HGVs

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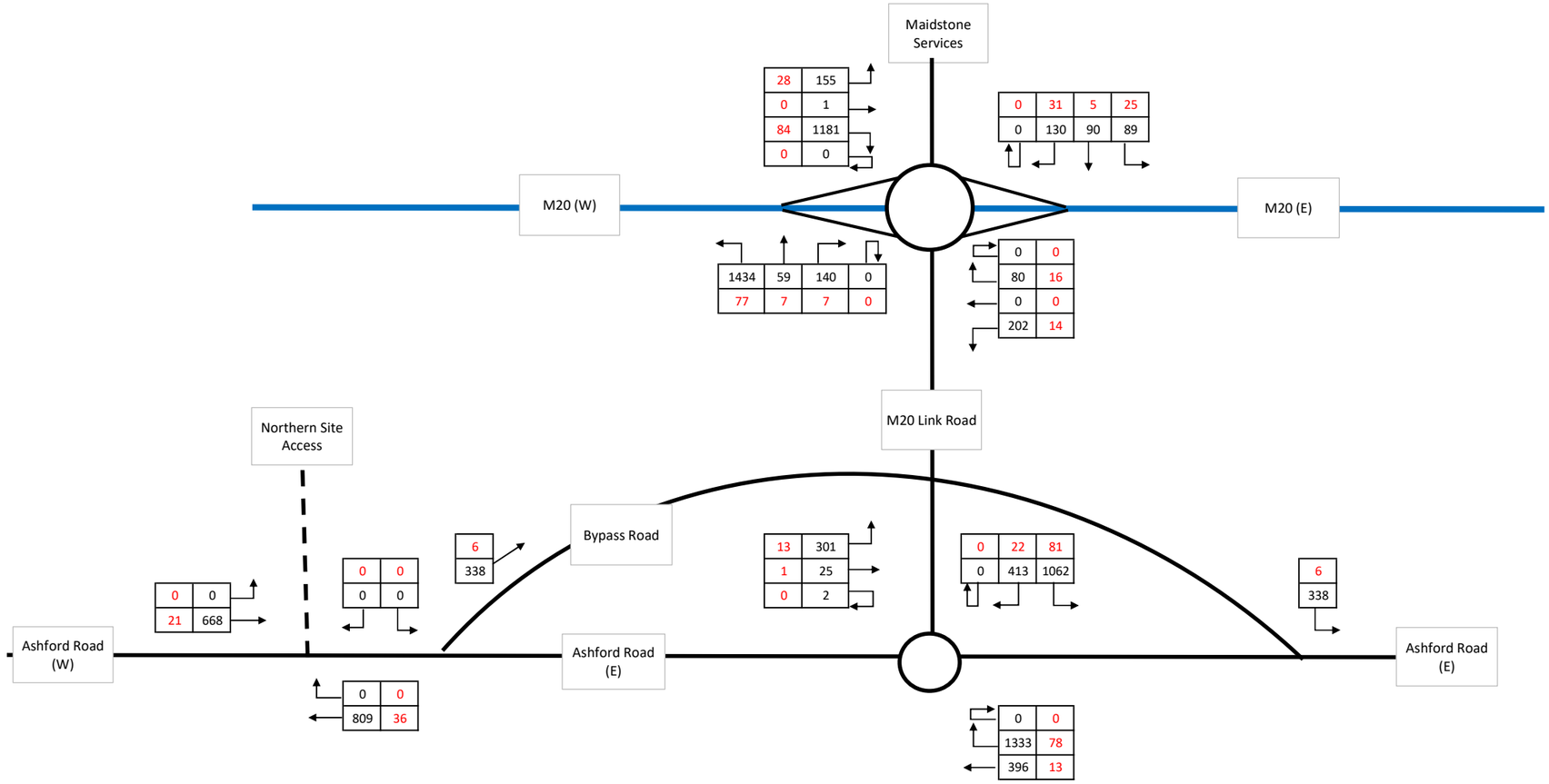
TF8

2027 Future Year + Committed Dev PM Peak (1645-1745)



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500 = TOTAL VEH

25 = HGVs

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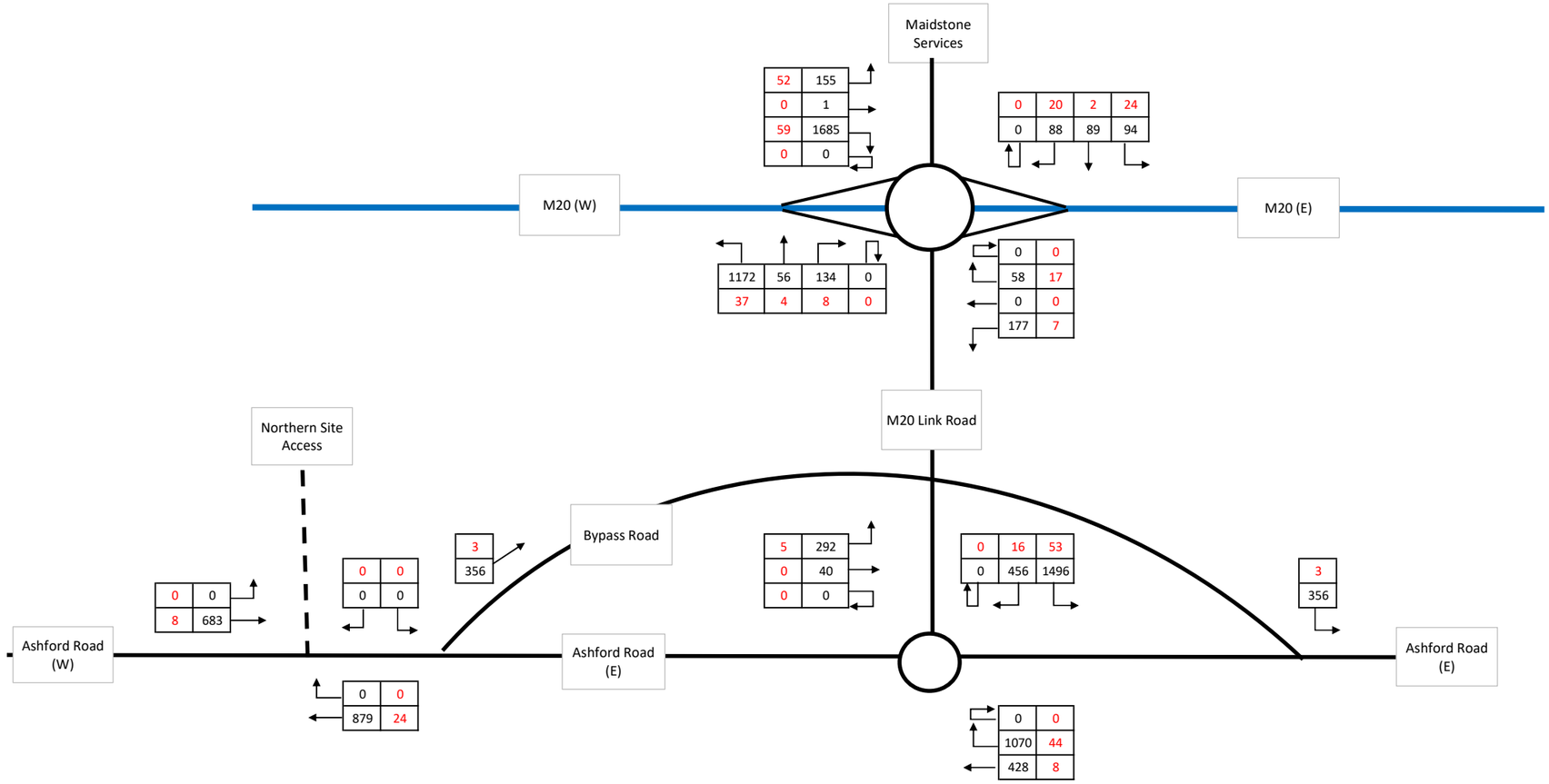
TF9

2031 Future Year + Committed Dev AM Peak (0730-0830)



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500 = TOTAL VEH

25 = HGVs

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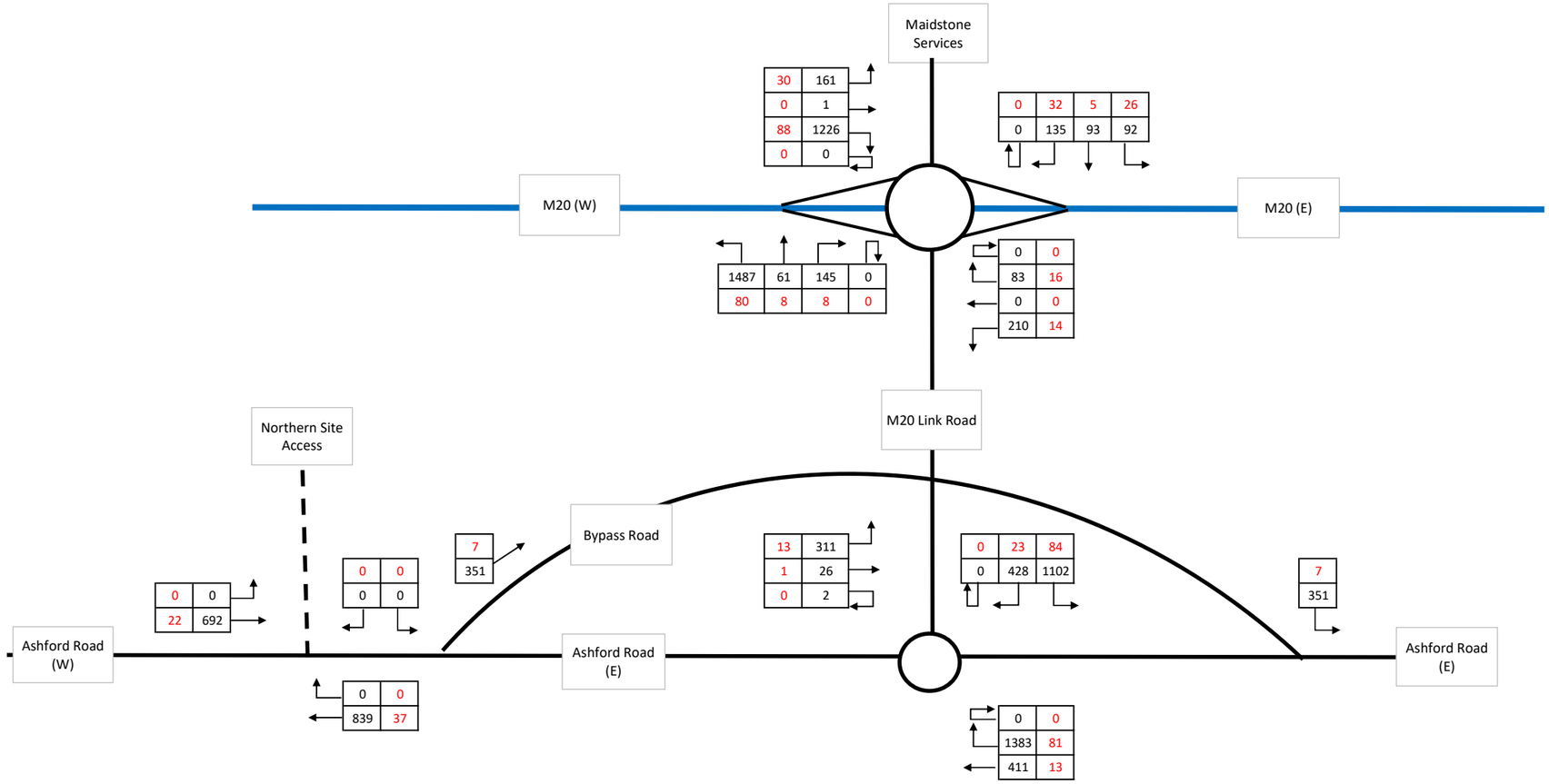
TF10

2031 Future Year + Committed Dev PM Peak (1645-1745)



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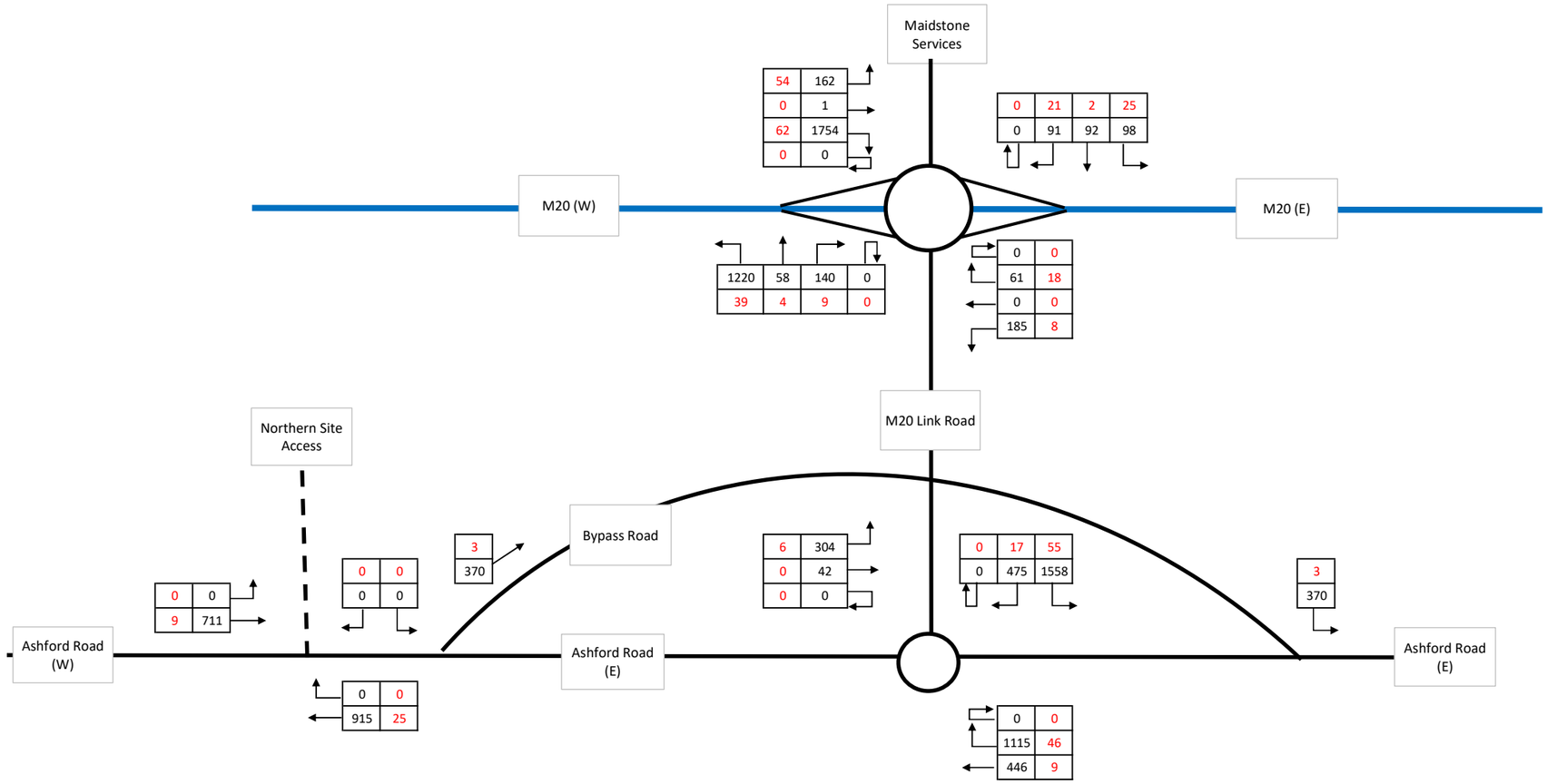
TF11

2037 Future Year + Committed Dev AM Peak (0730-0830)



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500 = TOTAL VEH

25 = HGVs

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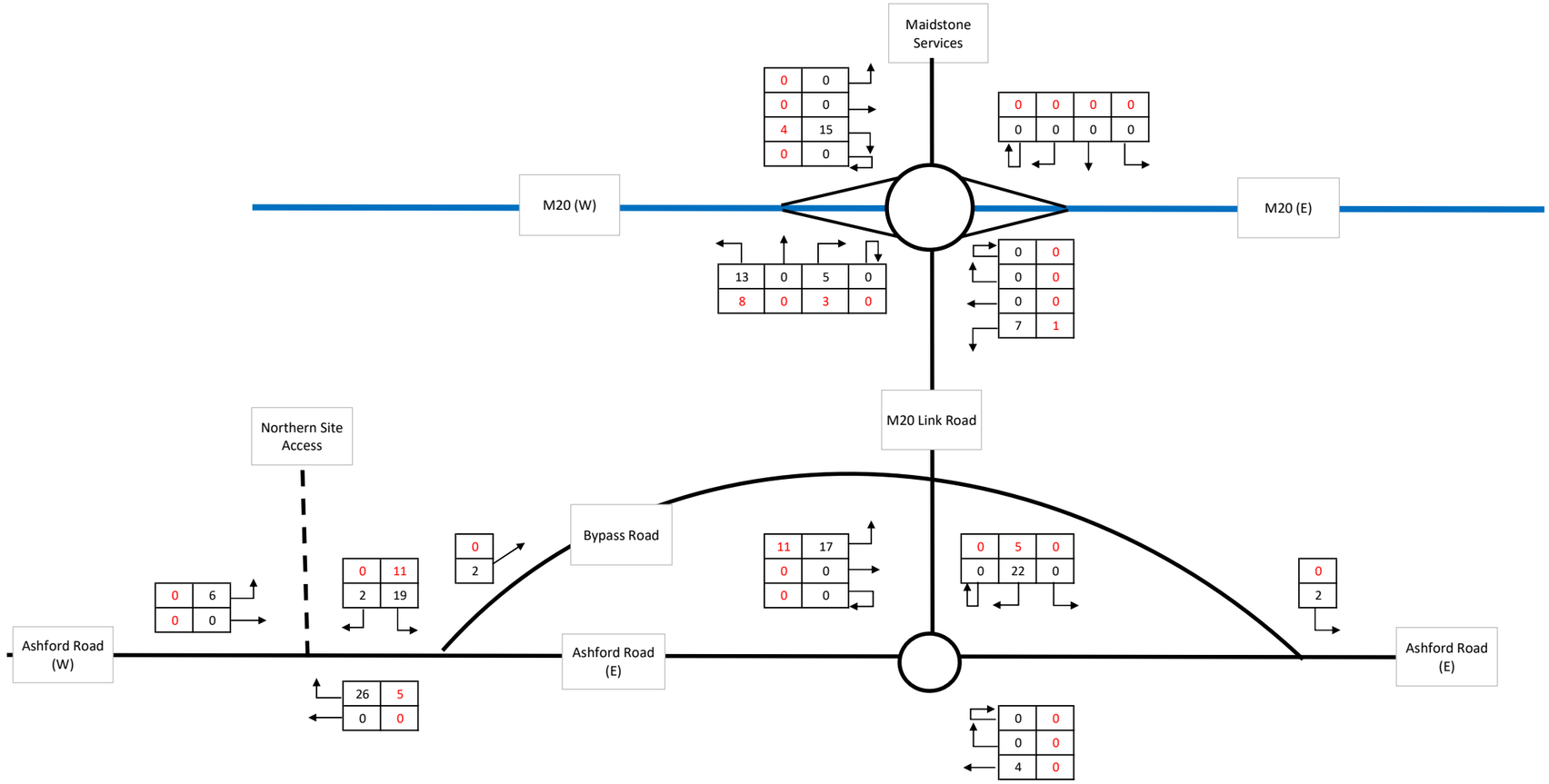
TF12

2037 Future Year + Committed Dev PM Peak (1645-1745)



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25 = HGVs

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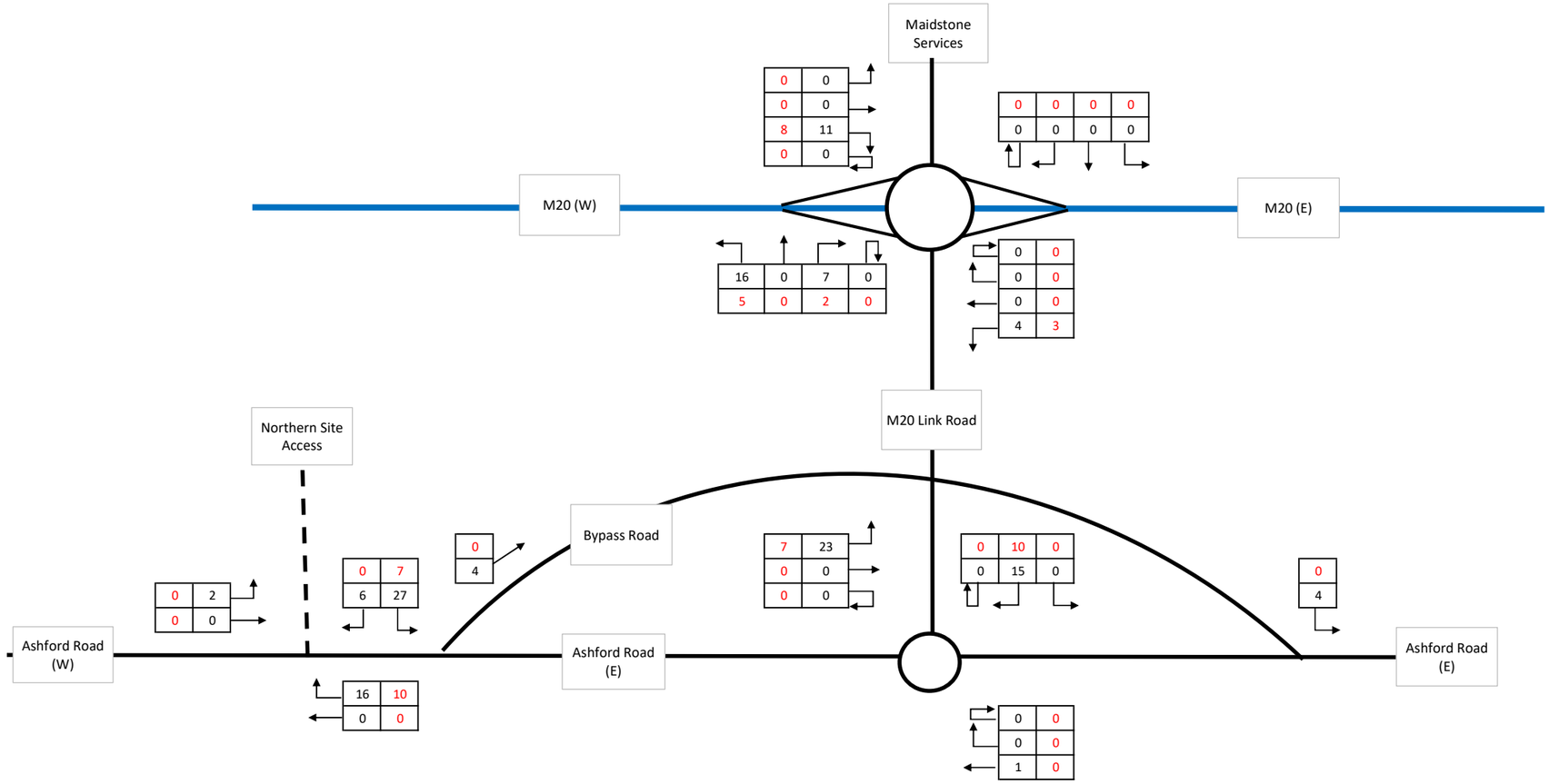
TF13

Development Traffic Assignment AM Peak Hour (Tot Veh) 2027 & 2037



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500 = TOTAL VEH

25 = HGVs

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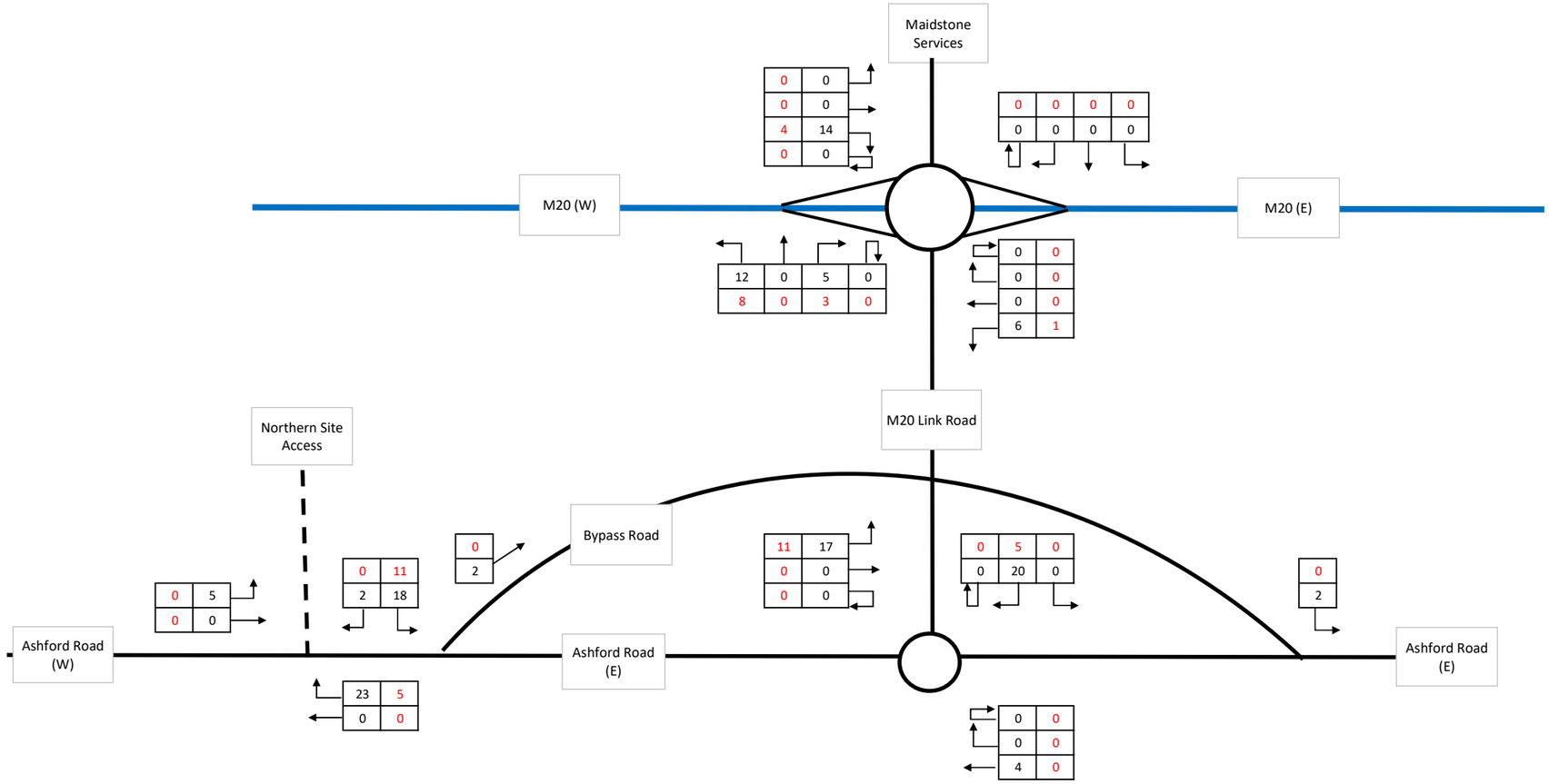
TF14

Development Traffic Assignment PM Peak Hour (Tot Veh) 2027 & 2037



KEY

500 = TOTAL VEH

25 = HGVs

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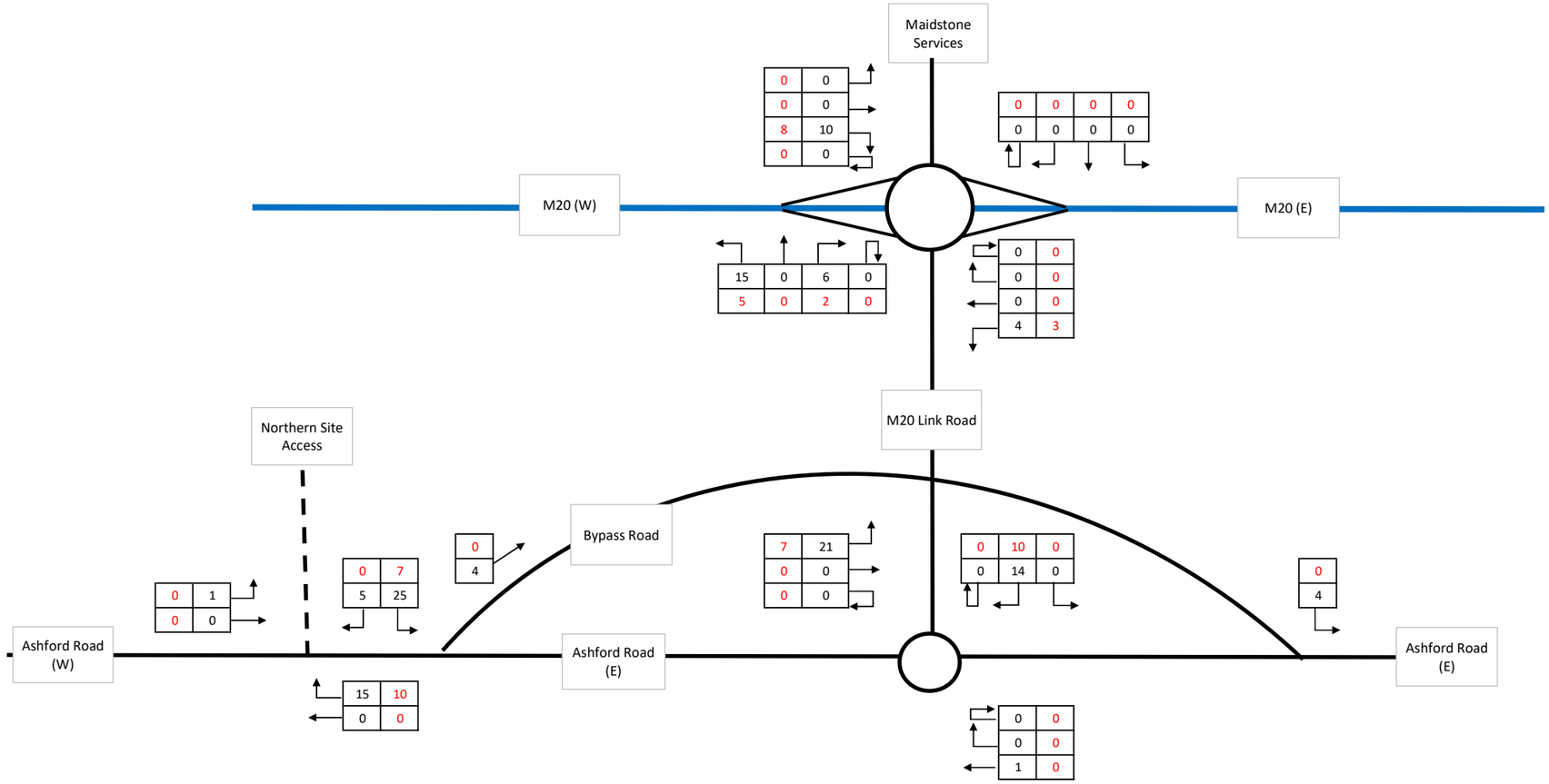
TF15

Development Traffic Assignment AM Peak Hour (Tot Veh) 2031 Development Vision



KEY

500 = TOTAL VEH

25 = HGVs

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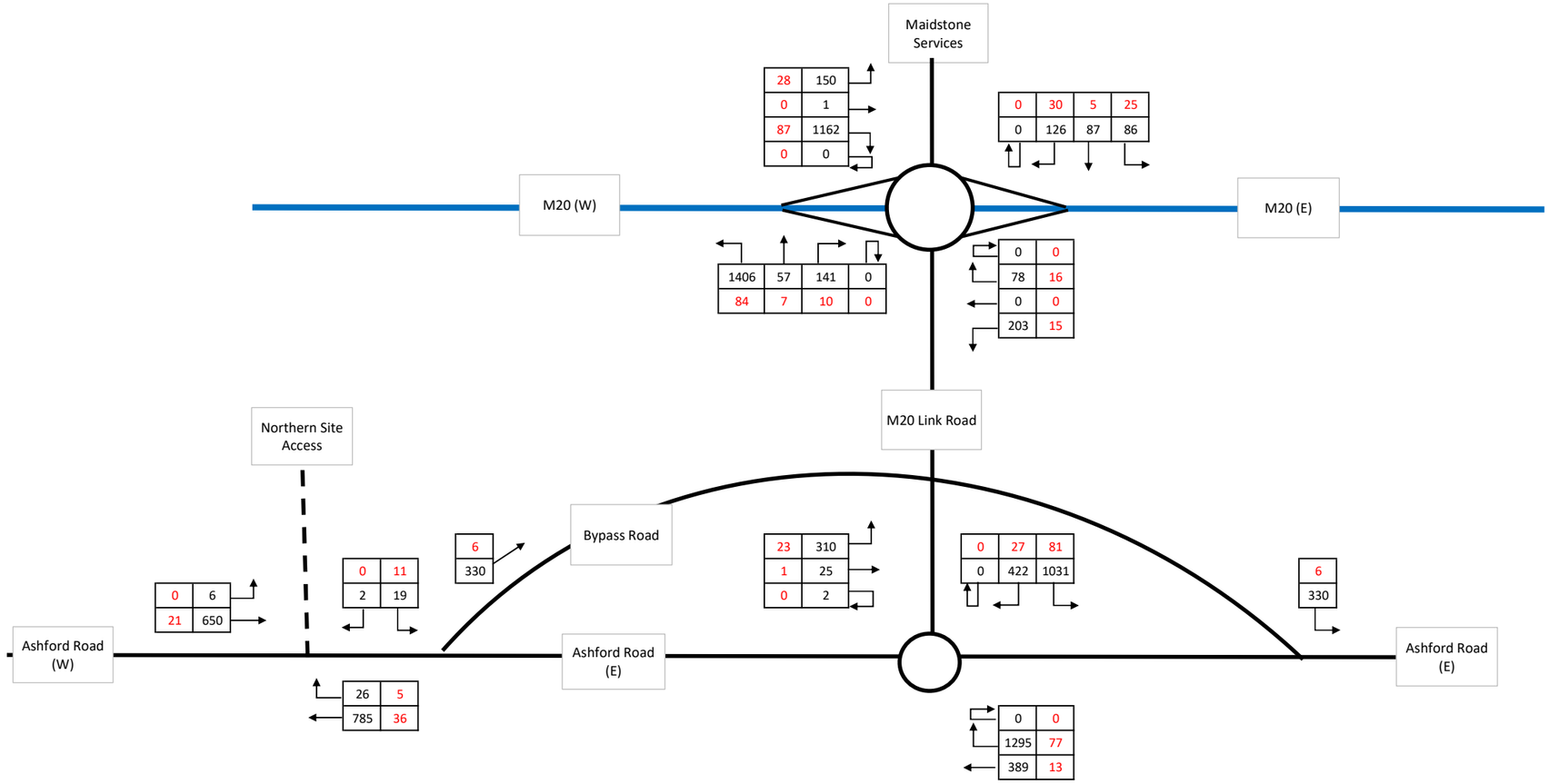
TF16

Development Traffic Assignment PM Peak Hour (Tot Veh) 2031 Development Vision



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500 = TOTAL VEH

25 = HGVs

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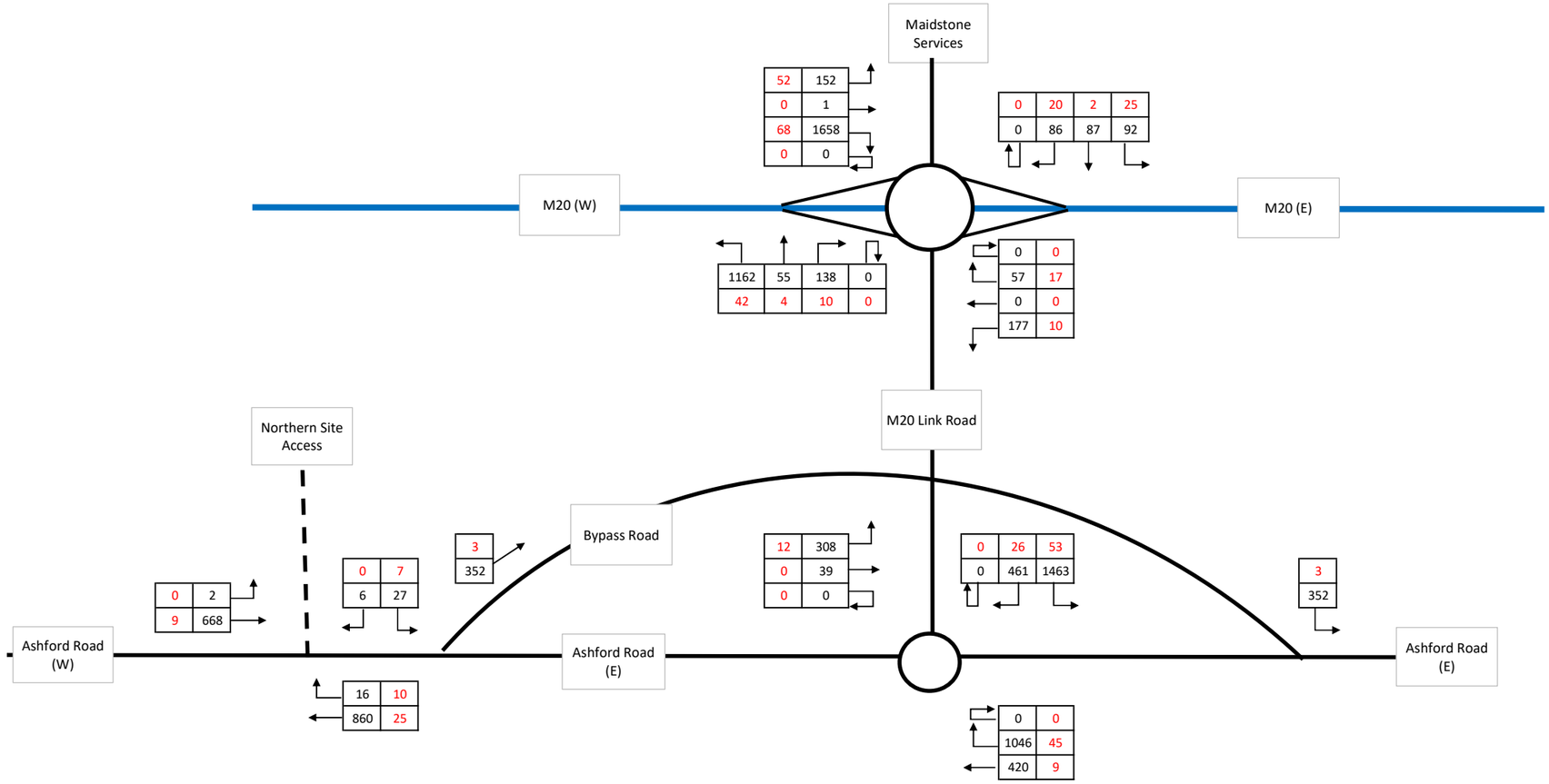
TF17

2027 'with development' AM Peak Hour (0730-0830)



KEY

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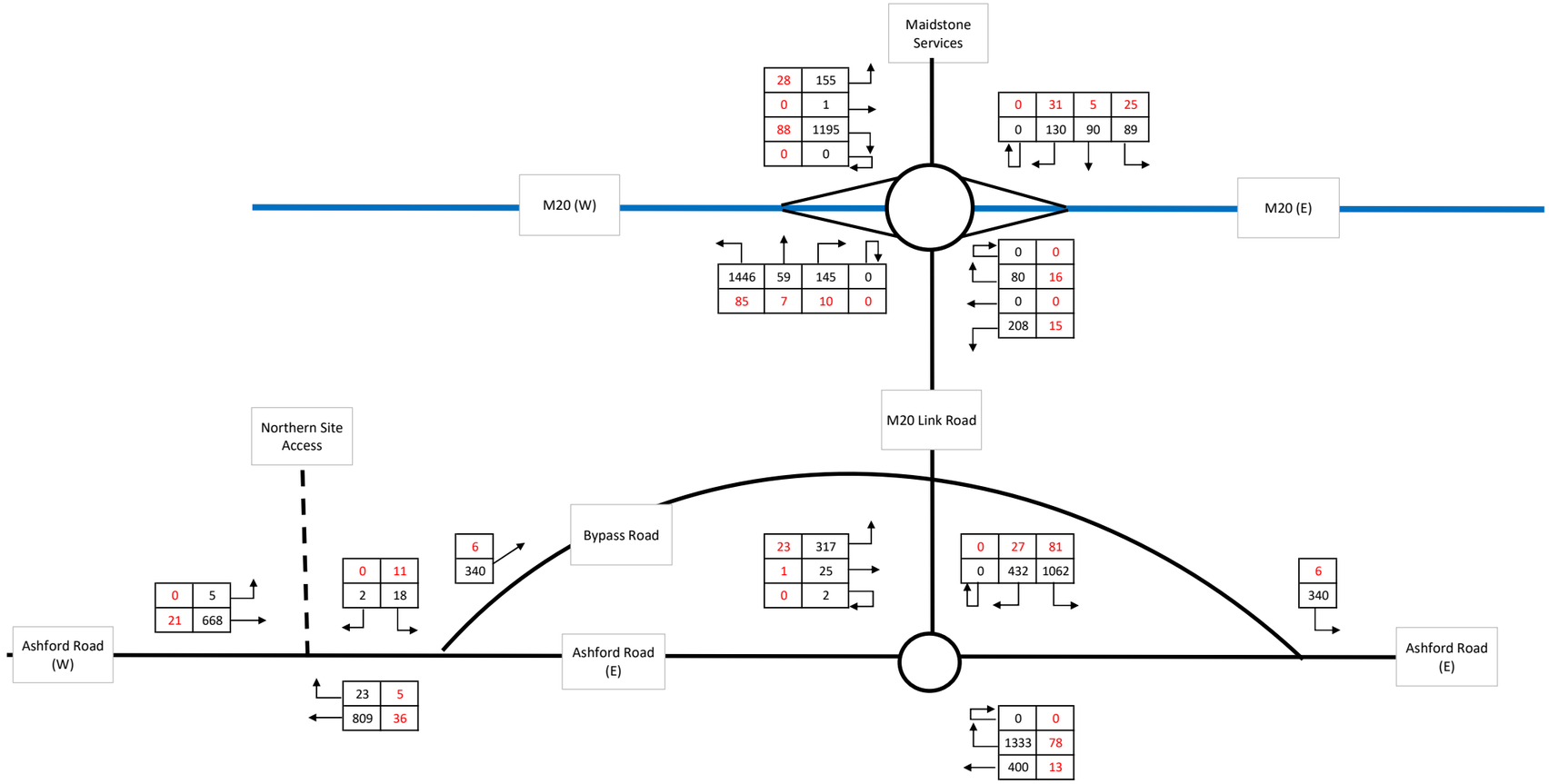
TF18

2027 'with development' PM Peak Hour (1645-1745)



KEY

500 = TOTAL VEH

25 = HGVs

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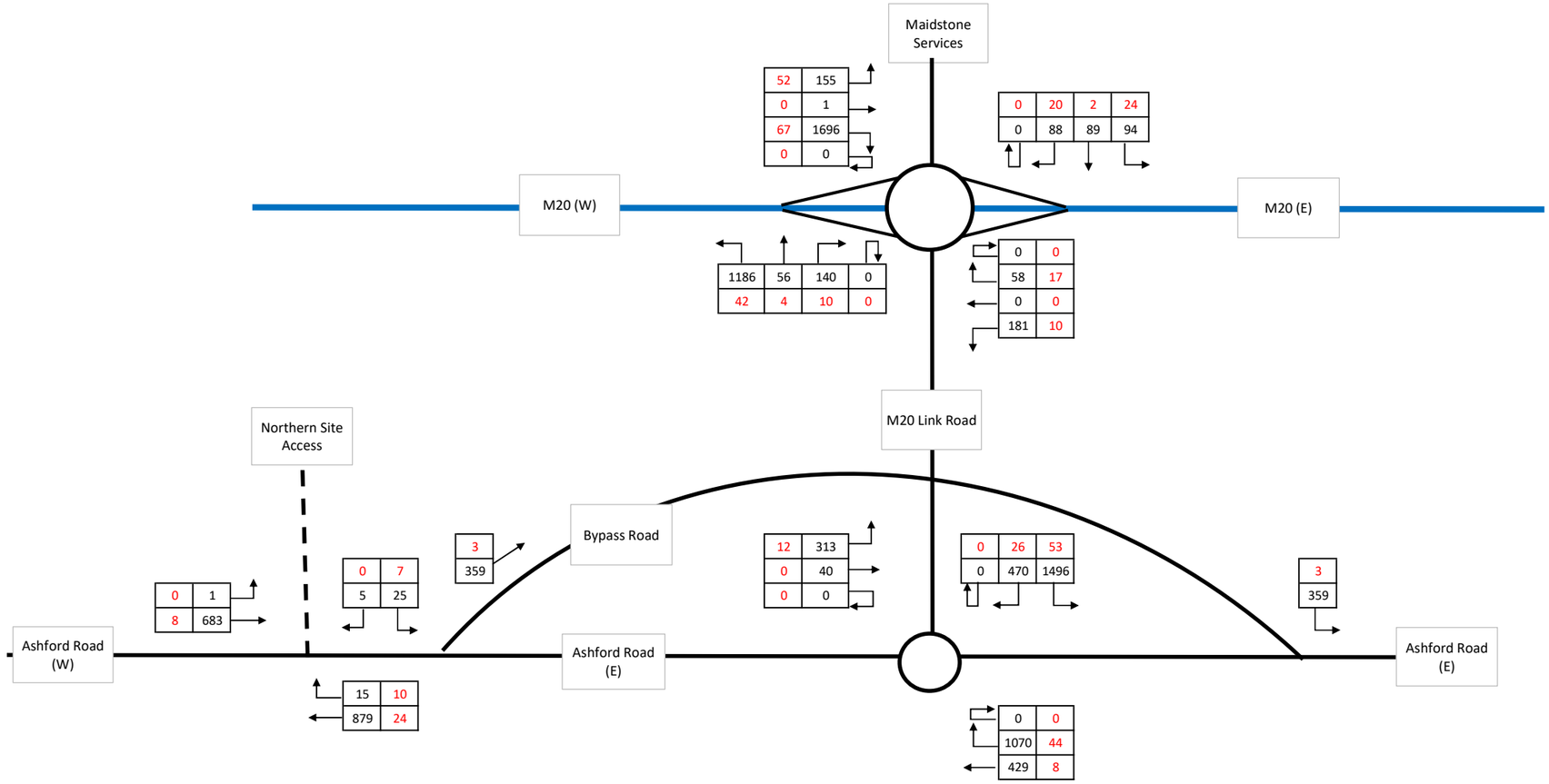
TF19

2031 'with development' AM Peak Hour (0730-0830)



KEY

500 = TOTAL VEH

25 = HGVs

i-Transport

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RG24 8AG
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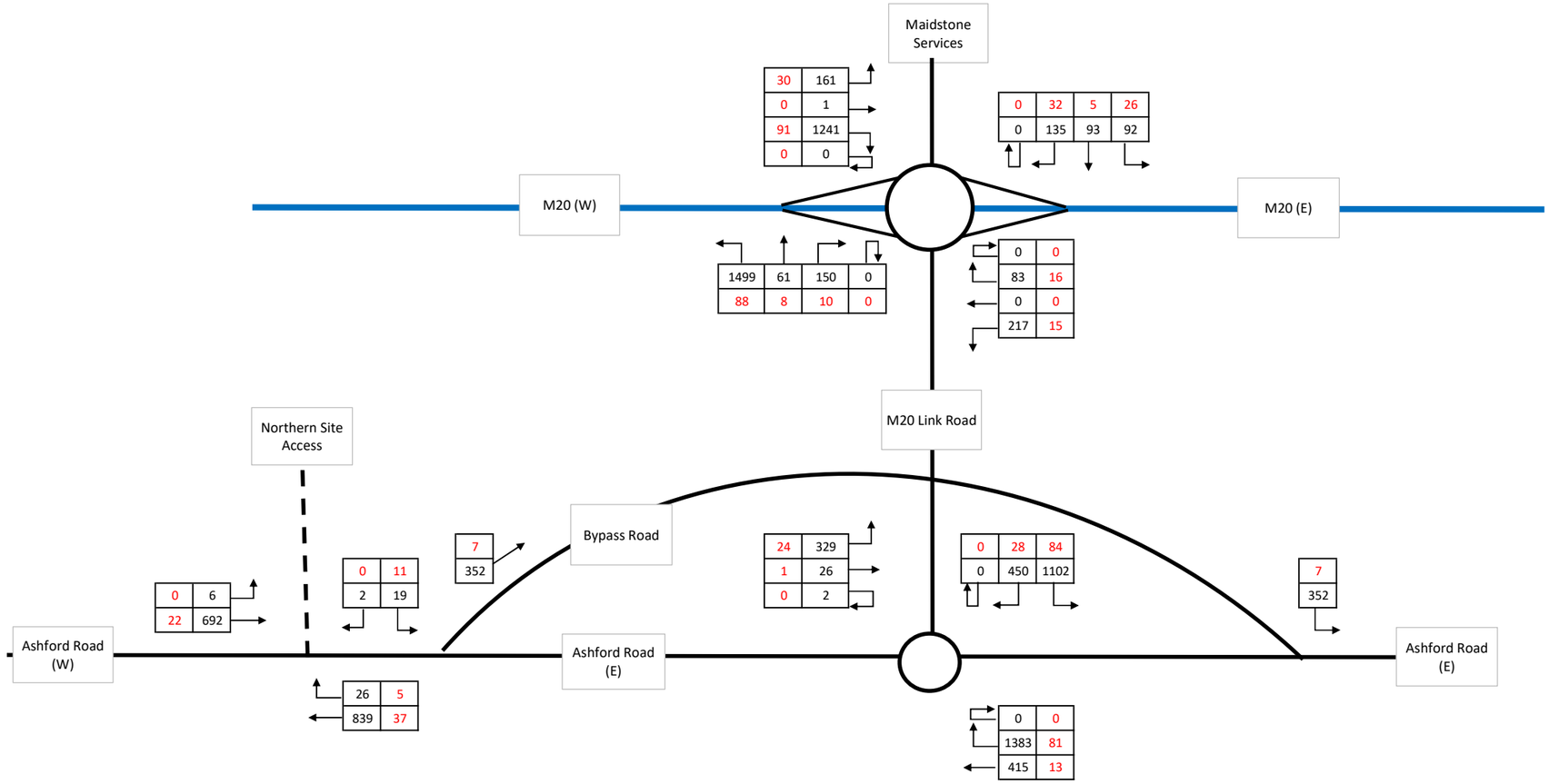
Ashford Road, Maidstone

TF20

2031 'with development' PM Peak Hour (1645-1745)



KEY

500 = TOTAL VEH

25 = HGVs

i-Transport

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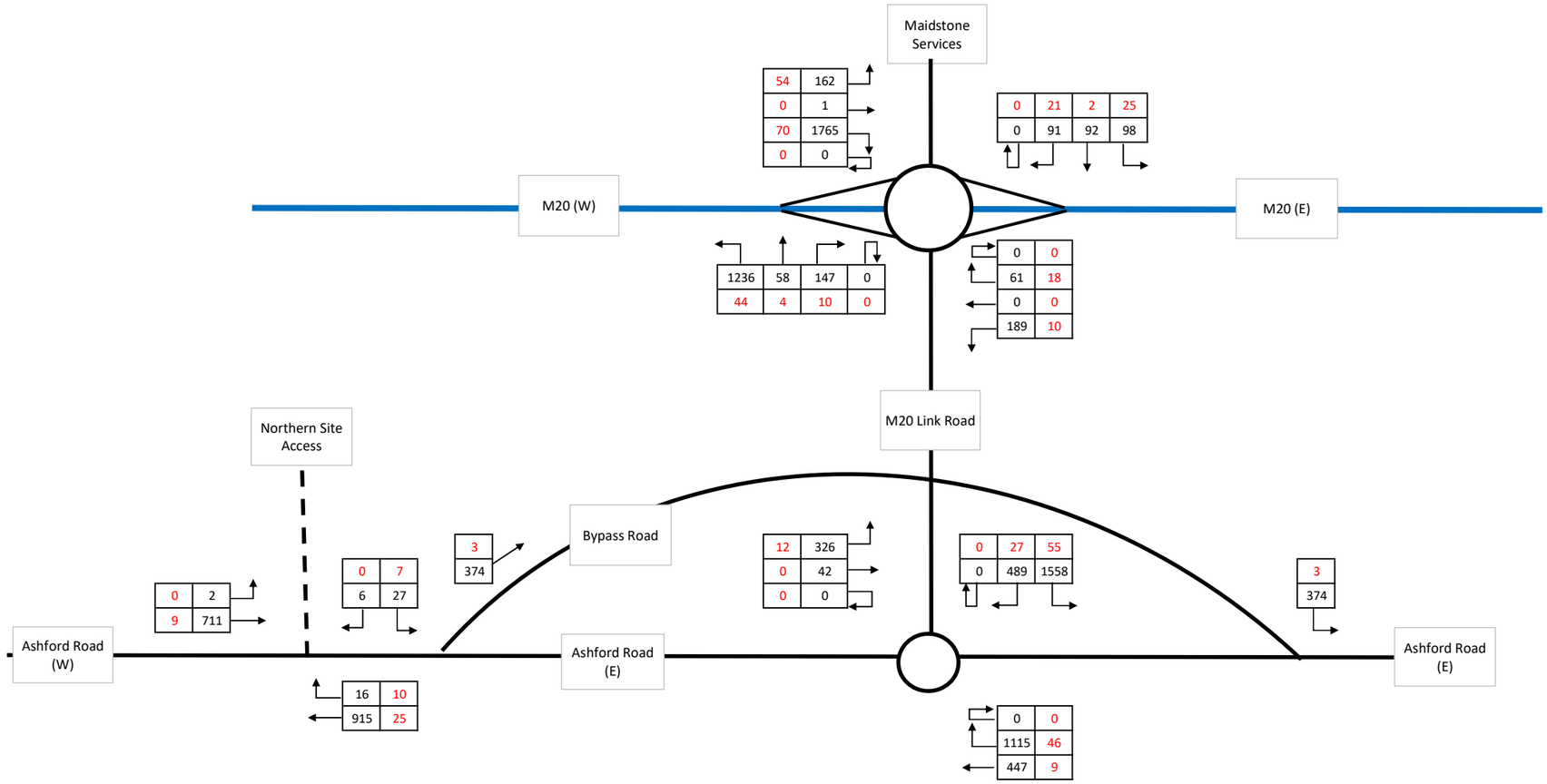
TF21

2037 'with development' AM Peak Hour (0730-0830)



KEY

500 = TOTAL VEH

25 = HGVs

i-Transport

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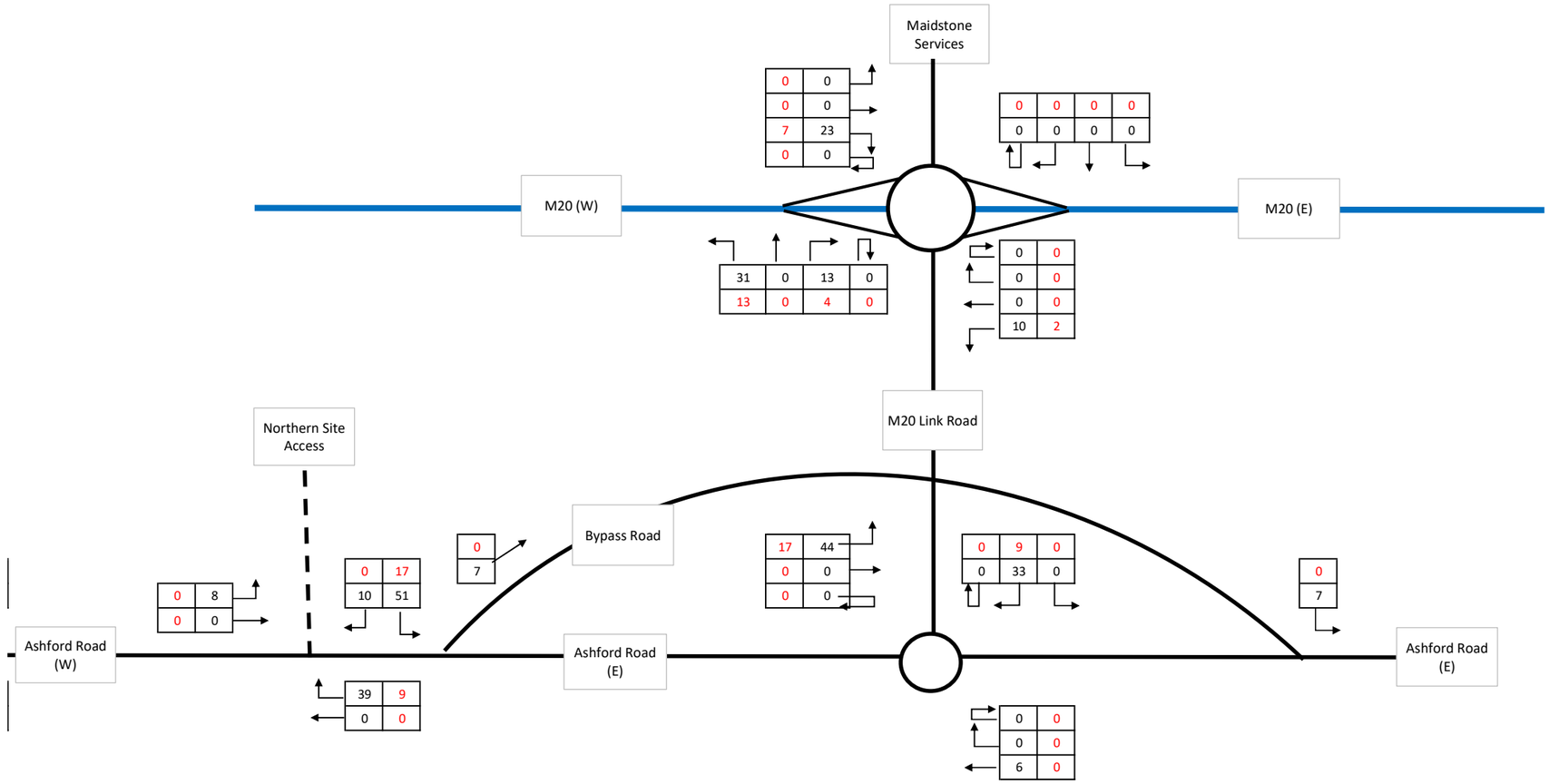
TF22

2037 'with development' PM Peak Hour (1645-1745)



KEY

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25 = HGVs

i-Transport

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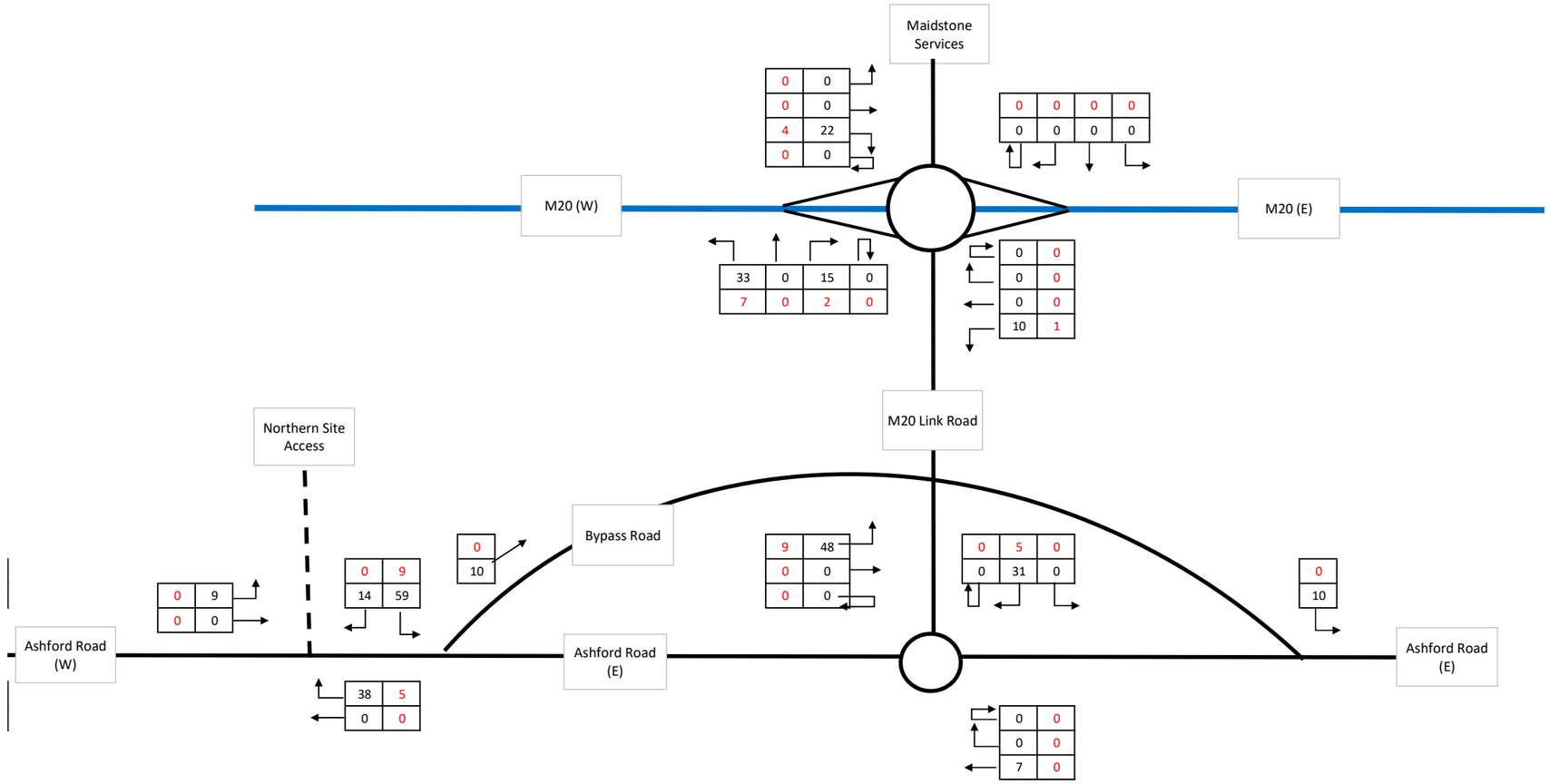
TF23

Development Traffic Assignment AM Peak Hour (Tot Veh) 2027 & 2037 - Sensitivity Test



KEY

500 = TOTAL VEH

25 = HGVs

i-Transport

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RG24 8AG
Tel: 01256 338640
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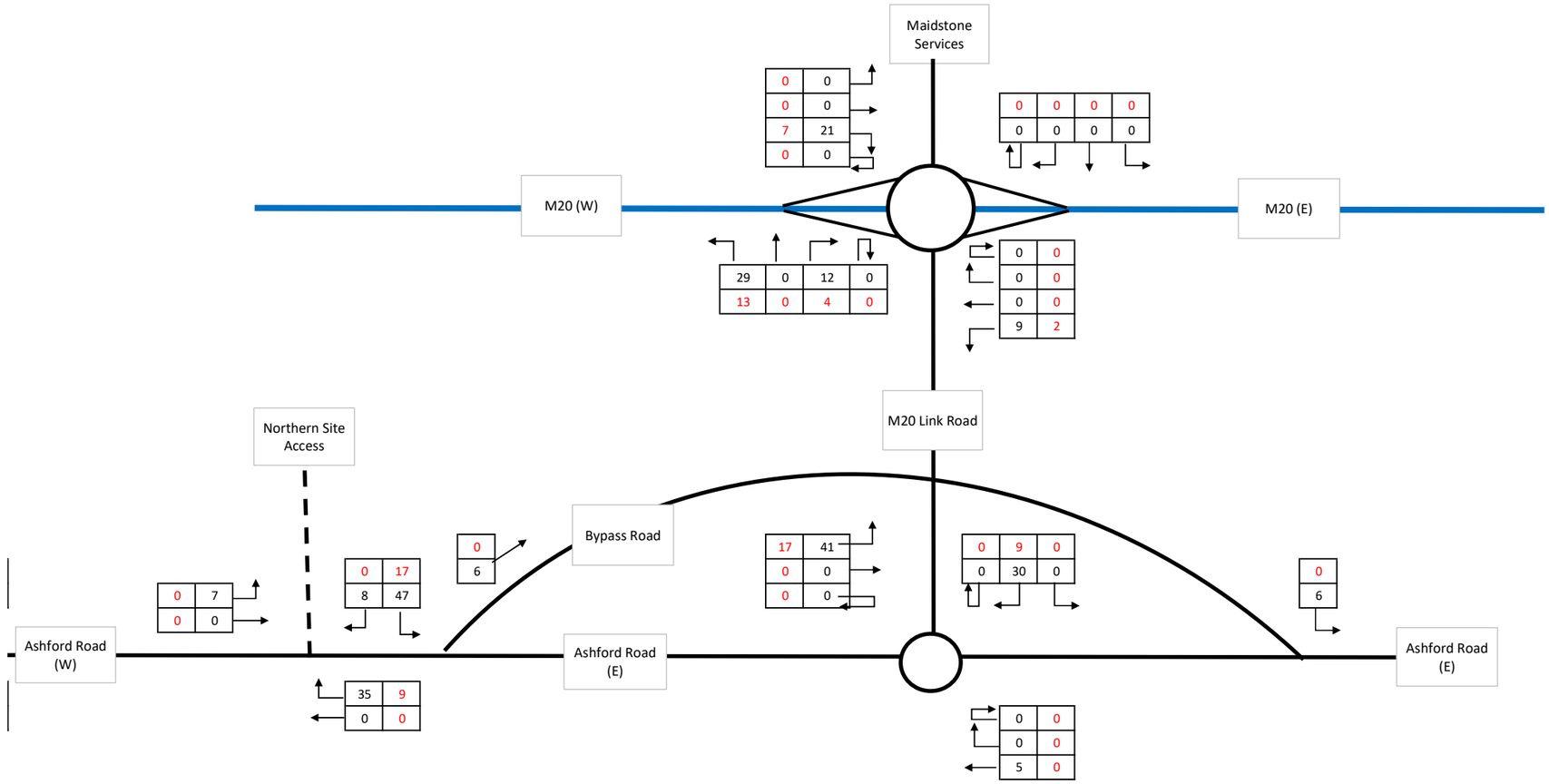
Ashford Road, Maidstone

TF24

Development Traffic Assignment PM Peak Hour (Tot Veh) 2027 & 2037 - Sensitivity Test



KEY

500 = TOTAL VEH

25 = HGVs

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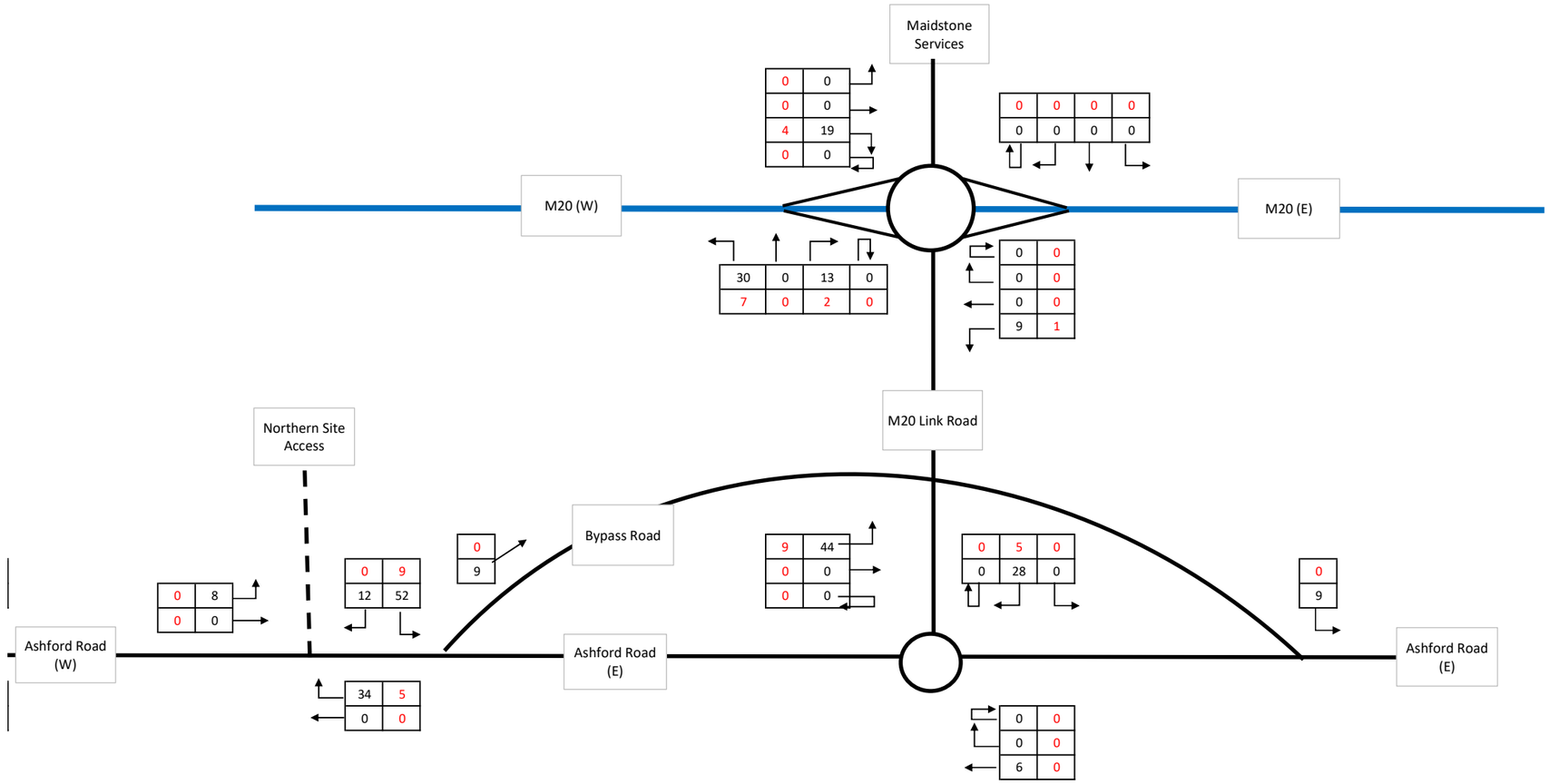
TF25

Sensitivity Test Traffic Assignment AM Peak Hour (Tot Veh) 2031 Development Vision



KEY

500 = TOTAL VEH

25 = HGVs

i-Transport

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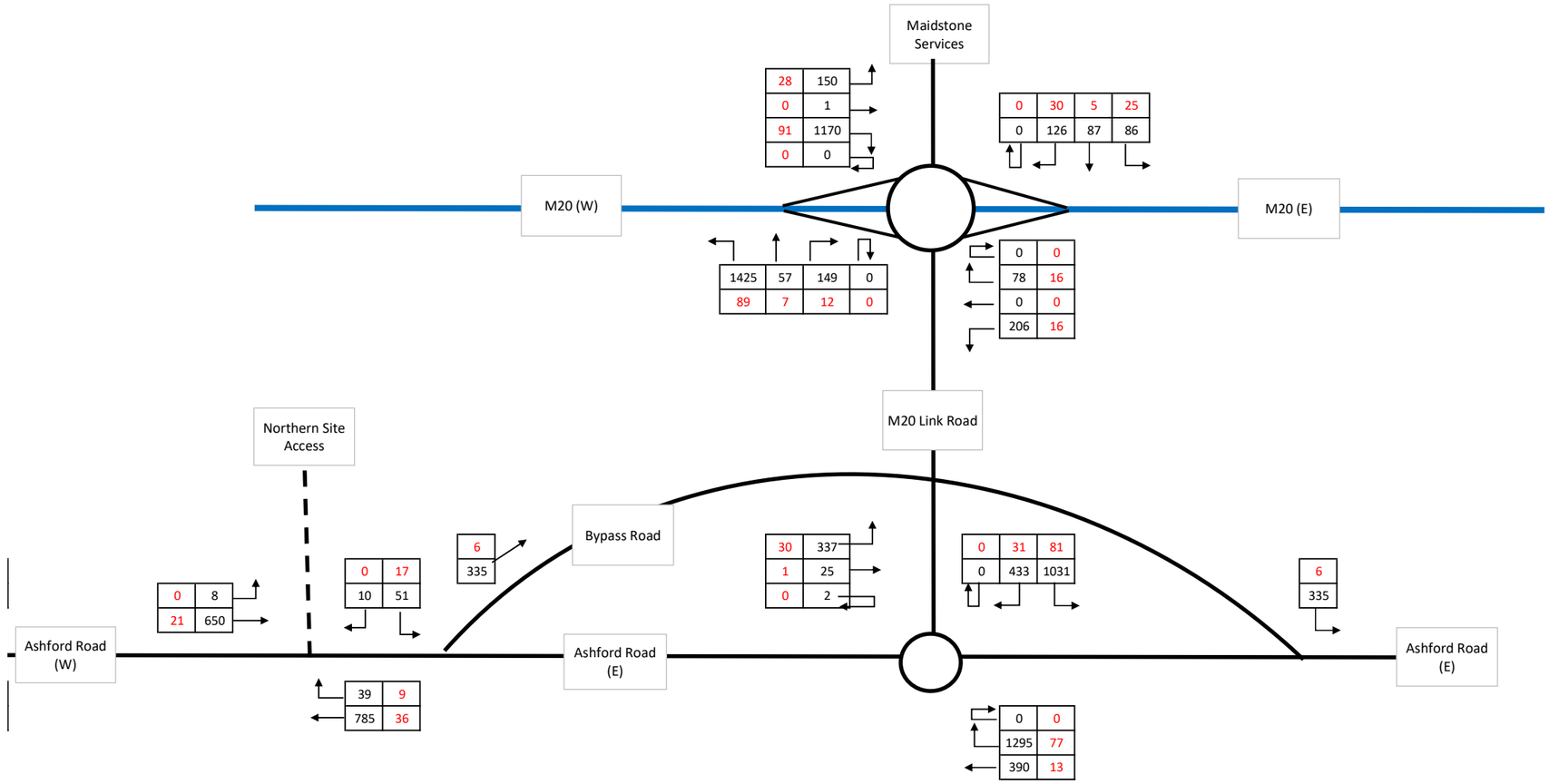
TF26

Sensitivity Test Traffic Assignment PM Peak Hour (Tot Veh) 2031 Development Vision



KEY

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25 = HGVs

i-Transport

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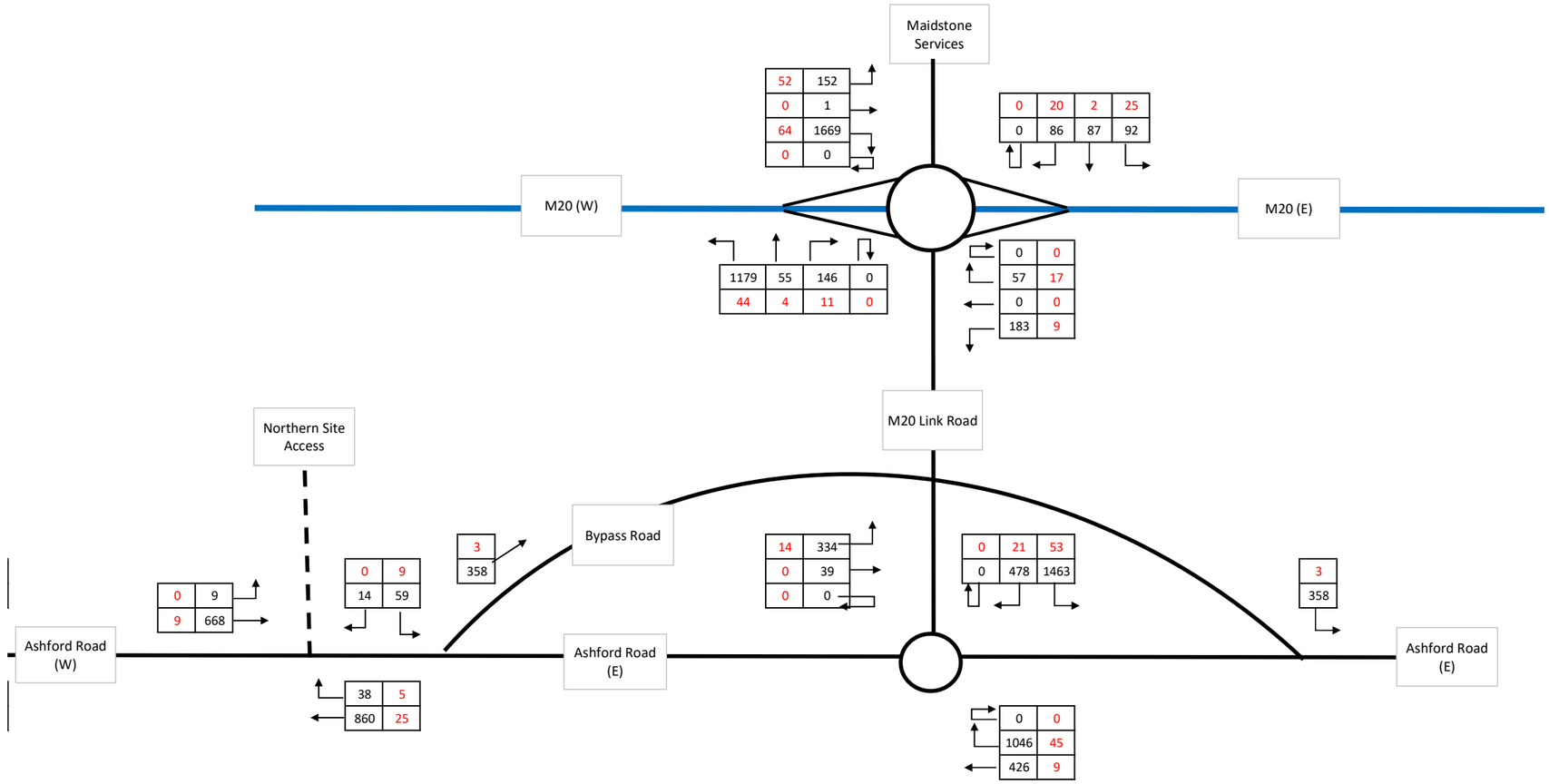
TF27

2027 'with development' AM Peak Hour (0730-0830) Sensitivity Test



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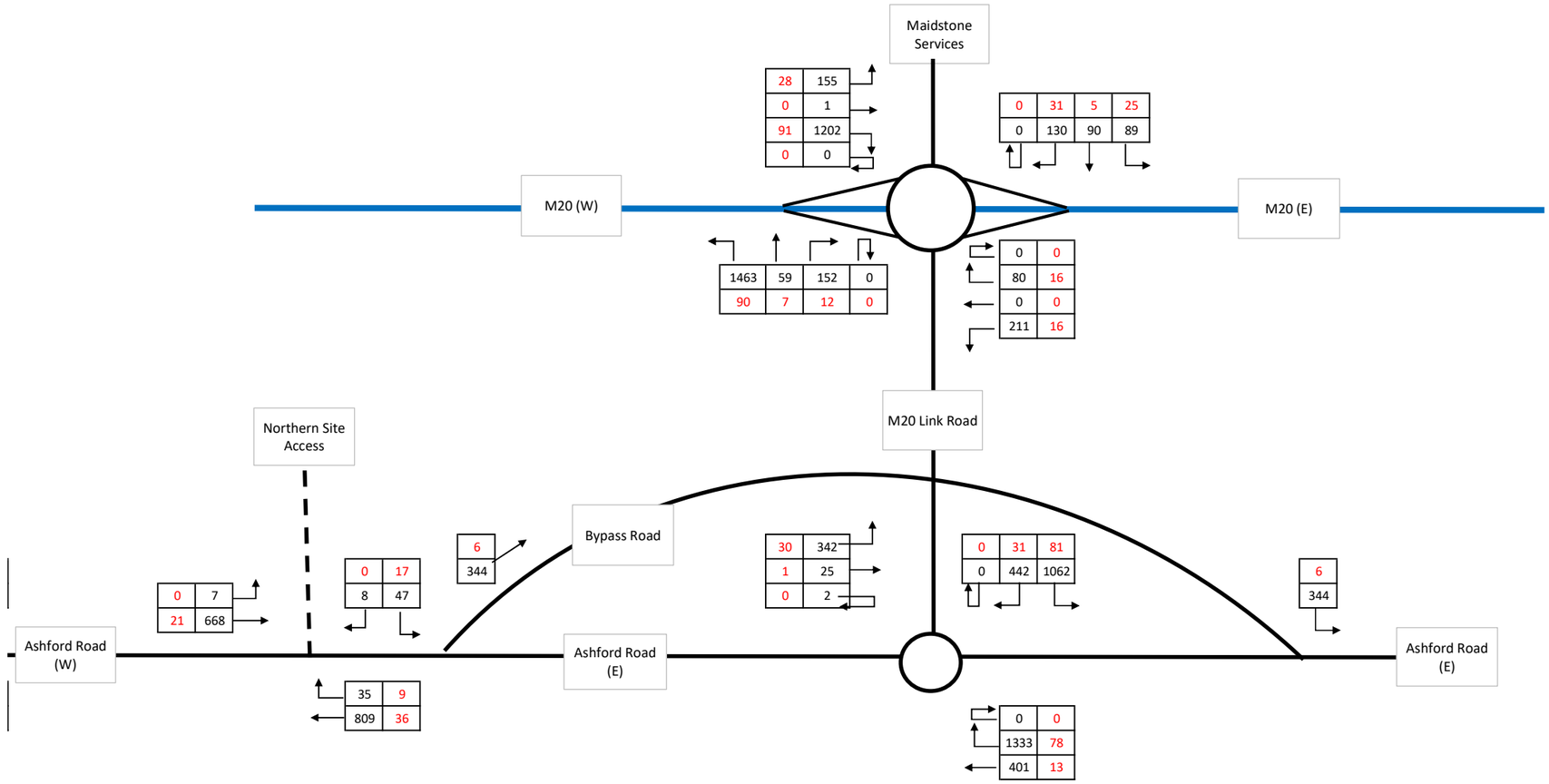
TF28

2027 'with development' PM Peak Hour (1645-1745) Sensitivity Test



KEY

500 = TOTAL VEH

25 = HGVs

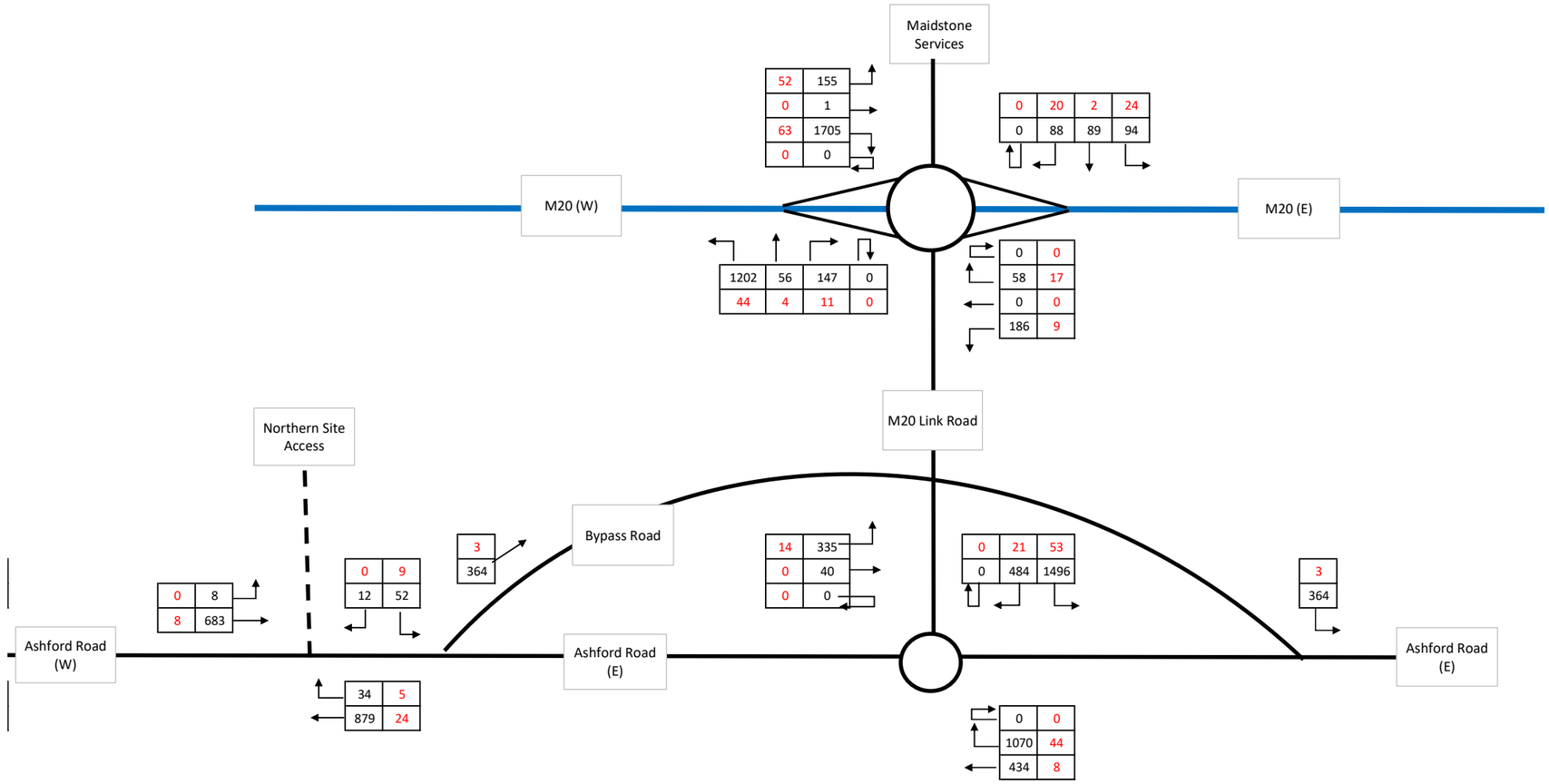
i-Transport

Grove House, Lutyens Close,
Chineham Court, Basingstoke,
RG24 8AG
Tel: 01256 338640
www.i-transport.co.uk

Ashford Road, Maidstone

TF29

2031 'with development' AM Peak Hour (0730-0830) Sensitivity Test



KEY

500 = TOTAL VEH

25 = HGVs

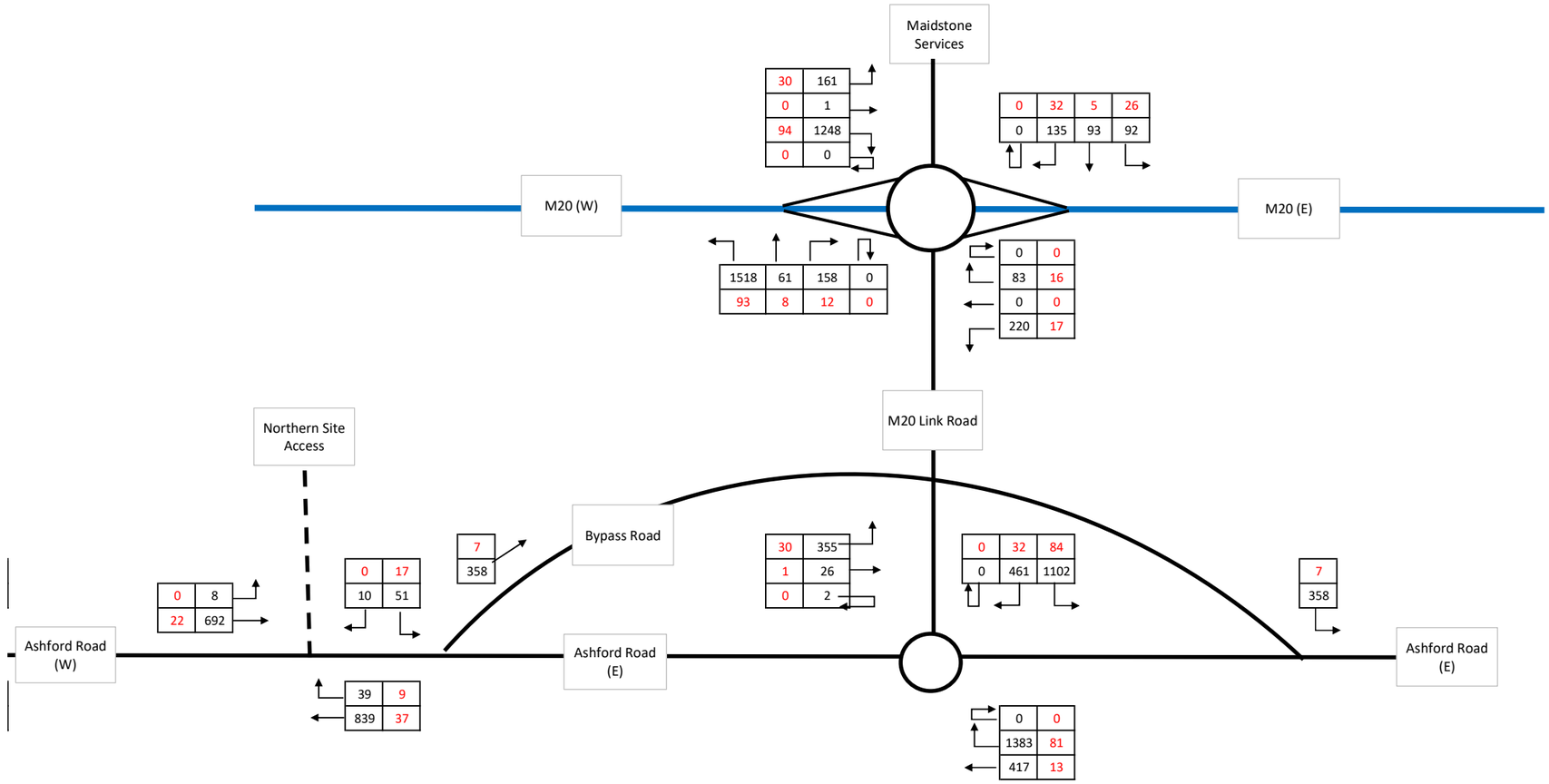
i-Transport

Grove House, Lutyens Close,
Chineham Court, Basingstoke,
RG24 8AG
Tel: 01256 338640
www.i-transport.co.uk

Ashford Road, Maidstone

TF30

2031 'with development' PM Peak Hour (1645-1745) Sensitivity Test



KEY

500 = TOTAL VEH

25 = HGVs

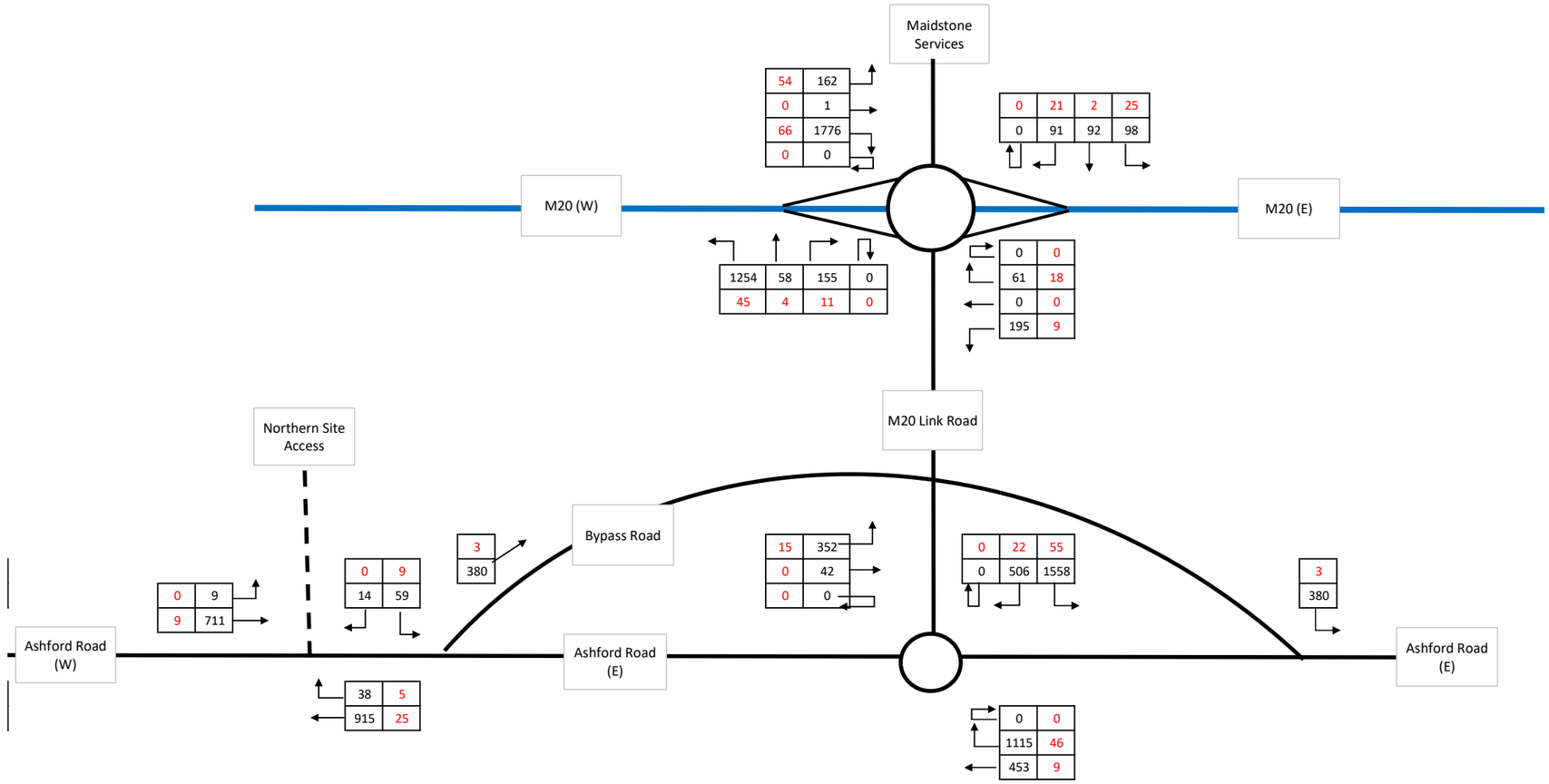
i-Transport

Grove House, Lutyens Close,
Chineham Court, Basingstoke,
RG24 8AG
Tel: 01256 338640
www.i-transport.co.uk

Ashford Road, Maidstone

TF31

2037 'with development' AM Peak Hour (0730-0830) Sensitivity Test



KEY

500 = TOTAL VEH

25 = HGVs

i-Transport

Grove House, Lutyens Close,
Chineham Court, Basingstoke,
RG24 8AG
Tel: 01256 338640
www.i-transport.co.uk

Ashford Road, Maidstone

TF32

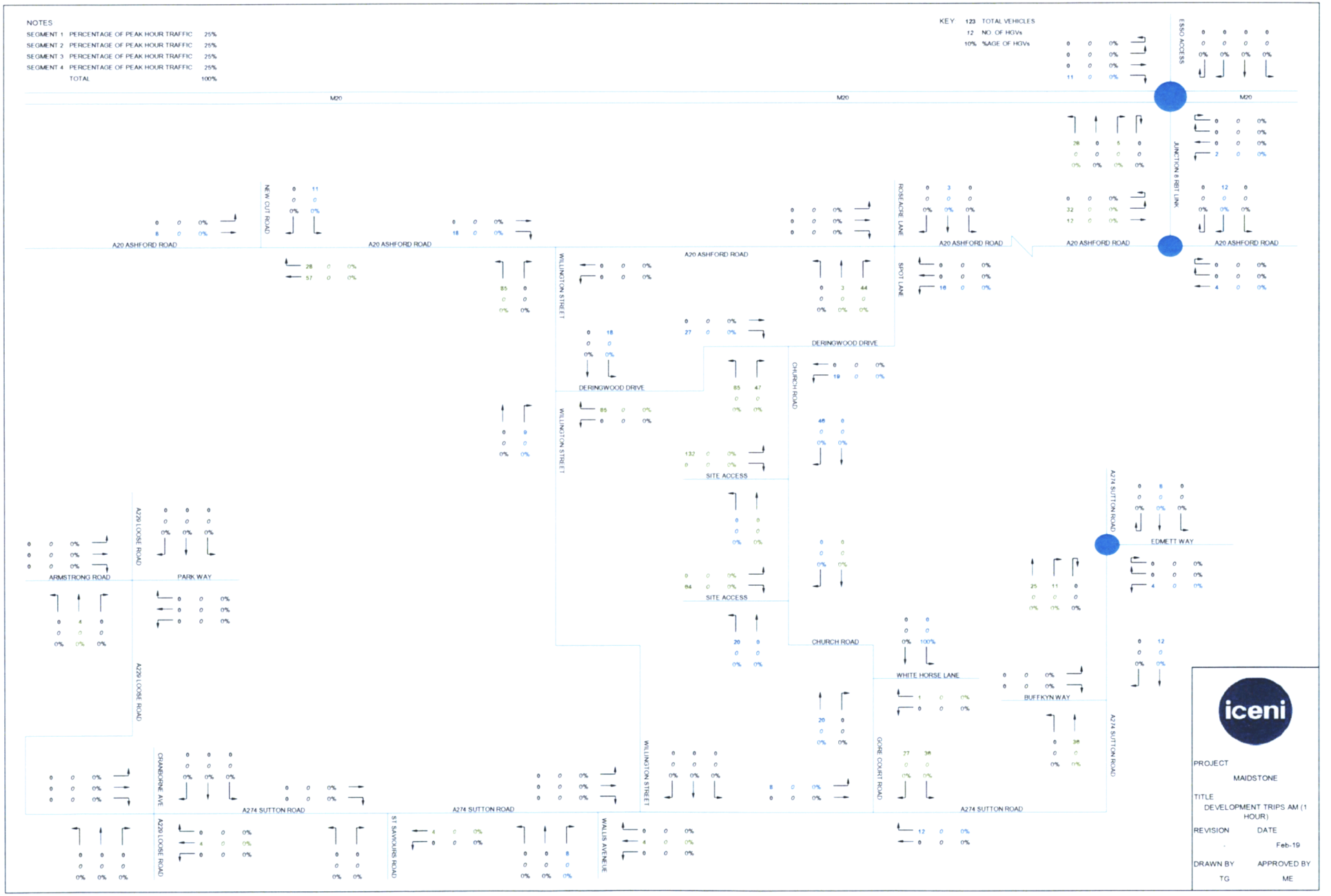
2037 'with development' PM Peak Hour (1645-1745) Sensitivity Test

APPENDIX A. COMMITTED DEVELOPMENT TRAFFIC FLOWS

NOTES

SEGMENT 1	PERCENTAGE OF PEAK HOUR TRAFFIC	25%
SEGMENT 2	PERCENTAGE OF PEAK HOUR TRAFFIC	25%
SEGMENT 3	PERCENTAGE OF PEAK HOUR TRAFFIC	25%
SEGMENT 4	PERCENTAGE OF PEAK HOUR TRAFFIC	25%
	TOTAL	100%

KEY 123 TOTAL VEHICLES
12 NO. OF HGVs
10% %AGE OF HGVs

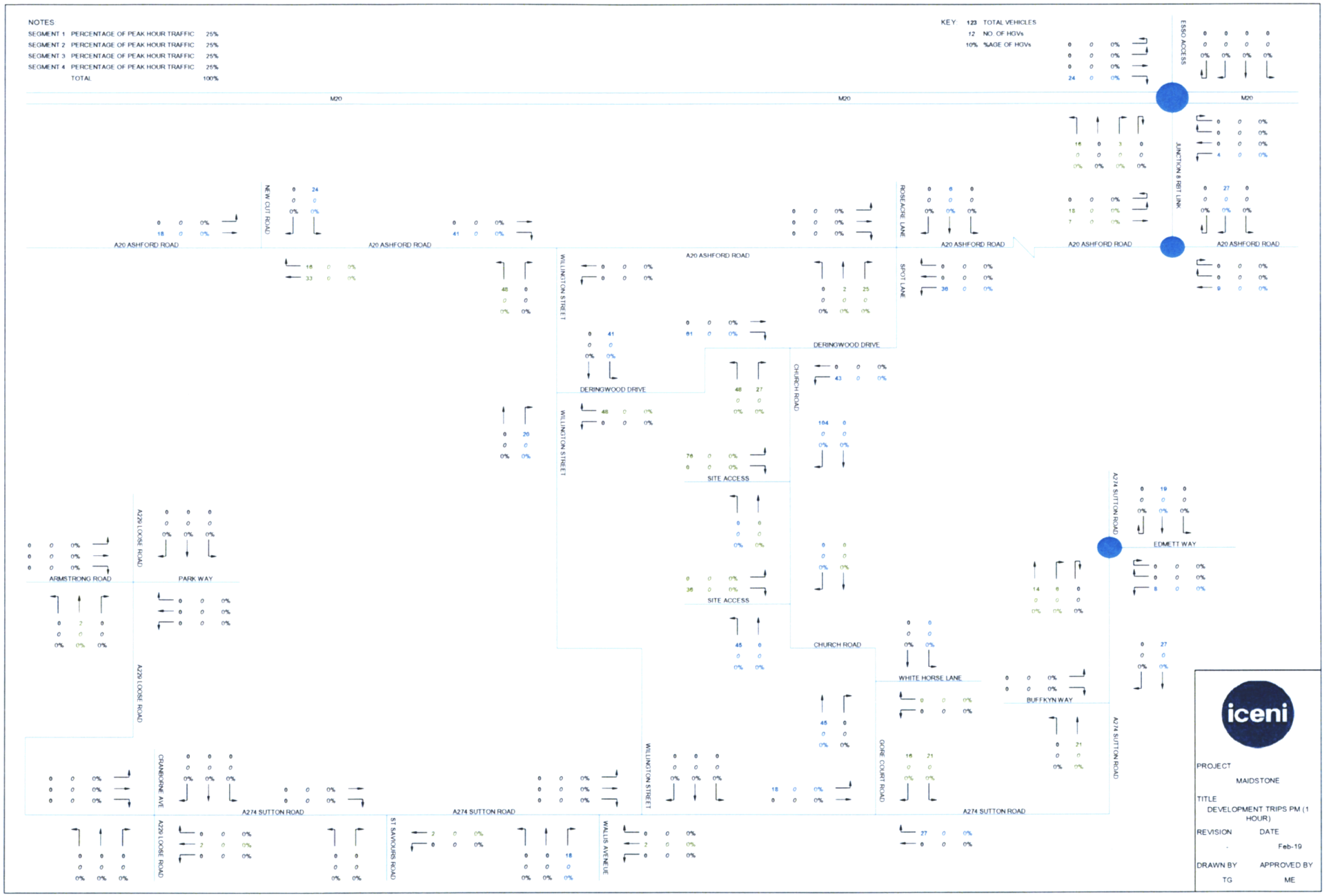


PROJECT	MAIDSTONE
TITLE	DEVELOPMENT TRIPS AM (1 HOUR)
REVISION	-
DATE	Feb-19
DRAWN BY	TG
APPROVED BY	ME

NOTES

SEGMENT 1	PERCENTAGE OF PEAK HOUR TRAFFIC	25%
SEGMENT 2	PERCENTAGE OF PEAK HOUR TRAFFIC	25%
SEGMENT 3	PERCENTAGE OF PEAK HOUR TRAFFIC	25%
SEGMENT 4	PERCENTAGE OF PEAK HOUR TRAFFIC	25%
	TOTAL	100%

KEY: 123 TOTAL VEHICLES
12 NO. OF HGVs
10% %AGE OF HGVs



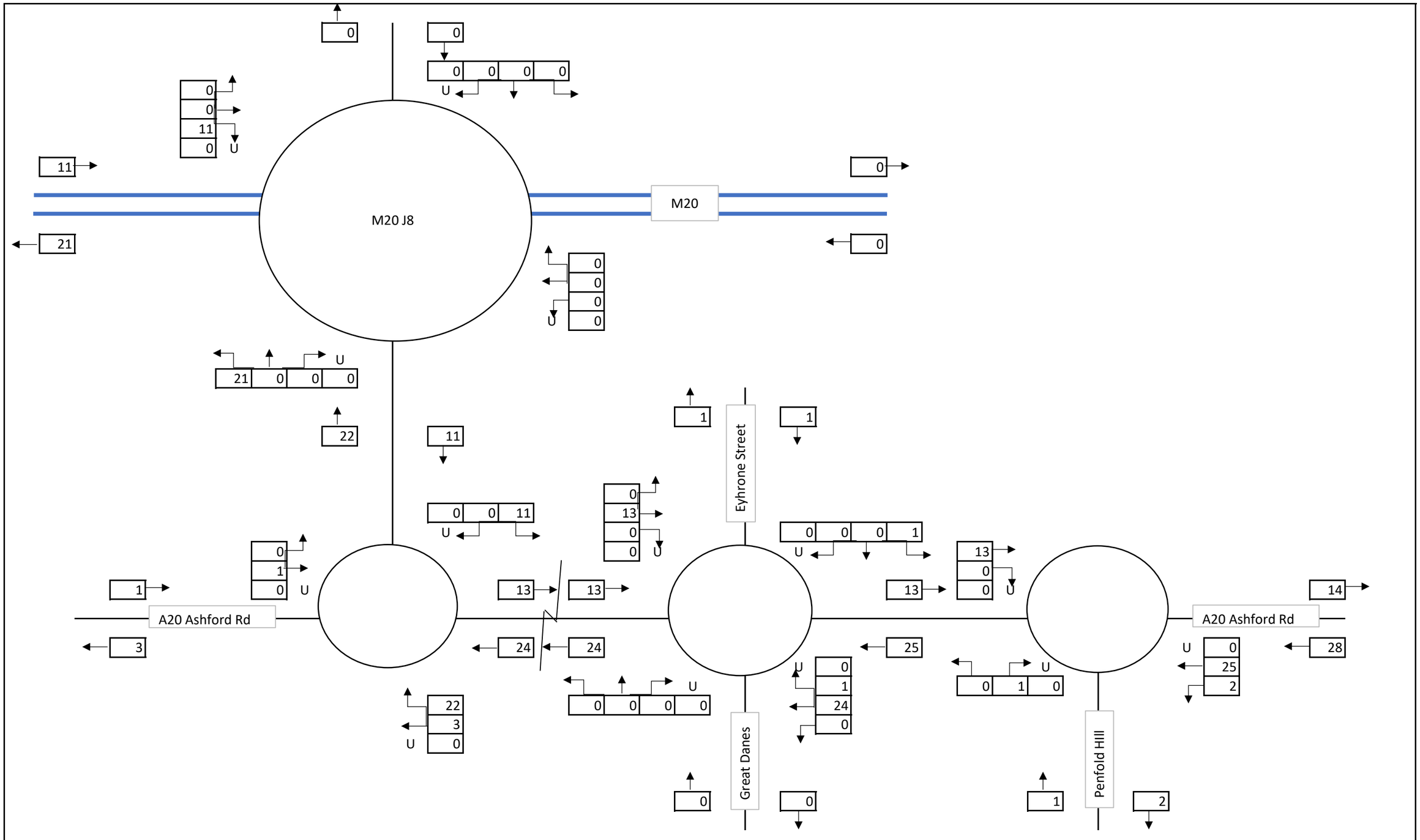
iceni

PROJECT
MAIDSTONE

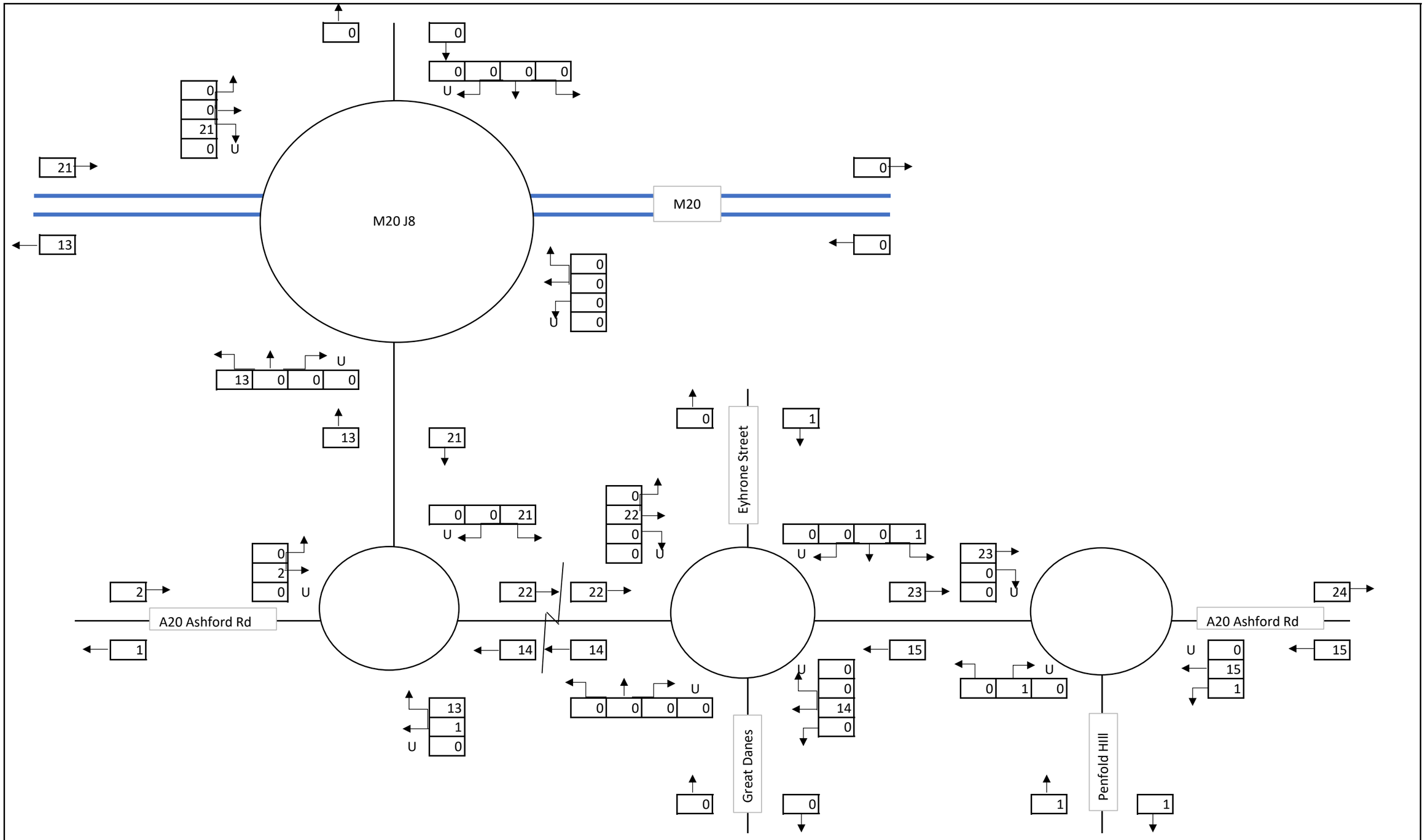
TITLE
DEVELOPMENT TRIPS PM (1 HOUR)

REVISION	DATE
-	Feb-19

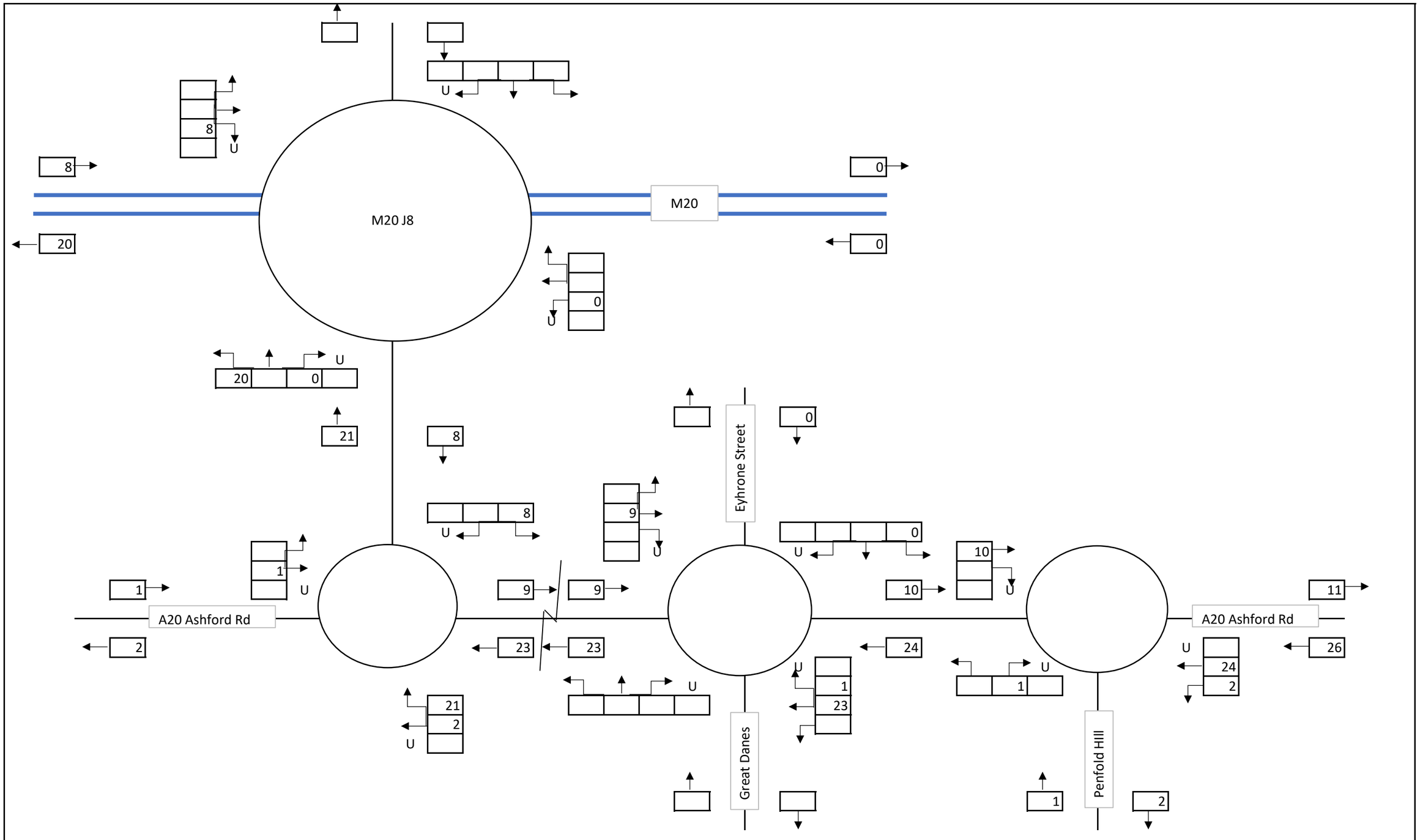
DRAWN BY	APPROVED BY
TG	ME



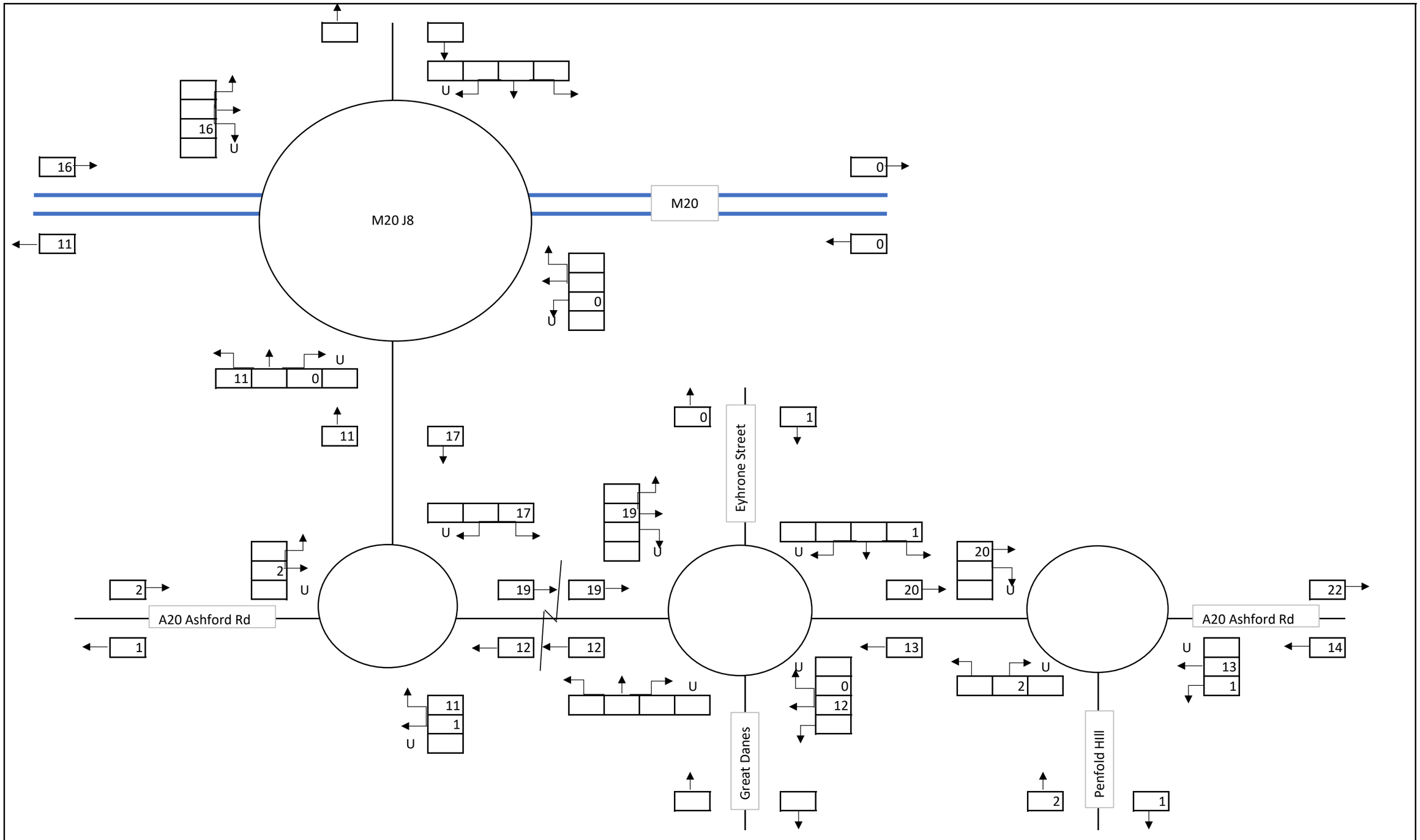
dha	LAND WEST OF OLD HAM LANE, LENHAM	FIG
	Total Development Trips	0-20
	AM Peak	Page 2 of 2



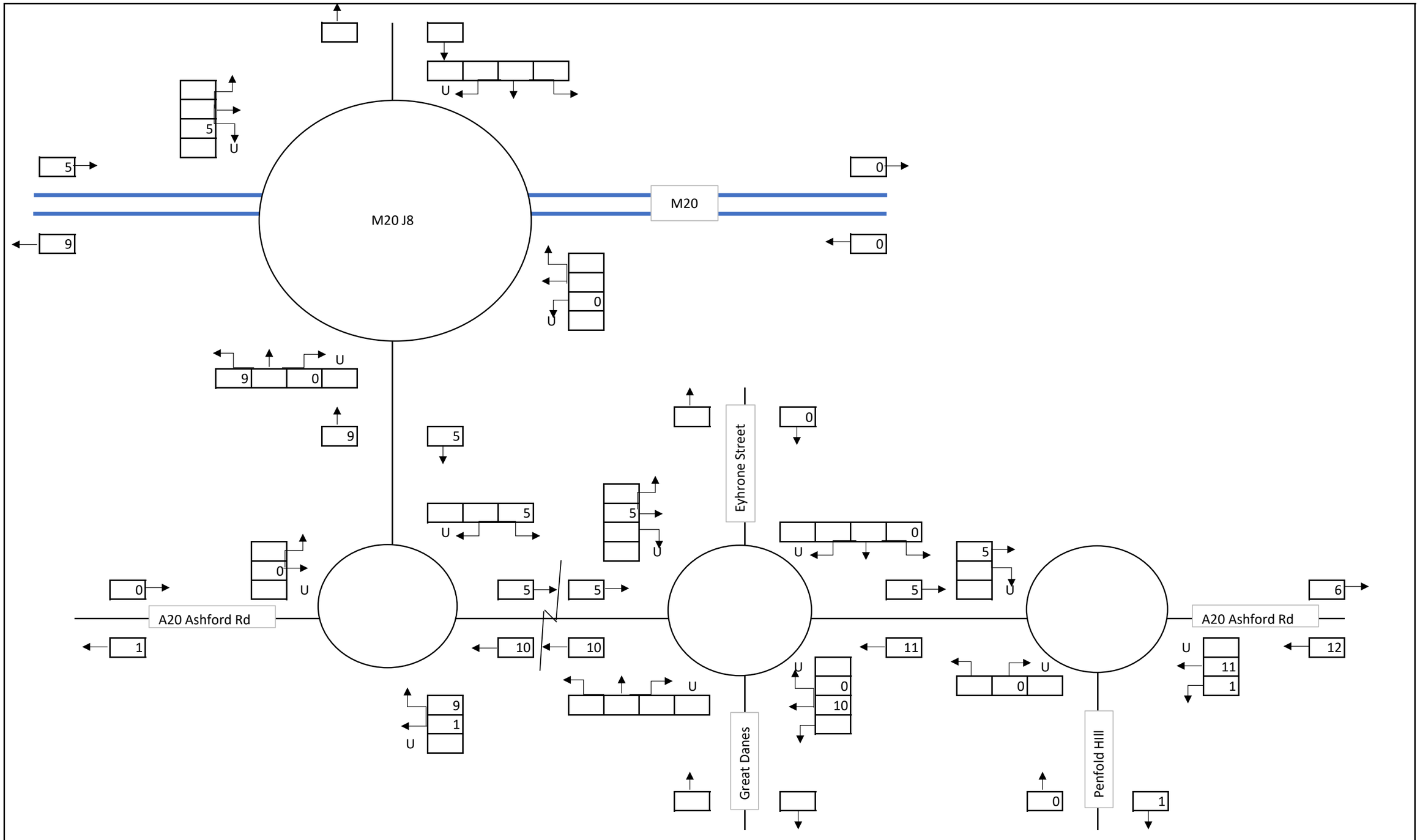
dha	LAND WEST OF OLD HAM LANE, LENHAM	FIG
	Total Development Trips	0-21
	PM Peak	Page 2 of 2



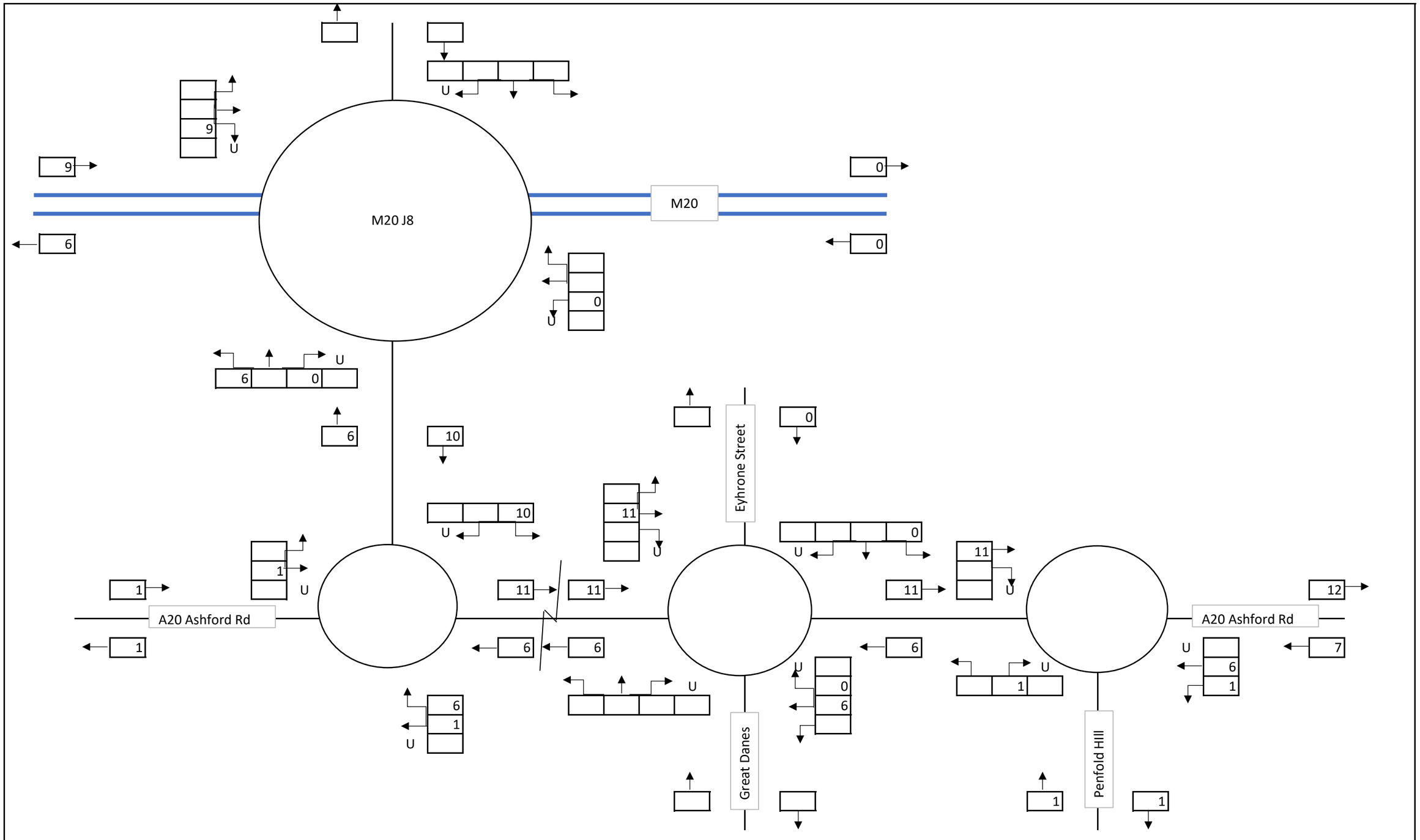
dha	LAND WEST OF OLD HAM LANE, LENHAM	FIG
	17/500357/HYBRID - Land North of Old Ashford Road, Lenham	0-34
	AM Peak	Page 2 of 2



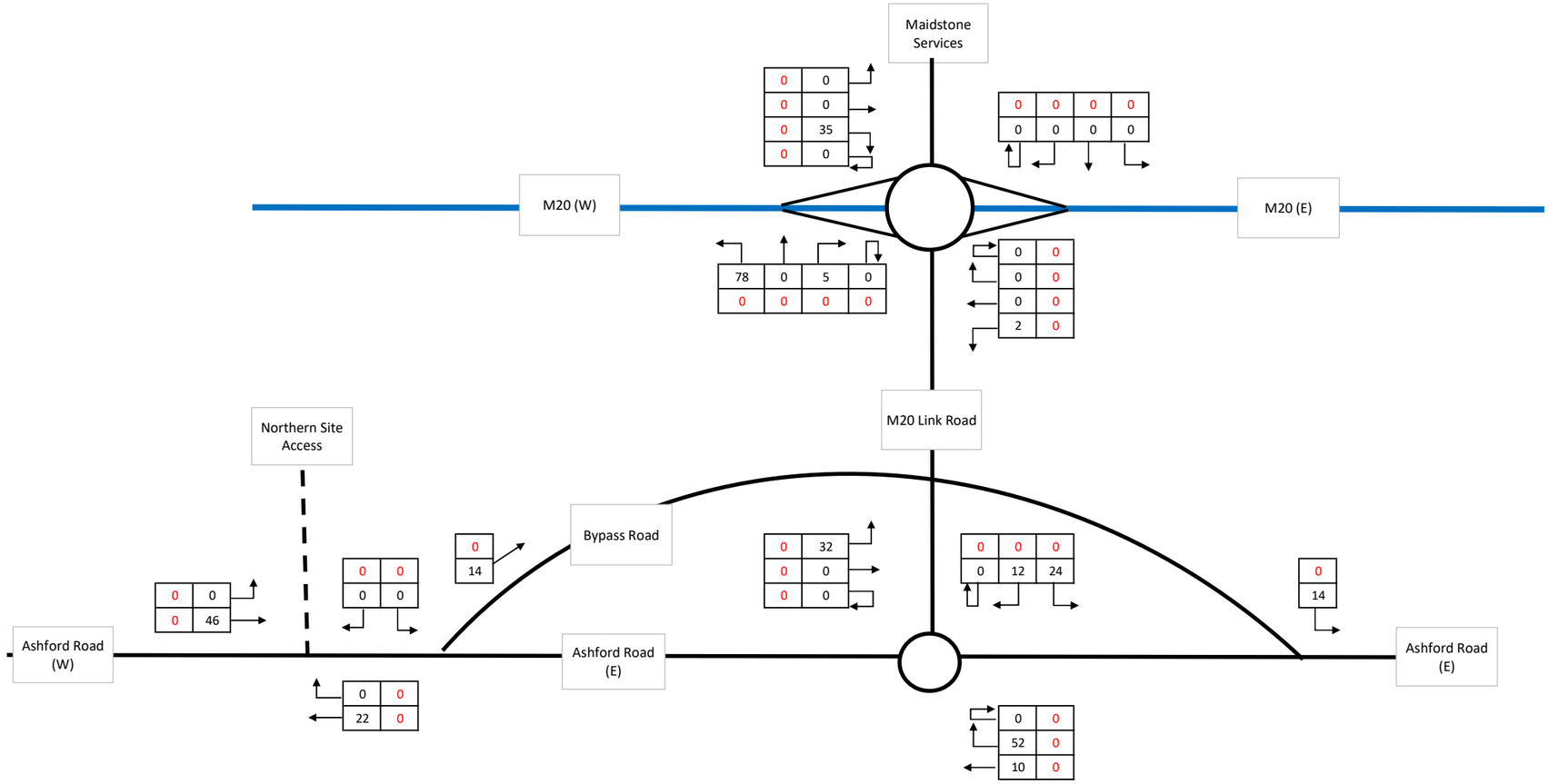
dha	LAND WEST OF OLD HAM LANE, LENHAM	FIG
	17/500357/HYBRID - Land North of Old Ashford Road, Lenham	0-35
	PM Peak	Page 2 of 2



dha	LAND WEST OF OLD HAM LANE, LENHAM	FIG
	18/506657 - Land West of Loder Close and Westwood Close, Lenham	0-44
	AM Peak	Page 2 of 2



dha	LAND WEST OF OLD HAM LANE, LENHAM	FIG
	18/506657 - Land West of Loder Close and Westwood Close, Lenham	0-45
	PM Peak	Page 2 of 2



KEY

500 = TOTAL VEH

25 = HGVs

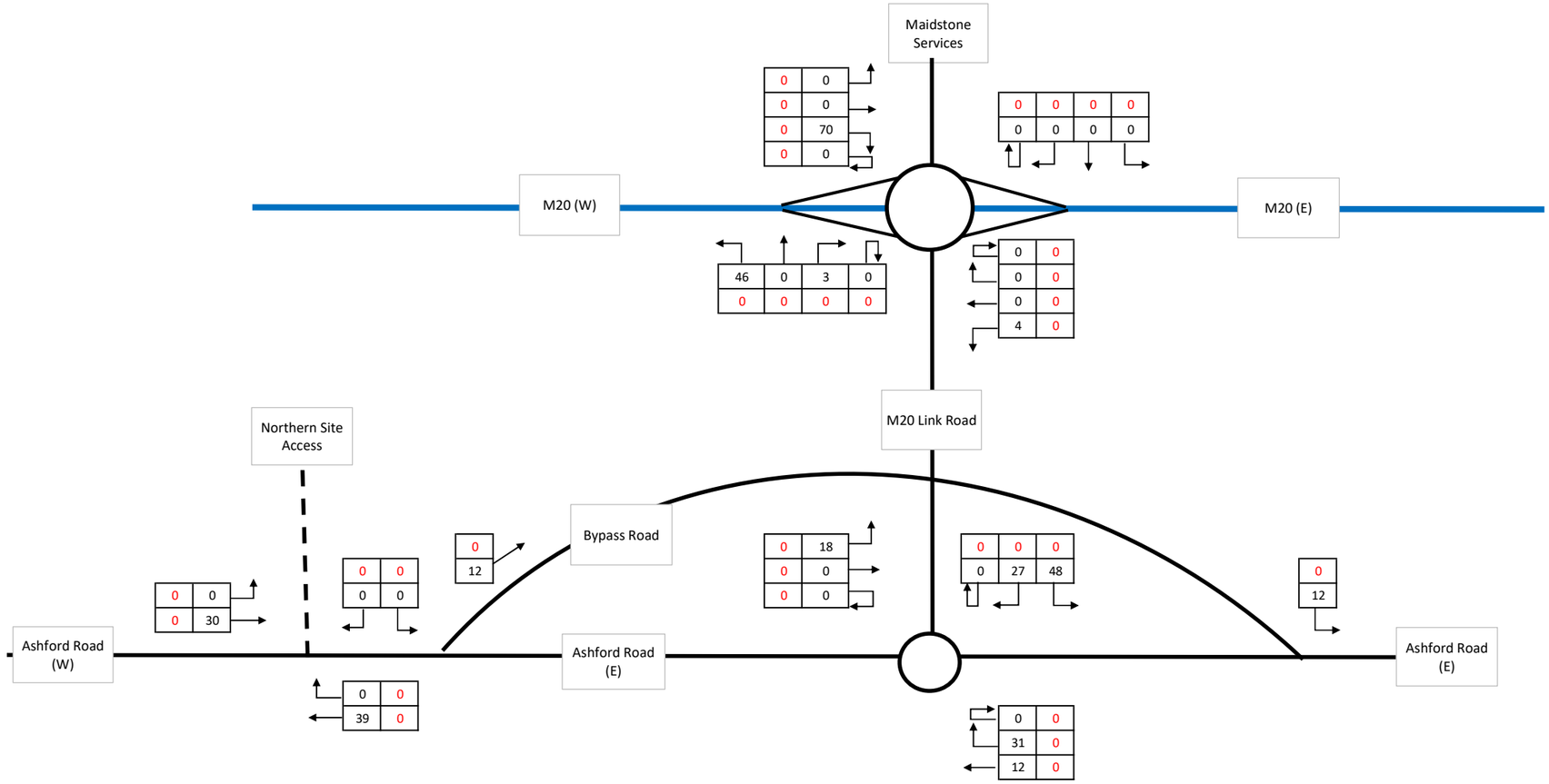
i-Transport

Grove House, Lutyens Close,
Chineham Court, Basingstoke,
RG24 8AG
Tel: 01256 338640
www.i-transport.co.uk

Ashford Road, Maidstone

F1

Total Committed Development AM



KEY

500 = TOTAL VEH

25 = HGVs

i-Transport

Grove House, Lutyens Close,
Chineham Court, Basingstoke,
RG24 8AG
Tel: 01256 338640
www.i-transport.co.uk

Ashford Road, Maidstone

F2

Total Committed Development PM

APPENDIX B. OPERATIONAL ASSESSMENTS

Junctions 10

PICADY 10 - Priority Intersection Module

Filename: Ashford Road_Site Access priority Rev A.j10
Path: T:\Projects\15000 Series\15323ITB Ashford Road, Maidstone\Tech\Junction Assessments\Tech Notes
Report generation date: 16/05/2023 15:31:26

Summary of junction performance

	AM						PM					
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	2027 Future Year + Committed Development + Development											
Stream B-AC	D3	0.1	10.61	0.06	B	61 %	D4	0.1	9.65	0.09	A	52 %
Stream C-AB		0.1	8.33	0.06	A	[Stream B-AC]		0.1	11.52	0.05	B	[Stream B-AC]
	2031 Future Year + Committed Development + Development											
Stream B-AC	D5	0.1	10.93	0.06	B	58 %	D6	0.1	9.78	0.08	A	50 %
Stream C-AB		0.1	8.50	0.06	A	[Stream B-AC]		0.1	11.72	0.05	B	[Stream B-AC]
	2037 Future Year + Committed Development + Development											
Stream B-AC	D7	0.1	10.99	0.07	B	52 %	D8	0.1	10.17	0.09	B	43 %
Stream C-AB		0.1	8.55	0.06	A	[Stream B-AC]		0.1	11.82	0.05	B	[Stream B-AC]

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	
Location	
Site number	
Date	11/11/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\Hotdesk
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
	✓	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)
D3	2027 Future Year + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15
D4	2027 Future Year + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15
D5	2031 Future Year + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15
D6	2031 Future Year + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15
D7	2037 Future Year + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15
D8	2037 Future Year + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2027 Future Year + Committed Development + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A20 Ashford Road / Site Access	T-Junction	Two-way	Two-way	Two-way		0.38	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	61	Stream B-AC	0.38	A

Arms

Arms

Arm	Name	Description	Arm type
A	A20 Ashford Road (W)		Major
B	Employment Site Access		Minor
C	A20 Ashford Road (E)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A20 Ashford Road (E)	7.40		✓	3.50	146.0	✓	14.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Employment Site Access	One lane	4.48	120	115

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	661	0.115	0.290	0.182	0.414
B-C	800	0.113	0.287	-	-
C-B	752	0.274	0.274	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2027 Future Year + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A20 Ashford Road (W)		✓	656	100.000
B - Employment Site Access		✓	21	100.000
C - A20 Ashford Road (E)		✓	811	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A20 Ashford Road (W)	B - Employment Site Access	C - A20 Ashford Road (E)
From	A - A20 Ashford Road (W)	0	6	650
	B - Employment Site Access	2	0	19
	C - A20 Ashford Road (E)	785	26	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A20 Ashford Road (W)	B - Employment Site Access	C - A20 Ashford Road (E)
From	A - A20 Ashford Road (W)	0	0	3
	B - Employment Site Access	0	0	56
	C - A20 Ashford Road (E)	5	19	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.06	10.61	0.1	B
C-AB	0.06	8.33	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	16	417	0.038	16	0.0	8.977	A
C-AB	20	515	0.038	19	0.0	7.265	A
C-A	591			591			
A-B	5			5			
A-C	489			489			

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	19	395	0.048	19	0.0	9.580	A
C-AB	23	492	0.048	23	0.0	7.680	A
C-A	706			706			
A-B	5			5			
A-C	584			584			

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	23	362	0.064	23	0.1	10.608	B
C-AB	29	461	0.062	29	0.1	8.329	A
C-A	864			864			
A-B	7			7			
A-C	716			716			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	23	362	0.064	23	0.1	10.612	B
C-AB	29	461	0.062	29	0.1	8.331	A
C-A	864			864			
A-B	7			7			
A-C	716			716			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	19	395	0.048	19	0.1	9.588	A
C-AB	23	492	0.048	23	0.1	7.683	A
C-A	706			706			
A-B	5			5			
A-C	584			584			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	16	417	0.038	16	0.0	8.982	A
C-AB	20	515	0.038	20	0.0	7.272	A
C-A	591			591			
A-B	5			5			
A-C	489			489			

2027 Future Year + Committed Development + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A20 Ashford Road / Site Access	T-Junction	Two-way	Two-way	Two-way		0.42	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	52	Stream B-AC	0.42	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2027 Future Year + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A20 Ashford Road (W)		✓	670	100.000
B - Employment Site Access		✓	33	100.000
C - A20 Ashford Road (E)		✓	876	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A20 Ashford Road (W)	B - Employment Site Access	C - A20 Ashford Road (E)
From	A - A20 Ashford Road (W)	0	2	668
	B - Employment Site Access	6	0	27
	C - A20 Ashford Road (E)	860	16	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A20 Ashford Road (W)	B - Employment Site Access	C - A20 Ashford Road (E)
From	A - A20 Ashford Road (W)	0	0	1
	B - Employment Site Access	0	0	24
	C - A20 Ashford Road (E)	3	66	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.09	9.65	0.1	A
C-AB	0.05	11.52	0.1	B
C-A				
A-B				
A-C				

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	25	494	0.050	25	0.1	7.674	A
C-AB	12	369	0.033	12	0.0	10.082	B
C-A	647			647			
A-B	2			2			
A-C	503			503			

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	30	460	0.064	30	0.1	8.362	A
C-AB	14	353	0.041	14	0.0	10.641	B
C-A	773			773			
A-B	2			2			
A-C	601			601			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	36	409	0.089	36	0.1	9.643	A
C-AB	18	330	0.053	18	0.1	11.518	B
C-A	947			947			
A-B	2			2			
A-C	735			735			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	36	409	0.089	36	0.1	9.649	A
C-AB	18	330	0.053	18	0.1	11.521	B
C-A	947			947			
A-B	2			2			
A-C	735			735			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	30	460	0.064	30	0.1	8.369	A
C-AB	14	353	0.041	14	0.0	10.647	B
C-A	773			773			
A-B	2			2			
A-C	601			601			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	25	494	0.050	25	0.1	7.682	A
C-AB	12	369	0.033	12	0.0	10.092	B
C-A	647			647			
A-B	2			2			
A-C	503			503			

2031 Future Year + Committed Development + Development , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A20 Ashford Road / Site Access	T-Junction	Two-way	Two-way	Two-way		0.36	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	58	Stream B-AC	0.36	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2031 Future Year + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A20 Ashford Road (W)		✓	673	100.000
B - Employment Site Access		✓	20	100.000
C - A20 Ashford Road (E)		✓	832	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A20 Ashford Road (W)	B - Employment Site Access	C - A20 Ashford Road (E)
From	A - A20 Ashford Road (W)	0	5	668
	B - Employment Site Access	2	0	18
	C - A20 Ashford Road (E)	809	23	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A20 Ashford Road (W)	B - Employment Site Access	C - A20 Ashford Road (E)
From	A - A20 Ashford Road (W)	0	0	3
	B - Employment Site Access	0	0	59
	C - A20 Ashford Road (E)	4	21	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.06	10.93	0.1	B
C-AB	0.06	8.50	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	15	407	0.037	15	0.0	9.188	A
C-AB	17	503	0.034	17	0.0	7.403	A
C-A	609			609			
A-B	4			4			
A-C	503			503			

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	18	384	0.047	18	0.0	9.827	A
C-AB	21	480	0.043	21	0.0	7.830	A
C-A	727			727			
A-B	4			4			
A-C	601			601			

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	22	351	0.063	22	0.1	10.927	B
C-AB	25	449	0.056	25	0.1	8.500	A
C-A	891			891			
A-B	6			6			
A-C	735			735			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	22	351	0.063	22	0.1	10.932	B
C-AB	25	449	0.056	25	0.1	8.501	A
C-A	891			891			
A-B	6			6			
A-C	735			735			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	18	384	0.047	18	0.0	9.832	A
C-AB	21	480	0.043	21	0.0	7.834	A
C-A	727			727			
A-B	4			4			
A-C	601			601			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	15	407	0.037	15	0.0	9.193	A
C-AB	17	503	0.034	17	0.0	7.410	A
C-A	609			609			
A-B	4			4			
A-C	503			503			

2031 Future Year + Committed Development + Development , PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A20 Ashford Road / Site Access	T-Junction	Two-way	Two-way	Two-way		0.39	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	50	Stream B-AC	0.39	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2031 Future Year + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A20 Ashford Road (W)		✓	684	100.000
B - Employment Site Access		✓	30	100.000
C - A20 Ashford Road (E)		✓	894	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A20 Ashford Road (W)	B - Employment Site Access	C - A20 Ashford Road (E)
From	A - A20 Ashford Road (W)	0	1	683
	B - Employment Site Access	5	0	25
	C - A20 Ashford Road (E)	879	15	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A20 Ashford Road (W)	B - Employment Site Access	C - A20 Ashford Road (E)
From	A - A20 Ashford Road (W)	0	0	1
	B - Employment Site Access	0	0	27
	C - A20 Ashford Road (E)	3	68	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.08	9.78	0.1	A
C-AB	0.05	11.72	0.1	B
C-A				
A-B				
A-C				

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	23	484	0.047	22	0.0	7.802	A
C-AB	11	363	0.031	11	0.0	10.236	B
C-A	662			662			
A-B	0.75			0.75			
A-C	514			514			

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	27	451	0.060	27	0.1	8.492	A
C-AB	13	346	0.039	13	0.0	10.813	B
C-A	790			790			
A-B	0.90			0.90			
A-C	614			614			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	33	401	0.082	33	0.1	9.778	A
C-AB	17	324	0.051	16	0.1	11.720	B
C-A	968			968			
A-B	1			1			
A-C	752			752			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	33	401	0.082	33	0.1	9.782	A
C-AB	17	324	0.051	17	0.1	11.722	B
C-A	968			968			
A-B	1			1			
A-C	752			752			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	27	451	0.060	27	0.1	8.500	A
C-AB	13	346	0.039	14	0.0	10.820	B
C-A	790			790			
A-B	0.90			0.90			
A-C	614			614			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	23	484	0.047	23	0.0	7.812	A
C-AB	11	363	0.031	11	0.0	10.246	B
C-A	662			662			
A-B	0.75			0.75			
A-C	514			514			

2037 Future Year + Committed Development + Development , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A20 Ashford Road / Site Access	T-Junction	Two-way	Two-way	Two-way		0.37	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	52	Stream B-AC	0.37	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2037 Future Year + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A20 Ashford Road (W)		✓	698	100.000
B - Employment Site Access		✓	21	100.000
C - A20 Ashford Road (E)		✓	865	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A20 Ashford Road (W)	B - Employment Site Access	C - A20 Ashford Road (E)
From	A - A20 Ashford Road (W)	0	6	692
	B - Employment Site Access	2	0	19
	C - A20 Ashford Road (E)	839	26	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A20 Ashford Road (W)	B - Employment Site Access	C - A20 Ashford Road (E)
From	A - A20 Ashford Road (W)	0	0	3
	B - Employment Site Access	0	0	56
	C - A20 Ashford Road (E)	4	19	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.07	10.99	0.1	B
C-AB	0.06	8.55	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	16	410	0.039	16	0.0	9.132	A
C-AB	20	507	0.039	19	0.0	7.377	A
C-A	632			632			
A-B	5			5			
A-C	521			521			

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	19	386	0.049	19	0.1	9.809	A
C-AB	23	483	0.048	23	0.1	7.829	A
C-A	754			754			
A-B	5			5			
A-C	622			622			

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	23	351	0.066	23	0.1	10.985	B
C-AB	29	450	0.064	29	0.1	8.545	A
C-A	924			924			
A-B	7			7			
A-C	762			762			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	23	351	0.066	23	0.1	10.990	B
C-AB	29	450	0.064	29	0.1	8.547	A
C-A	924			924			
A-B	7			7			
A-C	762			762			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	19	386	0.049	19	0.1	9.817	A
C-AB	23	483	0.048	23	0.1	7.831	A
C-A	754			754			
A-B	5			5			
A-C	622			622			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	16	410	0.039	16	0.0	9.146	A
C-AB	20	507	0.039	20	0.0	7.381	A
C-A	632			632			
A-B	5			5			
A-C	521			521			

2037 Future Year + Committed Development + Development , PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A20 Ashford Road / Site Access	T-Junction	Two-way	Two-way	Two-way		0.41	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	43	Stream B-AC	0.41	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2037 Future Year + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A20 Ashford Road (W)		✓	713	100.000
B - Employment Site Access		✓	33	100.000
C - A20 Ashford Road (E)		✓	931	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A20 Ashford Road (W)	B - Employment Site Access	C - A20 Ashford Road (E)
From	A - A20 Ashford Road (W)	0	2	711
	B - Employment Site Access	6	0	27
	C - A20 Ashford Road (E)	915	16	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A20 Ashford Road (W)	B - Employment Site Access	C - A20 Ashford Road (E)
From	A - A20 Ashford Road (W)	0	0	1
	B - Employment Site Access	0	0	24
	C - A20 Ashford Road (E)	3	66	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.09	10.17	0.1	B
C-AB	0.05	11.82	0.1	B
C-A				
A-B				
A-C				

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	25	483	0.051	25	0.1	7.853	A
C-AB	12	363	0.033	12	0.0	10.239	B
C-A	689			689			
A-B	2			2			
A-C	535			535			

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	30	446	0.066	30	0.1	8.636	A
C-AB	14	346	0.042	14	0.0	10.847	B
C-A	823			823			
A-B	2			2			
A-C	639			639			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	36	390	0.093	36	0.1	10.163	B
C-AB	18	322	0.055	18	0.1	11.818	B
C-A	1007			1007			
A-B	2			2			
A-C	783			783			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	36	390	0.093	36	0.1	10.170	B
C-AB	18	322	0.055	18	0.1	11.819	B
C-A	1007			1007			
A-B	2			2			
A-C	783			783			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	30	446	0.066	30	0.1	8.643	A
C-AB	14	346	0.042	14	0.0	10.855	B
C-A	823			823			
A-B	2			2			
A-C	639			639			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	25	483	0.051	25	0.1	7.862	A
C-AB	12	363	0.033	12	0.0	10.246	B
C-A	689			689			
A-B	2			2			
A-C	535			535			

Junctions 10

ARCADY 10 - Roundabout Module

Filename: A20_M20 Roundabout AM (Lane Sim) Rev A Observed.j10
Path: T:\Projects\15000 Series\15323ITB Ashford Road, Maidstone\Tech\Junction Assessments\Tech Notes
Report generation date: 19/05/2023 09:28:34

Summary of junction performance

	AM	
	Queue (Veh)	Delay (s)
	[Lane Simulation] - 2022 Observed Flows	
1 - M20 link road	3.8	8.97
2 - A20 (E)	7.7	15.75
3 - A20 (W)	0.7	7.82

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. Arm and junction delays are averages for all movements, including movements with zero delay.

File summary

File Description

Title	
Location	
Site number	
Date	13/10/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\londonhotdesk
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓					0.85	36.00	20.00		500

Lane Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Average animation capture interval (s)	Use quick response	Do flow sampling	Suppress automatic lane creation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	1.00	100000	100000	-1	3	1	60	✓			1438320099	154	14.45

Analysis Set Details

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

2022 Observed Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.
Info	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A20 / M20 Roundabout	Standard Roundabout		1, 2, 3	12.17	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	12.17	B

Arms

Arms

Arm	Name	Description	No give-way line
1	M20 link road		
2	A20 (E)		
3	A20 (W)		

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)	Entry only	Exit only
1 - M20 link road	7.40	10.40	7.8	44.9	59.0	34.0		
2 - A20 (E)	7.50	10.00	5.3	48.8	59.0	14.5		
3 - A20 (W)	3.80	6.10	10.3	25.3	59.0	20.5		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - M20 link road	0.738	2685
2 - A20 (E)	0.775	2787
3 - A20 (W)	0.561	1625

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

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
1 - M20 link road	Apportion from lane geometry	10.00
2 - A20 (E)	Apportion from lane geometry	20.00
3 - A20 (W)	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Has obstruction	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Signalised
1 - M20 link road	Entry	1	1	2	✓	2.00			0	99999	
			2	2	✓	2.00			0	99999	
			3	1, 3	✓	2.00			0	99999	
		2	1	(2)		Infinity					
			2	(1, 2, 3)		Infinity					
	Exit	1	1			Infinity					
2 - A20 (E)	Entry	1	1	(1), 3		Infinity			0	99999	
			2	1, 2		Infinity			0	99999	
	Exit	1	1			Infinity					
3 - A20 (W)	Entry	1	1	1, 2, 3		Infinity			0	99999	
	Exit	1	1			Infinity					

Entry Lane Geometry

Arm	Side	Lane level	Lane	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Notes
1 - M20 link road	Entry	1	1	3.70	3.70	0.0	44.9	59.0	34.0		
			2	3.70	3.70	0.0	44.9	59.0	34.0		
			3	3.00	3.00	0.0	44.9	59.0	34.0		
2 - A20 (E)	Entry	1	1	3.75	3.75	0.0	48.8	59.0	14.5		
			2	3.75	6.25	5.3	48.8	59.0	14.5		

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/hr)
1 - M20 link road	Entry	1	1	0.263	955
			2	0.263	955
			3	0.213	774
2 - A20 (E)	Entry	1	1	0.342	1230
			2	0.433	1557
3 - A20 (W)	Entry	1	1	0.561	1625

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm		
			M20 link road	A20 (E)	A20 (W)
1 - M20 link road	1	1		✓	
		2		✓	
		3	✓		✓
	2	1		✓	
		2	✓	✓	✓
2 - A20 (E)	1	1			✓
		2	✓	✓	
3 - A20 (W)	1	1	✓	✓	✓

Summary of Entry Lane allowed secondary movements

Arm	Lane Level	Lane	Destination arm		
			M20 link road	A20 (E)	A20 (W)
1 - M20 link road	1	1			
		2			
		3			
	2	1			
		2			
2 - A20 (E)	1	1	✓		
		2			
3 - A20 (W)	1	1			

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	2022 Observed Flows	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - M20 link road		ONE HOUR	✓	1364	100.000
2 - A20 (E)		ONE HOUR	✓	1581	100.000
3 - A20 (W)		ONE HOUR	✓	281	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	984	380
	2 - A20 (E)	1215	0	366
	3 - A20 (W)	255	24	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	8	6
	2 - A20 (E)	6	0	3
	3 - A20 (W)	5	4	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - M20 link road	8.97	3.8	9.0	A	1250	1875
2 - A20 (E)	15.75	7.7	19.7	C	1449	2174
3 - A20 (W)	7.82	0.7	2.7	A	258	387

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1013	253	21	1015	1096	1102	0.0	1.7	6.176	A
2 - A20 (E)	1188	297	282	1190	1250	755	0.0	1.8	5.580	A
3 - A20 (W)	210	53	913	210	224	559	0.0	0.2	4.390	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1223	306	24	1228	1313	1328	1.7	2.3	7.059	A
2 - A20 (E)	1419	355	345	1422	1487	906	1.8	2.8	7.415	A
3 - A20 (W)	254	63	1098	254	264	669	0.2	0.3	5.271	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1516	379	30	1519	1618	1591	2.3	3.2	8.636	A
2 - A20 (E)	1734	433	429	1717	1809	1120	2.8	7.6	13.594	B
3 - A20 (W)	310	77	1309	311	323	837	0.3	0.6	7.248	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1499	375	29	1499	1607	1631	3.2	3.7	8.965	A
2 - A20 (E)	1748	437	428	1755	1828	1100	7.6	7.3	15.747	C
3 - A20 (W)	305	76	1357	303	324	826	0.6	0.7	7.818	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1208	302	24	1204	1315	1320	3.7	2.5	7.036	A
2 - A20 (E)	1407	352	338	1410	1516	889	7.3	2.8	8.314	A
3 - A20 (W)	259	65	1086	258	263	662	0.7	0.4	5.825	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1041	260	22	1039	1110	1120	2.5	1.7	6.079	A
2 - A20 (E)	1201	300	291	1203	1261	770	2.8	1.9	5.771	A
3 - A20 (W)	211	53	930	212	224	564	0.4	0.3	4.519	A

Queue Variation Results for each time segment

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	1.76	0.00	0.77	3.83	4.43
2 - A20 (E)	1.93	0.00	0.79	4.68	5.94
3 - A20 (W)	0.25	0.00	0.00	0.63	0.93

07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	2.39	0.00	1.42	4.56	6.35
2 - A20 (E)	2.81	0.00	1.76	5.83	7.45
3 - A20 (W)	0.33	0.00	0.00	0.80	1.35

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	3.26	0.00	2.22	6.45	8.17
2 - A20 (E)	7.75	0.12	5.26	16.69	19.70
3 - A20 (W)	0.62	0.00	0.00	1.69	2.50

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	3.76	0.00	2.47	7.32	9.01
2 - A20 (E)	7.29	0.00	4.74	14.51	19.59
3 - A20 (W)	0.73	0.00	0.00	1.80	2.65

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	2.51	0.00	1.74	5.14	6.31
2 - A20 (E)	2.83	0.00	1.68	6.54	8.83
3 - A20 (W)	0.46	0.00	0.00	0.88	2.01

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	1.81	0.00	0.99	3.47	4.31
2 - A20 (E)	1.98	0.00	0.98	4.27	5.25
3 - A20 (W)	0.31	0.00	0.00	0.88	1.55

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	369	874	0.421	370	399	0.0	0.5	4.849	A
			2	2	365	875	0.417	366	396	0.0	0.5	4.967	A
			3	1, 3	281	726	0.386	281	301	0.0	0.5	6.753	A
		2	1	(2)	402			402	433	0.0	0.0	0.273	A
			2	(1, 2, 3)	612			612	670	0.0	0.1	1.058	A
	Exit	1	1		1102			1102	1169	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	394	1080	0.365	395	411	0.0	0.6	4.899	A
			2	1, 2	794	1348	0.589	795	839	0.0	1.3	5.920	A
	Exit	1	1		755			755	814	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	210	1033	0.204	210	224	0.0	0.2	4.390	A
	Exit	1	1		559			559	588	0.0	0.0	0.000	A

07:30 - 07:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	443	873	0.508	444	477	0.5	0.6	5.301	A
			2	2	440	884	0.498	440	478	0.5	0.6	5.232	A
			3	1, 3	342	724	0.473	343	358	0.5	0.7	7.070	A
		2	1	(2)	506			506	539	0.0	0.0	0.519	A
			2	(1, 2, 3)	718			719	775	0.1	0.4	1.819	A
	Exit	1	1		1328			1328	1393	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	479	1064	0.450	479	494	0.6	0.7	5.569	A
			2	1, 2	940	1315	0.714	943	993	1.3	2.1	8.350	A
	Exit	1	1		906			906	978	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	254	930	0.272	254	264	0.2	0.3	5.271	A
	Exit	1	1		669			669	692	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	544	876	0.621	544	582	0.6	0.8	5.722	A
			2	2	548	879	0.624	548	591	0.6	0.8	5.614	A
			3	1, 3	427	725	0.589	427	445	0.7	0.9	7.299	A
		2	1	(2)	679			679	723	0.0	0.1	1.226	A
			2	(1, 2, 3)	837			840	897	0.4	0.6	3.538	A
	Exit	1	1		1591			1591	1684	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	620	1031	0.601	617	640	0.7	1.4	7.808	A
			2	1, 2	1114	1282	0.869	1100	1170	2.1	6.2	16.780	C
	Exit	1	1		1120			1120	1200	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	310	809	0.383	311	323	0.3	0.6	7.248	A
	Exit	1	1		837			837	865	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	542	880	0.617	541	580	0.8	0.9	5.694	A
			2	2	532	880	0.604	532	580	0.8	0.9	5.745	A
			3	1, 3	424	725	0.585	426	446	0.9	0.8	7.467	A
		2	1	(2)	669			668	722	0.1	0.3	1.327	A
			2	(1, 2, 3)	829			830	886	0.6	0.8	3.897	A
	Exit	1	1		1631			1631	1711	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	625	1030	0.608	623	641	1.4	1.5	8.041	A
			2	1, 2	1122	1283	0.874	1132	1187	6.2	5.8	19.997	C
	Exit	1	1		1100			1100	1188	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	305	777	0.393	303	324	0.6	0.7	7.818	A
	Exit	1	1		826			826	860	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	436	884	0.494	436	479	0.9	0.6	5.201	A
			2	2	432	877	0.493	431	474	0.9	0.7	5.215	A
			3	1, 3	340	727	0.466	337	362	0.8	0.8	6.970	A
		2	1	(2)	498			498	535	0.3	0.0	0.555	A
			2	(1, 2, 3)	710			710	777	0.8	0.4	1.882	A
	Exit	1	1		1320			1320	1417	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	475	1063	0.446	475	503	1.5	0.8	6.009	A
			2	1, 2	933	1319	0.707	936	1013	5.8	2.0	9.494	A
	Exit	1	1		889			889	975	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	259	934	0.278	258	263	0.7	0.4	5.825	A
	Exit	1	1		662			662	703	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	374	884	0.423	373	402	0.6	0.6	4.916	A
			2	2	375	878	0.427	376	405	0.7	0.4	4.968	A
			3	1, 3	291	726	0.401	290	303	0.8	0.5	6.502	A
		2	1	(2)	402			402	435	0.0	0.0	0.305	A
			2	(1, 2, 3)	639			638	673	0.4	0.2	0.979	A
	Exit	1	1		1120			1120	1181	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	398	1079	0.369	398	410	0.8	0.6	4.891	A
			2	1, 2	802	1338	0.599	804	850	2.0	1.4	6.207	A
	Exit	1	1		770			770	828	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	211	1018	0.208	212	224	0.4	0.3	4.519	A
	Exit	1	1		564			564	586	0.0	0.0	0.000	A

Lanes: Queue Variation Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.56	0.00	0.00	1.35	1.61
			2	0.53	0.00	0.00	1.84	1.84
			3	0.50	0.00	0.00	1.24	1.58
		2	1	0.03	0.00	0.00	0.00	0.00
			2	0.14	0.00	0.00	0.00	0.84
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.58	0.00	0.00	1.44	2.16
			2	1.34	0.00	0.18	3.52	4.86
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.25	0.00	0.00	0.63	0.93
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

07:30 - 07:45

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.62	0.00	0.00	1.38	1.65
			2	0.65	0.00	0.08	1.30	1.60
			3	0.69	0.00	0.00	1.58	1.77
		2	1	0.04	0.00	0.00	0.00	0.00
			2	0.40	0.00	0.00	1.18	2.37
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.71	0.00	0.00	1.72	2.52
			2	2.09	0.00	0.91	4.89	6.64
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.33	0.00	0.00	0.80	1.35
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

07:45 - 08:00

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.82	0.00	0.29	1.54	1.71
			2	0.84	0.00	0.28	1.58	1.77
			3	0.87	0.00	0.20	1.68	1.82
		2	1	0.11	0.00	0.00	0.00	0.44
			2	0.63	0.00	0.00	1.81	3.22
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	1.41	0.00	0.39	3.70	4.51
			2	6.31	0.00	3.99	14.70	18.05
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.62	0.00	0.00	1.69	2.50
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:00 - 08:15

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	1.00	0.00	0.54	1.66	1.79
			2	0.93	0.00	0.44	1.63	1.77
			3	0.77	0.00	0.05	1.59	1.76
		2	1	0.31	0.00	0.00	0.56	1.90
			2	0.76	0.00	0.00	2.25	3.64
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	1.53	0.00	0.58	3.37	4.47
			2	5.74	0.00	3.77	11.82	15.70
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.73	0.00	0.00	1.80	2.65
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:15 - 08:30

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.59	0.00	0.00	1.32	1.63
			2	0.68	0.00	0.06	1.44	1.69
			3	0.82	0.00	0.16	1.63	1.79
		2	1	0.04	0.00	0.00	0.00	0.00
			2	0.38	0.00	0.00	1.31	2.23
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.75	0.00	0.00	1.61	2.36
			2	2.07	0.00	0.75	5.31	7.62
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.46	0.00	0.00	0.88	2.01
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:30 - 08:45

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.62	0.00	0.00	1.29	1.64
			2	0.44	0.00	0.00	1.85	1.85
			3	0.56	0.00	0.00	1.40	1.68
		2	1	0.02	0.00	0.00	0.00	0.00
			2	0.18	0.00	0.00	0.00	0.99
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.56	0.00	0.00	1.49	1.88
			2	1.42	0.00	0.36	3.56	4.47
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.31	0.00	0.00	0.88	1.55
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

Lane movements: Main Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	369	92	955	874	0.421	370	399	0.0	0.5	4.849	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	365	91	955	875	0.417	366	396	0.0	0.5	4.967	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	281	70	774	726	0.386	281	301	0.0	0.5	6.753	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	402	100	-	-	-	402	433	0.0	0.0	0.273	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	331	83	-	-	-	332	367	0.0	0.0	0.276	A
				3	280	70	-	-	-	281	303	0.0	0.1	1.984	A
2 - A20 (E)	Entry	1	1	1	117	29	1230	1065	0.110	118	126	0.0	0.1	4.399	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	277	69	1230	1087	0.255	277	285	0.0	0.5	5.114	A
			2	1	794	198	1557	1348	0.589	795	839	0.0	1.3	5.920	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	190	47	1625	1032	0.184	189	204	0.0	0.2	4.374	A
				2	19	5	1615	1043	0.018	19	19	0.0	0.0	4.622	A
				3	1	0.31	443	297	0.004	1	1	0.0	0.0	3.460	A

07:30 - 07:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	443	111	955	873	0.508	444	477	0.5	0.6	5.301	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	440	110	955	884	0.498	440	478	0.5	0.6	5.232	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	342	86	774	724	0.473	343	358	0.5	0.7	7.070	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	506	126	-	-	-	506	539	0.0	0.0	0.519	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	377	94	-	-	-	377	417	0.1	0.0	0.530	A
				3	341	85	-	-	-	342	359	0.1	0.3	3.279	A
2 - A20 (E)	Entry	1	1	1	155	39	1230	1045	0.148	155	161	0.6	0.2	5.026	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	324	81	1230	1073	0.302	324	333	0.6	0.5	5.826	A
			2	1	940	235	1557	1315	0.714	943	993	1.3	2.1	8.350	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	230	57	1625	928	0.247	230	239	0.2	0.3	5.272	A
				2	22	5	1615	926	0.023	22	23	0.2	0.0	5.310	A
				3	2	0.55	623	378	0.006	2	2	0.0	0.0	4.628	A

07:45 - 08:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	544	136	955	876	0.621	544	582	0.6	0.8	5.722	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	548	137	955	879	0.624	548	591	0.6	0.8	5.614	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	427	107	774	725	0.589	427	445	0.7	0.9	7.299	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	679	170	-	-	-	679	723	0.0	0.1	1.226	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	411	103	-	-	-	413	451	0.4	0.1	1.371	A
				3	426	107	-	-	-	427	446	0.4	0.6	5.688	A
2 - A20 (E)	Entry	1	1	1	209	52	1230	1017	0.206	209	222	0.7	0.4	7.257	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	411	103	1230	1038	0.395	408	418	0.7	1.0	8.093	A
			2	1	1114	279	1557	1282	0.869	1100	1170	2.1	6.2	16.780	C
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	280	70	1625	809	0.346	282	293	0.3	0.6	7.258	A
				2	28	7	1625	807	0.034	28	27	0.3	0.0	7.068	A
				3	2	0.49	718	381	0.005	2	2	0.0	0.0	7.997	A

08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	542	136	955	880	0.617	541	580	0.8	0.9	5.694	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	532	133	955	880	0.604	532	580	0.8	0.9	5.745	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	424	106	774	725	0.585	426	446	0.9	0.8	7.467	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	669	167	-	-	-	668	722	0.1	0.3	1.327	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	407	102	-	-	-	407	440	0.6	0.2	1.492	A
				3	423	106	-	-	-	424	446	0.6	0.6	6.218	A
2 - A20 (E)	Entry	1	1	1	225	56	1230	1007	0.223	224	231	1.4	0.5	7.676	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	401	100	1230	1044	0.384	398	411	1.4	1.0	8.239	A
			2	1	1122	281	1557	1283	0.874	1132	1187	6.2	5.8	19.997	C
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	276	69	1625	778	0.356	274	294	0.6	0.7	7.825	A
				2	27	7	1625	793	0.034	27	28	0.6	0.0	7.832	A
				3	2	0.56	718	371	0.006	2	2	0.6	0.0	6.823	A

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	436	109	955	884	0.494	436	479	0.9	0.6	5.201	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	432	108	955	877	0.493	431	474	0.9	0.7	5.215	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	340	85	774	727	0.466	337	362	0.8	0.8	6.970	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	498	124	-	-	-	498	535	0.3	0.0	0.555	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	371	93	-	-	-	370	415	0.8	0.1	0.573	A
				3	340	85	-	-	-	340	362	0.8	0.3	3.352	A
2 - A20 (E)	Entry	1	1	1	150	37	1230	1043	0.143	151	164	1.5	0.2	5.524	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	325	81	1230	1072	0.303	324	339	1.5	0.6	6.236	A
			2	1	933	233	1557	1319	0.707	936	1013	5.8	2.0	9.494	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	235	59	1625	936	0.252	234	239	0.7	0.4	5.817	A
				2	22	6	1604	924	0.024	22	22	0.7	0.0	5.864	A
				3	1	0.37	507	299	0.005	2	2	0.0	0.0	6.470	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	374	94	955	884	0.423	373	402	0.6	0.6	4.916	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	375	94	955	878	0.426	376	405	0.7	0.4	4.968	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	291	73	774	726	0.401	290	303	0.8	0.5	6.502	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	402	101	-	-	-	402	435	0.0	0.0	0.305	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	348	87	-	-	-	347	371	0.4	0.0	0.294	A
				3	291	73	-	-	-	291	302	0.4	0.2	1.815	A
2 - A20 (E)	Entry	1	1	1	124	31	1230	1058	0.118	125	128	0.8	0.1	4.443	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	274	68	1230	1089	0.251	273	283	0.8	0.4	5.088	A
			2	1	802	201	1557	1338	0.599	804	850	2.0	1.4	6.207	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	190	47	1625	1021	0.186	190	203	0.4	0.3	4.511	A
				2	20	5	1625	1015	0.020	20	20	0.4	0.0	4.566	A
				3	1	0.31	390	256	0.005	1	1	0.0	0.0	5.089	A

Junctions 10

ARCADY 10 - Roundabout Module

Filename: A20_M20 Roundabout AM (Lane Sim) Rev A.j10
Path: T:\Projects\15000 Series\15323ITB Ashford Road, Maidstone\Tech\Junction Assessments\Tech Notes
Report generation date: 19/05/2023 09:24:49

Summary of junction performance

	AM	
	Queue (Veh)	Delay (s)
	[Lane Simulation] - Future Year 2027 + CD	
1 - M20 link road	4.9	10.03
2 - A20 (E)	11.3	21.63
3 - A20 (W)	1.1	9.37
	[Lane Simulation] - Future Year 2031 + CD	
1 - M20 link road	4.9	10.12
2 - A20 (E)	13.3	24.71
3 - A20 (W)	1.1	10.59
	[Lane Simulation] - Future Year 2037 + CD	
1 - M20 link road	5.3	10.69
2 - A20 (E)	21.7	36.37
3 - A20 (W)	1.4	12.32
	[Lane Simulation] - Future Year 2027 + CD + Development	
1 - M20 link road	4.5	10.08
2 - A20 (E)	11.9	22.19
3 - A20 (W)	1.6	11.29
	[Lane Simulation] - Future Year 2031 + CD + Development	
1 - M20 link road	5.2	10.85
2 - A20 (E)	16.0	28.92
3 - A20 (W)	1.5	12.01
	[Lane Simulation] - Future Year 2037 + CD + Development	
1 - M20 link road	5.3	11.49
2 - A20 (E)	24.9	38.74
3 - A20 (W)	1.6	13.06

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. Arm and junction delays are averages for all movements, including movements with zero delay.

File summary

File Description

Title	
Location	
Site number	
Date	13/10/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\londonhotdesk
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓					0.85	36.00	20.00		500

Lane Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Average animation capture interval (s)	Use quick response	Do flow sampling	Suppress automatic lane creation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	1.00	100000	100000	-1	3	1	60	✓			178074830	104	11.48

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	Future Year 2027 + CD	AM	ONE HOUR	07:15	08:45	15	✓
D5	Future Year 2031 + CD	AM	ONE HOUR	07:15	08:45	15	✓
D6	Future Year 2037 + CD	AM	ONE HOUR	07:15	08:45	15	✓
D7	Future Year 2027 + CD + Development	AM	ONE HOUR	07:15	08:45	15	✓
D8	Future Year 2031 + CD + Development	AM	ONE HOUR	07:15	08:45	15	✓
D9	Future Year 2037 + CD + Development	AM	ONE HOUR	07:15	08:45	15	✓

Analysis Set Details

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

Future Year 2027 + CD, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.
Info	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A20 / M20 Roundabout	Standard Roundabout		1, 2, 3	15.61	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	15.61	C

Arms

Arms

Arm	Name	Description	No give-way line
1	M20 link road		
2	A20 (E)		
3	A20 (W)		

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)	Entry only	Exit only
1 - M20 link road	7.40	10.40	7.8	44.9	59.0	34.0		
2 - A20 (E)	7.50	10.00	5.3	48.8	59.0	14.5		
3 - A20 (W)	3.80	6.10	10.3	25.3	59.0	20.5		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - M20 link road	0.738	2685
2 - A20 (E)	0.775	2787
3 - A20 (W)	0.561	1625

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

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
1 - M20 link road	Apportion from lane geometry	10.00
2 - A20 (E)	Apportion from lane geometry	20.00
3 - A20 (W)	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Has obstruction	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Signalised
1 - M20 link road	Entry	1	1	2	✓	2.00			0	99999	
			2	2	✓	2.00			0	99999	
			3	1, 3	✓	2.00			0	99999	
		2	1	(2)		Infinity					
			2	(1, 2, 3)		Infinity					
	Exit	1	1			Infinity					
2 - A20 (E)	Entry	1	1	(1), 3		Infinity			0	99999	
			2	1, 2		Infinity			0	99999	
	Exit	1	1			Infinity					
3 - A20 (W)	Entry	1	1	1, 2, 3		Infinity			0	99999	
	Exit	1	1			Infinity					

Entry Lane Geometry

Arm	Side	Lane level	Lane	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Notes
1 - M20 link road	Entry	1	1	3.70	3.70	0.0	44.9	59.0	34.0		
			2	3.70	3.70	0.0	44.9	59.0	34.0		
			3	3.00	3.00	0.0	44.9	59.0	34.0		
2 - A20 (E)	Entry	1	1	3.75	3.75	0.0	48.8	59.0	14.5		
			2	3.75	6.25	5.3	48.8	59.0	14.5		

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/hr)
1 - M20 link road	Entry	1	1	0.263	955
			2	0.263	955
			3	0.213	774
2 - A20 (E)	Entry	1	1	0.342	1230
			2	0.433	1557
3 - A20 (W)	Entry	1	1	0.561	1625

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm		
			M20 link road	A20 (E)	A20 (W)
1 - M20 link road	1	1		✓	
		2		✓	
		3	✓		✓
	2	1		✓	
		2	✓	✓	✓
2 - A20 (E)	1	1			✓
		2	✓	✓	
3 - A20 (W)	1	1	✓	✓	✓

Summary of Entry Lane allowed secondary movements

Arm	Lane Level	Lane	Destination arm		
			M20 link road	A20 (E)	A20 (W)
1 - M20 link road	1	1			
		2			
		3			
	2	1			
		2			
2 - A20 (E)	1	1	✓		
		2			
3 - A20 (W)	1	1			

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	Future Year 2027 + CD	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - M20 link road		ONE HOUR	✓	1432	100.000
2 - A20 (E)		ONE HOUR	✓	1679	100.000
3 - A20 (W)		ONE HOUR	✓	320	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	1031	401
	2 - A20 (E)	1295	0	384
	3 - A20 (W)	293	25	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	8	5
	2 - A20 (E)	6	0	3
	3 - A20 (W)	4	4	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - M20 link road	10.03	4.9	11.6	B	1308	1962
2 - A20 (E)	21.63	11.3	30.8	C	1537	2306
3 - A20 (W)	9.37	1.1	3.7	A	295	443

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1062	266	20	1066	1146	1204	0.0	1.6	6.348	A
2 - A20 (E)	1265	316	312	1266	1315	774	0.0	2.4	6.307	A
3 - A20 (W)	243	61	982	243	254	597	0.0	0.4	4.860	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1282	321	25	1286	1376	1441	1.6	2.3	7.284	A
2 - A20 (E)	1512	378	367	1521	1587	944	2.4	3.3	8.667	A
3 - A20 (W)	292	73	1173	293	303	714	0.4	0.3	5.817	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1576	394	33	1562	1668	1735	2.3	4.8	9.398	A
2 - A20 (E)	1845	461	445	1842	1921	1151	3.3	11.0	17.520	C
3 - A20 (W)	356	89	1415	354	361	871	0.3	1.0	8.775	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1592	398	30	1591	1700	1740	4.8	4.2	10.028	B
2 - A20 (E)	1842	460	442	1830	1932	1179	11.0	11.2	21.633	C
3 - A20 (W)	356	89	1412	358	368	861	1.0	0.8	9.367	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1272	318	25	1273	1384	1408	4.2	2.4	7.241	A
2 - A20 (E)	1476	369	361	1487	1615	938	11.2	3.6	11.020	B
3 - A20 (W)	285	71	1144	289	297	704	0.8	0.4	6.656	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1059	265	18	1061	1141	1225	2.4	2.0	6.268	A
2 - A20 (E)	1288	322	293	1287	1354	786	3.6	2.0	6.291	A
3 - A20 (W)	239	60	1004	239	251	576	0.4	0.3	5.044	A

Queue Variation Results for each time segment

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	1.68	0.00	0.81	3.40	4.24
2 - A20 (E)	2.45	0.00	1.18	5.58	7.48
3 - A20 (W)	0.38	0.00	0.00	0.90	1.41

07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	2.38	0.00	1.55	4.57	5.97
2 - A20 (E)	3.33	0.00	1.84	6.95	9.90
3 - A20 (W)	0.33	0.00	0.00	0.74	0.90

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	4.92	0.00	3.26	9.99	11.56
2 - A20 (E)	11.08	0.66	8.54	23.27	30.73
3 - A20 (W)	1.08	0.00	0.00	2.42	3.66

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	4.37	0.00	3.20	8.69	9.88
2 - A20 (E)	11.32	0.34	8.36	22.14	25.18
3 - A20 (W)	0.74	0.00	0.00	1.86	2.69

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	2.49	0.00	1.57	4.91	6.47
2 - A20 (E)	3.58	0.00	1.99	7.79	10.01
3 - A20 (W)	0.39	0.00	0.00	1.03	1.58

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	2.10	0.00	0.98	4.23	6.72
2 - A20 (E)	2.04	0.00	1.16	3.95	5.51
3 - A20 (W)	0.25	0.00	0.00	0.61	0.82

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	375	872	0.430	376	417	0.0	0.5	5.037	A
			2	2	378	880	0.430	380	413	0.0	0.5	5.064	A
			3	1, 3	310	728	0.426	310	317	0.0	0.6	6.754	A
		2	1	(2)	413			413	458	0.0	0.0	0.317	A
			2	(1, 2, 3)	648			650	695	0.0	0.0	1.140	A
	Exit	1	1		1204			1204	1254	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	418	1071	0.391	420	432	0.0	0.7	5.212	A
			2	1, 2	847	1330	0.636	847	883	0.0	1.7	6.851	A
	Exit	1	1		774			774	849	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	243	997	0.244	243	254	0.0	0.4	4.860	A
	Exit	1	1		597			597	612	0.0	0.0	0.000	A

07:30 - 07:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	459	876	0.522	457	503	0.5	0.7	5.258	A
			2	2	463	878	0.528	463	500	0.5	0.7	5.337	A
			3	1, 3	364	730	0.498	365	374	0.6	0.7	7.134	A
		2	1	(2)	538			539	574	0.0	0.1	0.699	A
			2	(1, 2, 3)	744			747	804	0.0	0.2	2.018	A
	Exit	1	1		1441			1441	1505	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	513	1055	0.487	517	536	0.7	0.8	6.202	A
			2	1, 2	999	1317	0.759	1003	1051	1.7	2.5	9.946	A
	Exit	1	1		944			944	1026	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	292	897	0.326	293	303	0.4	0.3	5.817	A
	Exit	1	1		714			714	735	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	565	874	0.646	563	614	0.7	0.9	5.682	A
			2	2	558	874	0.638	557	597	0.7	0.9	5.905	A
			3	1, 3	442	731	0.605	442	457	0.7	1.0	7.563	A
		2	1	(2)	719			716	768	0.1	0.5	1.433	A
			2	(1, 2, 3)	856			849	904	0.2	1.5	4.498	A
	Exit	1	1		1735			1735	1818	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	669	1028	0.652	665	684	0.8	2.1	9.152	A
			2	1, 2	1176	1277	0.921	1176	1237	2.5	8.9	22.176	C
	Exit	1	1		1151			1151	1240	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	356	752	0.473	354	361	0.3	1.0	8.775	A
	Exit	1	1		871			871	891	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	571	874	0.653	569	615	0.9	1.0	5.976	A
			2	2	581	878	0.664	582	620	0.9	0.9	5.858	A
			3	1, 3	440	731	0.601	440	466	1.0	0.9	7.695	A
		2	1	(2)	746			745	795	0.5	0.3	1.799	A
			2	(1, 2, 3)	846			847	905	1.5	1.0	5.191	A
	Exit	1	1		1740			1740	1834	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	658	1028	0.641	653	686	2.1	1.9	9.826	A
			2	1, 2	1183	1281	0.923	1177	1245	8.9	9.3	28.253	D
	Exit	1	1		1179			1179	1262	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	356	756	0.470	358	368	1.0	0.8	9.367	A
	Exit	1	1		861			861	904	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	449	880	0.511	448	497	1.0	0.7	5.435	A
			2	2	466	875	0.534	466	507	0.9	0.7	5.327	A
			3	1, 3	358	734	0.487	359	380	0.9	0.6	7.100	A
		2	1	(2)	518			518	576	0.3	0.1	0.699	A
			2	(1, 2, 3)	754			755	805	1.0	0.3	1.868	A
	Exit	1	1		1408			1408	1527	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	508	1059	0.479	508	543	1.9	0.8	6.428	A
			2	1, 2	968	1315	0.735	980	1072	9.3	2.7	13.427	B
	Exit	1	1		938			938	1028	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	285	910	0.313	289	297	0.8	0.4	6.656	A
	Exit	1	1		704			704	741	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	385	875	0.441	384	413	0.7	0.5	5.109	A
			2	2	385	884	0.435	385	417	0.7	0.6	4.998	A
			3	1, 3	289	736	0.394	292	311	0.6	0.4	6.628	A
		2	1	(2)	416			416	446	0.1	0.1	0.361	A
			2	(1, 2, 3)	643			644	693	0.3	0.2	1.049	A
	Exit	1	1		1225			1225	1292	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	417	1080	0.386	417	434	0.8	0.5	4.916	A
			2	1, 2	870	1348	0.646	870	919	2.7	1.5	6.955	A
	Exit	1	1		786			786	848	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	239	986	0.242	239	251	0.4	0.3	5.044	A
	Exit	1	1		576			576	606	0.0	0.0	0.000	A

Lanes: Queue Variation Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.49	0.00	0.00	1.84	1.84
			2	0.53	0.00	0.00	1.27	1.59
			3	0.59	0.00	0.00	1.89	1.89
		2	1	0.03	0.00	0.00	0.00	0.00
			2	0.04	0.00	0.00	0.00	0.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.69	0.00	0.00	1.70	2.20
			2	1.75	0.00	0.60	4.63	5.55
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.38	0.00	0.00	0.90	1.41
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

07:30 - 07:45

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.69	0.00	0.15	1.85	1.85
			2	0.73	0.00	0.09	1.53	1.76
			3	0.69	0.00	0.00	1.90	1.90
		2	1	0.06	0.00	0.00	0.00	-0.06
			2	0.23	0.00	0.00	0.41	1.37
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.80	0.00	0.00	1.78	2.59
			2	2.51	0.00	0.90	6.18	8.90
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.33	0.00	0.00	0.74	0.90
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

07:45 - 08:00

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	1.00	0.00	0.56	1.70	1.82
			2	0.96	0.00	0.50	1.65	1.77
			3	0.99	0.00	0.53	1.72	1.83
		2	1	0.50	0.00	0.00	1.45	2.39
			2	1.48	0.00	0.00	4.17	5.13
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	2.11	0.00	1.00	5.22	6.33
			2	8.93	0.00	6.59	17.52	30.71
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	1.08	0.00	0.00	2.42	3.66
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:00 - 08:15

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	1.08	0.00	0.66	1.69	1.82
			2	0.99	0.00	0.54	1.68	1.80
			3	0.93	0.00	0.35	1.69	1.82
		2	1	0.34	0.00	0.00	1.00	1.69
			2	1.04	0.00	0.00	3.31	4.42
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	2.00	0.00	0.92	4.15	5.66
			2	9.28	0.00	6.30	20.03	23.05
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.74	0.00	0.00	1.86	2.69
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:15 - 08:30

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.78	0.00	0.19	1.54	1.76
			2	0.73	0.00	0.07	1.52	1.72
			3	0.62	0.00	0.00	1.91	1.91
		2	1	0.11	0.00	0.00	0.00	0.55
			2	0.26	0.00	0.00	0.54	1.28
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.87	0.00	0.00	2.02	2.79
			2	2.70	0.00	1.11	6.42	8.21
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.39	0.00	0.00	1.03	1.58
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:30 - 08:45

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.59	0.00	0.00	1.36	1.63
			2	0.68	0.00	0.08	1.86	1.86
			3	0.45	0.00	0.00	1.91	1.91
		2	1	0.12	0.00	0.00	0.00	0.56
			2	0.25	0.00	0.00	0.49	1.59
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.54	0.00	0.00	1.25	1.66
			2	1.49	0.00	0.45	2.95	4.54
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.25	0.00	0.00	0.61	0.82
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

Lane movements: Main Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	375	94	955	872	0.430	376	417	0.0	0.5	5.037	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	378	94	955	880	0.430	380	413	0.0	0.5	5.064	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	310	78	774	728	0.426	310	317	0.0	0.6	6.754	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	413	103	-	-	-	413	458	0.0	0.0	0.317	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	339	85	-	-	-	340	376	0.0	0.0	0.318	A
				3	309	77	-	-	-	310	319	0.0	0.0	2.088	A
2 - A20 (E)	Entry	1	1	1	134	33	1230	1048	0.127	135	139	0.0	0.1	4.701	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	284	71	1230	1081	0.263	285	293	0.0	0.5	5.446	A
			2	1	847	212	1557	1330	0.636	847	883	0.0	1.7	6.851	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	223	56	1625	996	0.224	223	233	0.0	0.3	4.889	A
				2	19	5	1610	1000	0.019	19	19	0.0	0.0	4.455	A
				3	2	0.49	516	330	0.006	2	2	0.0	0.0	5.462	A

07:30 - 07:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	459	115	955	876	0.522	457	503	0.5	0.7	5.258	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	463	116	955	878	0.528	463	500	0.5	0.7	5.337	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	364	91	774	730	0.498	365	374	0.6	0.7	7.134	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	538	135	-	-	-	539	574	0.0	0.1	0.699	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	384	96	-	-	-	384	430	0.0	0.1	0.730	A
				3	360	90	-	-	-	364	374	0.0	0.2	3.458	A
2 - A20 (E)	Entry	1	1	1	169	42	1230	1036	0.163	170	177	0.7	0.2	5.662	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	344	86	1230	1063	0.324	348	360	0.7	0.6	6.460	A
			2	1	999	250	1557	1316	0.759	1003	1051	1.7	2.5	9.946	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	267	67	1625	894	0.299	268	277	0.4	0.3	5.828	A
				2	24	6	1625	901	0.026	24	24	0.4	0.0	5.648	A
				3	2	0.46	609	365	0.005	2	2	0.4	0.0	6.306	A

07:45 - 08:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	565	141	955	874	0.646	563	614	0.7	0.9	5.682	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	558	139	955	874	0.638	557	597	0.7	0.9	5.905	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	442	111	774	731	0.605	442	457	0.7	1.0	7.563	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	719	180	-	-	-	716	768	0.1	0.5	1.433	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	410	102	-	-	-	407	445	0.2	0.4	1.718	A
				3	446	112	-	-	-	442	458	0.2	1.1	7.112	A
2 - A20 (E)	Entry	1	1	1	240	60	1230	1002	0.240	238	252	0.8	0.7	8.800	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	429	107	1230	1042	0.412	427	432	0.8	1.3	9.352	A
			2	1	1176	294	1557	1277	0.920	1176	1237	2.5	8.9	22.176	C
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	322	81	1625	750	0.430	321	329	0.3	1.0	8.750	A
				2	31	8	1625	735	0.042	31	29	0.3	0.1	9.013	A
				3	2	0.58	766	382	0.006	2	2	0.3	0.0	9.327	A

08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	571	143	955	874	0.653	569	615	0.9	1.0	5.976	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	581	145	955	877	0.664	582	620	0.9	0.9	5.858	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	440	110	774	731	0.601	440	466	1.0	0.9	7.695	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	746	186	-	-	-	745	795	0.5	0.3	1.799	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	407	102	-	-	-	407	440	1.5	0.2	2.162	A
				3	440	110	-	-	-	440	466	1.5	0.9	7.978	A
2 - A20 (E)	Entry	1	1	1	236	59	1230	1008	0.235	235	251	2.1	0.6	9.379	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	422	105	1230	1041	0.406	418	436	2.1	1.3	10.074	B
			2	1	1183	296	1557	1281	0.923	1177	1245	8.9	9.3	28.253	D
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	327	82	1625	757	0.431	328	338	1.0	0.7	9.405	A
				2	27	7	1625	749	0.036	27	28	1.0	0.0	9.021	A
				3	2	0.58	609	296	0.008	3	2	0.0	0.0	7.762	A

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	449	112	955	880	0.511	448	497	1.0	0.7	5.435	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	466	117	955	875	0.534	466	507	0.9	0.7	5.327	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	358	89	774	734	0.487	359	380	0.9	0.6	7.100	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	518	130	-	-	-	518	576	0.3	0.1	0.699	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	398	99	-	-	-	397	426	1.0	0.1	0.717	A
				3	356	89	-	-	-	358	379	1.0	0.2	3.138	A
2 - A20 (E)	Entry	1	1	1	164	41	1230	1038	0.158	165	183	1.9	0.2	6.037	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	344	86	1230	1070	0.322	343	360	1.9	0.7	6.621	A
			2	1	968	242	1557	1315	0.735	980	1072	9.3	2.7	13.427	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	259	65	1625	908	0.285	263	272	0.7	0.3	6.648	A
				2	24	6	1625	893	0.027	24	24	0.8	0.1	6.810	A
				3	2	0.40	672	365	0.004	2	2	0.0	0.0	5.731	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	385	96	955	875	0.441	384	413	0.7	0.5	5.109	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	385	96	955	884	0.435	385	417	0.7	0.6	4.998	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	289	72	774	736	0.394	292	311	0.6	0.4	6.628	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	416	104	-	-	-	416	446	0.1	0.1	0.361	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	355	89	-	-	-	355	382	0.3	0.1	0.367	A
				3	288	72	-	-	-	289	311	0.3	0.1	1.860	A
2 - A20 (E)	Entry	1	1	1	134	33	1230	1052	0.127	134	141	0.8	0.1	4.480	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	283	71	1230	1094	0.259	283	293	0.8	0.4	5.119	A
			2	1	870	218	1557	1348	0.646	870	919	2.7	1.5	6.955	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	221	55	1625	987	0.223	221	231	0.4	0.2	5.062	A
				2	17	4	1594	969	0.018	17	19	0.4	0.0	4.864	A
				3	1	0.29	484	305	0.004	1	1	0.0	0.0	4.513	A

Future Year 2031 + CD, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.
Info	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A20 / M20 Roundabout	Standard Roundabout		1, 2, 3	17.27	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	17.27	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Future Year 2031 + CD	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - M20 link road		ONE HOUR	✓	1475	100.000
2 - A20 (E)		ONE HOUR	✓	1729	100.000
3 - A20 (W)		ONE HOUR	✓	328	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	1062	413
	2 - A20 (E)	1333	0	396
	3 - A20 (W)	301	25	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	8	5
	2 - A20 (E)	6	0	3
	3 - A20 (W)	4	4	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - M20 link road	10.12	4.9	11.0	B	1353	2030
2 - A20 (E)	24.71	13.3	33.5	C	1592	2388
3 - A20 (W)	10.59	1.1	3.7	B	302	453

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1124	281	20	1124	1187	1238	0.0	1.8	6.461	A
2 - A20 (E)	1309	327	316	1311	1359	828	0.0	2.5	6.392	A
3 - A20 (W)	241	60	1016	241	256	610	0.0	0.3	4.801	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1329	332	25	1330	1411	1479	1.8	2.6	7.545	A
2 - A20 (E)	1556	389	372	1563	1625	983	2.5	3.8	9.302	A
3 - A20 (W)	292	73	1210	294	308	724	0.3	0.4	6.067	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1641	410	31	1634	1735	1779	2.6	4.7	10.115	B
2 - A20 (E)	1913	478	461	1899	1971	1203	3.8	13.1	20.897	C
3 - A20 (W)	358	90	1452	358	369	909	0.4	1.1	9.761	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1606	402	30	1608	1727	1801	4.7	4.2	9.790	A
2 - A20 (E)	1902	476	444	1897	2003	1194	13.1	12.4	24.714	C
3 - A20 (W)	364	91	1466	365	376	874	1.1	1.1	10.587	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1317	329	25	1316	1422	1477	4.2	2.8	7.543	A
2 - A20 (E)	1552	388	368	1557	1664	974	12.4	3.8	11.897	B
3 - A20 (W)	301	75	1199	303	315	726	1.1	0.4	7.107	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1104	276	21	1110	1195	1241	2.8	1.9	6.346	A
2 - A20 (E)	1316	329	319	1318	1390	811	3.8	2.3	6.795	A
3 - A20 (W)	254	64	1007	254	261	630	0.4	0.4	5.260	A

Queue Variation Results for each time segment

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	1.90	0.00	0.88	4.21	6.14
2 - A20 (E)	2.51	0.00	1.36	5.80	7.05
3 - A20 (W)	0.28	0.00	0.00	0.68	0.93

07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	2.71	0.00	1.77	5.27	6.77
2 - A20 (E)	3.93	0.00	2.43	8.06	10.90
3 - A20 (W)	0.35	0.00	0.00	0.83	1.76

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	4.90	-0.02	3.45	10.00	11.07
2 - A20 (E)	13.32	1.33	9.37	28.11	33.59
3 - A20 (W)	1.10	0.00	0.00	3.13	3.68

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	4.37	0.00	3.35	7.80	9.54
2 - A20 (E)	12.62	0.24	8.30	27.18	32.95
3 - A20 (W)	1.13	0.00	0.00	2.78	3.47

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	2.94	0.00	1.94	5.75	7.54
2 - A20 (E)	3.92	0.00	2.12	10.67	13.04
3 - A20 (W)	0.40	0.00	0.00	1.03	1.82

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	1.97	0.00	1.14	4.18	5.34
2 - A20 (E)	2.30	0.00	1.07	5.08	7.67
3 - A20 (W)	0.36	0.00	0.00	0.78	1.36

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	402	883	0.454	402	431	0.0	0.5	5.133	A
			2	2	408	883	0.462	408	431	0.0	0.5	5.066	A
			3	1, 3	315	731	0.431	314	325	0.0	0.6	6.734	A
		2	1	(2)	457			457	478	0.0	0.0	0.444	A
			2	(1, 2, 3)	667			668	716	0.0	0.2	1.198	A
	Exit	1	1		1238			1238	1291	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	437	1072	0.407	436	443	0.0	0.7	5.295	A
			2	1, 2	872	1337	0.653	875	916	0.0	1.8	6.932	A
	Exit	1	1		828			828	883	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	241	982	0.245	241	256	0.0	0.3	4.801	A
	Exit	1	1		610			610	628	0.0	0.0	0.000	A

07:30 - 07:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	479	877	0.546	477	516	0.5	0.7	5.388	A
			2	2	483	876	0.551	483	513	0.5	0.7	5.455	A
			3	1, 3	370	736	0.502	370	382	0.6	0.7	7.050	A
		2	1	(2)	567			568	599	0.0	0.1	0.840	A
			2	(1, 2, 3)	762			764	815	0.2	0.4	2.276	A
	Exit	1	1		1479			1479	1548	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	527	1056	0.499	527	548	0.7	1.0	6.418	A
			2	1, 2	1028	1307	0.787	1035	1078	1.8	2.9	10.794	B
	Exit	1	1		983			983	1052	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	292	879	0.333	294	308	0.3	0.4	6.067	A
	Exit	1	1		724			724	744	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	591	877	0.674	589	633	0.7	1.0	5.910	A
			2	2	586	875	0.669	585	629	0.7	1.0	5.959	A
			3	1, 3	460	734	0.628	460	473	0.7	1.0	7.679	A
		2	1	(2)	766			765	820	0.1	0.4	1.934	A
			2	(1, 2, 3)	875			872	919	0.4	1.3	5.236	A
	Exit	1	1		1779			1779	1858	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	694	1028	0.675	699	709	1.0	1.8	9.729	A
			2	1, 2	1219	1276	0.956	1201	1262	2.9	11.3	27.158	D
	Exit	1	1		1203			1203	1293	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	358	735	0.487	358	369	0.4	1.1	9.761	A
	Exit	1	1		909			909	925	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	577	871	0.662	576	626	1.0	1.0	5.857	A
			2	2	590	879	0.671	589	632	1.0	1.1	5.914	A
			3	1, 3	443	730	0.606	442	469	1.0	0.9	7.560	A
		2	1	(2)	753			753	807	0.4	0.4	1.842	A
			2	(1, 2, 3)	853			856	920	1.3	0.9	4.829	A
	Exit	1	1		1801			1801	1905	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	693	1027	0.676	687	720	1.8	2.2	10.696	B
			2	1, 2	1209	1276	0.948	1210	1283	11.3	10.2	32.753	D
	Exit	1	1		1194			1194	1288	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	364	723	0.504	365	376	1.1	1.1	10.587	B
	Exit	1	1		874			874	913	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	466	879	0.530	465	512	1.0	0.8	5.432	A
			2	2	487	877	0.555	485	522	1.1	0.7	5.348	A
			3	1, 3	365	730	0.500	366	388	0.9	0.8	7.161	A
		2	1	(2)	548			548	602	0.4	0.1	0.771	A
			2	(1, 2, 3)	769			770	817	0.9	0.4	2.317	A
	Exit	1	1		1477			1477	1587	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	530	1053	0.503	531	559	2.2	0.9	6.682	A
			2	1, 2	1022	1311	0.781	1026	1105	10.2	3.0	14.638	B
	Exit	1	1		974			974	1058	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	301	875	0.345	303	315	1.1	0.4	7.107	A
	Exit	1	1		726			726	756	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	397	871	0.456	399	433	0.8	0.5	4.987	A
			2	2	394	873	0.450	394	432	0.7	0.6	4.951	A
			3	1, 3	316	734	0.431	317	329	0.8	0.6	6.833	A
		2	1	(2)	436			437	476	0.1	0.0	0.317	A
			2	(1, 2, 3)	668			671	715	0.4	0.2	1.220	A
	Exit	1	1		1241			1241	1319	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	446	1077	0.414	445	458	0.9	0.7	5.304	A
			2	1, 2	870	1328	0.655	873	932	3.0	1.6	7.550	A
	Exit	1	1		811			811	884	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	254	986	0.258	254	261	0.4	0.4	5.260	A
	Exit	1	1		630			630	643	0.0	0.0	0.000	A

Lanes: Queue Variation Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.48	0.00	0.00	1.16	1.54
			2	0.53	0.00	0.00	1.86	1.86
			3	0.61	0.00	0.00	1.51	1.72
		2	1	0.05	0.00	0.00	0.00	0.00
			2	0.24	0.00	0.00	0.34	1.17
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.66	0.00	0.00	1.58	2.44
			2	1.85	0.00	0.69	4.93	5.75
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.28	0.00	0.00	0.68	0.93
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

07:30 - 07:45

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.82	0.00	0.22	1.85	1.85
			2	0.71	0.00	0.08	1.52	1.70
			3	0.74	0.00	0.00	1.60	1.77
		2	1	0.08	0.00	0.00	0.00	0.12
			2	0.37	0.00	0.00	0.73	2.41
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.99	0.00	0.02	2.53	3.47
			2	2.94	0.00	1.35	7.29	10.59
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.35	0.00	0.00	0.83	1.76
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

07:45 - 08:00

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	1.07	0.00	0.69	1.70	1.82
			2	1.05	0.00	0.66	1.65	1.77
			3	1.05	0.00	0.67	1.73	1.84
		2	1	0.38	0.00	0.00	0.75	2.14
			2	1.35	0.00	0.00	3.65	5.11
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	1.83	0.00	0.65	4.34	5.64
			2	11.43	0.65	8.16	25.07	29.57
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	1.10	0.00	0.00	3.13	3.68
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:00 - 08:15

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	1.17	0.00	0.81	1.70	1.81
			2	1.10	0.00	0.81	1.67	1.77
			3	0.85	0.00	0.17	1.65	1.79
		2	1	0.44	0.00	0.00	1.21	2.38
			2	0.85	0.00	0.00	2.45	4.03
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	2.29	0.00	0.91	5.83	6.95
			2	10.30	0.00	6.52	23.79	28.50
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	1.13	0.00	0.00	2.78	3.47
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:15 - 08:30

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.81	0.00	0.27	1.52	1.70
			2	0.79	0.00	0.22	1.54	1.73
			3	0.83	0.00	0.22	1.61	1.78
		2	1	0.13	0.00	0.00	0.00	1.12
			2	0.40	0.00	0.00	1.22	2.40
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.83	0.00	0.00	2.34	3.18
			2	3.08	0.00	1.35	8.65	10.97
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.40	0.00	0.00	1.03	1.82
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:30 - 08:45

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.54	0.00	0.00	1.35	1.62
			2	0.61	0.00	0.00	1.84	1.84
			3	0.58	0.00	0.00	1.45	1.70
		2	1	0.05	0.00	0.00	0.00	0.00
			2	0.19	0.00	0.00	0.36	0.99
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.66	0.00	0.00	1.51	1.88
			2	1.64	0.00	0.45	3.86	5.10
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.36	0.00	0.00	0.78	1.36
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

Lane movements: Main Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	402	100	955	883	0.454	402	431	0.0	0.5	5.133	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	408	102	955	883	0.462	408	431	0.0	0.5	5.066	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	315	79	774	731	0.431	314	325	0.0	0.6	6.734	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	457	114	-	-	-	457	478	0.0	0.0	0.444	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	353	88	-	-	-	352	389	0.0	0.0	0.421	A
				3	314	79	-	-	-	315	328	0.0	0.2	2.097	A
2 - A20 (E)	Entry	1	1	1	143	36	1230	1053	0.136	142	141	0.0	0.3	4.769	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	294	73	1230	1080	0.272	295	302	0.0	0.4	5.536	A
			2	1	872	218	1557	1336	0.653	875	916	0.0	1.8	6.932	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	221	55	1625	984	0.225	221	234	0.0	0.3	4.805	A
				2	18	5	1625	993	0.019	19	21	0.0	0.0	4.822	A
				3	1	0.29	509	323	0.004	1	1	0.0	0.0	3.961	A

07:30 - 07:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	479	120	955	877	0.546	477	516	0.5	0.7	5.388	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	483	121	955	876	0.551	483	513	0.5	0.7	5.455	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	370	92	774	736	0.502	370	382	0.6	0.7	7.050	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	567	142	-	-	-	568	599	0.0	0.1	0.840	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	394	98	-	-	-	394	433	0.2	0.1	0.903	A
				3	368	92	-	-	-	370	382	0.2	0.3	3.779	A
2 - A20 (E)	Entry	1	1	1	174	44	1230	1039	0.168	175	187	0.7	0.3	5.885	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	353	88	1230	1065	0.331	352	361	0.7	0.7	6.686	A
			2	1	1028	257	1557	1307	0.787	1035	1078	1.8	2.9	10.794	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	267	67	1625	880	0.304	268	283	0.3	0.3	6.086	A
				2	23	6	1625	879	0.026	23	23	0.3	0.0	5.882	A
				3	2	0.50	636	373	0.005	2	2	0.0	0.0	5.566	A

07:45 - 08:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	591	148	955	877	0.674	589	633	0.7	1.0	5.910	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	586	146	955	875	0.669	585	629	0.7	1.0	5.959	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	460	115	774	734	0.628	460	473	0.7	1.0	7.679	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	766	191	-	-	-	765	820	0.1	0.4	1.934	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	413	103	-	-	-	412	445	0.4	0.3	2.364	A
				3	462	115	-	-	-	460	474	0.4	1.1	7.834	A
2 - A20 (E)	Entry	1	1	1	249	62	1230	1006	0.248	251	258	1.0	0.6	9.347	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	445	111	1230	1039	0.428	447	451	1.0	1.2	9.941	A
			2	1	1219	305	1557	1276	0.956	1201	1262	2.9	11.3	27.158	D
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	328	82	1625	734	0.446	328	337	0.4	1.0	9.836	A
				2	30	7	1611	720	0.041	30	30	0.4	0.1	8.966	A
				3	0.83	0.21	565	285	0.003	0.94	2	0.4	0.0	8.783	A

08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	577	144	955	871	0.662	576	626	1.0	1.0	5.857	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	590	147	955	879	0.671	589	632	1.0	1.1	5.914	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	443	111	774	730	0.606	442	469	1.0	0.9	7.560	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	753	188	-	-	-	753	807	0.4	0.4	1.842	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	412	103	-	-	-	413	452	1.3	0.2	2.148	A
				3	441	110	-	-	-	443	468	1.3	0.6	7.342	A
2 - A20 (E)	Entry	1	1	1	260	65	1230	1003	0.260	256	277	1.8	0.9	10.370	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	433	108	1230	1041	0.416	430	443	1.8	1.3	10.895	B
			2	1	1209	302	1557	1276	0.948	1210	1283	11.3	10.2	32.753	D
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	334	84	1625	723	0.463	335	345	1.1	1.1	10.574	B
				2	28	7	1625	712	0.039	28	29	1.1	0.1	10.605	B
				3	2	0.39	551	257	0.006	2	2	0.0	0.0	12.663	B

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	466	116	955	879	0.530	465	512	1.0	0.8	5.432	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	487	122	955	877	0.555	485	522	1.1	0.7	5.348	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	365	91	774	730	0.500	366	388	0.9	0.8	7.161	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	548	137	-	-	-	548	602	0.4	0.1	0.771	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	405	101	-	-	-	405	429	0.9	0.1	0.848	A
				3	364	91	-	-	-	365	388	0.9	0.3	3.897	A
2 - A20 (E)	Entry	1	1	1	172	43	1230	1038	0.165	173	193	2.2	0.2	6.318	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	358	89	1230	1060	0.337	358	366	2.2	0.7	6.867	A
			2	1	1022	256	1557	1311	0.780	1026	1105	10.2	3.0	14.638	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	276	69	1625	877	0.315	278	289	1.1	0.4	7.122	A
				2	23	6	1625	864	0.027	23	24	1.1	0.0	6.882	A
				3	2	0.39	608	333	0.005	2	2	0.0	0.0	7.802	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	397	99	955	871	0.456	399	433	0.8	0.5	4.987	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	394	98	955	873	0.450	394	432	0.7	0.6	4.951	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	316	79	774	734	0.431	317	329	0.8	0.6	6.833	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	436	109	-	-	-	437	476	0.1	0.0	0.317	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	354	88	-	-	-	354	387	0.4	0.0	0.341	A
				3	315	79	-	-	-	316	328	0.4	0.2	2.223	A
2 - A20 (E)	Entry	1	1	1	135	34	1230	1055	0.128	135	147	0.9	0.1	4.651	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	311	78	1230	1087	0.286	311	311	0.9	0.5	5.604	A
			2	1	870	218	1557	1329	0.655	873	932	3.0	1.6	7.550	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	234	58	1625	985	0.237	234	240	0.4	0.3	5.257	A
				2	18	5	1611	971	0.019	19	19	0.4	0.1	5.333	A
				3	2	0.44	594	366	0.005	2	2	0.0	0.0	4.922	A

Future Year 2037 + CD, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.
Info	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A20 / M20 Roundabout	Standard Roundabout		1, 2, 3	23.35	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	23.35	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	Future Year 2037 + CD	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - M20 link road		ONE HOUR	✓	1530	100.000
2 - A20 (E)		ONE HOUR	✓	1794	100.000
3 - A20 (W)		ONE HOUR	✓	339	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	1102	428
	2 - A20 (E)	1383	0	411
	3 - A20 (W)	311	26	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	8	5
	2 - A20 (E)	6	0	3
	3 - A20 (W)	4	4	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - M20 link road	10.69	5.3	13.8	B	1404	2106
2 - A20 (E)	36.37	21.7	57.3	E	1650	2474
3 - A20 (W)	12.32	1.4	5.2	B	311	467

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1151	288	21	1150	1216	1288	0.0	2.1	6.522	A
2 - A20 (E)	1362	340	322	1361	1411	849	0.0	2.7	6.904	A
3 - A20 (W)	257	64	1053	256	265	630	0.0	0.4	5.121	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1367	342	24	1371	1470	1524	2.1	2.8	7.816	A
2 - A20 (E)	1614	404	387	1623	1691	1007	2.7	4.3	10.290	B
3 - A20 (W)	299	75	1249	299	315	762	0.4	0.5	6.508	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1694	424	29	1691	1797	1846	2.8	5.0	10.685	B
2 - A20 (E)	1975	494	477	1937	2012	1242	4.3	18.5	25.399	D
3 - A20 (W)	376	94	1501	374	389	914	0.5	1.3	10.595	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1684	421	32	1682	1806	1867	5.0	5.2	10.646	B
2 - A20 (E)	1991	498	471	1972	2069	1242	18.5	21.5	36.371	E
3 - A20 (W)	381	95	1522	377	385	922	1.3	1.3	12.317	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1380	345	26	1378	1482	1545	5.2	3.3	8.092	A
2 - A20 (E)	1630	408	394	1636	1774	1011	21.5	5.2	17.432	C
3 - A20 (W)	302	76	1269	302	319	761	1.3	0.6	7.727	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1146	286	21	1150	1242	1251	3.3	1.9	6.649	A
2 - A20 (E)	1325	331	320	1330	1427	851	5.2	2.3	7.322	A
3 - A20 (W)	252	63	1020	252	268	629	0.6	0.3	5.498	A

Queue Variation Results for each time segment

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	2.18	0.00	1.15	4.82	5.77
2 - A20 (E)	2.74	0.00	1.57	6.58	7.32
3 - A20 (W)	0.36	0.00	0.00	0.84	1.53

07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	2.94	0.00	2.01	6.25	7.41
2 - A20 (E)	4.31	0.00	2.96	8.32	11.10
3 - A20 (W)	0.49	0.00	0.00	1.10	1.58

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	5.05	0.01	3.33	10.19	11.87
2 - A20 (E)	18.68	1.34	15.37	35.92	43.47
3 - A20 (W)	1.34	0.00	0.35	3.07	4.49

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	5.29	0.00	3.52	12.41	13.81
2 - A20 (E)	21.67	0.84	16.42	48.70	57.22
3 - A20 (W)	1.36	0.00	0.17	3.53	5.21

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	3.38	0.00	1.95	7.36	10.47
2 - A20 (E)	5.28	0.00	3.22	11.11	15.10
3 - A20 (W)	0.64	0.00	0.00	1.51	2.45

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	1.94	0.00	0.97	3.48	4.36
2 - A20 (E)	2.37	0.00	1.38	5.16	6.29
3 - A20 (W)	0.30	0.00	0.00	0.73	1.48

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	415	881	0.471	416	444	0.0	0.6	5.083	A
			2	2	414	881	0.470	414	441	0.0	0.6	5.160	A
			3	1, 3	322	732	0.440	320	332	0.0	0.6	6.838	A
		2	1	(2)	460			460	492	0.0	0.1	0.419	A
			2	(1, 2, 3)	690			690	732	0.0	0.2	1.253	A
	Exit	1	1		1288			1288	1338	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	455	1074	0.424	454	469	0.0	0.6	5.363	A
			2	1, 2	906	1332	0.680	906	942	0.0	2.0	7.686	A
	Exit	1	1		849			849	904	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	257	961	0.267	256	265	0.0	0.4	5.121	A
	Exit	1	1		630			630	651	0.0	0.0	0.000	A

07:30 - 07:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	495	876	0.565	495	535	0.6	0.8	5.440	A
			2	2	488	877	0.558	490	531	0.6	0.7	5.532	A
			3	1, 3	385	735	0.523	386	404	0.6	0.8	7.270	A
		2	1	(2)	583			583	630	0.1	0.1	0.842	A
			2	(1, 2, 3)	785			786	842	0.2	0.5	2.548	A
	Exit	1	1		1524			1524	1597	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	555	1045	0.532	556	576	0.6	1.2	6.924	A
			2	1, 2	1059	1305	0.812	1067	1115	2.0	3.1	12.063	B
	Exit	1	1		1007			1007	1091	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	299	853	0.350	299	315	0.4	0.5	6.508	A
	Exit	1	1		762			762	788	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	607	877	0.691	607	649	0.8	1.0	6.027	A
			2	2	608	877	0.693	608	653	0.7	1.0	5.967	A
			3	1, 3	476	735	0.648	476	495	0.8	1.0	7.775	A
		2	1	(2)	807			805	864	0.1	0.5	2.148	A
			2	(1, 2, 3)	887			886	937	0.5	1.5	6.027	A
	Exit	1	1		1846			1846	1912	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	720	1018	0.708	713	736	1.2	2.7	10.920	B
			2	1, 2	1256	1264	0.994	1224	1276	3.1	15.7	33.609	D
	Exit	1	1		1242			1242	1333	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	376	703	0.534	374	389	0.5	1.3	10.595	B
	Exit	1	1		914			914	953	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	602	876	0.688	603	659	1.0	1.0	6.024	A
			2	2	610	882	0.692	610	656	1.0	1.1	6.062	A
			3	1, 3	467	729	0.639	469	491	1.0	0.8	7.732	A
		2	1	(2)	823			820	868	0.5	0.6	2.166	A
			2	(1, 2, 3)	861			858	938	1.5	1.7	5.931	A
	Exit	1	1		1867			1867	1959	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	742	1018	0.729	740	760	2.7	2.6	12.540	B
			2	1, 2	1248	1262	0.989	1233	1309	15.7	19.0	50.316	F
	Exit	1	1		1242			1242	1345	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	381	689	0.554	377	385	1.3	1.3	12.317	B
	Exit	1	1		922			922	956	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	494	877	0.564	495	537	1.0	0.7	5.495	A
			2	2	491	878	0.560	491	533	1.1	0.8	5.548	A
			3	1, 3	390	729	0.535	393	413	0.8	0.7	7.271	A
		2	1	(2)	590			589	636	0.6	0.2	0.997	A
			2	(1, 2, 3)	791			787	843	1.7	0.9	2.890	A
	Exit	1	1		1545			1545	1685	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	559	1045	0.535	558	598	2.6	1.2	7.751	A
			2	1, 2	1071	1300	0.823	1079	1175	19.0	4.1	22.676	C
	Exit	1	1		1011			1011	1094	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	302	839	0.360	302	319	1.3	0.6	7.727	A
	Exit	1	1		761			761	796	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	420	881	0.477	421	455	0.7	0.5	5.099	A
			2	2	410	880	0.467	411	446	0.8	0.5	5.174	A
			3	1, 3	317	731	0.434	318	340	0.7	0.6	6.865	A
		2	1	(2)	453			453	497	0.2	0.1	0.491	A
			2	(1, 2, 3)	693			695	742	0.9	0.2	1.403	A
	Exit	1	1		1251			1251	1349	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	446	1076	0.414	447	474	1.2	0.7	5.496	A
			2	1, 2	879	1333	0.659	883	952	4.1	1.7	8.258	A
	Exit	1	1		851			851	922	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	252	981	0.257	252	268	0.6	0.3	5.498	A
	Exit	1	1		629			629	666	0.0	0.0	0.000	A

Lanes: Queue Variation Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.63	0.00	0.00	1.40	1.64
			2	0.62	0.00	0.00	1.43	1.66
			3	0.62	0.00	0.00	1.44	1.72
		2	1	0.09	0.00	0.00	0.00	0.11
			2	0.23	0.00	0.00	0.15	1.27
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.62	0.00	0.00	1.44	1.86
			2	2.12	0.00	0.72	5.52	6.93
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.36	0.00	0.00	0.84	1.53
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

07:30 - 07:45

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.82	0.00	0.27	1.56	1.73
			2	0.76	0.00	0.14	1.53	1.71
			3	0.78	0.00	0.00	1.64	1.79
		2	1	0.11	0.00	0.00	0.00	0.53
			2	0.48	0.00	0.00	1.32	2.20
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	1.16	0.00	0.33	2.75	3.58
			2	3.15	0.00	1.79	6.93	9.03
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.49	0.00	0.00	1.10	1.58
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

07:45 - 08:00

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.97	0.00	0.51	1.65	1.79
			2	1.03	0.00	0.62	1.66	1.78
			3	1.05	0.00	0.64	1.72	1.84
		2	1	0.56	0.00	0.00	1.76	3.41
			2	1.45	0.00	0.00	4.05	5.35
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	2.79	0.00	1.22	7.01	8.50
			2	15.81	0.43	11.94	32.70	44.01
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	1.34	0.00	0.35	3.07	4.49
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:00 - 08:15

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	1.06	0.00	0.65	1.68	1.80
			2	1.11	0.00	0.77	1.70	1.81
			3	0.83	0.00	0.12	1.65	1.80
		2	1	0.61	0.00	0.00	2.26	3.36
			2	1.70	0.00	0.00	5.04	6.26
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	2.61	0.00	0.90	6.14	9.05
			2	18.95	0.54	12.69	43.80	54.24
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	1.36	0.00	0.17	3.53	5.21
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:15 - 08:30

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.74	0.00	0.07	1.55	1.73
			2	0.81	0.00	0.24	1.56	1.73
			3	0.73	0.00	0.00	1.59	1.75
		2	1	0.25	0.00	0.00	0.00	1.65
			2	0.84	0.00	0.00	2.62	4.08
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	1.16	0.00	0.21	2.76	3.98
			2	4.11	0.00	2.11	8.88	11.71
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.64	0.00	0.00	1.51	2.45
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:30 - 08:45

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.50	0.00	0.00	1.86	1.86
			2	0.56	0.00	0.00	1.33	1.63
			3	0.58	0.00	0.00	1.40	1.69
		2	1	0.08	0.00	0.00	0.00	0.00
			2	0.22	0.00	0.00	0.19	1.30
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.68	0.00	0.00	1.77	2.72
			2	1.69	0.00	0.69	3.97	5.23
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.30	0.00	0.00	0.73	1.48
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

Lane movements: Main Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	415	104	955	881	0.471	416	444	0.0	0.6	5.083	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	414	103	955	881	0.470	414	441	0.0	0.6	5.160	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	322	80	774	732	0.439	320	332	0.0	0.6	6.838	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	460	115	-	-	-	460	492	0.0	0.1	0.419	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	368	92	-	-	-	368	397	0.0	0.1	0.415	A
				3	322	80	-	-	-	322	334	0.0	0.2	2.220	A
2 - A20 (E)	Entry	1	1	1	146	36	1230	1052	0.139	147	152	0.0	0.2	4.765	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	309	77	1230	1086	0.285	308	318	0.0	0.5	5.640	A
			2	1	906	227	1557	1332	0.680	906	942	0.0	2.0	7.686	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	235	59	1625	959	0.245	235	244	0.0	0.3	5.130	A
				2	20	5	1596	943	0.021	19	20	0.0	0.0	4.962	A
				3	2	0.51	470	289	0.007	2	1	0.0	0.0	5.691	A

07:30 - 07:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	495	124	955	876	0.565	495	535	0.6	0.8	5.440	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	488	122	955	877	0.558	490	531	0.6	0.7	5.532	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	385	96	774	735	0.523	386	404	0.6	0.8	7.270	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	583	146	-	-	-	583	630	0.1	0.1	0.842	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	401	100	-	-	-	401	438	0.2	0.1	0.937	A
				3	384	96	-	-	-	385	405	0.2	0.4	4.235	A
2 - A20 (E)	Entry	1	1	1	181	45	1230	1022	0.177	182	194	0.6	0.3	6.273	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	374	93	1230	1057	0.354	374	382	0.6	0.9	7.244	A
			2	1	1059	265	1557	1305	0.812	1067	1115	2.0	3.1	12.063	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	275	69	1625	855	0.322	275	288	0.4	0.5	6.527	A
				2	22	5	1625	863	0.025	22	25	0.4	0.0	6.347	A
				3	1	0.36	480	273	0.005	1	1	0.0	0.0	5.511	A

07:45 - 08:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	607	152	955	877	0.691	607	649	0.8	1.0	6.027	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	608	152	955	877	0.693	608	653	0.7	1.0	5.967	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	476	119	774	735	0.648	476	495	0.8	1.0	7.775	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	807	202	-	-	-	805	864	0.1	0.5	2.148	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	411	103	-	-	-	410	440	0.5	0.4	2.690	A
				3	476	119	-	-	-	476	497	0.5	1.1	8.890	A
2 - A20 (E)	Entry	1	1	1	279	70	1230	1000	0.279	277	280	1.2	1.0	10.702	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	441	110	1230	1029	0.429	436	456	1.2	1.7	11.050	B
			2	1	1256	314	1557	1264	0.994	1224	1276	3.1	15.7	33.609	D
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	346	87	1625	700	0.495	345	356	0.5	1.2	10.585	B
				2	28	7	1625	719	0.038	27	31	0.5	0.1	10.775	B
				3	2	0.43	636	311	0.006	2	2	0.0	0.0	9.697	A

08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	602	150	955	876	0.688	603	659	1.0	1.0	6.024	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	610	152	955	882	0.692	610	656	1.0	1.1	6.062	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	467	117	774	729	0.639	469	491	1.0	0.8	7.732	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	823	206	-	-	-	820	868	0.5	0.6	2.166	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	393	98	-	-	-	391	448	1.5	0.5	2.602	A
				3	468	117	-	-	-	467	490	1.5	1.3	8.889	A
2 - A20 (E)	Entry	1	1	1	291	73	1230	1003	0.290	289	297	2.7	1.0	12.349	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	451	113	1230	1028	0.439	451	463	2.7	1.6	12.659	B
			2	1	1248	312	1557	1262	0.990	1233	1309	15.7	19.0	50.316	F
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	349	87	1625	687	0.509	345	353	1.3	1.2	12.352	B
				2	30	7	1625	699	0.042	29	29	1.3	0.1	11.788	B
				3	2	0.58	764	339	0.007	2	2	1.3	0.0	13.652	B

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	494	124	955	877	0.564	495	537	1.0	0.7	5.495	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	491	123	955	878	0.560	491	533	1.1	0.8	5.548	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	390	98	774	729	0.535	393	413	0.8	0.7	7.271	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	590	147	-	-	-	589	636	0.6	0.2	0.997	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	398	99	-	-	-	397	431	1.7	0.2	1.070	A
				3	393	98	-	-	-	390	412	1.7	0.7	4.750	A
2 - A20 (E)	Entry	1	1	1	190	48	1230	1023	0.186	191	217	2.6	0.3	7.317	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	369	92	1230	1057	0.349	367	382	2.6	0.9	7.988	A
			2	1	1071	268	1557	1300	0.823	1079	1175	19.0	4.1	22.676	C
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	276	69	1625	840	0.329	276	293	1.3	0.6	7.730	A
				2	24	6	1625	850	0.029	25	25	1.3	0.0	7.772	A
				3	2	0.42	490	251	0.007	2	2	1.3	0.0	6.512	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	420	105	955	881	0.477	421	455	0.7	0.5	5.099	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	410	103	955	880	0.467	411	446	0.8	0.5	5.174	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	317	79	774	731	0.434	318	340	0.7	0.6	6.865	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	453	113	-	-	-	453	497	0.2	0.1	0.491	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	377	94	-	-	-	377	402	0.9	0.1	0.475	A
				3	316	79	-	-	-	317	340	0.9	0.2	2.474	A
2 - A20 (E)	Entry	1	1	1	137	34	1230	1056	0.130	137	150	1.2	0.2	5.119	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	309	77	1230	1085	0.285	309	324	1.2	0.5	5.668	A
			2	1	879	220	1557	1332	0.660	883	952	4.1	1.7	8.258	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	231	58	1625	980	0.236	231	246	0.6	0.3	5.536	A
				2	19	5	1625	992	0.019	19	21	0.6	0.0	5.094	A
				3	2	0.47	597	364	0.005	2	2	0.6	0.0	4.870	A

Future Year 2027 + CD + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.
Info	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A20 / M20 Roundabout	Standard Roundabout		1, 2, 3	16.02	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	16.02	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Future Year 2027 + CD + Development	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - M20 link road		ONE HOUR	✓	1453	100.000
2 - A20 (E)		ONE HOUR	✓	1684	100.000
3 - A20 (W)		ONE HOUR	✓	337	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	1031	422
	2 - A20 (E)	1295	0	389
	3 - A20 (W)	310	25	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	8	6
	2 - A20 (E)	6	0	3
	3 - A20 (W)	7	4	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - M20 link road	10.08	4.5	13.8	B	1330	1996
2 - A20 (E)	22.19	11.9	29.2	C	1549	2323
3 - A20 (W)	11.29	1.6	7.0	B	312	468

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1109	277	19	1113	1169	1221	0.0	1.8	6.422	A
2 - A20 (E)	1265	316	322	1263	1323	810	0.0	2.6	6.198	A
3 - A20 (W)	266	67	974	266	274	611	0.0	0.2	4.965	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1314	328	24	1320	1395	1441	1.8	2.7	7.685	A
2 - A20 (E)	1516	379	388	1516	1593	957	2.6	3.7	8.482	A
3 - A20 (W)	303	76	1165	301	318	738	0.2	0.6	6.515	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1581	395	32	1584	1700	1778	2.7	4.3	10.078	B
2 - A20 (E)	1875	469	460	1864	1931	1157	3.7	11.8	19.839	C
3 - A20 (W)	379	95	1435	375	395	889	0.6	1.5	10.049	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1583	396	28	1589	1711	1767	4.3	4.4	9.993	A
2 - A20 (E)	1869	467	462	1858	1957	1155	11.8	11.2	22.186	C
3 - A20 (W)	373	93	1424	371	389	896	1.5	1.3	11.293	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1311	328	23	1312	1405	1444	4.4	3.0	7.710	A
2 - A20 (E)	1513	378	390	1516	1632	945	11.2	4.0	11.350	B
3 - A20 (W)	301	75	1166	302	325	741	1.3	0.5	7.255	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1086	271	20	1088	1180	1202	3.0	1.8	6.400	A
2 - A20 (E)	1254	314	316	1256	1350	791	4.0	2.2	6.582	A
3 - A20 (W)	253	63	969	253	268	603	0.5	0.3	5.139	A

Queue Variation Results for each time segment

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	1.92	0.00	0.90	4.06	5.54
2 - A20 (E)	2.67	0.00	1.60	5.81	6.50
3 - A20 (W)	0.27	0.00	0.00	0.74	1.88

07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	2.74	0.00	1.79	6.25	7.13
2 - A20 (E)	3.83	0.00	2.43	8.73	10.72
3 - A20 (W)	0.59	0.00	0.00	1.66	2.54

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	4.50	0.14	2.67	8.18	13.76
2 - A20 (E)	11.85	0.56	8.85	25.22	28.60
3 - A20 (W)	1.59	0.00	0.33	4.17	6.99

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	4.33	0.00	3.01	8.80	10.68
2 - A20 (E)	11.20	0.35	8.35	24.30	29.17
3 - A20 (W)	1.28	0.00	0.00	3.68	5.63

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	3.08	0.00	2.05	6.34	7.90
2 - A20 (E)	4.12	0.00	2.98	8.92	11.36
3 - A20 (W)	0.58	0.00	0.00	1.31	1.79

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	1.79	0.00	1.01	3.84	4.62
2 - A20 (E)	2.27	0.00	1.01	5.12	6.54
3 - A20 (W)	0.30	0.00	0.00	0.72	0.91

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	397	880	0.451	400	420	0.0	0.6	5.046	A
			2	2	394	878	0.448	393	418	0.0	0.6	5.095	A
			3	1, 3	319	726	0.439	320	332	0.0	0.5	6.670	A
		2	1	(2)	437			437	463	0.0	0.1	0.389	A
			2	(1, 2, 3)	672			673	714	0.0	0.1	1.211	A
	Exit	1	1		1221			1221	1277	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	422	1065	0.396	420	436	0.0	0.7	5.095	A
			2	1, 2	843	1334	0.632	842	887	0.0	1.9	6.748	A
	Exit	1	1		810			810	856	0.0	0.0	0.000	A
3 - A20 (W)	Exit	1	1		611			611	632	0.0	0.0	0.000	A

07:30 - 07:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	468	883	0.530	471	495	0.6	0.6	5.355	A
			2	2	464	878	0.527	464	501	0.6	0.7	5.361	A
			3	1, 3	385	725	0.531	385	400	0.5	0.8	7.330	A
		2	1	(2)	548			549	588	0.1	0.1	0.732	A
			2	(1, 2, 3)	766			767	809	0.1	0.5	2.474	A
	Exit	1	1		1441			1441	1525	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	519	1048	0.496	519	536	0.7	0.9	6.115	A
			2	1, 2	997	1298	0.768	996	1056	1.9	2.8	9.706	A
	Exit	1	1		957			957	1020	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	303	869	0.349	301	318	0.2	0.6	6.515	A
	Exit	1	1		738			738	762	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	560	877	0.640	561	608	0.6	0.9	5.834	A
			2	2	564	874	0.645	565	609	0.7	0.9	5.855	A
			3	1, 3	458	724	0.632	458	482	0.8	0.9	7.642	A
		2	1	(2)	719			718	793	0.1	0.5	1.729	A
			2	(1, 2, 3)	862			863	910	0.5	1.2	5.420	A
	Exit	1	1		1778			1778	1853	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	685	1019	0.672	681	695	0.9	2.1	9.518	A
			2	1, 2	1190	1268	0.940	1183	1235	2.8	9.7	25.667	D
	Exit	1	1		1157			1157	1246	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	379	723	0.524	375	395	0.6	1.5	10.049	B
	Exit	1	1		889			889	925	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	579	877	0.660	579	620	0.9	0.9	5.773	A
			2	2	547	876	0.624	550	609	0.9	0.8	5.864	A
			3	1, 3	460	727	0.634	460	481	0.9	1.0	7.786	A
		2	1	(2)	733			734	799	0.5	0.3	1.620	A
			2	(1, 2, 3)	851			852	912	1.2	1.3	5.336	A
	Exit	1	1		1767			1767	1877	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	676	1025	0.659	675	703	2.1	1.8	10.375	B
			2	1, 2	1193	1266	0.942	1183	1254	9.7	9.4	28.927	D
	Exit	1	1		1155			1155	1257	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	373	734	0.507	371	389	1.5	1.3	11.293	B
	Exit	1	1		896			896	924	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	458	877	0.522	455	497	0.9	0.8	5.351	A
			2	2	468	882	0.531	468	498	0.8	0.8	5.321	A
			3	1, 3	389	726	0.536	389	410	1.0	0.7	7.274	A
		2	1	(2)	559			561	594	0.3	0.1	0.722	A
			2	(1, 2, 3)	752			755	809	1.3	0.6	2.595	A
	Exit	1	1		1444			1444	1569	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	522	1048	0.497	523	552	1.8	0.9	6.615	A
			2	1, 2	991	1299	0.762	994	1079	9.4	3.1	13.860	B
	Exit	1	1		945			945	1019	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	301	881	0.342	302	325	1.3	0.5	7.255	A
	Exit	1	1		741			741	775	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	382	876	0.437	383	417	0.8	0.5	4.949	A
			2	2	390	878	0.444	390	424	0.8	0.5	4.973	A
			3	1, 3	314	727	0.432	315	339	0.7	0.6	6.866	A
		2	1	(2)	427			428	466	0.1	0.0	0.361	A
			2	(1, 2, 3)	658			659	711	0.6	0.2	1.238	A
	Exit	1	1		1202			1202	1299	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	418	1071	0.390	417	443	0.9	0.6	5.215	A
			2	1, 2	836	1331	0.628	839	907	3.1	1.6	7.265	A
	Exit	1	1		791			791	860	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	253	982	0.258	253	268	0.5	0.3	5.139	A
	Exit	1	1		603			603	639	0.0	0.0	0.000	A

Lanes: Queue Variation Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.62	0.00	0.00	1.47	1.71
			2	0.65	0.00	0.00	1.42	1.66
			3	0.45	0.00	0.00	1.88	1.88
		2	1	0.06	0.00	0.00	0.00	-0.02
			2	0.13	0.00	0.00	0.00	0.68
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.71	0.00	0.00	1.68	2.47
			2	1.96	0.00	0.79	4.39	5.66
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.27	0.00	0.00	0.74	1.88
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

07:30 - 07:45

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.66	0.00	0.00	1.86	1.86
			2	0.68	0.00	0.03	1.85	1.85
			3	0.80	0.00	0.09	1.61	1.76
		2	1	0.09	0.00	0.00	0.00	0.45
			2	0.51	0.00	0.00	1.61	2.55
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.98	0.00	0.00	2.62	3.44
			2	2.84	0.00	1.88	6.02	8.40
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.59	0.00	0.00	1.66	2.54
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

07:45 - 08:00

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.94	0.00	0.48	1.59	1.73
			2	0.94	0.00	0.43	1.65	1.81
			3	0.97	0.00	0.52	1.68	1.79
		2	1	0.48	0.00	0.00	0.83	3.60
			2	1.16	0.00	0.00	3.68	6.50
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	2.08	0.00	0.68	4.69	6.66
			2	9.74	0.00	7.54	23.46	25.86
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	1.59	0.00	0.33	4.17	6.99
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:00 - 08:15

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.92	0.00	0.36	1.70	2.78
			2	0.82	0.00	0.30	1.85	1.85
			3	1.06	0.00	0.67	1.71	1.82
		2	1	0.29	0.00	0.00	0.70	1.64
			2	1.27	0.00	0.00	3.59	4.97
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	1.78	0.00	0.66	3.71	6.22
			2	9.36	0.00	6.59	22.49	27.71
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	1.28	0.00	0.00	3.68	5.63
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:15 - 08:30

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.83	0.00	0.21	1.61	1.78
			2	0.80	0.00	0.20	1.58	1.75
			3	0.72	0.00	0.00	1.57	1.74
		2	1	0.12	0.00	0.00	0.00	0.28
			2	0.60	0.00	0.00	1.83	3.24
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.94	0.00	0.00	2.31	3.32
			2	3.17	0.00	1.84	7.35	9.40
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.58	0.00	0.00	1.31	1.79
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:30 - 08:45

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.52	0.00	0.00	1.14	1.53
			2	0.49	0.00	0.00	1.85	1.85
			3	0.60	0.00	0.00	1.43	1.69
		2	1	0.00	0.00	0.00	0.00	0.00
			2	0.18	0.00	0.00	-0.09	1.32
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.62	0.00	0.00	1.55	2.09
			2	1.65	0.00	0.47	4.20	5.56
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.30	0.00	0.00	0.72	0.91
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

Lane movements: Main Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	397	99	955	880	0.451	400	420	0.0	0.6	5.046	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	394	98	955	879	0.448	393	418	0.0	0.6	5.095	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	319	80	774	726	0.439	320	332	0.0	0.5	6.670	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	437	109	-	-	-	437	463	0.0	0.1	0.389	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	354	88	-	-	-	354	380	0.0	0.0	0.349	A
				3	318	80	-	-	-	319	333	0.0	0.1	2.175	A
2 - A20 (E)	Entry	1	1	1	132	33	1230	1040	0.128	131	137	0.0	0.2	4.701	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	289	72	1230	1079	0.268	289	299	0.0	0.5	5.270	A
			2	1	843	211	1557	1333	0.632	842	887	0.0	1.9	6.748	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	246	62	1625	981	0.252	247	253	0.0	0.2	4.969	A
				2	18	4	1609	1003	0.018	18	19	0.0	0.0	4.957	A
				3	2	0.47	621	404	0.005	2	2	0.0	0.0	4.547	A

07:30 - 07:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	468	117	955	883	0.530	471	495	0.6	0.6	5.355	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	464	116	955	878	0.527	464	501	0.6	0.7	5.361	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	385	96	774	725	0.531	385	400	0.5	0.8	7.330	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	548	137	-	-	-	549	588	0.1	0.1	0.732	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	381	95	-	-	-	382	408	0.1	0.1	0.774	A
				3	385	96	-	-	-	385	401	0.1	0.5	4.159	A
2 - A20 (E)	Entry	1	1	1	169	42	1230	1029	0.164	169	177	0.7	0.3	5.689	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	350	88	1230	1056	0.332	350	360	0.7	0.7	6.316	A
			2	1	997	249	1557	1298	0.768	996	1056	1.9	2.8	9.706	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	278	70	1625	866	0.321	276	292	0.2	0.5	6.514	A
				2	22	5	1625	890	0.024	22	25	0.2	0.0	6.483	A
				3	3	0.74	605	354	0.008	3	2	0.0	0.0	7.106	A

07:45 - 08:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	560	140	955	877	0.640	561	608	0.6	0.9	5.834	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	564	141	955	874	0.645	565	609	0.7	0.9	5.855	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	458	114	774	724	0.632	458	482	0.8	0.9	7.642	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	719	180	-	-	-	718	793	0.1	0.5	1.729	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	405	101	-	-	-	406	426	0.5	0.2	2.007	A
				3	457	114	-	-	-	458	483	0.5	1.0	8.363	A
2 - A20 (E)	Entry	1	1	1	255	64	1230	1004	0.254	253	255	0.9	0.8	9.281	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	429	107	1230	1028	0.418	428	441	0.9	1.3	9.651	A
			2	1	1190	298	1557	1268	0.940	1183	1235	2.8	9.7	25.667	D
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	347	87	1625	722	0.481	343	364	0.6	1.5	10.035	B
				2	31	8	1625	752	0.040	31	29	0.6	0.0	10.356	B
				3	2	0.47	621	312	0.006	2	2	0.6	0.0	8.114	A

08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	579	145	955	877	0.660	579	620	0.9	0.9	5.773	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	547	137	955	876	0.624	550	609	0.9	0.8	5.864	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	460	115	774	727	0.634	460	481	0.9	1.0	7.786	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	733	183	-	-	-	734	799	0.5	0.3	1.620	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	391	98	-	-	-	392	430	1.2	0.2	2.006	A
				3	460	115	-	-	-	460	482	1.2	1.1	8.238	A
2 - A20 (E)	Entry	1	1	1	240	60	1230	1011	0.237	241	263	2.1	0.6	9.806	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	436	109	1230	1032	0.422	434	441	2.1	1.2	10.704	B
			2	1	1193	298	1557	1266	0.942	1183	1254	9.7	9.4	28.927	D
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	345	86	1625	730	0.471	343	360	1.5	1.2	11.250	B
				2	26	6	1625	754	0.034	26	27	1.5	0.1	11.934	B
				3	2	0.47	621	299	0.006	2	2	1.5	0.0	10.177	B

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	458	114	955	877	0.522	455	497	0.9	0.8	5.351	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	468	117	955	882	0.531	468	498	0.8	0.8	5.321	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	389	97	774	726	0.536	389	410	1.0	0.7	7.274	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	559	140	-	-	-	561	594	0.3	0.1	0.722	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	365	91	-	-	-	365	401	1.3	0.1	0.733	A
				3	387	97	-	-	-	389	408	1.3	0.5	4.404	A
2 - A20 (E)	Entry	1	1	1	172	43	1230	1026	0.167	172	189	1.8	0.3	6.110	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	350	87	1230	1058	0.330	351	363	1.8	0.6	6.871	A
			2	1	991	248	1557	1299	0.763	994	1079	9.4	3.1	13.860	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	278	69	1625	878	0.317	278	300	1.3	0.5	7.257	A
				2	22	6	1625	878	0.025	22	24	1.3	0.0	7.221	A
				3	1	0.32	494	278	0.005	1	2	0.0	0.0	7.338	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	382	96	955	876	0.436	383	417	0.8	0.5	4.949	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	390	98	955	878	0.444	390	424	0.8	0.5	4.973	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	314	79	774	727	0.432	315	339	0.7	0.6	6.866	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	427	107	-	-	-	428	466	0.1	0.0	0.361	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	344	86	-	-	-	345	372	0.6	0.0	0.344	A
				3	314	79	-	-	-	314	339	0.6	0.2	2.211	A
2 - A20 (E)	Entry	1	1	1	130	32	1230	1038	0.125	130	145	0.9	0.1	4.764	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	289	72	1230	1086	0.266	287	298	0.9	0.5	5.427	A
			2	1	836	209	1557	1331	0.628	839	907	3.1	1.6	7.265	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	233	58	1625	977	0.239	233	247	0.5	0.3	5.145	A
				2	18	5	1625	987	0.019	18	19	0.5	0.0	5.046	A
				3	1	0.26	414	262	0.004	1	1	0.0	0.0	5.446	A

Future Year 2031 + CD + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.
Info	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A20 / M20 Roundabout	Standard Roundabout		1, 2, 3	19.61	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	19.61	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Future Year 2031 + CD + Development	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - M20 link road		ONE HOUR	✓	1494	100.000
2 - A20 (E)		ONE HOUR	✓	1733	100.000
3 - A20 (W)		ONE HOUR	✓	344	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	1062	432
	2 - A20 (E)	1333	0	400
	3 - A20 (W)	317	25	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	8	6
	2 - A20 (E)	6	0	3
	3 - A20 (W)	7	4	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - M20 link road	10.85	5.2	13.1	B	1371	2057
2 - A20 (E)	28.92	16.0	37.8	D	1576	2364
3 - A20 (W)	12.01	1.5	4.9	B	318	477

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1121	280	21	1118	1194	1223	0.0	2.3	6.707	A
2 - A20 (E)	1285	321	326	1287	1355	812	0.0	2.3	6.543	A
3 - A20 (W)	251	63	991	252	274	622	0.0	0.4	5.360	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1336	334	24	1335	1436	1482	2.3	3.1	7.657	A
2 - A20 (E)	1546	387	394	1550	1629	965	2.3	4.1	9.150	A
3 - A20 (W)	312	78	1196	310	324	748	0.4	0.7	6.539	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1634	408	33	1639	1751	1829	3.1	4.8	10.789	B
2 - A20 (E)	1911	478	477	1920	1971	1196	4.1	13.8	22.048	C
3 - A20 (W)	382	96	1480	382	409	916	0.7	1.2	10.424	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1669	417	29	1670	1778	1827	4.8	5.0	10.852	B
2 - A20 (E)	1898	474	481	1908	2006	1218	13.8	15.9	28.924	D
3 - A20 (W)	385	96	1475	382	404	916	1.2	1.5	12.006	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1332	333	27	1335	1457	1494	5.0	2.7	7.904	A
2 - A20 (E)	1549	387	383	1554	1695	979	15.9	4.8	13.446	B
3 - A20 (W)	323	81	1196	325	343	740	1.5	0.6	7.679	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1134	284	20	1135	1204	1211	2.7	2.0	6.772	A
2 - A20 (E)	1270	317	332	1271	1372	824	4.8	2.3	6.673	A
3 - A20 (W)	255	64	974	257	278	628	0.6	0.3	5.346	A

Queue Variation Results for each time segment

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	2.42	0.00	1.40	4.89	6.88
2 - A20 (E)	2.32	0.00	0.92	5.65	7.72
3 - A20 (W)	0.36	0.00	0.00	0.92	1.61

07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	3.15	0.00	2.00	6.68	8.21
2 - A20 (E)	4.30	0.00	2.79	9.48	11.57
3 - A20 (W)	0.71	0.00	0.00	1.76	2.56

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	4.81	0.00	3.20	10.84	13.17
2 - A20 (E)	13.98	0.57	12.22	25.11	30.19
3 - A20 (W)	1.22	0.00	0.00	3.19	4.87

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	5.19	-0.02	3.54	11.16	12.31
2 - A20 (E)	16.02	0.90	12.65	31.88	37.76
3 - A20 (W)	1.50	0.00	0.39	3.32	4.20

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	2.80	0.00	2.08	5.68	6.45
2 - A20 (E)	4.87	0.00	3.51	10.31	12.74
3 - A20 (W)	0.58	0.00	0.00	1.57	2.32

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	2.10	0.00	1.28	4.36	5.34
2 - A20 (E)	2.31	0.00	1.49	4.48	6.45
3 - A20 (W)	0.31	0.00	0.00	0.77	1.72

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	397	877	0.452	397	428	0.0	0.6	5.115	A
			2	2	399	878	0.454	396	426	0.0	0.6	5.162	A
			3	1, 3	325	728	0.447	325	340	0.0	0.7	6.992	A
		2	1	(2)	440			440	477	0.0	0.0	0.426	A
			2	(1, 2, 3)	681			680	725	0.0	0.4	1.420	A
	Exit	1	1		1223			1223	1301	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	433	1067	0.406	432	444	0.0	0.7	5.342	A
			2	1, 2	852	1329	0.641	855	911	0.0	1.6	7.138	A
	Exit	1	1		812			812	874	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	251	973	0.258	252	274	0.0	0.4	5.360	A
	Exit	1	1		622			622	647	0.0	0.0	0.000	A

07:30 - 07:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	468	874	0.535	468	510	0.6	0.7	5.444	A
			2	2	477	883	0.539	476	515	0.6	0.7	5.386	A
			3	1, 3	392	732	0.536	391	410	0.7	0.9	7.143	A
		2	1	(2)	549			549	600	0.0	0.1	0.794	A
			2	(1, 2, 3)	787			787	837	0.4	0.6	2.412	A
	Exit	1	1		1482			1482	1558	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	533	1047	0.509	532	555	0.7	1.0	6.363	A
			2	1, 2	1013	1307	0.776	1018	1073	1.6	3.1	10.612	B
	Exit	1	1		965			965	1048	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	312	859	0.363	310	324	0.4	0.7	6.539	A
	Exit	1	1		748			748	781	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	583	881	0.663	585	630	0.7	0.9	5.940	A
			2	2	580	876	0.662	581	625	0.7	0.9	5.996	A
			3	1, 3	476	728	0.654	474	497	0.9	1.1	7.679	A
		2	1	(2)	782			786	835	0.1	0.3	2.009	A
			2	(1, 2, 3)	852			854	918	0.6	1.6	6.401	A
	Exit	1	1		1829			1829	1898	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	702	1018	0.689	704	714	1.0	2.0	10.316	B
			2	1, 2	1209	1263	0.957	1216	1256	3.1	11.8	28.691	D
	Exit	1	1		1196			1196	1284	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	382	698	0.546	382	409	0.7	1.2	10.424	B
	Exit	1	1		916			916	950	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	598	878	0.682	599	636	0.9	0.9	5.873	A
			2	2	592	878	0.674	592	637	0.9	1.0	5.870	A
			3	1, 3	479	726	0.660	480	505	1.1	1.1	7.944	A
		2	1	(2)	814			816	865	0.3	0.3	1.823	A
			2	(1, 2, 3)	855			854	914	1.6	1.8	6.780	A
	Exit	1	1		1827			1827	1925	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	702	1017	0.690	703	734	2.0	2.2	11.013	B
			2	1, 2	1196	1257	0.949	1205	1272	11.8	13.8	39.422	E
	Exit	1	1		1218			1218	1302	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	385	702	0.548	382	404	1.2	1.5	12.006	B
	Exit	1	1		916			916	961	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	475	876	0.543	474	516	0.9	0.8	5.530	A
			2	2	479	879	0.545	479	522	1.0	0.7	5.454	A
			3	1, 3	380	727	0.522	381	419	1.1	0.7	7.216	A
		2	1	(2)	567			567	621	0.3	0.1	0.803	A
			2	(1, 2, 3)	765			768	832	1.8	0.5	2.755	A
	Exit	1	1		1494			1494	1633	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	545	1048	0.519	542	576	2.2	1.3	7.222	A
			2	1, 2	1005	1298	0.775	1012	1119	13.8	3.4	16.828	C
	Exit	1	1		979			979	1063	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	323	850	0.380	325	343	1.5	0.6	7.679	A
	Exit	1	1		740			740	799	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	407	876	0.465	407	432	0.8	0.6	5.033	A
			2	2	397	877	0.453	398	429	0.7	0.6	5.115	A
			3	1, 3	331	733	0.452	330	343	0.7	0.6	7.026	A
		2	1	(2)	446			446	481	0.1	0.0	0.470	A
			2	(1, 2, 3)	688			689	721	0.5	0.2	1.577	A
	Exit	1	1		1211			1211	1315	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	426	1067	0.399	424	457	1.3	0.8	5.527	A
			2	1, 2	844	1325	0.637	846	915	3.4	1.5	7.260	A
	Exit	1	1		824			824	882	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	255	972	0.262	257	278	0.6	0.3	5.346	A
	Exit	1	1		628			628	657	0.0	0.0	0.000	A

Lanes: Queue Variation Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.61	0.00	0.00	1.36	1.62
			2	0.66	0.00	0.04	1.85	1.85
			3	0.72	0.00	0.00	1.60	1.81
		2	1	0.02	0.00	0.00	0.00	0.00
			2	0.42	0.00	0.00	0.87	2.65
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.71	0.00	0.00	1.83	2.78
			2	1.62	0.00	0.50	4.12	5.99
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.36	0.00	0.00	0.92	1.61
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

07:30 - 07:45

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.76	0.00	0.18	1.52	1.75
			2	0.79	0.00	0.23	1.51	1.72
			3	0.89	0.00	0.32	1.90	1.90
		2	1	0.14	0.00	0.00	0.00	0.68
			2	0.60	0.00	0.00	1.85	2.74
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	1.08	0.00	0.06	2.65	3.73
			2	3.22	0.00	1.39	8.50	10.53
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.71	0.00	0.00	1.76	2.56
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

07:45 - 08:00

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.90	0.00	0.44	1.86	1.86
			2	0.93	0.00	0.46	1.85	1.85
			3	1.11	0.00	0.96	1.73	1.83
		2	1	0.25	0.00	0.00	0.33	1.58
			2	1.62	0.00	0.00	5.07	6.48
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	2.03	0.00	0.84	5.10	6.92
			2	11.89	0.14	9.53	23.19	27.71
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	1.22	0.00	0.00	3.19	4.87
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:00 - 08:15

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	1.01	0.00	0.57	1.68	1.80
			2	0.98	0.00	0.55	1.68	1.80
			3	1.15	0.00	0.84	1.74	1.85
		2	1	0.30	0.00	0.00	0.70	2.04
			2	1.76	0.00	0.00	5.14	6.28
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	2.19	0.00	0.80	4.67	6.55
			2	13.75	0.19	9.95	28.03	35.18
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	1.50	0.00	0.39	3.32	4.20
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:15 - 08:30

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.81	0.00	0.25	1.55	1.71
			2	0.73	0.00	0.06	1.53	1.71
			3	0.71	0.00	0.00	1.59	1.79
		2	1	0.06	0.00	0.00	0.00	0.07
			2	0.48	0.00	0.00	1.44	2.50
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	1.32	0.00	0.39	2.84	4.29
			2	3.54	0.00	2.00	8.08	10.66
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.58	0.00	0.00	1.57	2.32
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:30 - 08:45

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.65	0.00	0.04	1.84	1.84
			2	0.57	0.00	0.00	1.31	1.60
			3	0.66	0.00	0.00	1.51	1.77
		2	1	0.03	0.00	0.00	0.00	0.00
			2	0.19	0.00	0.00	0.37	0.89
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.79	0.00	0.00	1.70	2.05
			2	1.52	0.00	0.61	2.79	4.21
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.31	0.00	0.00	0.77	1.72
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

Lane movements: Main Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	397	99	955	877	0.452	397	428	0.0	0.6	5.115	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	399	100	955	878	0.454	396	426	0.0	0.6	5.162	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	325	81	774	728	0.447	325	340	0.0	0.7	6.992	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	440	110	-	-	-	440	477	0.0	0.0	0.426	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	355	89	-	-	-	355	382	0.0	0.1	0.439	A
				3	325	81	-	-	-	325	343	0.0	0.4	2.486	A
2 - A20 (E)	Entry	1	1	1	136	34	1230	1038	0.131	137	140	0.0	0.2	4.945	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	298	74	1230	1082	0.275	296	305	0.0	0.5	5.518	A
			2	1	852	213	1557	1329	0.641	855	911	0.0	1.6	7.138	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	231	58	1625	970	0.238	232	251	0.0	0.3	5.377	A
				2	19	5	1625	988	0.019	19	21	0.0	0.0	5.017	A
				3	2	0.39	517	331	0.005	1	2	0.0	0.0	7.041	A

07:30 - 07:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	468	117	955	874	0.535	468	510	0.6	0.7	5.444	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	477	119	955	883	0.540	476	515	0.6	0.7	5.386	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	392	98	774	732	0.536	391	410	0.7	0.9	7.143	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	549	137	-	-	-	549	600	0.0	0.1	0.794	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	395	99	-	-	-	395	426	0.4	0.1	0.820	A
				3	392	98	-	-	-	392	411	0.4	0.5	4.022	A
2 - A20 (E)	Entry	1	1	1	177	44	1230	1029	0.172	177	186	0.7	0.3	5.818	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	356	89	1230	1057	0.337	354	369	0.7	0.7	6.631	A
			2	1	1013	253	1557	1307	0.776	1018	1073	1.6	3.1	10.612	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	288	72	1625	861	0.335	287	299	0.4	0.6	6.553	A
				2	21	5	1625	877	0.024	21	23	0.4	0.0	6.255	A
				3	2	0.61	579	337	0.007	3	2	0.4	0.0	7.681	A

07:45 - 08:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	583	146	955	881	0.663	585	630	0.7	0.9	5.940	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	580	145	955	876	0.662	581	625	0.7	0.9	5.996	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	476	119	774	728	0.654	474	497	0.9	1.1	7.679	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	782	196	-	-	-	786	835	0.1	0.3	2.009	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	375	94	-	-	-	378	420	0.6	0.2	2.515	A
				3	477	119	-	-	-	476	498	0.6	1.5	9.592	A
2 - A20 (E)	Entry	1	1	1	264	66	1230	1001	0.263	264	265	1.0	0.8	10.037	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	438	110	1230	1027	0.426	439	450	1.0	1.3	10.476	B
			2	1	1209	302	1557	1263	0.957	1216	1256	3.1	11.8	28.691	D
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	350	87	1625	697	0.501	349	376	0.7	1.1	10.451	B
				2	30	8	1625	736	0.041	30	30	0.7	0.1	10.198	B
				3	3	0.68	813	397	0.007	3	3	0.0	0.0	9.171	A

08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	598	150	955	878	0.683	599	636	0.9	0.9	5.873	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	592	148	955	878	0.674	592	637	0.9	1.0	5.870	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	479	120	774	726	0.660	480	505	1.1	1.1	7.944	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	814	204	-	-	-	816	865	0.3	0.3	1.823	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	374	93	-	-	-	375	409	1.6	0.2	2.323	A
				3	481	120	-	-	-	479	505	1.6	1.5	10.312	B
2 - A20 (E)	Entry	1	1	1	268	67	1230	1000	0.267	269	280	2.0	0.7	10.747	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	434	109	1230	1028	0.423	434	454	2.0	1.4	11.173	B
			2	1	1196	299	1557	1257	0.949	1205	1272	11.8	13.8	39.422	E
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	356	89	1625	701	0.508	352	373	1.2	1.4	12.014	B
				2	27	7	1625	711	0.038	28	29	1.2	0.1	12.116	B
				3	2	0.45	665	304	0.006	2	2	0.0	0.0	9.389	A

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	475	119	955	876	0.543	474	516	0.9	0.8	5.530	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	479	120	955	879	0.545	479	522	1.0	0.7	5.454	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	380	95	774	727	0.522	381	419	1.1	0.7	7.216	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	567	142	-	-	-	567	621	0.3	0.1	0.803	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	388	97	-	-	-	388	415	1.7	0.1	0.878	A
				3	377	94	-	-	-	380	417	1.8	0.4	4.610	A
2 - A20 (E)	Entry	1	1	1	184	46	1230	1029	0.179	185	198	2.2	0.3	6.815	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	360	90	1230	1057	0.341	357	378	2.2	1.0	7.429	A
			2	1	1005	251	1557	1298	0.775	1012	1119	13.8	3.4	16.828	C
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	296	74	1625	847	0.349	298	317	1.5	0.5	7.667	A
				2	26	7	1625	864	0.030	26	25	1.5	0.1	7.846	A
				3	1	0.32	529	284	0.004	1	2	1.5	0.0	7.402	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	407	102	955	876	0.465	407	432	0.8	0.6	5.033	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	397	99	955	877	0.453	398	429	0.7	0.6	5.115	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	331	83	774	733	0.452	330	343	0.7	0.6	7.026	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	446	112	-	-	-	446	481	0.1	0.0	0.470	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	358	90	-	-	-	359	379	0.5	0.0	0.467	A
				3	330	82	-	-	-	331	343	0.5	0.2	2.777	A
2 - A20 (E)	Entry	1	1	1	129	32	1230	1044	0.124	129	144	1.3	0.2	4.939	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	296	74	1230	1076	0.275	296	313	1.3	0.5	5.791	A
			2	1	844	211	1557	1324	0.637	846	915	3.4	1.5	7.260	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	234	59	1625	972	0.241	237	256	0.6	0.3	5.328	A
				2	19	5	1613	969	0.019	19	20	0.6	0.0	5.584	A
				3	2	0.39	456	288	0.005	2	1	0.0	0.0	5.111	A

Future Year 2037 + CD + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.
Info	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A20 / M20 Roundabout	Standard Roundabout		1, 2, 3	24.76	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	24.76	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	Future Year 2037 + CD + Development	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - M20 link road		ONE HOUR	✓	1552	100.000
2 - A20 (E)		ONE HOUR	✓	1798	100.000
3 - A20 (W)		ONE HOUR	✓	357	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	1102	450
	2 - A20 (E)	1383	0	415
	3 - A20 (W)	329	26	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	8	6
	2 - A20 (E)	6	0	3
	3 - A20 (W)	7	4	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - M20 link road	11.49	5.3	12.4	B	1421	2131
2 - A20 (E)	38.74	24.9	58.7	E	1651	2477
3 - A20 (W)	13.06	1.6	5.2	B	328	492

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1174	294	24	1176	1252	1293	0.0	2.1	6.798	A
2 - A20 (E)	1348	337	347	1346	1412	853	0.0	2.7	6.982	A
3 - A20 (W)	278	69	1038	279	292	655	0.0	0.3	5.329	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1379	345	25	1381	1496	1536	2.1	2.8	8.042	A
2 - A20 (E)	1609	402	408	1612	1685	997	2.7	4.3	10.605	B
3 - A20 (W)	319	80	1242	318	340	778	0.3	0.6	7.177	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1725	431	28	1729	1822	1876	2.8	4.7	11.194	B
2 - A20 (E)	1982	495	502	1968	2042	1255	4.3	18.5	27.514	D
3 - A20 (W)	398	100	1508	396	417	963	0.6	1.6	12.754	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1690	422	31	1693	1824	1856	4.7	5.2	11.487	B
2 - A20 (E)	2003	501	485	1968	2059	1240	18.5	24.8	38.743	E
3 - A20 (W)	390	97	1498	388	422	954	1.6	1.5	13.061	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1389	347	24	1402	1511	1532	5.2	2.5	8.178	A
2 - A20 (E)	1588	397	408	1602	1773	1018	24.8	5.3	20.330	C
3 - A20 (W)	318	79	1240	316	339	770	1.5	0.8	8.472	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1165	291	19	1165	1247	1308	2.5	2.3	6.731	A
2 - A20 (E)	1374	344	330	1373	1438	853	5.3	2.9	7.507	A
3 - A20 (W)	264	66	1065	262	289	638	0.8	0.6	5.651	A

Queue Variation Results for each time segment

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	2.26	0.00	1.56	4.35	5.75
2 - A20 (E)	2.71	0.00	1.53	5.75	7.67
3 - A20 (W)	0.32	0.00	0.00	0.71	0.82

07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	2.86	0.00	1.93	5.89	6.80
2 - A20 (E)	4.40	0.00	2.61	8.68	12.94
3 - A20 (W)	0.66	0.00	0.00	1.68	2.29

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	4.89	0.03	3.34	9.45	12.46
2 - A20 (E)	18.66	1.59	15.29	39.09	46.21
3 - A20 (W)	1.58	0.00	0.23	4.02	5.14

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	5.33	0.00	3.87	10.58	11.67
2 - A20 (E)	24.89	2.06	20.39	45.82	58.72
3 - A20 (W)	1.55	0.00	0.57	3.67	4.61

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	2.57	0.00	1.44	5.74	8.23
2 - A20 (E)	5.41	0.00	3.55	11.51	13.78
3 - A20 (W)	0.77	0.00	0.09	1.65	2.14

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	2.35	0.00	1.20	5.86	7.59
2 - A20 (E)	2.92	0.00	1.78	5.94	7.26
3 - A20 (W)	0.60	0.00	0.00	1.46	1.70

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	420	884	0.474	420	447	0.0	0.6	5.113	A
			2	2	412	877	0.471	412	442	0.0	0.7	5.153	A
			3	1, 3	344	725	0.475	345	363	0.0	0.6	6.905	A
		2	1	(2)	460			460	501	0.0	0.1	0.473	A
			2	(1, 2, 3)	714			716	759	0.0	0.2	1.581	A
	Exit	1	1		1293			1293	1359	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	454	1058	0.429	451	470	0.0	0.8	5.510	A
			2	1, 2	894	1317	0.679	895	942	0.0	1.9	7.728	A
	Exit	1	1		853			853	911	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	278	936	0.297	279	292	0.0	0.3	5.329	A
	Exit	1	1		655			655	687	0.0	0.0	0.000	A

07:30 - 07:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	483	879	0.549	483	534	0.6	0.7	5.501	A
			2	2	493	879	0.561	492	534	0.7	0.8	5.520	A
			3	1, 3	405	725	0.558	406	429	0.6	0.8	7.416	A
		2	1	(2)	578			579	646	0.1	0.1	0.838	A
			2	(1, 2, 3)	801			802	852	0.2	0.5	2.834	A
	Exit	1	1		1536			1536	1619	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	564	1037	0.543	564	581	0.8	0.9	6.987	A
			2	1, 2	1045	1291	0.810	1048	1104	1.9	3.4	12.533	B
	Exit	1	1		997			997	1092	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	319	830	0.385	318	340	0.3	0.6	7.177	A
	Exit	1	1		778			778	810	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	615	882	0.698	614	648	0.7	1.0	6.001	A
			2	2	614	883	0.697	615	661	0.8	0.9	5.910	A
			3	1, 3	500	726	0.688	501	514	0.8	1.1	7.779	A
		2	1	(2)	847			846	890	0.1	0.4	2.263	A
			2	(1, 2, 3)	878			883	936	0.5	1.3	7.008	A
	Exit	1	1		1876			1876	1957	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	739	1008	0.733	734	752	0.9	3.0	12.371	B
			2	1, 2	1243	1251	0.993	1234	1290	3.4	15.6	36.257	E
	Exit	1	1		1255			1255	1338	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	398	678	0.587	396	417	0.6	1.6	12.754	B
	Exit	1	1		963			963	988	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	611	878	0.696	610	655	1.0	1.1	6.071	A
			2	2	601	875	0.686	601	652	0.9	1.0	6.059	A
			3	1, 3	483	722	0.669	483	517	1.1	1.0	7.963	A
		2	1	(2)	829			830	898	0.4	0.7	2.203	A
			2	(1, 2, 3)	860			865	927	1.3	1.4	7.453	A
	Exit	1	1		1856			1856	1973	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	756	1012	0.747	749	769	3.0	3.3	13.308	B
			2	1, 2	1247	1256	0.994	1219	1290	15.6	21.5	53.938	F
	Exit	1	1		1240			1240	1337	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	390	688	0.567	388	422	1.6	1.5	13.061	B
	Exit	1	1		954			954	995	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	493	874	0.564	495	540	1.1	0.6	5.454	A
			2	2	498	885	0.563	501	541	1.0	0.6	5.455	A
			3	1, 3	403	727	0.554	406	430	1.0	0.7	7.360	A
		2	1	(2)	585			586	647	0.7	0.1	0.982	A
			2	(1, 2, 3)	804			808	858	1.4	0.5	3.070	A
	Exit	1	1		1532			1532	1700	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	554	1040	0.533	558	604	3.3	1.1	7.985	A
			2	1, 2	1034	1288	0.803	1044	1169	21.5	4.3	27.154	D
	Exit	1	1		1018			1018	1105	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	318	832	0.382	316	339	1.5	0.8	8.472	A
	Exit	1	1		770			770	819	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	415	881	0.471	416	443	0.6	0.5	5.089	A
			2	2	417	880	0.474	419	444	0.6	0.5	5.082	A
			3	1, 3	330	721	0.457	329	360	0.7	0.7	6.887	A
		2	1	(2)	472			471	500	0.1	0.1	0.416	A
			2	(1, 2, 3)	693			691	747	0.5	0.4	1.598	A
	Exit	1	1		1308			1308	1391	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	458	1070	0.428	456	470	1.1	0.8	5.541	A
			2	1, 2	917	1322	0.693	917	967	4.3	2.0	8.491	A
	Exit	1	1		853			853	908	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	264	923	0.286	262	289	0.8	0.6	5.651	A
	Exit	1	1		638			638	676	0.0	0.0	0.000	A

Lanes: Queue Variation Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.62	0.00	0.00	1.35	1.71
			2	0.71	0.00	0.07	1.48	1.71
			3	0.66	0.00	0.00	1.58	1.77
		2	1	0.08	0.00	0.00	0.00	0.15
			2	0.20	0.00	0.00	0.45	1.06
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.79	0.00	0.00	1.96	2.69
			2	1.92	0.00	0.77	4.92	5.96
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.32	0.00	0.00	0.71	0.82
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

07:30 - 07:45

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.70	0.00	0.00	1.53	1.73
			2	0.80	0.00	0.26	1.51	1.70
			3	0.78	0.00	0.00	1.65	1.81
		2	1	0.12	0.00	0.00	0.00	0.51
			2	0.46	0.00	0.00	1.24	2.49
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.95	0.00	0.00	2.44	3.51
			2	3.44	0.00	1.83	7.27	12.09
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.66	0.00	0.00	1.68	2.29
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

07:45 - 08:00

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	1.02	0.00	0.59	1.66	1.79
			2	1.01	0.00	0.61	1.70	1.81
			3	1.10	0.00	0.81	1.89	1.89
		2	1	0.41	0.00	0.00	0.84	1.53
			2	1.35	0.00	0.00	4.17	6.16
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	2.99	0.00	1.20	7.28	10.41
			2	15.58	0.44	12.35	31.85	38.01
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	1.58	0.00	0.23	4.02	5.14
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:00 - 08:15

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	1.16	0.00	0.78	1.71	1.83
			2	1.06	0.00	0.78	1.68	1.78
			3	0.98	0.00	0.65	1.88	1.88
		2	1	0.70	0.00	0.00	2.52	3.55
			2	1.40	0.00	0.00	4.04	4.81
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	3.33	0.00	1.80	7.27	11.19
			2	21.45	0.44	17.30	41.72	56.08
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	1.55	0.00	0.57	3.67	4.61
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:15 - 08:30

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.63	0.00	0.00	1.40	1.64
			2	0.64	0.00	0.00	1.46	1.71
			3	0.70	0.00	0.00	1.89	1.89
		2	1	0.15	0.00	0.00	0.00	0.77
			2	0.46	0.00	0.00	1.03	3.00
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	1.08	0.00	0.10	2.80	3.44
			2	4.31	0.00	2.49	9.00	12.53
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.77	0.00	0.09	1.65	2.14
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:30 - 08:45

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.57	0.00	0.00	1.36	1.63
			2	0.58	0.00	0.00	1.35	1.63
			3	0.73	0.00	0.10	1.49	1.70
		2	1	0.09	0.00	0.00	0.00	-0.16
			2	0.38	0.00	0.00	0.85	2.63
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.86	0.00	0.00	1.88	2.72
			2	2.06	0.00	0.97	4.49	6.26
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.60	0.00	0.00	1.46	1.70
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

Lane movements: Main Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	420	105	955	884	0.474	420	447	0.0	0.6	5.113	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	412	103	955	877	0.471	412	442	0.0	0.7	5.153	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	344	86	774	725	0.475	345	363	0.0	0.6	6.905	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	460	115	-	-	-	460	501	0.0	0.1	0.473	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	371	93	-	-	-	372	393	0.0	0.0	0.495	A
				3	343	86	-	-	-	344	366	0.0	0.2	2.729	A
2 - A20 (E)	Entry	1	1	1	143	36	1230	1037	0.138	142	148	0.0	0.2	5.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	311	78	1230	1064	0.292	308	322	0.0	0.6	5.740	A
			2	1	894	224	1557	1317	0.679	895	942	0.0	1.9	7.728	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	253	63	1625	932	0.272	255	269	0.0	0.3	5.356	A
				2	23	6	1580	928	0.024	22	22	0.0	0.0	5.081	A
				3	2	0.45	592	373	0.005	2	2	0.0	0.0	4.597	A

07:30 - 07:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	483	121	955	879	0.549	483	534	0.6	0.7	5.501	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	493	123	955	879	0.561	492	534	0.7	0.8	5.520	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	405	101	774	725	0.558	406	429	0.6	0.8	7.416	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	578	145	-	-	-	579	646	0.1	0.1	0.838	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	396	99	-	-	-	397	423	0.2	0.1	0.917	A
				3	405	101	-	-	-	405	429	0.2	0.4	4.691	A
2 - A20 (E)	Entry	1	1	1	193	48	1230	1018	0.190	194	202	0.8	0.3	6.576	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	371	93	1230	1049	0.354	370	379	0.8	0.6	7.198	A
			2	1	1045	261	1557	1291	0.810	1048	1104	1.9	3.4	12.533	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	294	73	1625	830	0.354	293	313	0.3	0.6	7.143	A
				2	23	6	1610	839	0.027	22	25	0.3	0.0	7.351	A
				3	3	0.70	653	357	0.008	3	2	0.0	0.0	9.948	A

07:45 - 08:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	615	154	955	882	0.698	614	648	0.7	1.0	6.001	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	614	154	955	883	0.697	615	661	0.8	0.9	5.910	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	500	125	774	726	0.688	501	514	0.8	1.1	7.779	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	847	212	-	-	-	846	890	0.1	0.4	2.263	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	383	96	-	-	-	383	421	0.5	0.2	2.975	A
				3	495	124	-	-	-	500	515	0.5	1.2	10.240	B
2 - A20 (E)	Entry	1	1	1	276	69	1230	996	0.277	273	280	0.9	1.1	12.137	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	463	116	1230	1016	0.456	461	472	0.9	1.9	12.506	B
			2	1	1243	311	1557	1251	0.993	1234	1290	3.4	15.6	36.257	E
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	370	93	1625	676	0.548	369	386	0.6	1.5	12.779	B
				2	26	7	1625	712	0.037	26	29	0.6	0.1	12.569	B
				3	1	0.34	577	275	0.005	1	2	0.6	0.0	10.453	B

08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	611	153	955	878	0.696	610	655	1.0	1.1	6.071	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	601	150	955	875	0.687	601	652	0.9	1.0	6.059	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	483	121	774	722	0.669	483	517	1.1	1.0	7.963	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	829	207	-	-	-	830	898	0.4	0.7	2.203	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	381	95	-	-	-	382	410	1.3	0.3	2.894	A
				3	479	120	-	-	-	483	517	1.3	1.1	11.013	B
2 - A20 (E)	Entry	1	1	1	281	70	1230	996	0.282	279	293	3.0	1.2	13.131	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	475	119	1230	1021	0.466	469	476	3.0	2.1	13.415	B
			2	1	1247	312	1557	1256	0.994	1219	1290	15.6	21.5	53.938	F
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	360	90	1625	685	0.525	357	391	1.6	1.4	13.100	B
				2	28	7	1625	719	0.039	29	30	1.6	0.1	12.773	B
				3	2	0.45	577	260	0.007	2	2	0.0	0.0	9.504	A

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	493	123	955	874	0.564	495	540	1.1	0.6	5.454	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	498	125	955	885	0.563	501	541	1.0	0.6	5.455	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	403	101	774	727	0.554	406	430	1.0	0.7	7.360	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	585	146	-	-	-	586	647	0.7	0.1	0.982	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	405	101	-	-	-	406	430	1.4	0.1	1.073	A
				3	400	100	-	-	-	403	429	1.4	0.4	5.041	A
2 - A20 (E)	Entry	1	1	1	196	49	1230	1022	0.192	196	217	3.3	0.4	7.784	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	358	89	1230	1050	0.341	362	387	3.3	0.7	8.094	A
			2	1	1034	259	1557	1288	0.803	1044	1169	21.5	4.3	27.154	D
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	294	73	1625	830	0.354	292	314	1.5	0.7	8.425	A
				2	22	5	1625	854	0.026	22	24	1.5	0.0	8.963	A
				3	2	0.48	608	316	0.006	2	2	1.5	0.0	9.937	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	415	104	955	881	0.471	416	443	0.6	0.5	5.089	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	417	104	955	880	0.474	419	444	0.6	0.5	5.082	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	330	83	774	721	0.457	329	360	0.7	0.7	6.887	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	472	118	-	-	-	471	500	0.1	0.1	0.416	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	362	90	-	-	-	361	387	0.5	0.0	0.450	A
				3	332	83	-	-	-	330	360	0.5	0.3	2.813	A
2 - A20 (E)	Entry	1	1	1	149	37	1230	1041	0.143	148	156	1.1	0.3	5.179	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	309	77	1230	1085	0.285	308	314	1.1	0.6	5.715	A
			2	1	917	229	1557	1321	0.694	917	967	4.3	2.0	8.491	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	244	61	1625	923	0.265	243	267	0.8	0.5	5.689	A
				2	19	5	1610	939	0.020	18	21	0.8	0.1	5.215	A
				3	1	0.31	486	294	0.004	1	1	0.0	0.0	5.035	A

Junctions 10

ARCADY 10 - Roundabout Module

Filename: A20_M20 Roundabout PM (Lane Sim) Rev A Observed.j10
Path: T:\Projects\15000 Series\15323ITB Ashford Road, Maidstone\Tech\Junction Assessments\Tech Notes
Report generation date: 19/05/2023 09:35:20

Summary of junction performance

	PM	
	Queue (Veh)	Delay (s)
	[Lane Simulation] - 2022 Observed Flows	
1 - M20 link road	10.1	15.31
2 - A20 (E)	3.3	7.98
3 - A20 (W)	0.6	5.61

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Arm and junction delays are averages for all movements, including movements with zero delay.

File summary

File Description

Title	
Location	
Site number	
Date	13/10/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\londonhotdesk
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Lane Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Average animation capture interval (s)	Use quick response	Do flow sampling	Suppress automatic lane creation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	1.00	100000	100000	-1	3	1	60	✓			1029105244	62	6.48

Analysis Set Details

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

2022 Observed Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Info	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A20 / M20 Roundabout	Standard Roundabout		1, 2, 3	11.59	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.59	B

Arms

Arms

Arm	Name	Description	No give-way line
1	M20 link road		
2	A20 (E)		
3	A20 (W)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - M20 link road	7.40	10.40	7.8	44.9	59.0	34.0		
2 - A20 (E)	7.50	10.10	5.3	48.8	59.0	14.5		
3 - A20 (W)	3.80	6.10	10.3	25.3	59.0	20.5		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - M20 link road	0.738	2685
2 - A20 (E)	0.776	2792
3 - A20 (W)	0.561	1625

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

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
1 - M20 link road	Apportion from lane geometry	10.00
2 - A20 (E)	Apportion from lane geometry	20.00
3 - A20 (W)	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Has obstruction	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Signalised
1 - M20 link road	Entry	1	1	2	✓	2.00			0	99999	
			2	2	✓	2.00			0	99999	
			3	1, 3	✓	2.00			0	99999	
		2	1	(2)		Infinity					
			2	(1, 2, 3)		Infinity					
	Exit	1	1			Infinity					
2 - A20 (E)	Entry	1	1	(1), 3		Infinity			0	99999	
			2	1, 2		Infinity			0	99999	
	Exit	1	1			Infinity					
3 - A20 (W)	Entry	1	1	1, 2, 3		Infinity			0	99999	
	Exit	1	1			Infinity					

Entry Lane Geometry

Arm	Side	Lane level	Lane	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Notes
1 - M20 link road	Entry	1	1	3.70	3.70	0.0	44.9	59.0	34.0		
			2	3.70	3.70	0.0	44.9	59.0	34.0		
			3	3.00	3.00	0.0	44.9	59.0	34.0		
2 - A20 (E)	Entry	1	1	3.75	3.75	0.0	48.8	59.0	14.5		
			2	3.75	6.25	5.3	48.8	59.0	14.5		

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/hr)
1 - M20 link road	Entry	1	1	0.263	955
			2	0.263	955
			3	0.213	774
2 - A20 (E)	Entry	1	1	0.342	1232
			2	0.433	1560
3 - A20 (W)	Entry	1	1	0.561	1625

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm		
			M20 link road	A20 (E)	A20 (W)
1 - M20 link road	1	1		✓	
		2		✓	
		3	✓		✓
	2	1		✓	
		2	✓	✓	✓
2 - A20 (E)	1	1			✓
		2	✓	✓	
3 - A20 (W)	1	1	✓	✓	✓

Summary of Entry Lane allowed secondary movements

Arm	Lane Level	Lane	Destination arm		
			M20 link road	A20 (E)	A20 (W)
1 - M20 link road	1	1			
		2			
		3			
	2	1			
		2			
2 - A20 (E)	1	1	✓		
		2			
3 - A20 (W)	1	1			

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022 Observed Flows	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - M20 link road		ONE HOUR	✓	1776	100.000
2 - A20 (E)		ONE HOUR	✓	1377	100.000
3 - A20 (W)		ONE HOUR	✓	297	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	1370	406
	2 - A20 (E)	983	0	394
	3 - A20 (W)	259	38	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	4	4
	2 - A20 (E)	4	0	2
	3 - A20 (W)	2	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - M20 link road	15.31	10.1	C	1645	2467
2 - A20 (E)	7.98	3.3	A	1255	1883
3 - A20 (W)	5.61	0.6	A	276	414

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1365	341	25	1370	1413	920	0.0	2.1	7.211	A
2 - A20 (E)	1012	253	314	1009	1061	1082	0.0	1.7	4.677	A
3 - A20 (W)	217	54	728	217	223	595	0.0	0.3	3.889	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1626	407	38	1630	1682	1125	2.1	3.2	8.732	A
2 - A20 (E)	1217	304	376	1222	1279	1292	1.7	1.6	5.997	A
3 - A20 (W)	283	71	881	282	271	718	0.3	0.3	4.306	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1975	494	42	1947	2000	1369	3.2	9.9	14.763	B
2 - A20 (E)	1495	374	441	1499	1543	1549	1.6	3.0	7.979	A
3 - A20 (W)	337	84	1074	337	337	866	0.3	0.5	5.605	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1953	488	44	1945	2032	1387	9.9	8.3	15.312	C
2 - A20 (E)	1519	380	446	1530	1566	1544	3.0	3.2	7.978	A
3 - A20 (W)	326	82	1105	326	329	872	0.5	0.6	5.290	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1628	407	35	1606	1675	1134	8.3	4.8	9.530	A
2 - A20 (E)	1245	311	363	1246	1280	1278	3.2	1.9	5.982	A
3 - A20 (W)	270	67	897	273	279	712	0.6	0.2	4.671	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1323	331	28	1313	1383	934	4.8	2.8	6.816	A
2 - A20 (E)	1043	261	293	1039	1071	1048	1.9	1.7	4.848	A
3 - A20 (W)	221	55	740	222	227	593	0.2	0.2	3.849	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	531	907	0.585	532	547	0.0	0.6	5.455	A
			2	2	522	912	0.573	525	549	0.0	0.6	5.499	A
			3	1, 3	314	735	0.426	314	316	0.0	0.6	6.793	A
		2	1	(2)	585			585	606	0.0	0.1	1.055	A
			2	(1, 2, 3)	780			782	814	0.0	0.2	1.723	A
	Exit	1	1		920			920	955	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	375	1092	0.343	373	391	0.0	0.6	4.610	A
			2	1, 2	637	1368	0.465	636	669	0.0	1.0	4.717	A
	Exit	1	1		1082			1082	1123	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	217	1175	0.185	217	223	0.0	0.3	3.889	A
	Exit	1	1		595			595	617	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	630	912	0.690	631	649	0.6	0.9	5.967	A
			2	2	621	909	0.684	623	648	0.6	0.8	5.858	A
			3	1, 3	378	735	0.514	376	386	0.6	0.7	6.937	A
		2	1	(2)	739			741	762	0.1	0.3	1.973	A
			2	(1, 2, 3)	887			889	923	0.2	0.5	3.089	A
	Exit	1	1		1125			1125	1150	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	445	1073	0.414	450	475	0.6	0.4	5.467	A
			2	1, 2	772	1339	0.577	773	804	1.0	1.2	6.314	A
	Exit	1	1		1292			1292	1332	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	283	1086	0.260	282	271	0.3	0.3	4.306	A
	Exit	1	1		718			718	750	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	758	912	0.832	754	774	0.9	1.7	6.633	A
			2	2	755	906	0.834	753	772	0.8	1.5	6.630	A
			3	1, 3	441	734	0.601	441	453	0.7	1.0	7.481	A
		2	1	(2)	1010			1003	1023	0.3	2.3	6.027	A
			2	(1, 2, 3)	965			952	984	0.5	3.4	9.901	A
	Exit	1	1		1369			1369	1400	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	565	1050	0.539	569	584	0.4	1.0	6.761	A
			2	1, 2	929	1310	0.710	930	959	1.2	2.0	8.730	A
	Exit	1	1		1549			1549	1588	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	337	980	0.344	337	337	0.3	0.5	5.605	A
	Exit	1	1		866			866	892	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	761	908	0.837	759	785	1.7	1.4	6.687	A
			2	2	742	904	0.820	741	784	1.5	1.5	6.634	A
			3	1, 3	448	734	0.611	446	463	1.0	0.9	7.644	A
		2	1	(2)	1018			1019	1052	2.3	1.5	6.043	A
			2	(1, 2, 3)	934			931	977	3.4	3.0	10.979	B
	Exit	1	1		1387			1387	1420	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	574	1049	0.546	579	582	1.0	1.0	6.931	A
			2	1, 2	945	1305	0.725	951	983	2.0	2.2	8.609	A
	Exit	1	1		1544			1544	1611	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	326	964	0.339	326	329	0.5	0.6	5.290	A
	Exit	1	1		872			872	895	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	635	904	0.704	630	646	1.4	1.2	6.014	A
			2	2	618	906	0.683	613	641	1.5	1.1	6.043	A
			3	1, 3	364	736	0.494	363	388	0.9	0.7	7.170	A
		2	1	(2)	752			747	771	1.5	0.6	2.193	A
			2	(1, 2, 3)	877			870	901	3.0	1.1	4.179	A
	Exit	1	1		1134			1134	1162	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	456	1069	0.426	455	472	1.0	0.8	5.552	A
			2	1, 2	788	1342	0.587	791	807	2.2	1.1	6.238	A
	Exit	1	1		1278			1278	1322	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	270	1094	0.247	273	279	0.6	0.2	4.671	A
	Exit	1	1		712			712	750	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	509	908	0.562	509	537	1.2	0.7	5.415	A
			2	2	512	912	0.561	511	532	1.1	0.7	5.434	A
			3	1, 3	296	744	0.398	293	314	0.7	0.6	6.562	A
		2	1	(2)	558			557	583	0.6	0.2	0.851	A
			2	(1, 2, 3)	765			760	796	1.1	0.6	1.370	A
	Exit	1	1		934			934	961	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	391	1098	0.357	387	397	0.8	0.8	4.779	A
			2	1, 2	652	1366	0.478	652	675	1.1	0.9	4.888	A
	Exit	1	1		1048			1048	1096	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	221	1175	0.189	222	227	0.2	0.2	3.849	A
	Exit	1	1		593			593	625	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	531	133	955	907	0.585	532	547	0.0	0.6	5.455	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	522	131	955	912	0.573	525	549	0.0	0.6	5.499	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	314	78	774	735	0.426	314	316	0.0	0.6	6.793	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	585	146	-	-	-	585	606	0.0	0.1	1.055	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	467	117	-	-	-	468	496	0.0	0.0	1.035	A
				3	313	78	-	-	-	314	319	0.0	0.2	2.785	A
2 - A20 (E)	Entry	1	1	1	92	23	1232	1073	0.086	92	90	0.0	0.1	3.866	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	283	71	1232	1100	0.257	281	301	0.0	0.5	4.826	A
			2	1	637	159	1560	1368	0.465	636	669	0.0	1.0	4.717	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	192	48	1625	1173	0.164	192	196	0.0	0.2	3.933	A
				2	25	6	1625	1204	0.021	25	26	0.0	0.0	3.577	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	630	157	955	912	0.690	631	649	0.6	0.9	5.967	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	621	155	955	909	0.684	623	648	0.6	0.8	5.858	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	378	95	774	735	0.514	376	386	0.6	0.7	6.937	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	739	185	-	-	-	741	762	0.1	0.3	1.973	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	509	127	-	-	-	510	537	0.2	0.2	2.127	A
				3	378	95	-	-	-	378	387	0.2	0.3	4.425	A
2 - A20 (E)	Entry	1	1	1	108	27	1232	1072	0.101	109	111	0.6	0.1	4.767	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	337	84	1232	1075	0.313	341	364	0.6	0.3	5.677	A
			2	1	772	193	1560	1339	0.577	773	804	1.0	1.2	6.314	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	244	61	1625	1081	0.226	244	235	0.3	0.3	4.347	A
				2	39	10	1625	1109	0.035	38	36	0.3	0.1	4.038	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	758	189	955	912	0.832	754	774	0.9	1.7	6.633	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	755	189	955	906	0.834	753	772	0.8	1.5	6.630	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	441	110	774	734	0.601	441	453	0.7	1.0	7.481	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	1010	253	-	-	-	1003	1023	0.3	2.3	6.027	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	518	130	-	-	-	511	530	0.5	1.6	7.125	A
				3	446	112	-	-	-	441	454	0.5	1.8	13.137	B
2 - A20 (E)	Entry	1	1	1	141	35	1232	1037	0.136	143	145	0.4	0.1	5.964	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	424	106	1232	1053	0.403	425	439	0.4	0.9	7.019	A
			2	1	929	232	1560	1310	0.710	930	959	1.2	2.0	8.730	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	295	74	1625	979	0.301	295	296	0.3	0.4	5.635	A
				2	42	11	1625	1006	0.042	42	42	0.3	0.1	5.400	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	761	190	955	908	0.837	759	785	1.7	1.4	6.687	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	742	186	955	905	0.820	741	784	1.5	1.5	6.634	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	448	112	774	734	0.611	446	463	1.0	0.9	7.644	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	1018	255	-	-	-	1019	1052	2.3	1.5	6.043	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	483	121	-	-	-	483	515	3.4	1.1	7.518	A
				3	451	113	-	-	-	448	463	3.4	2.0	14.843	B
2 - A20 (E)	Entry	1	1	1	150	38	1232	1041	0.145	153	150	1.0	0.2	5.946	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	423	106	1232	1054	0.401	426	432	1.0	0.8	7.271	A
			2	1	945	236	1560	1305	0.725	951	983	2.0	2.2	8.609	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	282	70	1625	962	0.293	282	287	0.5	0.5	5.316	A
				2	45	11	1625	988	0.045	44	42	0.5	0.1	5.119	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	635	159	955	904	0.704	630	646	1.4	1.2	6.014	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	618	155	955	906	0.683	613	641	1.5	1.1	6.043	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	364	91	774	736	0.494	363	388	0.9	0.7	7.170	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	752	188	-	-	-	747	771	1.5	0.6	2.193	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	510	128	-	-	-	507	514	3.0	0.5	2.330	A
				3	366	92	-	-	-	364	387	3.0	0.6	6.655	A
2 - A20 (E)	Entry	1	1	1	106	27	1232	1057	0.100	105	110	1.0	0.1	4.797	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	350	88	1232	1073	0.326	349	362	1.0	0.7	5.777	A
			2	1	788	197	1560	1342	0.587	791	807	2.2	1.1	6.238	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	235	59	1625	1096	0.214	238	244	0.6	0.2	4.676	A
				2	35	9	1625	1119	0.032	35	35	0.6	0.0	4.637	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	509	127	955	908	0.562	509	537	1.2	0.7	5.415	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	512	128	955	912	0.561	511	532	1.1	0.7	5.434	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	296	74	774	744	0.398	293	314	0.7	0.6	6.562	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	558	139	-	-	-	557	583	0.6	0.2	0.851	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	465	116	-	-	-	464	482	1.1	0.1	0.818	A
				3	300	75	-	-	-	296	314	1.1	0.4	2.217	A
2 - A20 (E)	Entry	1	1	1	88	22	1232	1086	0.081	87	86	0.8	0.1	4.240	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	303	76	1232	1103	0.276	299	311	0.8	0.7	4.926	A
			2	1	652	163	1560	1366	0.478	652	675	1.1	0.9	4.888	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	194	48	1625	1170	0.166	194	200	0.2	0.2	3.842	A
				2	28	7	1625	1191	0.023	28	27	0.2	0.0	3.896	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

Junctions 10

ARCADY 10 - Roundabout Module

Filename: A20_M20 Roundabout PM (Lane Sim) Rev A.j10
Path: T:\Projects\15000 Series\15323ITB Ashford Road, Maidstone\Tech\Junction Assessments\Tech Notes
Report generation date: 16/05/2023 15:07:17

Summary of junction performance

	PM	
	Queue (Veh)	Delay (s)
	[Lane Simulation] - Future Year 2027 + CD	
1 - M20 link road	14.6	22.71
2 - A20 (E)	4.6	10.00
3 - A20 (W)	0.7	6.59
	[Lane Simulation] - Future Year 2031 + CD	
1 - M20 link road	19.0	28.09
2 - A20 (E)	5.2	10.16
3 - A20 (W)	0.7	6.60
	[Lane Simulation] - Future Year 2037 + CD	
1 - M20 link road	23.0	35.10
2 - A20 (E)	5.8	12.22
3 - A20 (W)	0.9	7.33
	[Lane Simulation] - Future Year 2027 + CD + Development	
1 - M20 link road	14.5	23.43
2 - A20 (E)	4.5	9.58
3 - A20 (W)	0.7	6.95
	[Lane Simulation] - Future Year 2031 + CD + Development	
1 - M20 link road	17.8	29.67
2 - A20 (E)	4.8	11.09
3 - A20 (W)	0.9	7.34
	[Lane Simulation] - Future Year 2037 + CD + Development	
1 - M20 link road	23.5	37.99
2 - A20 (E)	6.0	12.30
3 - A20 (W)	1.1	7.98

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Arm and junction delays are averages for all movements, including movements with zero delay.

File summary

File Description

Title	
Location	
Site number	
Date	13/10/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\londonhotdesk
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Lane Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Average animation capture interval (s)	Use quick response	Do flow sampling	Suppress automatic lane creation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	1.00	100000	100000	-1	3	1	60	✓			817283600	100	11.83

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	Future Year 2027 + CD	PM	ONE HOUR	16:30	18:00	15	✓
D5	Future Year 2031 + CD	PM	ONE HOUR	16:30	18:00	15	✓
D6	Future Year 2037 + CD	PM	ONE HOUR	16:30	18:00	15	✓
D7	Future Year 2027 + CD + Development	PM	ONE HOUR	16:30	18:00	15	✓
D8	Future Year 2031 + CD + Development	PM	ONE HOUR	16:30	18:00	15	✓
D9	Future Year 2037 + CD + Development	PM	ONE HOUR	16:30	18:00	15	✓

Analysis Set Details

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

Future Year 2027 + CD, PM

Data Errors and Warnings

Severity	Area	Item	Description
Info	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A20 / M20 Roundabout	Standard Roundabout		1, 2, 3	16.30	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	16.30	C

Arms

Arms

Arm	Name	Description	No give-way line
1	M20 link road		
2	A20 (E)		
3	A20 (W)		

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)	Entry only	Exit only
1 - M20 link road	7.40	10.40	7.8	44.9	59.0	34.0		
2 - A20 (E)	7.50	10.10	5.3	48.8	59.0	14.5		
3 - A20 (W)	3.80	6.10	10.3	25.3	59.0	20.5		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - M20 link road	0.738	2685
2 - A20 (E)	0.776	2792
3 - A20 (W)	0.561	1625

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

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
1 - M20 link road	Apportion from lane geometry	10.00
2 - A20 (E)	Apportion from lane geometry	20.00
3 - A20 (W)	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Has obstruction	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Signalised
1 - M20 link road	Entry	1	1	2	✓	2.00			0	99999	
			2	2	✓	2.00			0	99999	
			3	1, 3	✓	2.00			0	99999	
		2	1	(2)		Infinity					
			2	(1, 2, 3)		Infinity					
	Exit	1	1			Infinity					
2 - A20 (E)	Entry	1	1	(1), 3		Infinity			0	99999	
			2	1, 2		Infinity			0	99999	
	Exit	1	1			Infinity					
3 - A20 (W)	Entry	1	1	1, 2, 3		Infinity			0	99999	
	Exit	1	1			Infinity					

Entry Lane Geometry

Arm	Side	Lane level	Lane	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Notes
1 - M20 link road	Entry	1	1	3.70	3.70	0.0	44.9	59.0	34.0		
			2	3.70	3.70	0.0	44.9	59.0	34.0		
			3	3.00	3.00	0.0	44.9	59.0	34.0		
2 - A20 (E)	Entry	1	1	3.75	3.75	0.0	48.8	59.0	14.5		
			2	3.75	6.25	5.3	48.8	59.0	14.5		

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/hr)
1 - M20 link road	Entry	1	1	0.263	955
			2	0.263	955
			3	0.213	774
2 - A20 (E)	Entry	1	1	0.342	1232
			2	0.433	1560
3 - A20 (W)	Entry	1	1	0.561	1625

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm		
			M20 link road	A20 (E)	A20 (W)
1 - M20 link road	1	1		✓	
		2		✓	
		3	✓		✓
	2	1		✓	
		2	✓	✓	✓
2 - A20 (E)	1	1			✓
		2	✓	✓	
3 - A20 (W)	1	1	✓	✓	✓

Summary of Entry Lane allowed secondary movements

Arm	Lane Level	Lane	Destination arm		
			M20 link road	A20 (E)	A20 (W)
1 - M20 link road	1	1			
		2			
		3			
	2	1			
		2			
2 - A20 (E)	1	1	✓		
		2			
3 - A20 (W)	1	1			

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	Future Year 2027 + CD	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - M20 link road		ONE HOUR	✓	1909	100.000
2 - A20 (E)		ONE HOUR	✓	1465	100.000
3 - A20 (W)		ONE HOUR	✓	324	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	1463	446
	2 - A20 (E)	1046	0	419
	3 - A20 (W)	285	39	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	4	4
	2 - A20 (E)	4	0	2
	3 - A20 (W)	2	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - M20 link road	22.71	14.6	C	1753	2629
2 - A20 (E)	10.00	4.6	B	1345	2018
3 - A20 (W)	6.59	0.7	A	296	445

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1434	359	25	1427	1484	1002	0.0	3.3	7.393	A
2 - A20 (E)	1107	277	330	1103	1129	1123	0.0	1.9	4.981	A
3 - A20 (W)	243	61	783	245	252	651	0.0	0.2	4.003	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1705	426	35	1704	1776	1171	3.3	5.1	10.058	B
2 - A20 (E)	1294	323	407	1295	1353	1332	1.9	2.3	6.302	A
3 - A20 (W)	284	71	923	283	293	780	0.2	0.4	4.779	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	2112	528	41	2112	2158	1469	5.1	13.2	21.609	C
2 - A20 (E)	1628	407	495	1622	1662	1658	2.3	4.6	9.005	A
3 - A20 (W)	349	87	1161	349	358	955	0.4	0.6	5.998	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	2123	531	43	2098	2176	1481	13.2	14.4	22.714	C
2 - A20 (E)	1618	404	482	1621	1679	1659	4.6	4.5	10.002	B
3 - A20 (W)	369	92	1156	368	364	947	0.6	0.7	6.592	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1691	423	34	1693	1809	1208	14.4	4.7	12.212	B
2 - A20 (E)	1331	333	396	1329	1381	1331	4.5	2.2	6.503	A
3 - A20 (W)	294	73	946	296	299	779	0.7	0.3	4.835	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1449	362	28	1445	1502	992	4.7	3.1	7.691	A
2 - A20 (E)	1094	274	335	1094	1140	1138	2.2	1.6	5.123	A
3 - A20 (W)	239	60	781	238	246	647	0.3	0.3	4.081	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	553	914	0.604	551	572	0.0	0.9	5.541	A
			2	2	549	914	0.601	547	568	0.0	1.0	5.607	A
			3	1, 3	330	734	0.450	330	344	0.0	0.7	6.748	A
		2	1	(2)	624			624	644	0.0	0.2	1.127	A
			2	(1, 2, 3)	811			807	850	0.0	0.6	1.857	A
	Exit	1	1		1002			1002	1031	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	414	1089	0.381	414	415	0.0	0.6	4.991	A
			2	1, 2	692	1356	0.510	690	714	0.0	1.3	4.975	A
	Exit	1	1		1123			1123	1170	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	243	1148	0.212	245	252	0.0	0.2	4.003	A
	Exit	1	1		651			651	664	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	651	912	0.715	651	679	0.9	1.2	6.133	A
			2	2	645	911	0.709	646	682	1.0	1.1	6.137	A
			3	1, 3	409	737	0.554	407	416	0.7	0.9	7.394	A
		2	1	(2)	809			807	839	0.2	0.7	2.530	A
			2	(1, 2, 3)	896			898	940	0.6	1.2	4.612	A
	Exit	1	1		1171			1171	1234	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	484	1057	0.458	484	500	0.6	0.7	5.748	A
			2	1, 2	810	1328	0.611	811	853	1.3	1.6	6.631	A
	Exit	1	1		1332			1332	1394	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	284	1068	0.266	283	293	0.2	0.4	4.779	A
	Exit	1	1		780			780	794	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	808	909	0.889	809	827	1.2	1.5	6.952	A
			2	2	806	911	0.886	808	833	1.1	1.5	6.903	A
			3	1, 3	496	735	0.675	495	497	0.9	1.0	7.928	A
		2	1	(2)	1179			1173	1193	0.7	3.9	10.532	B
			2	(1, 2, 3)	933			937	968	1.2	5.3	19.243	C
	Exit	1	1		1469			1469	1510	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	616	1030	0.598	615	626	0.7	1.4	7.471	A
			2	1, 2	1011	1285	0.786	1007	1035	1.6	3.1	9.947	A
	Exit	1	1		1658			1658	1703	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	349	932	0.374	349	358	0.4	0.6	5.998	A
	Exit	1	1		955			955	964	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	818	905	0.904	817	837	1.5	1.6	6.873	A
			2	2	800	906	0.883	800	829	1.5	1.5	6.932	A
			3	1, 3	482	735	0.656	482	510	1.0	1.1	8.065	A
		2	1	(2)	1185			1174	1211	3.9	4.3	11.184	B
			2	(1, 2, 3)	938			925	965	5.3	6.0	20.972	C
	Exit	1	1		1481			1481	1525	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	627	1035	0.607	624	643	1.4	1.4	7.886	A
			2	1, 2	991	1290	0.768	997	1036	3.1	3.1	11.336	B
	Exit	1	1		1659			1659	1708	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	369	935	0.395	368	364	0.6	0.7	6.592	A
	Exit	1	1		947			947	986	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	646	910	0.710	645	693	1.6	1.2	6.299	A
			2	2	651	910	0.716	652	692	1.5	1.1	6.335	A
			3	1, 3	394	737	0.535	396	424	1.1	0.7	7.651	A
		2	1	(2)	797			796	865	4.3	0.5	4.195	A
			2	(1, 2, 3)	894			895	940	6.0	1.1	6.922	A
	Exit	1	1		1208			1208	1253	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	499	1069	0.467	500	512	1.4	0.7	6.062	A
			2	1, 2	832	1331	0.625	830	870	3.1	1.6	6.768	A
	Exit	1	1		1331			1331	1419	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	294	1057	0.278	296	299	0.7	0.3	4.835	A
	Exit	1	1		779			779	817	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	551	911	0.605	551	573	1.2	0.9	5.693	A
			2	2	559	915	0.611	560	583	1.1	0.8	5.597	A
			3	1, 3	335	740	0.452	335	346	0.7	0.7	7.028	A
		2	1	(2)	627			625	653	0.5	0.3	1.229	A
			2	(1, 2, 3)	822			820	846	1.1	0.5	2.138	A
	Exit	1	1		992			992	1033	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	404	1086	0.371	405	418	0.7	0.6	5.055	A
			2	1, 2	691	1352	0.511	689	722	1.6	1.0	5.163	A
	Exit	1	1		1138			1138	1184	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	239	1154	0.207	238	246	0.3	0.3	4.081	A
	Exit	1	1		647			647	670	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	553	138	955	914	0.604	551	572	0.0	0.9	5.541	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	549	137	955	914	0.601	547	568	0.0	1.0	5.607	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	330	83	774	734	0.450	330	344	0.0	0.7	6.748	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	624	156	-	-	-	624	644	0.0	0.2	1.127	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	478	120	-	-	-	477	504	0.0	0.2	1.133	A
				3	332	83	-	-	-	330	346	0.0	0.4	2.911	A
2 - A20 (E)	Entry	1	1	1	94	23	1232	1074	0.087	93	95	0.0	0.2	4.373	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	321	80	1232	1093	0.293	321	321	0.0	0.5	5.169	A
			2	1	692	173	1560	1356	0.510	690	714	0.0	1.3	4.975	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	218	55	1625	1148	0.190	219	222	0.0	0.1	3.994	A
				2	25	6	1625	1164	0.022	25	29	0.0	0.0	4.074	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	651	163	955	912	0.715	651	679	0.9	1.2	6.133	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	645	161	955	912	0.709	646	682	1.0	1.1	6.137	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	409	102	774	737	0.553	407	416	0.7	0.9	7.394	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	809	202	-	-	-	807	839	0.2	0.7	2.530	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	491	123	-	-	-	489	523	0.6	0.5	2.846	A
				3	405	101	-	-	-	409	417	0.6	0.7	6.830	A
2 - A20 (E)	Entry	1	1	1	110	28	1232	1051	0.105	111	122	0.6	0.1	4.803	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	374	93	1232	1059	0.353	372	378	0.6	0.6	6.046	A
			2	1	810	203	1560	1327	0.611	811	853	1.3	1.6	6.631	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	249	62	1625	1061	0.234	249	259	0.2	0.4	4.763	A
				2	35	9	1625	1077	0.032	35	34	0.2	0.0	4.894	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	808	202	955	909	0.889	809	827	1.2	1.5	6.952	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	806	202	955	911	0.886	808	833	1.1	1.5	6.903	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	496	124	774	735	0.675	495	497	0.9	1.0	7.928	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	1179	295	-	-	-	1173	1193	0.7	3.9	10.532	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	439	110	-	-	-	441	470	1.2	2.0	14.692	B
				3	495	124	-	-	-	496	498	1.2	3.3	23.514	C
2 - A20 (E)	Entry	1	1	1	155	39	1232	1018	0.153	154	159	0.7	0.4	6.401	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	461	115	1232	1035	0.445	460	467	0.7	1.1	7.830	A
			2	1	1011	253	1560	1285	0.786	1007	1035	1.6	3.1	9.947	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	308	77	1625	927	0.332	308	315	0.4	0.6	6.036	A
				2	41	10	1625	948	0.043	41	43	0.4	0.1	5.722	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	818	204	955	905	0.904	817	837	1.5	1.6	6.873	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	800	200	955	906	0.883	800	829	1.5	1.5	6.932	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	482	120	774	735	0.656	482	510	1.0	1.1	8.065	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	1185	296	-	-	-	1174	1211	3.9	4.3	11.184	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	448	112	-	-	-	444	455	5.3	2.2	15.831	C
				3	490	122	-	-	-	482	510	5.3	3.8	25.542	D
2 - A20 (E)	Entry	1	1	1	159	40	1232	1018	0.157	159	168	1.4	0.3	7.039	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	468	117	1232	1041	0.450	466	476	1.4	1.1	8.177	A
			2	1	991	248	1560	1289	0.768	997	1036	3.1	3.1	11.336	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	326	82	1625	934	0.350	325	322	0.6	0.6	6.619	A
				2	43	11	1625	949	0.045	43	43	0.6	0.1	6.389	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	646	162	955	910	0.710	645	693	1.6	1.2	6.299	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	651	163	955	910	0.716	652	692	1.5	1.1	6.335	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	394	98	774	737	0.535	396	424	1.1	0.7	7.651	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	797	199	-	-	-	796	865	4.3	0.5	4.195	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	502	126	-	-	-	501	517	6.0	0.4	4.219	A
				3	391	98	-	-	-	394	423	6.0	0.7	10.274	B
2 - A20 (E)	Entry	1	1	1	116	29	1232	1064	0.109	117	119	1.4	0.2	5.105	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	383	96	1232	1072	0.357	383	393	1.4	0.5	6.347	A
			2	1	832	208	1560	1332	0.625	830	870	3.1	1.6	6.768	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	260	65	1625	1057	0.246	262	264	0.7	0.2	4.844	A
				2	34	8	1625	1077	0.031	34	34	0.6	0.0	4.773	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	551	138	955	911	0.605	551	573	1.2	0.9	5.693	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	559	140	955	915	0.611	560	583	1.1	0.8	5.597	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	335	84	774	740	0.452	335	346	0.7	0.7	7.028	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	627	157	-	-	-	625	653	0.5	0.3	1.229	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	486	121	-	-	-	485	500	1.1	0.2	1.187	A
				3	336	84	-	-	-	335	346	1.1	0.4	3.519	A
2 - A20 (E)	Entry	1	1	1	92	23	1232	1070	0.086	92	94	0.7	0.1	4.366	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	311	78	1232	1091	0.286	313	324	0.7	0.5	5.250	A
			2	1	691	173	1560	1352	0.511	689	722	1.6	1.0	5.163	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	211	53	1625	1153	0.184	210	218	0.3	0.3	4.068	A
				2	27	7	1609	1152	0.024	28	28	0.3	0.0	4.182	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

Future Year 2031 + CD, PM

Data Errors and Warnings

Severity	Area	Item	Description
Info	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A20 / M20 Roundabout	Standard Roundabout		1, 2, 3	19.14	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	19.14	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Future Year 2031 + CD	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - M20 link road		ONE HOUR	✓	1952	100.000
2 - A20 (E)		ONE HOUR	✓	1498	100.000
3 - A20 (W)		ONE HOUR	✓	332	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	1496	456
	2 - A20 (E)	1070	0	428
	3 - A20 (W)	292	40	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	4	3
	2 - A20 (E)	4	0	2
	3 - A20 (W)	2	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - M20 link road	28.09	19.0	D	1783	2675
2 - A20 (E)	10.16	5.2	B	1372	2058
3 - A20 (W)	6.60	0.7	A	302	453

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1468	367	29	1469	1517	1020	0.0	2.9	7.498	A
2 - A20 (E)	1127	282	346	1128	1171	1153	0.0	1.4	4.988	A
3 - A20 (W)	247	62	802	247	254	672	0.0	0.3	4.045	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1726	432	35	1730	1791	1230	2.9	5.2	10.165	B
2 - A20 (E)	1326	332	410	1333	1379	1355	1.4	2.2	6.439	A
3 - A20 (W)	294	74	969	296	298	775	0.3	0.3	4.935	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	2119	530	46	2131	2188	1498	5.2	13.1	21.928	C
2 - A20 (E)	1651	413	495	1648	1685	1683	2.2	5.1	9.861	A
3 - A20 (W)	364	91	1178	366	369	964	0.3	0.5	6.191	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	2167	542	40	2158	2227	1501	13.1	19.1	28.090	D
2 - A20 (E)	1647	412	503	1643	1700	1696	5.1	4.6	10.164	B
3 - A20 (W)	362	91	1175	366	370	971	0.5	0.7	6.600	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1735	434	33	1730	1881	1238	19.1	5.4	13.674	B
2 - A20 (E)	1362	340	400	1360	1410	1362	4.6	2.7	6.955	A
3 - A20 (W)	293	73	978	293	308	783	0.7	0.4	5.110	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1489	372	32	1488	1540	1011	5.4	2.9	7.634	A
2 - A20 (E)	1118	280	345	1117	1164	1175	2.7	1.8	5.218	A
3 - A20 (W)	250	63	792	250	253	669	0.4	0.3	4.149	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	566	912	0.622	567	586	0.0	0.7	5.481	A
			2	2	555	907	0.612	557	580	0.0	0.7	5.598	A
			3	1, 3	346	745	0.465	346	351	0.0	0.7	7.036	A
		2	1	(2)	643			644	662	0.0	0.2	1.075	A
			2	(1, 2, 3)	825			823	864	0.0	0.6	2.014	A
	Exit	1	1		1020			1020	1065	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	425	1083	0.393	425	428	0.0	0.6	4.920	A
			2	1, 2	702	1354	0.518	703	743	0.0	0.8	5.028	A
	Exit	1	1		1153			1153	1196	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	247	1133	0.218	247	254	0.0	0.3	4.045	A
	Exit	1	1		672			672	680	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	666	904	0.736	666	688	0.7	1.2	6.159	A
			2	2	654	907	0.721	654	686	0.7	1.2	6.178	A
			3	1, 3	408	743	0.549	410	417	0.7	0.9	7.436	A
		2	1	(2)	822			822	849	0.2	0.6	2.576	A
			2	(1, 2, 3)	904			906	946	0.6	1.3	4.685	A
	Exit	1	1		1230			1230	1255	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	488	1059	0.460	487	506	0.6	0.9	6.057	A
			2	1, 2	838	1330	0.630	846	873	0.8	1.2	6.664	A
	Exit	1	1		1355			1355	1410	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	294	1044	0.282	296	298	0.3	0.3	4.935	A
	Exit	1	1		775			775	804	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	819	905	0.905	821	843	1.2	1.5	6.907	A
			2	2	816	910	0.895	816	840	1.2	1.6	6.946	A
			3	1, 3	495	742	0.667	495	505	0.9	1.1	8.083	A
		2	1	(2)	1174			1179	1229	0.6	3.4	10.420	B
			2	(1, 2, 3)	945			951	964	1.3	5.5	20.161	C
	Exit	1	1		1498			1498	1533	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	638	1033	0.618	639	645	0.9	1.5	7.947	A
			2	1, 2	1013	1287	0.787	1008	1040	1.2	3.6	11.060	B
	Exit	1	1		1683			1683	1728	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	364	921	0.395	366	369	0.3	0.5	6.191	A
	Exit	1	1		964			964	981	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	829	910	0.910	829	855	1.5	1.6	7.050	A
			2	2	827	909	0.910	827	851	1.6	1.6	7.121	A
			3	1, 3	504	742	0.679	503	521	1.1	1.3	8.042	A
		2	1	(2)	1241			1240	1267	3.4	6.1	15.249	C
			2	(1, 2, 3)	926			920	961	5.5	8.5	27.983	D
	Exit	1	1		1501			1501	1556	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	627	1031	0.608	631	640	1.5	1.3	8.058	A
			2	1, 2	1021	1283	0.795	1012	1060	3.6	3.3	11.458	B
	Exit	1	1		1696			1696	1746	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	362	924	0.392	366	370	0.5	0.7	6.600	A
	Exit	1	1		971			971	995	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	665	908	0.733	667	719	1.6	1.1	6.400	A
			2	2	663	911	0.727	663	725	1.6	1.1	6.320	A
			3	1, 3	401	740	0.542	400	437	1.3	1.0	7.478	A
		2	1	(2)	817			814	927	6.1	0.7	5.303	A
			2	(1, 2, 3)	918			915	949	8.5	1.5	8.844	A
	Exit	1	1		1238			1238	1287	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	504	1061	0.475	501	521	1.3	1.0	6.307	A
			2	1, 2	858	1334	0.643	860	889	3.3	1.7	7.342	A
	Exit	1	1		1362			1362	1480	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	293	1034	0.283	293	308	0.7	0.4	5.110	A
	Exit	1	1		783			783	832	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	574	912	0.630	573	591	1.1	0.8	5.623	A
			2	2	570	911	0.626	570	591	1.1	0.9	5.647	A
			3	1, 3	344	741	0.464	345	358	1.0	0.6	6.838	A
		2	1	(2)	644			643	671	0.7	0.2	1.255	A
			2	(1, 2, 3)	845			844	865	1.5	0.4	2.103	A
	Exit	1	1		1011			1011	1061	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	419	1087	0.386	417	427	1.0	0.6	5.055	A
			2	1, 2	700	1349	0.519	699	737	1.7	1.1	5.313	A
	Exit	1	1		1175			1175	1213	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	250	1138	0.220	250	253	0.4	0.3	4.149	A
	Exit	1	1		669			669	684	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	566	142	955	911	0.622	567	586	0.0	0.7	5.481	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	555	139	955	907	0.612	557	580	0.0	0.7	5.598	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	346	87	774	745	0.465	346	351	0.0	0.7	7.036	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	643	161	-	-	-	644	662	0.0	0.2	1.075	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	477	119	-	-	-	477	510	0.0	0.2	1.082	A
				3	347	87	-	-	-	346	354	0.0	0.4	3.345	A
2 - A20 (E)	Entry	1	1	1	98	25	1232	1075	0.092	99	99	0.0	0.1	4.225	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	327	82	1232	1086	0.301	326	329	0.0	0.5	5.126	A
			2	1	702	175	1560	1354	0.518	703	743	0.0	0.8	5.028	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	218	54	1625	1127	0.192	218	223	0.0	0.2	4.048	A
				2	30	7	1625	1154	0.026	29	30	0.0	0.0	4.025	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	666	166	955	904	0.736	666	688	0.7	1.2	6.159	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	654	164	955	907	0.721	654	686	0.7	1.2	6.178	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	408	102	774	743	0.549	410	417	0.7	0.9	7.436	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	822	206	-	-	-	822	849	0.2	0.6	2.576	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	497	124	-	-	-	498	528	0.6	0.4	2.889	A
				3	407	102	-	-	-	408	418	0.6	0.9	6.919	A
2 - A20 (E)	Entry	1	1	1	123	31	1232	1038	0.118	122	119	0.6	0.2	5.192	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	365	91	1232	1066	0.342	365	387	0.6	0.7	6.320	A
			2	1	838	210	1560	1330	0.630	846	873	0.8	1.2	6.664	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	259	65	1625	1044	0.248	261	262	0.3	0.3	4.952	A
				2	35	9	1625	1068	0.033	35	36	0.3	0.0	4.817	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	819	205	955	905	0.905	821	843	1.2	1.5	6.907	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	816	204	955	910	0.895	816	840	1.2	1.6	6.946	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	495	124	774	742	0.667	495	505	0.9	1.1	8.083	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	1174	293	-	-	-	1179	1229	0.6	3.4	10.420	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	454	113	-	-	-	456	458	1.3	1.8	15.064	C
				3	491	123	-	-	-	495	506	1.3	3.6	24.690	C
2 - A20 (E)	Entry	1	1	1	169	42	1232	1020	0.166	170	169	0.9	0.3	7.098	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	469	117	1232	1038	0.452	470	476	0.9	1.2	8.241	A
			2	1	1013	253	1560	1287	0.787	1008	1040	1.2	3.6	11.060	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	318	80	1625	916	0.347	320	324	0.3	0.4	6.193	A
				2	46	11	1611	927	0.049	46	45	0.3	0.1	6.172	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	829	207	955	910	0.910	829	855	1.5	1.6	7.050	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	827	207	955	909	0.910	827	851	1.6	1.6	7.121	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	504	126	774	742	0.679	503	521	1.1	1.3	8.042	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	1241	310	-	-	-	1240	1267	3.4	6.1	15.249	C
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	415	104	-	-	-	416	439	5.5	3.0	22.950	C
				3	511	128	-	-	-	504	522	5.5	5.6	32.152	D
2 - A20 (E)	Entry	1	1	1	162	40	1232	1020	0.158	163	166	1.5	0.3	7.052	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	465	116	1232	1034	0.450	468	473	1.5	1.0	8.405	A
			2	1	1021	255	1560	1284	0.795	1012	1060	3.6	3.3	11.458	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	323	81	1625	922	0.351	326	329	0.5	0.6	6.605	A
				2	39	10	1625	936	0.042	40	41	0.5	0.1	6.561	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	665	166	955	908	0.733	667	719	1.6	1.1	6.400	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	663	166	955	911	0.727	663	725	1.6	1.1	6.320	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	401	100	774	740	0.542	400	437	1.3	1.0	7.478	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	817	204	-	-	-	814	927	6.1	0.7	5.303	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	515	129	-	-	-	514	513	8.5	0.4	5.360	A
				3	403	101	-	-	-	401	436	8.5	1.0	13.006	B
2 - A20 (E)	Entry	1	1	1	120	30	1232	1038	0.115	118	126	1.3	0.3	5.315	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	384	96	1232	1068	0.360	382	395	1.3	0.7	6.618	A
			2	1	858	214	1560	1333	0.643	860	889	3.3	1.7	7.342	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	259	65	1625	1032	0.251	260	272	0.7	0.3	5.108	A
				2	34	8	1625	1059	0.032	33	36	0.7	0.1	5.123	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	574	143	955	912	0.630	573	591	1.1	0.8	5.623	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	570	143	955	911	0.626	570	591	1.1	0.9	5.647	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	344	86	774	741	0.464	345	358	1.0	0.6	6.838	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	644	161	-	-	-	643	671	0.7	0.2	1.255	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	502	125	-	-	-	501	509	1.5	0.2	1.230	A
				3	344	86	-	-	-	344	356	1.5	0.2	3.355	A
2 - A20 (E)	Entry	1	1	1	94	23	1232	1071	0.088	93	101	1.0	0.1	4.334	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	325	81	1232	1092	0.298	324	326	1.0	0.5	5.274	A
			2	1	700	175	1560	1349	0.520	699	737	1.7	1.1	5.313	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	219	55	1625	1134	0.193	219	222	0.4	0.3	4.165	A
				2	31	8	1625	1165	0.027	32	31	0.4	0.0	4.033	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

Future Year 2037 + CD, PM

Data Errors and Warnings

Severity	Area	Item	Description
Info	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A20 / M20 Roundabout	Standard Roundabout		1, 2, 3	23.64	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	23.64	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	Future Year 2037 + CD	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - M20 link road		ONE HOUR	✓	2033	100.000
2 - A20 (E)		ONE HOUR	✓	1561	100.000
3 - A20 (W)		ONE HOUR	✓	346	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	1558	475
	2 - A20 (E)	1115	0	446
	3 - A20 (W)	304	42	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	4	3
	2 - A20 (E)	4	0	2
	3 - A20 (W)	2	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - M20 link road	35.10	23.0	E	1865	2798
2 - A20 (E)	12.22	5.8	B	1436	2154
3 - A20 (W)	7.33	0.9	A	317	475

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1519	380	35	1527	1566	1081	0.0	3.3	8.040	A
2 - A20 (E)	1194	298	356	1189	1221	1206	0.0	2.0	5.549	A
3 - A20 (W)	269	67	845	271	265	700	0.0	0.2	4.109	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1821	455	40	1820	1882	1275	3.3	6.0	11.439	B
2 - A20 (E)	1397	349	413	1398	1446	1447	2.0	2.5	6.578	A
3 - A20 (W)	322	81	994	320	317	816	0.2	0.6	4.996	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	2240	560	44	2204	2246	1556	6.0	22.9	28.755	D
2 - A20 (E)	1721	430	511	1728	1769	1737	2.5	5.8	11.044	B
3 - A20 (W)	374	94	1227	373	381	1013	0.6	0.9	6.932	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	2227	557	45	2234	2324	1567	22.9	20.7	35.095	E
2 - A20 (E)	1732	433	532	1729	1782	1748	5.8	5.6	12.218	B
3 - A20 (W)	378	94	1235	377	387	1026	0.9	0.8	7.334	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1840	460	35	1840	1966	1263	20.7	6.6	16.638	C
2 - A20 (E)	1395	349	434	1390	1462	1440	5.6	3.3	7.591	A
3 - A20 (W)	307	77	989	308	317	835	0.8	0.4	5.313	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1547	387	29	1540	1605	1070	6.6	3.4	8.271	A
2 - A20 (E)	1175	294	370	1178	1222	1199	3.3	1.8	5.581	A
3 - A20 (W)	251	63	847	252	261	701	0.4	0.3	4.332	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	585	908	0.645	587	600	0.0	1.0	5.748	A
			2	2	581	909	0.638	584	604	0.0	0.9	5.717	A
			3	1, 3	355	744	0.477	356	362	0.0	0.7	7.162	A
		2	1	(2)	668			669	695	0.0	0.2	1.387	A
			2	(1, 2, 3)	850			854	881	0.0	0.5	2.431	A
	Exit	1	1		1081			1081	1109	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	447	1085	0.411	447	449	0.0	0.7	5.270	A
			2	1, 2	747	1342	0.556	743	772	0.0	1.3	5.714	A
	Exit	1	1		1206			1206	1236	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	269	1113	0.242	271	265	0.0	0.2	4.109	A
	Exit	1	1		700			700	706	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	701	905	0.774	700	727	1.0	1.3	6.290	A
			2	2	706	909	0.776	707	723	0.9	1.2	6.358	A
			3	1, 3	414	740	0.559	413	432	0.7	1.0	7.617	A
		2	1	(2)	892			891	920	0.2	0.9	3.492	A
			2	(1, 2, 3)	929			929	966	0.5	1.7	6.047	A
	Exit	1	1		1275			1275	1317	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	523	1060	0.494	524	540	0.7	0.8	6.002	A
			2	1, 2	874	1321	0.661	874	907	1.3	1.7	6.925	A
	Exit	1	1		1447			1447	1489	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	322	1029	0.313	320	317	0.2	0.6	4.996	A
	Exit	1	1		816			816	840	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	850	908	0.937	848	864	1.3	1.8	7.218	A
			2	2	846	906	0.935	846	870	1.2	1.8	7.182	A
			3	1, 3	511	741	0.688	511	512	1.0	1.2	8.069	A
		2	1	(2)	1314			1299	1296	0.9	7.5	15.394	C
			2	(1, 2, 3)	926			907	956	1.7	10.7	29.200	D
	Exit	1	1		1556			1556	1601	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	674	1028	0.655	678	680	0.8	1.6	8.782	A
			2	1, 2	1048	1280	0.819	1051	1089	1.7	4.1	12.473	B
	Exit	1	1		1737			1737	1782	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	374	890	0.421	373	381	0.6	0.9	6.932	A
	Exit	1	1		1013			1013	1014	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	847	904	0.936	847	897	1.8	1.7	7.112	A
			2	2	855	906	0.944	856	883	1.8	1.7	7.243	A
			3	1, 3	531	742	0.716	532	544	1.2	1.3	8.419	A
		2	1	(2)	1328			1333	1395	7.5	6.5	19.164	C
			2	(1, 2, 3)	899			900	928	10.7	9.6	40.304	E
	Exit	1	1		1567			1567	1622	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	666	1019	0.653	667	678	1.6	1.3	9.097	A
			2	1, 2	1066	1270	0.839	1062	1103	4.1	4.3	14.166	B
	Exit	1	1		1748			1748	1827	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	378	889	0.426	377	387	0.9	0.8	7.334	A
	Exit	1	1		1026			1026	1043	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	700	909	0.770	700	748	1.7	1.3	6.663	A
			2	2	705	906	0.779	705	754	1.7	1.3	6.570	A
			3	1, 3	434	744	0.582	434	465	1.3	0.9	7.775	A
		2	1	(2)	921			919	1008	6.5	1.2	7.389	A
			2	(1, 2, 3)	919			920	953	9.6	1.9	12.316	B
	Exit	1	1		1263			1263	1330	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	527	1054	0.500	531	546	1.3	0.8	6.492	A
			2	1, 2	867	1310	0.662	859	916	4.3	2.5	8.259	A
	Exit	1	1		1440			1440	1539	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	307	1028	0.298	308	317	0.8	0.4	5.313	A
	Exit	1	1		835			835	876	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	584	909	0.643	582	617	1.3	0.9	5.730	A
			2	2	589	911	0.646	588	613	1.3	0.9	5.781	A
			3	1, 3	370	746	0.494	370	376	0.9	0.6	7.114	A
		2	1	(2)	693			690	713	1.2	0.3	1.589	A
			2	(1, 2, 3)	854			853	888	1.9	0.6	2.711	A
	Exit	1	1		1070			1070	1113	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	438	1076	0.407	438	448	0.8	0.6	5.324	A
			2	1, 2	737	1341	0.550	740	774	2.5	1.2	5.733	A
	Exit	1	1		1199			1199	1260	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	251	1113	0.226	252	261	0.4	0.3	4.332	A
	Exit	1	1		701			701	715	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	585	146	955	908	0.645	587	600	0.0	1.0	5.748	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	581	145	955	909	0.638	584	604	0.0	0.9	5.717	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	355	89	774	745	0.477	356	362	0.0	0.7	7.162	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	668	167	-	-	-	669	695	0.0	0.2	1.387	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	498	124	-	-	-	498	516	0.0	0.2	1.451	A
				3	353	88	-	-	-	355	365	0.0	0.3	3.801	A
2 - A20 (E)	Entry	1	1	1	103	26	1232	1076	0.095	103	105	0.0	0.1	4.497	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	344	86	1232	1087	0.316	344	344	0.0	0.6	5.500	A
			2	1	747	187	1560	1342	0.556	743	772	0.0	1.3	5.714	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	234	59	1625	1112	0.211	236	233	0.0	0.2	4.126	A
				2	35	9	1625	1129	0.031	35	33	0.0	0.0	3.988	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	701	175	955	905	0.774	700	727	1.0	1.3	6.290	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	706	176	955	909	0.776	707	723	0.9	1.2	6.358	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	414	103	774	740	0.559	413	432	0.7	1.0	7.617	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	892	223	-	-	-	891	920	0.2	0.9	3.492	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	515	129	-	-	-	515	533	0.5	0.6	4.020	A
				3	414	104	-	-	-	414	433	0.5	1.1	8.510	A
2 - A20 (E)	Entry	1	1	1	122	31	1232	1048	0.117	121	132	0.7	0.2	5.094	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	401	100	1232	1065	0.377	403	408	0.7	0.5	6.290	A
			2	1	874	218	1560	1321	0.661	874	907	1.3	1.7	6.925	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	282	71	1625	1027	0.275	281	278	0.2	0.5	4.973	A
				2	40	10	1625	1043	0.038	40	39	0.2	0.1	5.156	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	850	212	955	908	0.937	848	864	1.3	1.8	7.218	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	846	212	955	906	0.935	846	870	1.2	1.8	7.182	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	511	128	774	741	0.688	511	512	1.0	1.2	8.069	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	1314	328	-	-	-	1299	1296	0.9	7.5	15.394	C
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	403	101	-	-	-	396	443	1.7	3.9	23.280	C
				3	523	131	-	-	-	511	513	1.7	6.9	34.179	D
2 - A20 (E)	Entry	1	1	1	175	44	1232	1015	0.172	176	178	0.8	0.4	7.749	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	498	125	1232	1033	0.482	502	502	0.8	1.2	9.142	A
			2	1	1048	262	1560	1280	0.819	1051	1089	1.7	4.1	12.473	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	331	83	1625	890	0.372	330	334	0.6	0.8	6.958	A
				2	43	11	1625	905	0.048	44	47	0.6	0.1	6.750	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	847	212	955	904	0.936	847	897	1.8	1.7	7.112	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	855	214	955	906	0.944	856	883	1.8	1.7	7.243	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	531	133	774	742	0.716	532	544	1.2	1.3	8.419	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	1328	332	-	-	-	1333	1395	7.5	6.5	19.164	C
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	369	92	-	-	-	369	384	10.7	3.3	33.190	D
				3	530	133	-	-	-	531	544	10.7	6.3	45.272	E
2 - A20 (E)	Entry	1	1	1	172	43	1232	1002	0.172	173	179	1.6	0.3	8.055	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	494	123	1232	1026	0.482	494	499	1.6	1.0	9.464	A
			2	1	1066	266	1560	1270	0.839	1062	1103	4.1	4.3	14.166	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	333	83	1625	888	0.375	332	340	0.9	0.8	7.390	A
				2	45	11	1625	904	0.050	45	47	0.9	0.1	6.936	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	700	175	955	909	0.770	700	748	1.7	1.3	6.663	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	705	176	955	906	0.779	705	754	1.7	1.3	6.570	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	434	108	774	744	0.582	434	465	1.3	0.9	7.775	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	921	230	-	-	-	919	1008	6.5	1.2	7.389	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	487	122	-	-	-	486	490	9.6	0.8	7.596	A
				3	432	108	-	-	-	434	463	9.6	1.1	17.401	C
2 - A20 (E)	Entry	1	1	1	130	33	1232	1048	0.125	130	134	1.3	0.2	5.525	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	397	99	1232	1056	0.376	400	412	1.3	0.6	6.803	A
			2	1	867	217	1560	1310	0.662	859	916	4.3	2.5	8.259	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	272	68	1625	1025	0.265	274	280	0.8	0.3	5.341	A
				2	34	9	1625	1044	0.033	35	37	0.8	0.0	5.104	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	584	146	955	909	0.643	582	617	1.3	0.9	5.730	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	589	147	955	911	0.646	588	613	1.3	0.9	5.781	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	370	92	774	746	0.494	370	376	0.9	0.6	7.114	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	693	173	-	-	-	690	713	1.2	0.3	1.589	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	484	121	-	-	-	483	513	1.9	0.2	1.578	A
				3	370	92	-	-	-	370	375	1.9	0.4	4.248	A
2 - A20 (E)	Entry	1	1	1	108	27	1232	1068	0.102	107	109	0.8	0.2	4.559	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	329	82	1232	1078	0.306	331	339	0.8	0.5	5.566	A
			2	1	737	184	1560	1341	0.550	740	774	2.5	1.2	5.733	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	222	55	1625	1109	0.200	223	230	0.4	0.3	4.371	A
				2	30	7	1625	1132	0.026	29	31	0.4	0.1	4.050	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

Future Year 2027 + CD + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Info	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A20 / M20 Roundabout	Standard Roundabout		1, 2, 3	16.49	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	16.49	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Future Year 2027 + CD + Development	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - M20 link road		ONE HOUR	✓	1924	100.000
2 - A20 (E)		ONE HOUR	✓	1466	100.000
3 - A20 (W)		ONE HOUR	✓	347	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	1463	461
	2 - A20 (E)	1046	0	420
	3 - A20 (W)	308	39	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	4	6
	2 - A20 (E)	4	0	2
	3 - A20 (W)	4	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - M20 link road	23.43	14.5	C	1763	2644
2 - A20 (E)	9.58	4.5	A	1348	2022
3 - A20 (W)	6.95	0.7	A	320	479

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1440	360	26	1451	1494	1027	0.0	2.6	7.509	A
2 - A20 (E)	1116	279	349	1115	1135	1128	0.0	1.6	5.095	A
3 - A20 (W)	263	66	791	262	275	673	0.0	0.4	4.251	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1722	430	35	1720	1800	1220	2.6	5.8	10.426	B
2 - A20 (E)	1318	329	404	1319	1346	1351	1.6	2.1	6.201	A
3 - A20 (W)	318	79	939	316	323	784	0.4	0.5	5.018	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	2126	532	44	2101	2178	1500	5.8	14.3	21.014	C
2 - A20 (E)	1604	401	504	1605	1641	1641	2.1	4.5	8.944	A
3 - A20 (W)	387	97	1154	390	397	954	0.5	0.5	6.083	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	2109	527	47	2139	2216	1489	14.3	11.9	23.432	C
2 - A20 (E)	1622	405	526	1627	1681	1659	4.5	3.8	9.584	A
3 - A20 (W)	383	96	1154	382	403	999	0.5	0.7	6.951	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1740	435	31	1726	1840	1218	11.9	5.8	11.924	B
2 - A20 (E)	1311	328	420	1304	1370	1337	3.8	2.7	6.730	A
3 - A20 (W)	308	77	939	310	319	785	0.7	0.3	5.269	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1437	359	30	1438	1518	1028	5.8	3.1	7.659	A
2 - A20 (E)	1114	279	349	1111	1166	1119	2.7	1.7	5.260	A
3 - A20 (W)	260	65	796	262	269	664	0.3	0.3	4.316	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	548	912	0.599	548	569	0.0	0.9	5.404	A
			2	2	552	912	0.605	554	561	0.0	0.8	5.506	A
			3	1, 3	348	726	0.480	349	364	0.0	0.6	7.044	A
		2	1	(2)	629			630	650	0.0	0.1	0.933	A
			2	(1, 2, 3)	811			818	853	0.0	0.3	2.231	A
	Exit	1	1		1027			1027	1062	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	412	1079	0.382	414	414	0.0	0.6	5.213	A
			2	1, 2	703	1351	0.520	701	721	0.0	1.0	5.026	A
	Exit	1	1		1128			1128	1157	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	263	1124	0.234	262	275	0.0	0.4	4.251	A
	Exit	1	1		673			673	684	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	646	908	0.711	647	683	0.9	1.1	6.214	A
			2	2	668	911	0.733	669	688	0.8	1.2	6.129	A
			3	1, 3	404	721	0.561	404	429	0.6	0.9	7.604	A
		2	1	(2)	841			840	866	0.1	0.9	2.581	A
			2	(1, 2, 3)	880			878	939	0.3	1.7	5.161	A
	Exit	1	1		1220			1220	1254	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	494	1058	0.467	496	501	0.6	0.7	5.885	A
			2	1, 2	824	1319	0.624	823	846	1.0	1.4	6.391	A
	Exit	1	1		1351			1351	1407	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	318	1042	0.305	316	323	0.4	0.5	5.018	A
	Exit	1	1		784			784	810	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	808	907	0.891	806	825	1.1	1.6	6.915	A
			2	2	791	910	0.869	791	824	1.2	1.5	6.878	A
			3	1, 3	506	720	0.702	504	529	0.9	1.3	7.945	A
		2	1	(2)	1215			1204	1222	0.9	3.8	9.116	A
			2	(1, 2, 3)	912			900	961	1.7	6.1	19.846	C
	Exit	1	1		1500			1500	1528	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	603	1021	0.591	607	625	0.7	1.2	7.793	A
			2	1, 2	1002	1277	0.784	998	1016	1.4	3.2	9.659	A
	Exit	1	1		1641			1641	1692	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	387	920	0.420	390	397	0.5	0.5	6.083	A
	Exit	1	1		954			954	995	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	808	908	0.889	809	824	1.6	1.4	6.991	A
			2	2	801	909	0.882	804	844	1.5	1.4	6.784	A
			3	1, 3	526	719	0.734	526	548	1.3	1.2	8.509	A
		2	1	(2)	1254			1264	1291	3.8	2.9	10.414	B
			2	(1, 2, 3)	855			871	924	6.1	5.1	24.332	C
	Exit	1	1		1489			1489	1560	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	626	1018	0.614	627	641	1.2	1.2	8.107	A
			2	1, 2	996	1266	0.788	1000	1040	3.2	2.6	10.509	B
	Exit	1	1		1659			1659	1713	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	383	916	0.418	382	403	0.5	0.7	6.951	A
	Exit	1	1		999			999	1027	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	653	909	0.720	653	690	1.4	1.1	6.224	A
			2	2	653	911	0.717	653	692	1.4	1.2	6.172	A
			3	1, 3	419	718	0.583	420	458	1.2	0.9	7.891	A
		2	1	(2)	846			841	911	2.9	0.8	3.461	A
			2	(1, 2, 3)	895			884	925	5.1	1.8	7.205	A
	Exit	1	1		1218			1218	1277	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	489	1055	0.463	485	506	1.2	0.8	6.231	A
			2	1, 2	822	1316	0.624	819	864	2.6	1.8	7.025	A
	Exit	1	1		1337			1337	1414	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	308	1043	0.295	310	319	0.7	0.3	5.269	A
	Exit	1	1		785			785	838	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	552	910	0.607	551	574	1.1	0.9	5.548	A
			2	2	538	910	0.591	537	566	1.2	0.9	5.634	A
			3	1, 3	346	727	0.477	349	378	0.9	0.6	6.998	A
		2	1	(2)	624			622	663	0.8	0.2	1.050	A
			2	(1, 2, 3)	813			814	852	1.8	0.5	2.280	A
	Exit	1	1		1028			1028	1081	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	408	1077	0.380	406	425	0.8	0.6	5.052	A
			2	1, 2	706	1346	0.525	704	741	1.8	1.1	5.382	A
	Exit	1	1		1119			1119	1169	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	260	1128	0.231	262	269	0.3	0.3	4.316	A
	Exit	1	1		664			664	703	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	548	137	955	912	0.599	548	569	0.0	0.9	5.404	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	552	138	955	912	0.605	554	561	0.0	0.8	5.506	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	348	87	774	726	0.480	349	364	0.0	0.6	7.044	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	629	157	-	-	-	630	650	0.0	0.1	0.933	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	467	117	-	-	-	469	487	0.0	0.1	0.992	A
				3	343	86	-	-	-	348	366	0.0	0.2	3.901	A
2 - A20 (E)	Entry	1	1	1	91	23	1232	1067	0.085	90	94	0.0	0.2	4.413	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	322	80	1232	1082	0.297	324	320	0.0	0.4	5.443	A
			2	1	703	176	1560	1351	0.520	701	721	0.0	1.0	5.026	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	237	59	1625	1120	0.211	236	248	0.0	0.3	4.264	A
				2	26	7	1625	1172	0.022	26	27	0.0	0.1	4.143	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	646	161	955	908	0.711	647	683	0.9	1.1	6.214	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	668	167	955	911	0.733	669	688	0.8	1.2	6.129	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	404	101	774	721	0.561	404	429	0.6	0.9	7.604	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	841	210	-	-	-	840	866	0.1	0.9	2.581	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	476	119	-	-	-	474	509	0.3	0.6	2.943	A
				3	404	101	-	-	-	404	430	0.3	1.1	7.822	A
2 - A20 (E)	Entry	1	1	1	116	29	1232	1046	0.111	116	120	0.6	0.2	4.796	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	378	94	1232	1062	0.356	380	381	0.6	0.6	6.222	A
			2	1	824	206	1560	1320	0.624	823	846	1.0	1.4	6.391	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	282	70	1625	1039	0.271	281	288	0.4	0.4	5.034	A
				2	36	9	1625	1076	0.033	35	35	0.4	0.1	4.894	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	808	202	955	907	0.891	806	825	1.1	1.6	6.915	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	791	198	955	910	0.869	791	824	1.2	1.5	6.878	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	506	126	774	720	0.702	504	529	0.9	1.3	7.945	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	1215	304	-	-	-	1204	1222	0.9	3.8	9.116	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	397	99	-	-	-	394	431	1.7	1.8	13.691	B
				3	515	129	-	-	-	506	531	1.7	4.3	24.890	C
2 - A20 (E)	Entry	1	1	1	159	40	1232	1001	0.158	157	159	0.7	0.5	6.859	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	444	111	1232	1028	0.432	450	466	0.7	0.8	8.106	A
			2	1	1002	250	1560	1277	0.784	998	1016	1.4	3.2	9.659	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	343	86	1625	918	0.373	346	354	0.5	0.5	6.155	A
				2	44	11	1625	957	0.046	44	43	0.5	0.1	5.502	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	808	202	955	908	0.889	809	824	1.6	1.4	6.991	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	801	200	955	909	0.882	804	844	1.5	1.4	6.784	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	526	132	774	719	0.734	526	548	1.3	1.2	8.509	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	1254	313	-	-	-	1264	1291	3.8	2.9	10.414	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	338	84	-	-	-	344	376	6.1	1.3	16.135	C
				3	518	129	-	-	-	526	548	6.1	3.7	30.082	D
2 - A20 (E)	Entry	1	1	1	154	38	1232	997	0.154	154	162	1.2	0.2	7.190	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	472	118	1232	1025	0.460	473	479	1.2	1.0	8.407	A
			2	1	996	249	1560	1266	0.787	1000	1040	3.2	2.6	10.509	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	336	84	1625	912	0.368	335	359	0.5	0.7	6.974	A
				2	47	12	1625	953	0.049	47	45	0.5	0.1	6.777	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	653	163	955	909	0.720	653	690	1.4	1.1	6.224	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	653	163	955	911	0.717	653	692	1.4	1.2	6.172	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	419	105	774	718	0.583	420	458	1.2	0.9	7.891	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	846	211	-	-	-	841	911	2.9	0.8	3.461	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	467	117	-	-	-	465	468	5.1	0.4	3.957	A
				3	428	107	-	-	-	419	457	5.1	1.4	10.644	B
2 - A20 (E)	Entry	1	1	1	121	30	1232	1036	0.117	120	126	1.2	0.1	5.370	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	368	92	1232	1063	0.346	365	380	1.2	0.7	6.508	A
			2	1	822	206	1560	1316	0.624	819	864	2.6	1.8	7.025	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	277	69	1625	1041	0.266	279	287	0.7	0.3	5.327	A
				2	31	8	1625	1077	0.029	31	32	0.7	0.0	4.759	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	552	138	955	910	0.607	551	574	1.1	0.9	5.548	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	538	135	955	910	0.591	537	566	1.2	0.9	5.634	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	346	87	774	727	0.477	349	378	0.9	0.6	6.998	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	624	156	-	-	-	622	663	0.8	0.2	1.050	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	469	117	-	-	-	468	475	1.8	0.2	1.083	A
				3	343	86	-	-	-	346	377	1.8	0.2	3.838	A
2 - A20 (E)	Entry	1	1	1	91	23	1232	1055	0.086	91	101	0.8	0.1	4.480	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	317	79	1232	1082	0.294	315	325	0.8	0.6	5.223	A
			2	1	706	176	1560	1346	0.525	704	741	1.8	1.1	5.382	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	231	58	1625	1124	0.206	232	240	0.3	0.3	4.341	A
				2	29	7	1625	1159	0.025	30	28	0.3	0.0	4.108	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

Future Year 2031 + CD + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Info	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A20 / M20 Roundabout	Standard Roundabout		1, 2, 3	20.36	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	20.36	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Future Year 2031 + CD + Development	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - M20 link road		ONE HOUR	✓	1966	100.000
2 - A20 (E)		ONE HOUR	✓	1499	100.000
3 - A20 (W)		ONE HOUR	✓	353	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	1496	470
	2 - A20 (E)	1070	0	429
	3 - A20 (W)	313	40	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	4	6
	2 - A20 (E)	4	0	2
	3 - A20 (W)	4	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - M20 link road	29.67	17.8	D	1803	2704
2 - A20 (E)	11.09	4.8	B	1370	2055
3 - A20 (W)	7.34	0.9	A	324	486

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1476	369	32	1471	1533	1054	0.0	3.8	7.896	A
2 - A20 (E)	1128	282	351	1131	1162	1151	0.0	1.4	5.154	A
3 - A20 (W)	269	67	814	271	281	668	0.0	0.2	4.268	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1769	442	33	1770	1844	1256	3.8	5.6	10.885	B
2 - A20 (E)	1353	338	400	1364	1390	1404	1.4	2.1	6.661	A
3 - A20 (W)	321	80	970	319	326	794	0.2	0.5	5.024	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	2172	543	45	2152	2210	1514	5.6	17.3	23.981	C
2 - A20 (E)	1623	406	516	1621	1684	1681	2.1	4.7	10.271	B
3 - A20 (W)	400	100	1159	400	403	978	0.5	0.8	6.827	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	2136	534	41	2167	2259	1521	17.3	17.5	29.668	D
2 - A20 (E)	1648	412	526	1653	1712	1682	4.7	4.6	11.087	B
3 - A20 (W)	381	95	1179	383	401	1000	0.8	0.8	7.336	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1757	439	35	1768	1905	1236	17.5	5.6	14.406	B
2 - A20 (E)	1344	336	421	1344	1401	1382	4.6	2.5	6.991	A
3 - A20 (W)	306	77	964	307	336	800	0.8	0.4	5.393	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1502	375	28	1503	1558	1036	5.6	3.1	8.100	A
2 - A20 (E)	1123	281	358	1122	1166	1173	2.5	1.6	5.440	A
3 - A20 (W)	265	66	800	263	272	679	0.4	0.4	4.241	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	566	908	0.623	565	584	0.0	0.9	5.525	A
			2	2	555	909	0.610	554	579	0.0	1.0	5.552	A
			3	1, 3	353	725	0.487	351	369	0.0	0.8	7.275	A
		2	1	(2)	653			652	678	0.0	0.3	1.254	A
			2	(1, 2, 3)	823			822	867	0.0	0.7	2.475	A
	Exit	1	1		1054			1054	1087	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	416	1077	0.387	419	425	0.0	0.5	4.863	A
			2	1, 2	711	1347	0.528	712	736	0.0	0.9	5.324	A
	Exit	1	1		1151			1151	1195	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	269	1112	0.242	271	281	0.0	0.2	4.268	A
	Exit	1	1		668			668	693	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	696	914	0.762	695	706	0.9	1.2	6.146	A
			2	2	675	912	0.741	675	701	1.0	1.2	6.201	A
			3	1, 3	401	720	0.557	400	438	0.8	0.9	7.561	A
		2	1	(2)	872			875	899	0.3	0.6	2.778	A
			2	(1, 2, 3)	897			897	948	0.7	1.7	5.917	A
	Exit	1	1		1256			1256	1288	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	505	1060	0.477	511	519	0.5	0.6	6.143	A
			2	1, 2	848	1325	0.640	853	871	0.9	1.5	6.974	A
	Exit	1	1		1404			1404	1440	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	321	1017	0.315	319	326	0.2	0.5	5.024	A
	Exit	1	1		794			794	832	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	821	908	0.905	821	841	1.2	1.6	7.006	A
			2	2	815	904	0.901	815	838	1.2	1.5	6.997	A
			3	1, 3	516	723	0.714	516	531	0.9	1.3	8.333	A
		2	1	(2)	1277			1273	1277	0.6	4.9	11.305	B
			2	(1, 2, 3)	895			880	939	1.7	7.9	23.909	C
	Exit	1	1		1514			1514	1568	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	626	1020	0.614	626	640	0.6	1.5	8.092	A
			2	1, 2	997	1273	0.784	995	1044	1.5	3.2	11.623	B
	Exit	1	1		1681			1681	1723	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	400	917	0.437	400	403	0.5	0.8	6.827	A
	Exit	1	1		978			978	1006	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination	Total Demand	Capacity	RFC	Throughput	Average throughput	Start queue	End queue	Delay	Unsignalised
1 - M20 link road	Entry	1	1	2	812	908	0.895	814	850	1.6	1.6	7.165	A
			2	2	824	907	0.908	827	857	1.5	1.5	7.089	A
			3	1, 3	525	721	0.727	526	552	1.3	1.2	8.331	A
		2	1	(2)	1267			1274	1329	4.9	5.6	15.241	C
			2	(1, 2, 3)	869			887	929	7.9	7.6	32.411	D
	Exit	1	1		1521			1521	1589	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	634	1015	0.624	635	648	1.5	1.4	8.614	A
			2	1, 2	1014	1271	0.799	1019	1064	3.2	3.1	12.612	B
	Exit	1	1		1682			1682	1749	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	381	906	0.421	383	401	0.8	0.8	7.336	A
	Exit	1	1		1000			1000	1033	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	663	909	0.729	665	717	1.6	1.1	6.385	A
			2	2	679	912	0.745	682	721	1.5	1.1	6.297	A
			3	1, 3	423	722	0.585	421	467	1.2	1.0	7.793	A
		2	1	(2)	859			860	957	5.6	0.9	5.624	A
			2	(1, 2, 3)	898			905	944	7.6	1.4	9.928	A
	Exit	1	1		1236			1236	1311	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	503	1054	0.478	500	516	1.4	1.0	6.229	A
			2	1, 2	841	1310	0.643	844	885	3.1	1.6	7.444	A
	Exit	1	1		1382			1382	1474	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	306	1020	0.300	307	336	0.8	0.4	5.393	A
	Exit	1	1		800			800	857	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	568	912	0.624	569	584	1.1	0.8	5.774	A
			2	2	574	913	0.629	576	595	1.1	0.9	5.662	A
			3	1, 3	359	724	0.496	358	379	1.0	0.7	7.055	A
		2	1	(2)	662			663	690	0.9	0.1	1.376	A
			2	(1, 2, 3)	839			838	864	1.4	0.6	2.637	A
	Exit	1	1		1036			1036	1077	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	415	1073	0.387	412	430	1.0	0.7	5.314	A
			2	1, 2	708	1340	0.528	709	736	1.6	0.9	5.515	A
	Exit	1	1		1173			1173	1208	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	265	1116	0.238	263	272	0.4	0.4	4.241	A
	Exit	1	1		679			679	712	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	566	141	955	908	0.623	565	584	0.0	0.9	5.525	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	555	139	955	909	0.610	554	579	0.0	1.0	5.552	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	353	88	774	725	0.487	351	369	0.0	0.8	7.275	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	653	163	-	-	-	652	678	0.0	0.3	1.254	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	470	117	-	-	-	469	494	0.0	0.2	1.306	A
				3	353	88	-	-	-	353	373	0.0	0.5	4.048	A
2 - A20 (E)	Entry	1	1	1	101	25	1232	1062	0.095	102	101	0.0	0.1	4.248	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	315	79	1232	1081	0.291	317	325	0.0	0.3	5.050	A
			2	1	711	178	1560	1347	0.528	712	736	0.0	0.9	5.324	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	238	59	1625	1106	0.215	239	250	0.0	0.2	4.301	A
				2	31	8	1625	1151	0.027	32	31	0.0	0.0	4.012	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	696	174	955	914	0.762	695	706	0.9	1.2	6.146	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	675	169	955	912	0.741	675	701	1.0	1.2	6.201	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	401	100	774	720	0.557	400	438	0.8	0.9	7.561	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	872	218	-	-	-	875	899	0.3	0.6	2.778	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	496	124	-	-	-	496	509	0.7	0.5	3.480	A
				3	401	100	-	-	-	401	438	0.7	1.2	8.792	A
2 - A20 (E)	Entry	1	1	1	115	29	1232	1042	0.111	117	125	0.5	0.1	5.180	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	390	97	1232	1064	0.366	394	394	0.5	0.5	6.441	A
			2	1	848	212	1560	1325	0.640	853	871	0.9	1.5	6.974	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	287	72	1625	1012	0.284	286	292	0.2	0.4	5.012	A
				2	34	8	1625	1048	0.032	33	34	0.2	0.1	5.117	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	821	205	955	908	0.905	821	841	1.2	1.6	7.006	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	815	204	955	905	0.901	815	838	1.2	1.5	6.997	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	516	129	774	723	0.714	516	531	0.9	1.3	8.333	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	1277	319	-	-	-	1273	1277	0.6	4.9	11.305	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	366	92	-	-	-	363	406	1.7	2.4	17.601	C
				3	528	132	-	-	-	516	533	1.7	5.5	28.743	D
2 - A20 (E)	Entry	1	1	1	164	41	1232	1008	0.163	164	166	0.6	0.3	6.908	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	462	116	1232	1024	0.451	462	474	0.6	1.2	8.498	A
			2	1	997	249	1560	1273	0.784	995	1044	1.5	3.2	11.623	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	356	89	1625	917	0.388	355	359	0.5	0.8	6.810	A
				2	45	11	1625	953	0.047	45	44	0.5	0.1	6.963	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	812	203	955	908	0.895	814	850	1.6	1.6	7.165	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	824	206	955	907	0.908	827	857	1.5	1.5	7.089	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	525	131	774	721	0.727	526	552	1.3	1.2	8.331	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	1267	317	-	-	-	1274	1329	4.9	5.6	15.241	C
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	359	90	-	-	-	362	378	7.9	2.4	25.660	D
				3	510	128	-	-	-	525	552	7.9	5.2	37.143	E
2 - A20 (E)	Entry	1	1	1	161	40	1232	997	0.162	160	167	1.5	0.4	7.283	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	473	118	1232	1021	0.463	475	481	1.5	1.0	9.069	A
			2	1	1014	253	1560	1271	0.799	1019	1064	3.2	3.1	12.612	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	340	85	1625	903	0.377	342	358	0.8	0.7	7.359	A
				2	41	10	1625	942	0.044	41	43	0.8	0.1	7.149	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	663	166	955	909	0.729	665	717	1.6	1.1	6.385	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	679	170	955	912	0.745	682	721	1.5	1.1	6.297	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	423	106	774	722	0.585	421	467	1.2	1.0	7.793	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	859	215	-	-	-	860	957	5.6	0.9	5.624	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	478	119	-	-	-	482	478	7.6	0.4	5.443	A
				3	420	105	-	-	-	423	466	7.6	1.0	14.715	B
2 - A20 (E)	Entry	1	1	1	121	30	1232	1032	0.117	120	126	1.4	0.2	5.353	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	382	96	1232	1060	0.361	380	391	1.4	0.8	6.505	A
			2	1	841	210	1560	1310	0.643	844	885	3.1	1.6	7.444	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	271	68	1625	1013	0.268	272	300	0.8	0.4	5.451	A
				2	35	9	1625	1061	0.033	35	35	0.8	0.1	4.921	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	568	142	955	912	0.624	569	584	1.1	0.8	5.774	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	574	144	955	913	0.629	576	595	1.1	0.9	5.662	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	359	90	774	724	0.496	358	379	1.0	0.7	7.055	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	662	166	-	-	-	663	690	0.9	0.1	1.376	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	479	120	-	-	-	479	487	1.4	0.1	1.395	A
				3	360	90	-	-	-	359	377	1.4	0.5	4.285	A
2 - A20 (E)	Entry	1	1	1	91	23	1232	1054	0.086	91	97	1.0	0.1	4.494	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	324	81	1232	1079	0.300	321	333	1.0	0.6	5.550	A
			2	1	708	177	1560	1340	0.528	709	736	1.6	0.9	5.515	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	237	59	1625	1112	0.213	235	244	0.4	0.3	4.262	A
				2	28	7	1625	1163	0.024	28	28	0.4	0.0	4.061	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

Future Year 2037 + CD + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Info	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A20 / M20 Roundabout	Standard Roundabout		1, 2, 3	25.16	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	25.16	D

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	Future Year 2037 + CD + Development	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - M20 link road		ONE HOUR	✓	2047	100.000
2 - A20 (E)		ONE HOUR	✓	1562	100.000
3 - A20 (W)		ONE HOUR	✓	368	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	1558	489
	2 - A20 (E)	1115	0	447
	3 - A20 (W)	326	42	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	4	6
	2 - A20 (E)	4	0	2
	3 - A20 (W)	4	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - M20 link road	37.99	23.5	E	1868	2802
2 - A20 (E)	12.30	6.0	B	1435	2152
3 - A20 (W)	7.98	1.1	A	334	500

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1528	382	27	1529	1595	1079	0.0	3.3	8.182	A
2 - A20 (E)	1163	291	361	1167	1196	1195	0.0	1.5	5.427	A
3 - A20 (W)	262	66	840	265	282	688	0.0	0.2	4.305	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1845	461	34	1856	1901	1278	3.3	5.9	11.808	B
2 - A20 (E)	1410	352	440	1407	1447	1450	1.5	2.8	6.737	A
3 - A20 (W)	318	79	994	318	332	852	0.2	0.6	5.065	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	2270	568	50	2243	2296	1597	5.9	22.3	29.506	D
2 - A20 (E)	1717	429	535	1713	1759	1758	2.8	6.0	11.666	B
3 - A20 (W)	415	104	1232	414	418	1015	0.6	1.1	7.880	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	2223	556	49	2236	2339	1574	22.3	23.3	37.989	E
2 - A20 (E)	1718	430	545	1718	1772	1740	6.0	5.8	12.295	B
3 - A20 (W)	404	101	1222	401	418	1041	1.1	0.9	7.979	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1820	455	34	1821	1974	1296	23.3	5.7	15.318	C
2 - A20 (E)	1404	351	421	1405	1463	1434	5.8	2.7	7.574	A
3 - A20 (W)	333	83	997	333	353	829	0.9	0.6	5.668	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1525	381	31	1523	1610	1086	5.7	3.4	8.257	A
2 - A20 (E)	1197	299	370	1190	1239	1183	2.7	2.1	5.638	A
3 - A20 (W)	270	67	848	269	285	712	0.6	0.4	4.809	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	589	913	0.645	590	604	0.0	0.9	5.752	A
			2	2	576	914	0.631	578	611	0.0	0.9	5.749	A
			3	1, 3	362	725	0.500	361	380	0.0	0.6	7.022	A
		2	1	(2)	692			692	712	0.0	0.3	1.455	A
			2	(1, 2, 3)	835			836	893	0.0	0.7	2.670	A
	Exit	1	1		1079			1079	1114	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	431	1074	0.401	432	437	0.0	0.5	5.010	A
			2	1, 2	732	1342	0.545	734	759	0.0	1.0	5.671	A
	Exit	1	1		1195			1195	1248	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	262	1097	0.239	265	282	0.0	0.2	4.305	A
	Exit	1	1		688			688	710	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	710	907	0.781	710	726	0.9	1.3	6.381	A
			2	2	705	910	0.774	706	721	0.9	1.1	6.411	A
			3	1, 3	441	727	0.606	440	455	0.6	1.0	7.579	A
		2	1	(2)	916			923	930	0.3	0.7	3.560	A
			2	(1, 2, 3)	929			932	976	0.7	1.8	6.633	A
	Exit	1	1		1278			1278	1335	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	532	1045	0.509	531	537	0.5	0.9	6.117	A
			2	1, 2	878	1307	0.672	876	910	1.0	1.9	7.107	A
	Exit	1	1		1450			1450	1482	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	318	1017	0.312	318	332	0.2	0.6	5.065	A
	Exit	1	1		852			852	863	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	857	911	0.940	856	879	1.3	1.7	7.183	A
			2	2	851	904	0.941	852	871	1.1	1.7	7.270	A
			3	1, 3	535	724	0.738	535	546	1.0	1.3	8.153	A
		2	1	(2)	1365			1355	1361	0.7	7.3	15.214	C
			2	(1, 2, 3)	905			889	941	1.8	10.2	31.823	D
	Exit	1	1		1597			1597	1640	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	666	1009	0.659	662	674	0.9	1.7	9.034	A
			2	1, 2	1050	1262	0.832	1050	1085	1.9	4.3	13.315	B
	Exit	1	1		1758			1758	1796	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	415	869	0.478	414	418	0.6	1.1	7.880	A
	Exit	1	1		1015			1015	1037	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	846	903	0.938	845	881	1.7	1.8	7.363	A
			2	2	846	907	0.935	846	887	1.7	1.8	7.306	A
			3	1, 3	545	724	0.754	545	571	1.3	1.2	8.273	A
		2	1	(2)	1336			1349	1422	7.3	7.5	20.594	C
			2	(1, 2, 3)	888			889	918	10.2	11.1	45.779	E
	Exit	1	1		1574			1574	1640	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	671	1010	0.663	666	684	1.7	1.7	9.372	A
			2	1, 2	1048	1263	0.831	1051	1088	4.3	4.0	14.157	B
	Exit	1	1		1740			1740	1814	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	404	885	0.457	401	418	1.1	0.9	7.979	A
	Exit	1	1		1041			1041	1075	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	702	905	0.775	702	743	1.8	1.2	6.437	A
			2	2	699	911	0.767	698	750	1.8	1.2	6.426	A
			3	1, 3	423	722	0.586	421	481	1.2	0.9	7.826	A
		2	1	(2)	915			918	1022	7.5	0.8	5.830	A
			2	(1, 2, 3)	905			906	945	11.1	1.5	11.634	B
	Exit	1	1		1296			1296	1369	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	535	1056	0.507	534	546	1.7	1.0	6.228	A
			2	1, 2	869	1309	0.664	871	917	4.0	1.7	8.393	A
	Exit	1	1		1434			1434	1533	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	333	1005	0.332	333	353	0.9	0.6	5.668	A
	Exit	1	1		829			829	888	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	585	908	0.644	582	619	1.2	1.0	5.676	A
			2	2	569	912	0.624	570	606	1.2	0.9	5.743	A
			3	1, 3	370	726	0.509	370	385	0.9	0.6	7.141	A
		2	1	(2)	692			690	727	0.8	0.3	1.500	A
			2	(1, 2, 3)	834			834	879	1.5	0.6	2.824	A
	Exit	1	1		1086			1086	1144	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	450	1075	0.419	450	458	1.0	0.7	5.301	A
			2	1, 2	747	1331	0.561	740	780	1.7	1.5	5.839	A
	Exit	1	1		1183			1183	1255	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	270	1087	0.248	269	285	0.6	0.4	4.809	A
	Exit	1	1		712			712	735	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	589	147	955	913	0.645	590	604	0.0	0.9	5.752	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	576	144	955	914	0.631	578	611	0.0	0.9	5.749	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	362	90	774	725	0.500	361	380	0.0	0.6	7.022	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	692	173	-	-	-	692	712	0.0	0.3	1.455	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	473	118	-	-	-	474	510	0.0	0.2	1.492	A
				3	363	91	-	-	-	362	383	0.0	0.5	4.261	A
2 - A20 (E)	Entry	1	1	1	105	26	1232	1060	0.099	106	106	0.0	0.1	4.339	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	326	81	1232	1078	0.302	327	331	0.0	0.4	5.222	A
			2	1	732	183	1560	1342	0.545	734	759	0.0	1.0	5.671	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	236	59	1625	1093	0.216	239	249	0.0	0.2	4.344	A
				2	26	7	1625	1136	0.023	27	33	0.0	0.0	4.022	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	710	177	955	907	0.781	710	726	0.9	1.3	6.381	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	705	176	955	910	0.774	706	721	0.9	1.1	6.411	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	441	110	774	727	0.606	440	455	0.6	1.0	7.579	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	916	229	-	-	-	923	930	0.3	0.7	3.560	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	490	122	-	-	-	491	519	0.7	0.5	4.149	A
				3	440	110	-	-	-	441	456	0.7	1.2	9.491	A
2 - A20 (E)	Entry	1	1	1	118	29	1232	1032	0.114	118	129	0.5	0.1	5.105	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	414	103	1232	1049	0.394	412	408	0.5	0.9	6.429	A
			2	1	878	219	1560	1307	0.672	876	910	1.0	1.9	7.107	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	283	71	1625	1012	0.280	283	297	0.2	0.6	5.107	A
				2	34	9	1625	1048	0.033	34	36	0.2	0.0	4.729	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	857	214	955	911	0.940	856	879	1.3	1.7	7.183	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	851	213	955	904	0.941	852	871	1.1	1.7	7.270	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	535	134	774	724	0.738	535	546	1.0	1.3	8.153	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	1365	341	-	-	-	1355	1361	0.7	7.3	15.214	C
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	367	92	-	-	-	354	394	1.8	3.8	25.198	D
				3	538	135	-	-	-	535	547	1.8	6.4	36.657	E
2 - A20 (E)	Entry	1	1	1	185	46	1232	992	0.187	182	183	0.9	0.6	7.953	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	480	120	1232	1015	0.473	481	491	0.9	1.1	9.434	A
			2	1	1050	263	1560	1262	0.832	1050	1085	1.9	4.3	13.315	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	365	91	1625	865	0.423	364	372	0.6	1.0	7.946	A
				2	50	13	1625	908	0.055	50	45	0.6	0.1	7.367	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	846	212	955	903	0.938	845	881	1.7	1.8	7.363	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	846	212	955	907	0.935	846	887	1.7	1.8	7.306	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	545	136	774	724	0.754	545	571	1.3	1.2	8.273	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	1336	334	-	-	-	1349	1422	7.3	7.5	20.594	C
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	346	87	-	-	-	344	347	10.2	3.4	36.711	E
				3	542	135	-	-	-	545	571	10.2	7.7	51.316	F
2 - A20 (E)	Entry	1	1	1	171	43	1232	1001	0.171	170	180	1.7	0.3	8.230	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	499	125	1232	1014	0.492	496	504	1.7	1.4	9.767	A
			2	1	1048	262	1560	1263	0.831	1051	1088	4.3	4.0	14.157	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	355	89	1625	882	0.402	352	372	1.1	0.8	8.027	A
				2	49	12	1625	918	0.054	49	46	1.1	0.1	7.604	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	702	175	955	905	0.775	702	743	1.8	1.2	6.437	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	699	175	955	911	0.767	698	750	1.8	1.2	6.426	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	423	106	774	722	0.586	421	481	1.2	0.9	7.826	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	915	229	-	-	-	918	1022	7.5	0.8	5.830	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	480	120	-	-	-	483	465	11.1	0.5	7.157	A
				3	424	106	-	-	-	423	480	11.1	1.0	16.227	C
2 - A20 (E)	Entry	1	1	1	126	32	1232	1045	0.120	126	138	1.7	0.2	5.269	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	409	102	1232	1058	0.387	408	407	1.7	0.8	6.550	A
			2	1	869	217	1560	1308	0.664	871	917	4.0	1.7	8.393	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	300	75	1625	1001	0.301	299	313	0.9	0.6	5.696	A
				2	33	8	1625	1033	0.032	34	40	0.9	0.0	5.454	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	585	146	955	908	0.644	582	619	1.2	1.0	5.676	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	569	142	955	912	0.624	570	606	1.2	0.9	5.743	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	370	93	774	726	0.509	370	385	0.9	0.6	7.141	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	692	173	-	-	-	690	727	0.8	0.3	1.500	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	464	116	-	-	-	463	496	1.5	0.2	1.621	A
				3	369	92	-	-	-	370	384	1.5	0.3	4.419	A
2 - A20 (E)	Entry	1	1	1	108	27	1232	1055	0.103	108	109	1.0	0.2	4.506	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	342	86	1232	1082	0.316	342	350	1.0	0.4	5.544	A
			2	1	747	187	1560	1331	0.561	740	780	1.7	1.5	5.839	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	238	60	1625	1079	0.220	238	255	0.6	0.3	4.824	A
				2	31	8	1625	1127	0.028	31	30	0.6	0.1	4.680	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

Junctions 10

ARCADY 10 - Roundabout Module

Filename: M20 Junction 8 - AM Rev A Observed.j10
Path: T:\Projects\15000 Series\15323ITB Ashford Road, Maidstone\Tech\Junction Assessments\Tech Notes
Report generation date: 19/05/2023 09:39:31

Summary of junction performance

	AM			
	Queue (Veh)	Delay (s)	RFC	LOS
	2022 Observed Flows			
1 - Maidstone Services	0.3	3.10	0.22	A
2 - M20 On/Off Slip (E)	0.4	4.67	0.28	A
3 - A20 Link Road	1.2	2.72	0.55	A
4 - M20 On/Off Slip (W)	1.8	4.74	0.64	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	
Location	
Site number	
Date	13/10/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\londonhotdesk
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Analysis Set Details

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

2022 Observed Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M20 Junction 8	Large Roundabout		1, 2, 3, 4	3.68	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.68	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Maidstone Services		
2	M20 On/Off Slip (E)		
3	A20 Link Road		
4	M20 On/Off Slip (W)		

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)	Entry only	Exit only
1 - Maidstone Services	6.70	10.00	7.9	23.1	170.5	24.0		
2 - M20 On/Off Slip (E)	6.60	7.50	1.9	46.6	170.5	29.0		
3 - A20 Link Road	7.50	8.30	28.4	73.3	170.5	24.0		
4 - M20 On/Off Slip (W)	6.30	6.60	1.9	76.0	170.5	22.0		

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - Maidstone Services	1487		0.00
2 - M20 On/Off Slip (E)	1593	✓	125.60
3 - A20 Link Road	265		0.00
4 - M20 On/Off Slip (W)	328	✓	122.20

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Maidstone Services	0.888	3052
2 - M20 On/Off Slip (E)	0.792	2403
3 - A20 Link Road	1.197	3446
4 - M20 On/Off Slip (W)	1.035	2624

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022 Observed Flows	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Maidstone Services		ONE HOUR	✓	292	100.000
2 - M20 On/Off Slip (E)		ONE HOUR	✓	266	100.000
3 - A20 Link Road		ONE HOUR	✓	1470	100.000
4 - M20 On/Off Slip (W)		ONE HOUR	✓	1235	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	84	85	123
	2 - M20 On/Off Slip (E)	76	0	190	0
	3 - A20 Link Road	56	128	0	1286
	4 - M20 On/Off Slip (W)	147	1	1087	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	29	6	24
	2 - M20 On/Off Slip (E)	20	0	7	0
	3 - A20 Link Road	13	5	0	6
	4 - M20 On/Off Slip (W)	18	0	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Maidstone Services	0.22	3.10	0.3	A	268	402
2 - M20 On/Off Slip (E)	0.28	4.67	0.4	A	244	366
3 - A20 Link Road	0.55	2.72	1.2	A	1349	2023
4 - M20 On/Off Slip (W)	0.64	4.74	1.8	A	1133	1700

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	220	55	913	1818	0.121	219	209	0.0	0.1	2.251	A
2 - M20 On/Off Slip (E)	200	50	972	1416	0.141	200	160	0.0	0.2	2.959	A
3 - A20 Link Road	1107	277	149	3039	0.364	1104	1022	0.0	0.6	1.859	A
4 - M20 On/Off Slip (W)	930	232	195	2216	0.420	927	1059	0.0	0.7	2.788	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	263	66	1092	1677	0.157	262	251	0.1	0.2	2.544	A
2 - M20 On/Off Slip (E)	239	60	1163	1267	0.189	239	191	0.2	0.2	3.500	A
3 - A20 Link Road	1321	330	179	2998	0.441	1321	1223	0.6	0.8	2.144	A
4 - M20 On/Off Slip (W)	1110	278	234	2175	0.510	1109	1266	0.7	1.0	3.372	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	321	80	1336	1484	0.217	321	307	0.2	0.3	3.095	A
2 - M20 On/Off Slip (E)	293	73	1423	1065	0.275	292	234	0.2	0.4	4.654	A
3 - A20 Link Road	1619	405	219	2943	0.550	1617	1497	0.8	1.2	2.710	A
4 - M20 On/Off Slip (W)	1360	340	286	2119	0.642	1357	1550	1.0	1.8	4.703	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	321	80	1339	1482	0.217	321	307	0.3	0.3	3.101	A
2 - M20 On/Off Slip (E)	293	73	1426	1063	0.275	293	235	0.4	0.4	4.672	A
3 - A20 Link Road	1619	405	219	2943	0.550	1618	1500	1.2	1.2	2.718	A
4 - M20 On/Off Slip (W)	1360	340	286	2119	0.642	1360	1551	1.8	1.8	4.740	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	263	66	1096	1674	0.157	263	251	0.3	0.2	2.551	A
2 - M20 On/Off Slip (E)	239	60	1167	1264	0.189	240	192	0.4	0.2	3.514	A
3 - A20 Link Road	1321	330	179	2998	0.441	1323	1227	1.2	0.8	2.151	A
4 - M20 On/Off Slip (W)	1110	278	234	2174	0.511	1113	1268	1.8	1.1	3.403	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	220	55	917	1815	0.121	220	210	0.2	0.1	2.256	A
2 - M20 On/Off Slip (E)	200	50	976	1412	0.142	201	160	0.2	0.2	2.970	A
3 - A20 Link Road	1107	277	150	3038	0.364	1108	1027	0.8	0.6	1.864	A
4 - M20 On/Off Slip (W)	930	232	196	2215	0.420	931	1062	1.1	0.7	2.808	A

Junctions 10

ARCADY 10 - Roundabout Module

Filename: M20 Junction 8 - AM Rev A.j10
Path: T:\Projects\15000 Series\15323ITB Ashford Road, Maidstone\Tech\Junction Assessments\Tech Notes
Report generation date: 16/05/2023 15:42:13

Summary of junction performance

	AM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	Future Year 2027 + Committed Development				
1 - Maidstone Services	D4	0.3	3.29	0.23	A
2 - M20 On/Off Slip (E)		0.4	5.09	0.30	A
3 - A20 Link Road		1.4	2.97	0.59	A
4 - M20 On/Off Slip (W)		2.1	5.32	0.68	A
	Future Year 2031 + Committed Development				
1 - Maidstone Services	D5	0.3	3.43	0.24	A
2 - M20 On/Off Slip (E)		0.5	5.43	0.32	A
3 - A20 Link Road		1.6	3.12	0.61	A
4 - M20 On/Off Slip (W)		2.3	5.77	0.70	A
	Future Year 2037 + Committed Development				
1 - Maidstone Services	D6	0.4	3.62	0.26	A
2 - M20 On/Off Slip (E)		0.5	5.95	0.35	A
3 - A20 Link Road		1.7	3.35	0.63	A
4 - M20 On/Off Slip (W)		2.7	6.47	0.73	A
	Future Year 2027 + Committed Development + Development				
1 - Maidstone Services	D7	0.3	3.35	0.23	A
2 - M20 On/Off Slip (E)		0.4	5.24	0.31	A
3 - A20 Link Road		1.5	3.09	0.60	A
4 - M20 On/Off Slip (W)		2.2	5.53	0.69	A
	Future Year 2031 + Committed Development + Development				
1 - Maidstone Services	D8	0.3	3.49	0.25	A
2 - M20 On/Off Slip (E)		0.5	5.58	0.33	A
3 - A20 Link Road		1.6	3.26	0.62	A
4 - M20 On/Off Slip (W)		2.5	6.00	0.71	A
	Future Year 2037 + Committed Development + Development				
1 - Maidstone Services	D9	0.4	3.69	0.27	A
2 - M20 On/Off Slip (E)		0.6	6.14	0.36	A
3 - A20 Link Road		1.8	3.51	0.65	A
4 - M20 On/Off Slip (W)		2.9	6.77	0.74	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	
Location	
Site number	
Date	13/10/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\londonhotdesk
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

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	Future Year 2027 + Committed Development	AM	ONE HOUR	07:15	08:45	15	✓
D5	Future Year 2031 + Committed Development	AM	ONE HOUR	07:15	08:45	15	✓
D6	Future Year 2037 + Committed Development	AM	ONE HOUR	07:15	08:45	15	✓
D7	Future Year 2027 + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15	✓
D8	Future Year 2031 + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15	✓
D9	Future Year 2037 + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15	✓

Analysis Set Details

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

Future Year 2027 + Committed Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M20 Junction 8	Large Roundabout		1, 2, 3, 4	4.06	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.06	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Maidstone Services		
2	M20 On/Off Slip (E)		
3	A20 Link Road		
4	M20 On/Off Slip (W)		

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)	Entry only	Exit only
1 - Maidstone Services	6.70	10.00	7.9	23.1	170.5	24.0		
2 - M20 On/Off Slip (E)	6.60	7.50	1.9	46.6	170.5	29.0		
3 - A20 Link Road	7.50	8.30	28.4	73.3	170.5	24.0		
4 - M20 On/Off Slip (W)	6.30	6.60	1.9	76.0	170.5	22.0		

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - Maidstone Services	1487		0.00
2 - M20 On/Off Slip (E)	1593	✓	125.60
3 - A20 Link Road	265		0.00
4 - M20 On/Off Slip (W)	328	✓	122.20

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Maidstone Services	0.888	3052
2 - M20 On/Off Slip (E)	0.792	2403
3 - A20 Link Road	1.197	3446
4 - M20 On/Off Slip (W)	1.035	2624

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	Future Year 2027 + Committed Development	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Maidstone Services		ONE HOUR	✓	299	100.000
2 - M20 On/Off Slip (E)		ONE HOUR	✓	274	100.000
3 - A20 Link Road		ONE HOUR	✓	1586	100.000
4 - M20 On/Off Slip (W)		ONE HOUR	✓	1298	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	86	87	126
	2 - M20 On/Off Slip (E)	78	0	196	0
	3 - A20 Link Road	57	136	0	1393
	4 - M20 On/Off Slip (W)	150	1	1147	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	29	6	24
	2 - M20 On/Off Slip (E)	20	0	7	0
	3 - A20 Link Road	13	5	0	5
	4 - M20 On/Off Slip (W)	19	0	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Maidstone Services	0.23	3.29	0.3	A	274	412
2 - M20 On/Off Slip (E)	0.30	5.09	0.4	A	251	377
3 - A20 Link Road	0.59	2.97	1.4	A	1455	2183
4 - M20 On/Off Slip (W)	0.68	5.32	2.1	A	1191	1787

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	225	56	964	1778	0.127	225	214	0.0	0.1	2.317	A
2 - M20 On/Off Slip (E)	206	52	1021	1378	0.150	206	167	0.0	0.2	3.068	A
3 - A20 Link Road	1194	299	153	3059	0.390	1191	1073	0.0	0.6	1.925	A
4 - M20 On/Off Slip (W)	977	244	204	2206	0.443	974	1141	0.0	0.8	2.916	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	269	67	1153	1629	0.165	269	256	0.1	0.2	2.646	A
2 - M20 On/Off Slip (E)	246	62	1221	1223	0.201	246	200	0.2	0.3	3.686	A
3 - A20 Link Road	1426	356	183	3017	0.473	1425	1284	0.6	0.9	2.259	A
4 - M20 On/Off Slip (W)	1167	292	243	2163	0.539	1165	1365	0.8	1.2	3.603	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	329	82	1410	1426	0.231	329	313	0.2	0.3	3.282	A
2 - M20 On/Off Slip (E)	302	75	1494	1011	0.298	301	245	0.3	0.4	5.067	A
3 - A20 Link Road	1746	437	224	2960	0.590	1744	1571	0.9	1.4	2.955	A
4 - M20 On/Off Slip (W)	1429	357	298	2106	0.679	1425	1670	1.2	2.1	5.265	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	329	82	1414	1423	0.231	329	314	0.3	0.3	3.290	A
2 - M20 On/Off Slip (E)	302	75	1497	1008	0.299	302	246	0.4	0.4	5.094	A
3 - A20 Link Road	1746	437	225	2960	0.590	1746	1574	1.4	1.4	2.965	A
4 - M20 On/Off Slip (W)	1429	357	298	2105	0.679	1429	1672	2.1	2.1	5.323	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	269	67	1158	1625	0.165	269	257	0.3	0.2	2.655	A
2 - M20 On/Off Slip (E)	246	62	1226	1219	0.202	247	201	0.4	0.3	3.709	A
3 - A20 Link Road	1426	356	184	3017	0.473	1428	1289	1.4	0.9	2.268	A
4 - M20 On/Off Slip (W)	1167	292	244	2163	0.540	1171	1368	2.1	1.2	3.644	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	225	56	968	1775	0.127	225	215	0.2	0.1	2.323	A
2 - M20 On/Off Slip (E)	206	52	1025	1375	0.150	207	168	0.3	0.2	3.084	A
3 - A20 Link Road	1194	299	154	3059	0.390	1195	1078	0.9	0.6	1.934	A
4 - M20 On/Off Slip (W)	977	244	204	2205	0.443	979	1145	1.2	0.8	2.941	A

Future Year 2031 + Committed Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M20 Junction 8	Large Roundabout		1, 2, 3, 4	4.33	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.33	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - Maidstone Services	1487		0.00
2 - M20 On/Off Slip (E)	1593	✓	125.60
3 - A20 Link Road	265		0.00
4 - M20 On/Off Slip (W)	328	✓	122.20

Slope / Intercept / Capacity

[same as above]

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	Future Year 2031 + Committed Development	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Maidstone Services		ONE HOUR	✓	309	100.000
2 - M20 On/Off Slip (E)		ONE HOUR	✓	282	100.000
3 - A20 Link Road		ONE HOUR	✓	1633	100.000
4 - M20 On/Off Slip (W)		ONE HOUR	✓	1337	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	89	90	130
	2 - M20 On/Off Slip (E)	80	0	202	0
	3 - A20 Link Road	59	140	0	1434
	4 - M20 On/Off Slip (W)	155	1	1181	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	29	6	24
	2 - M20 On/Off Slip (E)	20	0	7	0
	3 - A20 Link Road	13	5	0	5
	4 - M20 On/Off Slip (W)	19	0	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Maidstone Services	0.24	3.43	0.3	A	284	425
2 - M20 On/Off Slip (E)	0.32	5.43	0.5	A	259	388
3 - A20 Link Road	0.61	3.12	1.6	A	1498	2248
4 - M20 On/Off Slip (W)	0.70	5.77	2.3	A	1227	1840

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	233	58	992	1756	0.132	232	221	0.0	0.2	2.361	A
2 - M20 On/Off Slip (E)	212	53	1051	1355	0.157	212	173	0.0	0.2	3.148	A
3 - A20 Link Road	1229	307	158	3053	0.403	1227	1105	0.0	0.7	1.969	A
4 - M20 On/Off Slip (W)	1007	252	210	2199	0.458	1003	1175	0.0	0.8	3.001	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	278	69	1187	1602	0.173	278	264	0.2	0.2	2.717	A
2 - M20 On/Off Slip (E)	254	63	1258	1194	0.212	253	207	0.2	0.3	3.825	A
3 - A20 Link Road	1468	367	189	3010	0.488	1467	1322	0.7	0.9	2.332	A
4 - M20 On/Off Slip (W)	1202	300	251	2156	0.558	1200	1405	0.8	1.2	3.762	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	340	85	1452	1393	0.244	340	323	0.2	0.3	3.415	A
2 - M20 On/Off Slip (E)	310	78	1538	976	0.318	310	253	0.3	0.5	5.396	A
3 - A20 Link Road	1798	449	231	2951	0.609	1796	1617	0.9	1.5	3.108	A
4 - M20 On/Off Slip (W)	1472	368	307	2096	0.702	1468	1720	1.2	2.3	5.691	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	340	85	1455	1390	0.245	340	324	0.3	0.3	3.428	A
2 - M20 On/Off Slip (E)	310	78	1542	973	0.319	310	253	0.5	0.5	5.431	A
3 - A20 Link Road	1798	449	231	2951	0.609	1798	1622	1.5	1.6	3.122	A
4 - M20 On/Off Slip (W)	1472	368	307	2096	0.702	1472	1722	2.3	2.3	5.770	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	278	69	1192	1598	0.174	278	265	0.3	0.2	2.730	A
2 - M20 On/Off Slip (E)	254	63	1264	1190	0.213	254	207	0.5	0.3	3.850	A
3 - A20 Link Road	1468	367	189	3009	0.488	1470	1329	1.6	1.0	2.342	A
4 - M20 On/Off Slip (W)	1202	300	251	2155	0.558	1206	1408	2.3	1.3	3.813	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	233	58	997	1752	0.133	233	222	0.2	0.2	2.371	A
2 - M20 On/Off Slip (E)	212	53	1056	1351	0.157	213	173	0.3	0.2	3.165	A
3 - A20 Link Road	1229	307	158	3052	0.403	1231	1111	1.0	0.7	1.977	A
4 - M20 On/Off Slip (W)	1007	252	210	2198	0.458	1008	1179	1.3	0.8	3.031	A

Future Year 2037 + Committed Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M20 Junction 8	Large Roundabout		1, 2, 3, 4	4.76	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.76	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - Maidstone Services	1487		0.00
2 - M20 On/Off Slip (E)	1593	✓	125.60
3 - A20 Link Road	265		0.00
4 - M20 On/Off Slip (W)	328	✓	122.20

Slope / Intercept / Capacity

[same as above]

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	Future Year 2037 + Committed Development	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Maidstone Services		ONE HOUR	✓	320	100.000
2 - M20 On/Off Slip (E)		ONE HOUR	✓	293	100.000
3 - A20 Link Road		ONE HOUR	✓	1693	100.000
4 - M20 On/Off Slip (W)		ONE HOUR	✓	1388	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	92	93	135
	2 - M20 On/Off Slip (E)	83	0	210	0
	3 - A20 Link Road	61	145	0	1487
	4 - M20 On/Off Slip (W)	161	1	1226	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	29	6	24
	2 - M20 On/Off Slip (E)	20	0	7	0
	3 - A20 Link Road	13	5	0	5
	4 - M20 On/Off Slip (W)	19	0	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Maidstone Services	0.26	3.62	0.4	A	294	440
2 - M20 On/Off Slip (E)	0.35	5.95	0.5	A	269	403
3 - A20 Link Road	0.63	3.35	1.7	A	1554	2330
4 - M20 On/Off Slip (W)	0.73	6.47	2.7	A	1274	1910

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	241	60	1029	1726	0.140	240	229	0.0	0.2	2.421	A
2 - M20 On/Off Slip (E)	221	55	1091	1324	0.167	220	179	0.0	0.2	3.259	A
3 - A20 Link Road	1275	319	164	3045	0.419	1272	1147	0.0	0.7	2.027	A
4 - M20 On/Off Slip (W)	1045	261	217	2191	0.477	1041	1218	0.0	0.9	3.131	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	288	72	1232	1567	0.184	287	274	0.2	0.2	2.814	A
2 - M20 On/Off Slip (E)	263	66	1305	1157	0.228	263	214	0.2	0.3	4.023	A
3 - A20 Link Road	1522	380	196	3000	0.507	1521	1373	0.7	1.0	2.431	A
4 - M20 On/Off Slip (W)	1248	312	260	2146	0.581	1246	1457	0.9	1.4	3.991	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	352	88	1506	1350	0.261	352	335	0.2	0.4	3.603	A
2 - M20 On/Off Slip (E)	323	81	1596	932	0.346	322	262	0.3	0.5	5.893	A
3 - A20 Link Road	1864	466	240	2939	0.634	1861	1678	1.0	1.7	3.332	A
4 - M20 On/Off Slip (W)	1528	382	318	2085	0.733	1523	1783	1.4	2.7	6.351	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	352	88	1510	1347	0.262	352	336	0.4	0.4	3.619	A
2 - M20 On/Off Slip (E)	323	81	1601	928	0.348	323	262	0.5	0.5	5.945	A
3 - A20 Link Road	1864	466	240	2938	0.634	1864	1683	1.7	1.7	3.350	A
4 - M20 On/Off Slip (W)	1528	382	318	2084	0.733	1528	1786	2.7	2.7	6.472	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	288	72	1238	1561	0.184	288	275	0.4	0.2	2.830	A
2 - M20 On/Off Slip (E)	263	66	1312	1152	0.229	264	214	0.5	0.3	4.058	A
3 - A20 Link Road	1522	380	196	2999	0.507	1525	1380	1.7	1.0	2.447	A
4 - M20 On/Off Slip (W)	1248	312	260	2145	0.582	1253	1461	2.7	1.4	4.058	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	241	60	1035	1722	0.140	241	230	0.2	0.2	2.432	A
2 - M20 On/Off Slip (E)	221	55	1097	1320	0.167	221	179	0.3	0.2	3.277	A
3 - A20 Link Road	1275	319	164	3044	0.419	1276	1153	1.0	0.7	2.039	A
4 - M20 On/Off Slip (W)	1045	261	218	2190	0.477	1047	1222	1.4	0.9	3.155	A

Future Year 2027 + Committed Development + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M20 Junction 8	Large Roundabout		1, 2, 3, 4	4.20	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.20	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - Maidstone Services	1487		0.00
2 - M20 On/Off Slip (E)	1593	✓	125.60
3 - A20 Link Road	265		0.00
4 - M20 On/Off Slip (W)	328	✓	122.20

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Future Year 2027 + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Maidstone Services		ONE HOUR	✓	299	100.000
2 - M20 On/Off Slip (E)		ONE HOUR	✓	281	100.000
3 - A20 Link Road		ONE HOUR	✓	1604	100.000
4 - M20 On/Off Slip (W)		ONE HOUR	✓	1313	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	86	87	126
	2 - M20 On/Off Slip (E)	78	0	203	0
	3 - A20 Link Road	57	141	0	1406
	4 - M20 On/Off Slip (W)	150	1	1162	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	29	6	24
	2 - M20 On/Off Slip (E)	20	0	7	0
	3 - A20 Link Road	13	7	0	6
	4 - M20 On/Off Slip (W)	19	0	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Maidstone Services	0.23	3.35	0.3	A	274	412
2 - M20 On/Off Slip (E)	0.31	5.24	0.4	A	258	387
3 - A20 Link Road	0.60	3.09	1.5	A	1472	2208
4 - M20 On/Off Slip (W)	0.69	5.53	2.2	A	1205	1807

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	225	56	979	1765	0.128	225	214	0.0	0.1	2.337	A
2 - M20 On/Off Slip (E)	212	53	1032	1371	0.154	211	171	0.0	0.2	3.102	A
3 - A20 Link Road	1208	302	153	3029	0.399	1205	1090	0.0	0.7	1.971	A
4 - M20 On/Off Slip (W)	988	247	207	2200	0.449	985	1151	0.0	0.8	2.956	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	269	67	1171	1613	0.167	269	256	0.1	0.2	2.677	A
2 - M20 On/Off Slip (E)	253	63	1235	1213	0.208	252	205	0.2	0.3	3.746	A
3 - A20 Link Road	1442	360	183	2988	0.483	1441	1304	0.7	0.9	2.326	A
4 - M20 On/Off Slip (W)	1180	295	248	2157	0.547	1179	1376	0.8	1.2	3.674	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	329	82	1432	1406	0.234	329	313	0.2	0.3	3.339	A
2 - M20 On/Off Slip (E)	309	77	1510	999	0.310	309	251	0.3	0.4	5.207	A
3 - A20 Link Road	1766	442	224	2931	0.603	1764	1595	0.9	1.5	3.076	A
4 - M20 On/Off Slip (W)	1446	361	303	2097	0.689	1442	1685	1.2	2.2	5.458	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	329	82	1436	1403	0.235	329	314	0.3	0.3	3.350	A
2 - M20 On/Off Slip (E)	309	77	1514	996	0.311	309	251	0.4	0.4	5.239	A
3 - A20 Link Road	1766	442	225	2931	0.603	1766	1599	1.5	1.5	3.090	A
4 - M20 On/Off Slip (W)	1446	361	304	2097	0.689	1446	1687	2.2	2.2	5.525	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	269	67	1176	1609	0.167	269	257	0.3	0.2	2.689	A
2 - M20 On/Off Slip (E)	253	63	1240	1209	0.209	253	205	0.4	0.3	3.770	A
3 - A20 Link Road	1442	360	184	2987	0.483	1444	1309	1.5	0.9	2.338	A
4 - M20 On/Off Slip (W)	1180	295	249	2156	0.548	1184	1379	2.2	1.2	3.721	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	225	56	983	1761	0.128	225	215	0.2	0.1	2.345	A
2 - M20 On/Off Slip (E)	212	53	1037	1367	0.155	212	172	0.3	0.2	3.118	A
3 - A20 Link Road	1208	302	154	3028	0.399	1209	1095	0.9	0.7	1.979	A
4 - M20 On/Off Slip (W)	988	247	208	2199	0.449	990	1154	1.2	0.8	2.980	A

Future Year 2031 + Committed Development + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M20 Junction 8	Large Roundabout		1, 2, 3, 4	4.50	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.50	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - Maidstone Services	1487		0.00
2 - M20 On/Off Slip (E)	1593	✓	125.60
3 - A20 Link Road	265		0.00
4 - M20 On/Off Slip (W)	328	✓	122.20

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Future Year 2031 + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Maidstone Services		ONE HOUR	✓	309	100.000
2 - M20 On/Off Slip (E)		ONE HOUR	✓	288	100.000
3 - A20 Link Road		ONE HOUR	✓	1650	100.000
4 - M20 On/Off Slip (W)		ONE HOUR	✓	1351	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	89	90	130
	2 - M20 On/Off Slip (E)	80	0	208	0
	3 - A20 Link Road	59	145	0	1446
	4 - M20 On/Off Slip (W)	155	1	1195	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	29	6	24
	2 - M20 On/Off Slip (E)	20	0	7	0
	3 - A20 Link Road	13	7	0	6
	4 - M20 On/Off Slip (W)	19	0	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Maidstone Services	0.25	3.49	0.3	A	284	425
2 - M20 On/Off Slip (E)	0.33	5.58	0.5	A	264	396
3 - A20 Link Road	0.62	3.26	1.6	A	1514	2271
4 - M20 On/Off Slip (W)	0.71	6.00	2.5	A	1240	1860

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	233	58	1006	1743	0.133	232	221	0.0	0.2	2.381	A
2 - M20 On/Off Slip (E)	217	54	1062	1348	0.161	216	176	0.0	0.2	3.180	A
3 - A20 Link Road	1242	311	158	3023	0.411	1239	1120	0.0	0.7	2.016	A
4 - M20 On/Off Slip (W)	1017	254	213	2194	0.464	1014	1184	0.0	0.9	3.042	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	278	69	1204	1587	0.175	278	264	0.2	0.2	2.749	A
2 - M20 On/Off Slip (E)	259	65	1270	1185	0.218	259	211	0.2	0.3	3.883	A
3 - A20 Link Road	1483	371	189	2980	0.498	1482	1340	0.7	1.0	2.399	A
4 - M20 On/Off Slip (W)	1215	304	255	2149	0.565	1213	1416	0.9	1.3	3.839	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	340	85	1472	1375	0.248	340	323	0.2	0.3	3.476	A
2 - M20 On/Off Slip (E)	317	79	1554	965	0.328	316	258	0.3	0.5	5.539	A
3 - A20 Link Road	1817	454	231	2922	0.622	1814	1639	1.0	1.6	3.243	A
4 - M20 On/Off Slip (W)	1487	372	312	2088	0.712	1483	1733	1.3	2.4	5.906	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	340	85	1476	1371	0.248	340	324	0.3	0.3	3.490	A
2 - M20 On/Off Slip (E)	317	79	1558	962	0.330	317	259	0.5	0.5	5.580	A
3 - A20 Link Road	1817	454	231	2922	0.622	1817	1644	1.6	1.6	3.257	A
4 - M20 On/Off Slip (W)	1487	372	313	2087	0.713	1487	1735	2.4	2.5	5.998	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	278	69	1210	1582	0.176	278	265	0.3	0.2	2.763	A
2 - M20 On/Off Slip (E)	259	65	1276	1181	0.219	260	212	0.5	0.3	3.911	A
3 - A20 Link Road	1483	371	189	2979	0.498	1486	1347	1.6	1.0	2.415	A
4 - M20 On/Off Slip (W)	1215	304	256	2148	0.565	1219	1419	2.5	1.3	3.895	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	233	58	1011	1739	0.134	233	222	0.2	0.2	2.391	A
2 - M20 On/Off Slip (E)	217	54	1067	1344	0.161	217	177	0.3	0.2	3.198	A
3 - A20 Link Road	1242	311	158	3022	0.411	1243	1126	1.0	0.7	2.026	A
4 - M20 On/Off Slip (W)	1017	254	214	2193	0.464	1019	1188	1.3	0.9	3.073	A

Future Year 2037 + Committed Development + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M20 Junction 8	Large Roundabout		1, 2, 3, 4	4.96	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.96	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - Maidstone Services	1487		0.00
2 - M20 On/Off Slip (E)	1593	✓	125.60
3 - A20 Link Road	265		0.00
4 - M20 On/Off Slip (W)	328	✓	122.20

Slope / Intercept / Capacity

[same as above]

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	Future Year 2037 + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Maidstone Services		ONE HOUR	✓	320	100.000
2 - M20 On/Off Slip (E)		ONE HOUR	✓	300	100.000
3 - A20 Link Road		ONE HOUR	✓	1710	100.000
4 - M20 On/Off Slip (W)		ONE HOUR	✓	1403	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	92	93	135
	2 - M20 On/Off Slip (E)	83	0	217	0
	3 - A20 Link Road	61	150	0	1499
	4 - M20 On/Off Slip (W)	161	1	1241	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	29	6	24
	2 - M20 On/Off Slip (E)	20	0	7	0
	3 - A20 Link Road	13	7	0	6
	4 - M20 On/Off Slip (W)	19	0	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Maidstone Services	0.27	3.69	0.4	A	294	440
2 - M20 On/Off Slip (E)	0.36	6.14	0.6	A	275	413
3 - A20 Link Road	0.65	3.51	1.8	A	1569	2354
4 - M20 On/Off Slip (W)	0.74	6.77	2.9	A	1287	1931

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	241	60	1044	1713	0.141	240	229	0.0	0.2	2.443	A
2 - M20 On/Off Slip (E)	226	56	1102	1316	0.172	225	182	0.0	0.2	3.297	A
3 - A20 Link Road	1287	322	164	3015	0.427	1284	1164	0.0	0.7	2.077	A
4 - M20 On/Off Slip (W)	1056	264	221	2186	0.483	1053	1227	0.0	0.9	3.167	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	288	72	1250	1551	0.186	287	274	0.2	0.2	2.850	A
2 - M20 On/Off Slip (E)	270	67	1319	1148	0.235	269	218	0.2	0.3	4.094	A
3 - A20 Link Road	1537	384	196	2970	0.518	1536	1392	0.7	1.1	2.507	A
4 - M20 On/Off Slip (W)	1261	315	264	2139	0.590	1259	1468	0.9	1.4	4.082	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	352	88	1527	1331	0.265	352	335	0.2	0.4	3.675	A
2 - M20 On/Off Slip (E)	330	83	1612	920	0.359	329	267	0.3	0.6	6.084	A
3 - A20 Link Road	1883	471	240	2910	0.647	1880	1702	1.1	1.8	3.484	A
4 - M20 On/Off Slip (W)	1545	386	323	2076	0.744	1539	1796	1.4	2.8	6.632	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	352	88	1532	1327	0.266	352	336	0.4	0.4	3.693	A
2 - M20 On/Off Slip (E)	330	83	1617	916	0.361	330	268	0.6	0.6	6.145	A
3 - A20 Link Road	1883	471	240	2909	0.647	1883	1708	1.8	1.8	3.505	A
4 - M20 On/Off Slip (W)	1545	386	324	2076	0.744	1545	1799	2.8	2.9	6.773	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	288	72	1257	1545	0.186	288	275	0.4	0.2	2.867	A
2 - M20 On/Off Slip (E)	270	67	1326	1142	0.236	271	219	0.6	0.3	4.135	A
3 - A20 Link Road	1537	384	196	2969	0.518	1540	1400	1.8	1.1	2.523	A
4 - M20 On/Off Slip (W)	1261	315	265	2138	0.590	1267	1472	2.9	1.5	4.159	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	241	60	1050	1708	0.141	241	230	0.2	0.2	2.455	A
2 - M20 On/Off Slip (E)	226	56	1108	1312	0.172	226	183	0.3	0.2	3.316	A
3 - A20 Link Road	1287	322	164	3014	0.427	1289	1170	1.1	0.7	2.088	A
4 - M20 On/Off Slip (W)	1056	264	222	2185	0.484	1058	1231	1.5	0.9	3.201	A

Junctions 10

ARCADY 10 - Roundabout Module

Filename: M20 Junction 8 - PM (Calibrated) Rev A Observed.j10
Path: T:\Projects\15000 Series\15323ITB Ashford Road, Maidstone\Tech\Junction Assessments\Tech Notes
Report generation date: 19/05/2023 09:44:07

Summary of junction performance

	PM			
	Queue (Veh)	Delay (s)	RFC	LOS
	2022 Observed Flows			
1 - Maidstone Services	0.3	3.75	0.23	A
2 - M20 On/Off Slip (E)	0.4	6.05	0.29	A
3 - A20 Link Road	0.8	2.05	0.44	A
4 - M20 On/Off Slip (W)	2.9	5.74	0.75	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	
Location	
Site number	
Date	13/10/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\londonhotdesk
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Analysis Set Details

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

2022 Observed Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M20 Junction 8	Large Roundabout		1, 2, 3, 4	4.28	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.28	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Maidstone Services		
2	M20 On/Off Slip (E)		
3	A20 Link Road		
4	M20 On/Off Slip (W)		

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)	Entry only	Exit only
1 - Maidstone Services	6.70	10.00	7.9	23.1	170.5	24.0		
2 - M20 On/Off Slip (E)	6.60	7.50	1.9	46.6	170.5	29.0		
3 - A20 Link Road	7.50	8.30	28.4	73.3	170.5	24.0		
4 - M20 On/Off Slip (W)	6.30	6.60	1.9	76.0	170.5	22.0		

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - Maidstone Services	1979		0.00
2 - M20 On/Off Slip (E)	2029	✓	125.60
3 - A20 Link Road	190		0.00
4 - M20 On/Off Slip (W)	301	✓	122.20

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - Maidstone Services	None		
2 - M20 On/Off Slip (E)	None		
3 - A20 Link Road	None		
4 - M20 On/Off Slip (W)	Direct	Queue Lengths	300

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Maidstone Services	0.782	2937
2 - M20 On/Off Slip (E)	0.706	2302
3 - A20 Link Road	1.214	3463
4 - M20 On/Off Slip (W)	1.040	2931

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022 Observed Flows	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Maidstone Services		ONE HOUR	✓	256	100.000
2 - M20 On/Off Slip (E)		ONE HOUR	✓	219	100.000
3 - A20 Link Road		ONE HOUR	✓	1242	100.000
4 - M20 On/Off Slip (W)		ONE HOUR	✓	1676	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	89	84	83
	2 - M20 On/Off Slip (E)	55	0	164	0
	3 - A20 Link Road	53	124	0	1065
	4 - M20 On/Off Slip (W)	147	1	1528	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	26	2	23
	2 - M20 On/Off Slip (E)	29	0	4	0
	3 - A20 Link Road	8	6	0	3
	4 - M20 On/Off Slip (W)	33	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Maidstone Services	0.23	3.75	0.3	A	235	352
2 - M20 On/Off Slip (E)	0.29	6.05	0.4	A	201	301
3 - A20 Link Road	0.44	2.05	0.8	A	1140	1710
4 - M20 On/Off Slip (W)	0.75	5.74	2.9	A	1538	2307

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	193	48	1241	1645	0.117	192	191	0.0	0.1	2.478	A
2 - M20 On/Off Slip (E)	165	41	1272	1234	0.134	164	161	0.0	0.2	3.363	A
3 - A20 Link Road	935	234	104	3193	0.293	933	1333	0.0	0.4	1.593	A
4 - M20 On/Off Slip (W)	1262	315	174	2560	0.493	1258	863	0.0	1.0	2.756	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	230	58	1484	1476	0.156	230	229	0.1	0.2	2.888	A
2 - M20 On/Off Slip (E)	197	49	1522	1067	0.185	197	192	0.2	0.2	4.136	A
3 - A20 Link Road	1117	279	124	3163	0.353	1116	1594	0.4	0.5	1.758	A
4 - M20 On/Off Slip (W)	1507	377	208	2523	0.597	1505	1032	1.0	1.5	3.527	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	282	70	1815	1246	0.226	281	280	0.2	0.3	3.729	A
2 - M20 On/Off Slip (E)	241	60	1861	839	0.287	240	235	0.2	0.4	6.007	A
3 - A20 Link Road	1367	342	152	3123	0.438	1367	1950	0.5	0.8	2.049	A
4 - M20 On/Off Slip (W)	1845	461	255	2472	0.747	1840	1263	1.5	2.9	5.644	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	282	70	1820	1243	0.227	282	281	0.3	0.3	3.745	A
2 - M20 On/Off Slip (E)	241	60	1866	836	0.289	241	236	0.4	0.4	6.053	A
3 - A20 Link Road	1367	342	152	3122	0.438	1367	1955	0.8	0.8	2.051	A
4 - M20 On/Off Slip (W)	1845	461	255	2471	0.747	1845	1264	2.9	2.9	5.744	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	230	58	1491	1471	0.156	231	230	0.3	0.2	2.904	A
2 - M20 On/Off Slip (E)	197	49	1529	1062	0.185	198	193	0.4	0.2	4.168	A
3 - A20 Link Road	1117	279	124	3163	0.353	1117	1602	0.8	0.5	1.762	A
4 - M20 On/Off Slip (W)	1507	377	209	2522	0.597	1512	1033	2.9	1.5	3.583	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	193	48	1246	1641	0.117	193	192	0.2	0.1	2.487	A
2 - M20 On/Off Slip (E)	165	41	1278	1230	0.134	165	161	0.2	0.2	3.383	A
3 - A20 Link Road	935	234	104	3193	0.293	936	1339	0.5	0.4	1.594	A
4 - M20 On/Off Slip (W)	1262	315	175	2560	0.493	1264	865	1.5	1.0	2.782	A

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.1.1519

For sales and distribution information, program advice and maintenance, contact TRL Software:
+44 (0)1344 379777 software@trl.co.uk trlsoftware.com

Filename: M20 Junction 8 - PM (Calibrated) Rev A.j10
Path: T:\Projects\15000 Series\15323ITB Ashford Road, Maidstone\Tech\Junction Assessments\Tech Notes
Report generation date: 16/05/2023 15:46:46

Summary of junction performance

	PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	Future Year 2027 + Committed Development				
1 - Maidstone Services	D4	0.3	4.18	0.25	A
2 - M20 On/Off Slip (E)		0.5	7.20	0.34	A
3 - A20 Link Road		0.9	2.19	0.47	A
4 - M20 On/Off Slip (W)		3.9	7.26	0.80	A
	Future Year 2031 + Committed Development				
1 - Maidstone Services	D5	0.4	4.41	0.27	A
2 - M20 On/Off Slip (E)		0.6	7.91	0.36	A
3 - A20 Link Road		0.9	2.24	0.48	A
4 - M20 On/Off Slip (W)		4.6	8.38	0.83	A
	Future Year 2037 + Committed Development				
1 - Maidstone Services	D6	0.4	4.81	0.29	A
2 - M20 On/Off Slip (E)		0.7	9.28	0.41	A
3 - A20 Link Road		1.0	2.34	0.50	A
4 - M20 On/Off Slip (W)		6.1	10.78	0.86	B
	Future Year 2027 + Committed Development + Development				
1 - Maidstone Services	D7	0.3	4.32	0.26	A
2 - M20 On/Off Slip (E)		0.5	7.70	0.36	A
3 - A20 Link Road		0.9	2.26	0.48	A
4 - M20 On/Off Slip (W)		4.3	7.89	0.81	A
	Future Year 2031 + Committed Development + Development				
1 - Maidstone Services	D8	0.4	4.48	0.27	A
2 - M20 On/Off Slip (E)		0.6	8.30	0.38	A
3 - A20 Link Road		1.0	2.31	0.49	A
4 - M20 On/Off Slip (W)		4.9	8.79	0.83	A
	Future Year 2037 + Committed Development + Development				
1 - Maidstone Services	D9	0.4	4.91	0.30	A
2 - M20 On/Off Slip (E)		0.7	9.69	0.43	A
3 - A20 Link Road		1.1	2.42	0.52	A
4 - M20 On/Off Slip (W)		6.5	11.49	0.87	B

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

File summary

File Description

Title	
Location	
Site number	
Date	13/10/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\londonhotdesk
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

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	Future Year 2027 + Committed Development	PM	ONE HOUR	16:30	18:00	15	✓
D5	Future Year 2031 + Committed Development	PM	ONE HOUR	16:30	18:00	15	✓
D6	Future Year 2037 + Committed Development	PM	ONE HOUR	16:30	18:00	15	✓
D7	Future Year 2027 + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15	✓
D8	Future Year 2031 + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15	✓
D9	Future Year 2037 + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15	✓

Analysis Set Details

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

Future Year 2027 + Committed Development , PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M20 Junction 8	Large Roundabout		1, 2, 3, 4	5.19	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.19	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Maidstone Services		
2	M20 On/Off Slip (E)		
3	A20 Link Road		
4	M20 On/Off Slip (W)		

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)	Entry only	Exit only
1 - Maidstone Services	6.70	10.00	7.9	23.1	170.5	24.0		
2 - M20 On/Off Slip (E)	6.60	7.50	1.9	46.6	170.5	29.0		
3 - A20 Link Road	7.50	8.30	28.4	73.3	170.5	24.0		
4 - M20 On/Off Slip (W)	6.30	6.60	1.9	76.0	170.5	22.0		

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - Maidstone Services	1979		0.00
2 - M20 On/Off Slip (E)	2029	✓	125.60
3 - A20 Link Road	190		0.00
4 - M20 On/Off Slip (W)	301	✓	122.20

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - Maidstone Services	None		
2 - M20 On/Off Slip (E)	None		
3 - A20 Link Road	None		
4 - M20 On/Off Slip (W)	Direct	Queue Lengths	300

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Maidstone Services	0.782	2937
2 - M20 On/Off Slip (E)	0.706	2302
3 - A20 Link Road	1.214	3463
4 - M20 On/Off Slip (W)	1.040	2931

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	Future Year 2027 + Committed Development	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Maidstone Services		ONE HOUR	✓	265	100.000
2 - M20 On/Off Slip (E)		ONE HOUR	✓	230	100.000
3 - A20 Link Road		ONE HOUR	✓	1332	100.000
4 - M20 On/Off Slip (W)		ONE HOUR	✓	1801	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	92	87	86
	2 - M20 On/Off Slip (E)	57	0	173	0
	3 - A20 Link Road	55	131	0	1146
	4 - M20 On/Off Slip (W)	152	1	1648	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	26	2	24
	2 - M20 On/Off Slip (E)	30	0	4	0
	3 - A20 Link Road	8	7	0	3
	4 - M20 On/Off Slip (W)	34	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Maidstone Services	0.25	4.18	0.3	A	243	365
2 - M20 On/Off Slip (E)	0.34	7.20	0.5	A	211	317
3 - A20 Link Road	0.47	2.19	0.9	A	1222	1833
4 - M20 On/Off Slip (W)	0.80	7.26	3.9	A	1653	2479

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	200	50	1336	1582	0.126	199	198	0.0	0.1	2.600	A
2 - M20 On/Off Slip (E)	173	43	1367	1177	0.147	172	168	0.0	0.2	3.583	A
3 - A20 Link Road	1003	251	107	3184	0.315	1001	1432	0.0	0.5	1.647	A
4 - M20 On/Off Slip (W)	1356	339	183	2572	0.527	1351	926	0.0	1.1	2.938	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	238	60	1598	1402	0.170	238	237	0.1	0.2	3.091	A
2 - M20 On/Off Slip (E)	207	52	1635	999	0.207	206	201	0.2	0.3	4.541	A
3 - A20 Link Road	1197	299	128	3153	0.380	1197	1713	0.5	0.6	1.840	A
4 - M20 On/Off Slip (W)	1619	405	218	2533	0.639	1616	1107	1.1	1.8	3.918	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	292	73	1952	1159	0.252	291	290	0.2	0.3	4.146	A
2 - M20 On/Off Slip (E)	253	63	1997	758	0.334	252	246	0.3	0.5	7.104	A
3 - A20 Link Road	1467	367	157	3110	0.472	1465	2092	0.6	0.9	2.188	A
4 - M20 On/Off Slip (W)	1983	496	267	2478	0.800	1975	1355	1.8	3.9	7.029	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	292	73	1960	1154	0.253	292	291	0.3	0.3	4.176	A
2 - M20 On/Off Slip (E)	253	63	2005	753	0.336	253	247	0.5	0.5	7.202	A
3 - A20 Link Road	1467	367	157	3110	0.472	1467	2100	0.9	0.9	2.190	A
4 - M20 On/Off Slip (W)	1983	496	268	2478	0.800	1983	1356	3.9	3.9	7.257	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	238	60	1608	1395	0.171	239	238	0.3	0.2	3.113	A
2 - M20 On/Off Slip (E)	207	52	1645	992	0.208	208	202	0.5	0.3	4.596	A
3 - A20 Link Road	1197	299	129	3152	0.380	1199	1724	0.9	0.6	1.846	A
4 - M20 On/Off Slip (W)	1619	405	219	2532	0.639	1628	1109	3.9	1.8	4.017	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	200	50	1343	1578	0.126	200	199	0.2	0.1	2.612	A
2 - M20 On/Off Slip (E)	173	43	1374	1172	0.148	174	169	0.3	0.2	3.608	A
3 - A20 Link Road	1003	251	108	3183	0.315	1003	1439	0.6	0.5	1.651	A
4 - M20 On/Off Slip (W)	1356	339	183	2572	0.527	1359	928	1.8	1.1	2.973	A

Future Year 2031 + Committed Development , PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M20 Junction 8	Large Roundabout		1, 2, 3, 4	5.83	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.83	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - Maidstone Services	1979		0.00
2 - M20 On/Off Slip (E)	2029	✓	125.60
3 - A20 Link Road	190		0.00
4 - M20 On/Off Slip (W)	301	✓	122.20

Slope / Intercept / Capacity

[same as above]

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	Future Year 2031 + Committed Development	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Maidstone Services		ONE HOUR	✓	271	100.000
2 - M20 On/Off Slip (E)		ONE HOUR	✓	235	100.000
3 - A20 Link Road		ONE HOUR	✓	1362	100.000
4 - M20 On/Off Slip (W)		ONE HOUR	✓	1841	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	94	89	88
	2 - M20 On/Off Slip (E)	58	0	177	0
	3 - A20 Link Road	56	134	0	1172
	4 - M20 On/Off Slip (W)	155	1	1685	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	26	2	23
	2 - M20 On/Off Slip (E)	29	0	4	0
	3 - A20 Link Road	8	6	0	3
	4 - M20 On/Off Slip (W)	33	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Maidstone Services	0.27	4.41	0.4	A	249	373
2 - M20 On/Off Slip (E)	0.36	7.91	0.6	A	216	323
3 - A20 Link Road	0.48	2.24	0.9	A	1250	1875
4 - M20 On/Off Slip (W)	0.83	8.38	4.6	A	1689	2534

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	204	51	1366	1558	0.131	203	202	0.0	0.2	2.655	A
2 - M20 On/Off Slip (E)	177	44	1397	1152	0.154	176	172	0.0	0.2	3.689	A
3 - A20 Link Road	1025	256	110	3185	0.322	1023	1464	0.0	0.5	1.663	A
4 - M20 On/Off Slip (W)	1386	347	186	2550	0.544	1381	947	0.0	1.2	3.068	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	244	61	1633	1372	0.178	243	241	0.2	0.2	3.188	A
2 - M20 On/Off Slip (E)	211	53	1671	968	0.218	211	206	0.2	0.3	4.754	A
3 - A20 Link Road	1224	306	131	3153	0.388	1224	1751	0.5	0.6	1.865	A
4 - M20 On/Off Slip (W)	1655	414	223	2510	0.659	1652	1132	1.2	1.9	4.183	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	298	75	1994	1122	0.266	298	295	0.2	0.4	4.367	A
2 - M20 On/Off Slip (E)	259	65	2040	720	0.359	258	252	0.3	0.6	7.768	A
3 - A20 Link Road	1500	375	160	3110	0.482	1498	2138	0.6	0.9	2.233	A
4 - M20 On/Off Slip (W)	2027	507	273	2455	0.826	2017	1386	1.9	4.5	8.022	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	298	75	2003	1115	0.268	298	296	0.4	0.4	4.406	A
2 - M20 On/Off Slip (E)	259	65	2050	714	0.363	259	252	0.6	0.6	7.911	A
3 - A20 Link Road	1500	375	161	3110	0.482	1500	2148	0.9	0.9	2.235	A
4 - M20 On/Off Slip (W)	2027	507	273	2455	0.826	2027	1387	4.5	4.6	8.381	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	244	61	1646	1364	0.179	244	243	0.4	0.2	3.219	A
2 - M20 On/Off Slip (E)	211	53	1684	959	0.220	212	206	0.6	0.3	4.827	A
3 - A20 Link Road	1224	306	132	3152	0.388	1226	1765	0.9	0.6	1.871	A
4 - M20 On/Off Slip (W)	1655	414	223	2509	0.660	1666	1134	4.6	2.0	4.322	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	204	51	1373	1553	0.131	204	203	0.2	0.2	2.668	A
2 - M20 On/Off Slip (E)	177	44	1405	1147	0.154	177	173	0.3	0.2	3.717	A
3 - A20 Link Road	1025	256	110	3184	0.322	1026	1472	0.6	0.5	1.667	A
4 - M20 On/Off Slip (W)	1386	347	187	2549	0.544	1389	949	2.0	1.2	3.111	A

Future Year 2037 + Committed Development , PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M20 Junction 8	Large Roundabout		1, 2, 3, 4	7.19	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.19	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - Maidstone Services	1979		0.00
2 - M20 On/Off Slip (E)	2029	✓	125.60
3 - A20 Link Road	190		0.00
4 - M20 On/Off Slip (W)	301	✓	122.20

Slope / Intercept / Capacity

[same as above]

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	Future Year 2037 + Committed Development	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Maidstone Services		ONE HOUR	✓	281	100.000
2 - M20 On/Off Slip (E)		ONE HOUR	✓	246	100.000
3 - A20 Link Road		ONE HOUR	✓	1418	100.000
4 - M20 On/Off Slip (W)		ONE HOUR	✓	1917	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	98	92	91
	2 - M20 On/Off Slip (E)	61	0	185	0
	3 - A20 Link Road	58	140	0	1220
	4 - M20 On/Off Slip (W)	162	1	1754	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	26	2	23
	2 - M20 On/Off Slip (E)	29	0	4	0
	3 - A20 Link Road	8	6	0	3
	4 - M20 On/Off Slip (W)	33	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Maidstone Services	0.29	4.81	0.4	A	258	387
2 - M20 On/Off Slip (E)	0.41	9.28	0.7	A	226	339
3 - A20 Link Road	0.50	2.34	1.0	A	1301	1952
4 - M20 On/Off Slip (W)	0.86	10.78	6.1	B	1759	2639

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	212	53	1422	1519	0.139	211	211	0.0	0.2	2.750	A
2 - M20 On/Off Slip (E)	185	46	1453	1114	0.166	184	180	0.0	0.2	3.870	A
3 - A20 Link Road	1068	267	114	3178	0.336	1066	1523	0.0	0.5	1.702	A
4 - M20 On/Off Slip (W)	1443	361	195	2540	0.568	1438	985	0.0	1.3	3.252	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	253	63	1700	1326	0.191	252	252	0.2	0.2	3.354	A
2 - M20 On/Off Slip (E)	221	55	1738	923	0.240	221	215	0.2	0.3	5.124	A
3 - A20 Link Road	1275	319	136	3145	0.405	1274	1822	0.5	0.7	1.924	A
4 - M20 On/Off Slip (W)	1723	431	233	2499	0.690	1720	1178	1.3	2.2	4.600	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	309	77	2073	1067	0.290	309	308	0.2	0.4	4.745	A
2 - M20 On/Off Slip (E)	271	68	2119	667	0.406	269	263	0.3	0.7	9.019	A
3 - A20 Link Road	1561	390	167	3101	0.504	1560	2221	0.7	1.0	2.334	A
4 - M20 On/Off Slip (W)	2111	528	285	2442	0.864	2096	1442	2.2	5.9	9.999	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	309	77	2086	1058	0.292	309	309	0.4	0.4	4.809	A
2 - M20 On/Off Slip (E)	271	68	2132	658	0.411	271	263	0.7	0.7	9.285	A
3 - A20 Link Road	1561	390	167	3100	0.504	1561	2235	1.0	1.0	2.339	A
4 - M20 On/Off Slip (W)	2111	528	285	2441	0.865	2110	1443	5.9	6.1	10.779	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	253	63	1718	1313	0.192	253	254	0.4	0.2	3.399	A
2 - M20 On/Off Slip (E)	221	55	1756	911	0.243	223	215	0.7	0.3	5.242	A
3 - A20 Link Road	1275	319	137	3144	0.405	1276	1841	1.0	0.7	1.928	A
4 - M20 On/Off Slip (W)	1723	431	233	2498	0.690	1739	1180	6.1	2.3	4.837	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	212	53	1430	1513	0.140	212	212	0.2	0.2	2.766	A
2 - M20 On/Off Slip (E)	185	46	1462	1108	0.167	186	180	0.3	0.2	3.905	A
3 - A20 Link Road	1068	267	115	3177	0.336	1068	1533	0.7	0.5	1.709	A
4 - M20 On/Off Slip (W)	1443	361	195	2540	0.568	1447	988	2.3	1.3	3.307	A

Future Year 2027 + Committed Development + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M20 Junction 8	Large Roundabout		1, 2, 3, 4	5.56	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.56	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - Maidstone Services	1979		0.00
2 - M20 On/Off Slip (E)	2029	✓	125.60
3 - A20 Link Road	190		0.00
4 - M20 On/Off Slip (W)	301	✓	122.20

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Future Year 2027 + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Maidstone Services		ONE HOUR	✓	265	100.000
2 - M20 On/Off Slip (E)		ONE HOUR	✓	234	100.000
3 - A20 Link Road		ONE HOUR	✓	1355	100.000
4 - M20 On/Off Slip (W)		ONE HOUR	✓	1811	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	92	87	86
	2 - M20 On/Off Slip (E)	57	0	177	0
	3 - A20 Link Road	55	138	0	1162
	4 - M20 On/Off Slip (W)	152	1	1658	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	27	2	24
	2 - M20 On/Off Slip (E)	30	0	6	0
	3 - A20 Link Road	8	7	0	4
	4 - M20 On/Off Slip (W)	34	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Maidstone Services	0.26	4.32	0.3	A	243	365
2 - M20 On/Off Slip (E)	0.36	7.70	0.5	A	215	322
3 - A20 Link Road	0.48	2.26	0.9	A	1243	1865
4 - M20 On/Off Slip (W)	0.81	7.89	4.3	A	1662	2493

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	200	50	1348	1561	0.128	199	198	0.0	0.1	2.642	A
2 - M20 On/Off Slip (E)	176	44	1374	1149	0.153	175	174	0.0	0.2	3.695	A
3 - A20 Link Road	1020	255	107	3157	0.323	1018	1442	0.0	0.5	1.680	A
4 - M20 On/Off Slip (W)	1363	341	188	2545	0.536	1359	938	0.0	1.1	3.024	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	238	60	1613	1378	0.173	238	237	0.1	0.2	3.158	A
2 - M20 On/Off Slip (E)	210	53	1643	971	0.217	210	208	0.2	0.3	4.727	A
3 - A20 Link Road	1218	305	128	3126	0.390	1217	1725	0.5	0.6	1.885	A
4 - M20 On/Off Slip (W)	1628	407	225	2505	0.650	1625	1121	1.1	1.8	4.080	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	292	73	1970	1131	0.258	291	290	0.2	0.3	4.284	A
2 - M20 On/Off Slip (E)	258	64	2007	731	0.353	257	254	0.3	0.5	7.577	A
3 - A20 Link Road	1492	373	157	3084	0.484	1491	2107	0.6	0.9	2.258	A
4 - M20 On/Off Slip (W)	1994	498	275	2449	0.814	1985	1373	1.8	4.2	7.593	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	292	73	1978	1125	0.259	292	291	0.3	0.3	4.319	A
2 - M20 On/Off Slip (E)	258	64	2016	725	0.355	258	254	0.5	0.5	7.702	A
3 - A20 Link Road	1492	373	157	3084	0.484	1492	2116	0.9	0.9	2.261	A
4 - M20 On/Off Slip (W)	1994	498	275	2449	0.814	1994	1374	4.2	4.3	7.888	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	238	60	1624	1370	0.174	239	238	0.3	0.2	3.183	A
2 - M20 On/Off Slip (E)	210	53	1655	963	0.218	211	208	0.5	0.3	4.795	A
3 - A20 Link Road	1218	305	129	3125	0.390	1219	1738	0.9	0.6	1.891	A
4 - M20 On/Off Slip (W)	1628	407	225	2504	0.650	1638	1123	4.3	1.9	4.202	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	200	50	1356	1556	0.128	200	199	0.2	0.1	2.656	A
2 - M20 On/Off Slip (E)	176	44	1381	1145	0.154	177	174	0.3	0.2	3.719	A
3 - A20 Link Road	1020	255	108	3157	0.323	1021	1450	0.6	0.5	1.687	A
4 - M20 On/Off Slip (W)	1363	341	188	2544	0.536	1366	940	1.9	1.2	3.062	A

Future Year 2031 + Committed Development + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M20 Junction 8	Large Roundabout		1, 2, 3, 4	6.08	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.08	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - Maidstone Services	1979		0.00
2 - M20 On/Off Slip (E)	2029	✓	125.60
3 - A20 Link Road	190		0.00
4 - M20 On/Off Slip (W)	301	✓	122.20

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Future Year 2031 + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Maidstone Services		ONE HOUR	✓	271	100.000
2 - M20 On/Off Slip (E)		ONE HOUR	✓	239	100.000
3 - A20 Link Road		ONE HOUR	✓	1382	100.000
4 - M20 On/Off Slip (W)		ONE HOUR	✓	1852	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	94	89	88
	2 - M20 On/Off Slip (E)	58	0	181	0
	3 - A20 Link Road	56	140	0	1186
	4 - M20 On/Off Slip (W)	155	1	1696	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	26	2	23
	2 - M20 On/Off Slip (E)	29	0	6	0
	3 - A20 Link Road	8	7	0	4
	4 - M20 On/Off Slip (W)	33	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Maidstone Services	0.27	4.48	0.4	A	249	373
2 - M20 On/Off Slip (E)	0.38	8.30	0.6	A	219	329
3 - A20 Link Road	0.49	2.31	1.0	A	1268	1902
4 - M20 On/Off Slip (W)	0.83	8.79	4.9	A	1699	2549

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	204	51	1378	1549	0.132	203	202	0.0	0.2	2.674	A
2 - M20 On/Off Slip (E)	180	45	1405	1132	0.159	179	177	0.0	0.2	3.773	A
3 - A20 Link Road	1040	260	110	3155	0.330	1038	1475	0.0	0.5	1.698	A
4 - M20 On/Off Slip (W)	1394	349	191	2544	0.548	1389	957	0.0	1.2	3.105	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	244	61	1649	1361	0.179	243	241	0.2	0.2	3.221	A
2 - M20 On/Off Slip (E)	215	54	1681	949	0.226	214	211	0.2	0.3	4.898	A
3 - A20 Link Road	1242	311	131	3124	0.398	1242	1764	0.5	0.7	1.912	A
4 - M20 On/Off Slip (W)	1665	416	228	2503	0.665	1662	1145	1.2	2.0	4.263	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	298	75	2012	1108	0.269	298	295	0.2	0.4	4.441	A
2 - M20 On/Off Slip (E)	263	66	2052	703	0.374	262	258	0.3	0.6	8.134	A
3 - A20 Link Road	1522	380	160	3081	0.494	1520	2153	0.7	1.0	2.303	A
4 - M20 On/Off Slip (W)	2039	510	279	2447	0.833	2028	1401	2.0	4.7	8.370	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	298	75	2022	1101	0.271	298	296	0.4	0.4	4.484	A
2 - M20 On/Off Slip (E)	263	66	2062	697	0.378	263	259	0.6	0.6	8.301	A
3 - A20 Link Road	1522	380	161	3081	0.494	1522	2164	1.0	1.0	2.308	A
4 - M20 On/Off Slip (W)	2039	510	280	2447	0.833	2039	1403	4.7	4.9	8.790	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	244	61	1662	1352	0.180	244	243	0.4	0.2	3.251	A
2 - M20 On/Off Slip (E)	215	54	1695	940	0.229	216	212	0.6	0.3	4.982	A
3 - A20 Link Road	1242	311	132	3123	0.398	1244	1779	1.0	0.7	1.915	A
4 - M20 On/Off Slip (W)	1665	416	229	2503	0.665	1676	1147	4.9	2.0	4.417	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	204	51	1386	1544	0.132	204	203	0.2	0.2	2.687	A
2 - M20 On/Off Slip (E)	180	45	1413	1127	0.160	180	177	0.3	0.2	3.805	A
3 - A20 Link Road	1040	260	110	3155	0.330	1041	1483	0.7	0.5	1.705	A
4 - M20 On/Off Slip (W)	1394	349	191	2544	0.548	1397	960	2.0	1.2	3.151	A

Future Year 2037 + Committed Development + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M20 Junction 8	Large Roundabout		1, 2, 3, 4	7.57	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.57	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - Maidstone Services	1979		0.00
2 - M20 On/Off Slip (E)	2029	✓	125.60
3 - A20 Link Road	190		0.00
4 - M20 On/Off Slip (W)	301	✓	122.20

Slope / Intercept / Capacity

[same as above]

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	Future Year 2037 + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Maidstone Services		ONE HOUR	✓	281	100.000
2 - M20 On/Off Slip (E)		ONE HOUR	✓	250	100.000
3 - A20 Link Road		ONE HOUR	✓	1441	100.000
4 - M20 On/Off Slip (W)		ONE HOUR	✓	1928	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	98	92	91
	2 - M20 On/Off Slip (E)	61	0	189	0
	3 - A20 Link Road	58	147	0	1236
	4 - M20 On/Off Slip (W)	162	1	1765	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	26	2	23
	2 - M20 On/Off Slip (E)	29	0	5	0
	3 - A20 Link Road	8	7	0	4
	4 - M20 On/Off Slip (W)	33	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Maidstone Services	0.30	4.91	0.4	A	258	387
2 - M20 On/Off Slip (E)	0.43	9.69	0.7	A	229	344
3 - A20 Link Road	0.52	2.42	1.1	A	1322	1983
4 - M20 On/Off Slip (W)	0.87	11.49	6.5	B	1769	2654

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	212	53	1435	1509	0.140	211	211	0.0	0.2	2.771	A
2 - M20 On/Off Slip (E)	188	47	1461	1102	0.171	187	185	0.0	0.2	3.933	A
3 - A20 Link Road	1085	271	114	3149	0.345	1083	1535	0.0	0.5	1.740	A
4 - M20 On/Off Slip (W)	1451	363	200	2534	0.573	1446	997	0.0	1.3	3.293	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	253	63	1716	1314	0.192	252	252	0.2	0.2	3.392	A
2 - M20 On/Off Slip (E)	225	56	1748	911	0.247	224	221	0.2	0.3	5.240	A
3 - A20 Link Road	1295	324	136	3116	0.416	1295	1835	0.5	0.7	1.975	A
4 - M20 On/Off Slip (W)	1733	433	239	2491	0.696	1730	1192	1.3	2.2	4.704	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	309	77	2091	1053	0.294	309	308	0.2	0.4	4.835	A
2 - M20 On/Off Slip (E)	275	69	2130	656	0.420	274	270	0.3	0.7	9.380	A
3 - A20 Link Road	1587	397	167	3072	0.516	1585	2237	0.7	1.1	2.419	A
4 - M20 On/Off Slip (W)	2123	531	292	2433	0.873	2107	1460	2.2	6.3	10.558	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	309	77	2105	1043	0.297	309	309	0.4	0.4	4.906	A
2 - M20 On/Off Slip (E)	275	69	2144	647	0.426	275	271	0.7	0.7	9.688	A
3 - A20 Link Road	1587	397	167	3071	0.517	1587	2252	1.1	1.1	2.424	A
4 - M20 On/Off Slip (W)	2123	531	293	2432	0.873	2122	1461	6.3	6.5	11.494	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	253	63	1735	1300	0.194	253	254	0.4	0.2	3.442	A
2 - M20 On/Off Slip (E)	225	56	1767	898	0.250	226	222	0.7	0.3	5.374	A
3 - A20 Link Road	1295	324	137	3115	0.416	1297	1856	1.1	0.7	1.982	A
4 - M20 On/Off Slip (W)	1733	433	240	2490	0.696	1750	1194	6.5	2.3	4.972	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	212	53	1444	1503	0.141	212	212	0.2	0.2	2.790	A
2 - M20 On/Off Slip (E)	188	47	1470	1096	0.172	189	185	0.3	0.2	3.972	A
3 - A20 Link Road	1085	271	115	3148	0.345	1086	1544	0.7	0.5	1.748	A
4 - M20 On/Off Slip (W)	1451	363	200	2533	0.573	1455	1000	2.3	1.4	3.350	A

APPENDIX C. OPERATIONAL ASSESSMENTS – SENSITIVITY TEST

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519

Filename: Ashford Road_Site Access priority Sensitivity.j10
Path: T:\Projects\15000 Series\15323ITB Ashford Road, Maidstone\Tech\Junction Assessments\Tech Notes
Report generation date: 16/05/2023 16:22:14

Summary of junction performance

	AM						PM					
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	2027 Future Year + Committed Development + Development											
Stream B-AC	D3	0.2	10.96	0.17	B	49 %	D4	0.2	10.58	0.19	B	42 %
Stream C-AB		0.1	9.03	0.10	A	[Stream B-AC]		0.1	8.16	0.09	A	[Stream B-AC]
	2031 Future Year + Committed Development + Development											
Stream B-AC	D5	0.2	11.00	0.16	B	48 %	D6	0.2	10.49	0.17	B	42 %
Stream C-AB		0.1	9.18	0.09	A	[Stream B-AC]		0.1	8.30	0.08	A	[Stream B-AC]
	2037 Future Year + Committed Development + Development											
Stream B-AC	D7	0.2	11.53	0.18	B	41 %	D8	0.3	11.29	0.20	B	35 %
Stream C-AB		0.1	9.27	0.10	A	[Stream B-AC]		0.1	8.38	0.09	A	[Stream B-AC]

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	
Location	
Site number	
Date	11/11/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\Hotdesk
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
	✓	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)
D3	2027 Future Year + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15
D4	2027 Future Year + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15
D5	2031 Future Year + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15
D6	2031 Future Year + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15
D7	2037 Future Year + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15
D8	2037 Future Year + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2027 Future Year + Committed Development + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A20 Ashford Road / Site Access	T-Junction	Two-way	Two-way	Two-way		0.79	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	49	Stream B-AC	0.79	A

Arms

Arms

Arm	Name	Description	Arm type
A	A20 Ashford Road (W)		Major
B	Employment Site Access		Minor
C	A20 Ashford Road (E)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A20 Ashford Road (E)	7.40		✓	3.50	146.0	✓	14.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Employment Site Access	One lane	4.48	120	115

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	661	0.115	0.290	0.182	0.414
B-C	800	0.113	0.287	-	-
C-B	752	0.274	0.274	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2027 Future Year + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A20 Ashford Road (W)		✓	658	100.000
B - Employment Site Access		✓	61	100.000
C - A20 Ashford Road (E)		✓	824	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A20 Ashford Road (W)	B - Employment Site Access	C - A20 Ashford Road (E)
From	A - A20 Ashford Road (W)	0	8	650
	B - Employment Site Access	10	0	51
	C - A20 Ashford Road (E)	785	39	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A20 Ashford Road (W)	B - Employment Site Access	C - A20 Ashford Road (E)
From	A - A20 Ashford Road (W)	0	0	3
	B - Employment Site Access	0	0	33
	C - A20 Ashford Road (E)	5	24	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.17	10.96	0.2	B
C-AB	0.10	9.03	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	46	471	0.098	45	0.1	8.457	A
C-AB	29	494	0.059	29	0.1	7.745	A
C-A	591			591			
A-B	6			6			
A-C	489			489			

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	55	441	0.124	55	0.1	9.324	A
C-AB	35	472	0.074	35	0.1	8.239	A
C-A	706			706			
A-B	7			7			
A-C	584			584			

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	67	396	0.170	67	0.2	10.945	B
C-AB	43	442	0.097	43	0.1	9.024	A
C-A	864			864			
A-B	9			9			
A-C	716			716			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	67	396	0.170	67	0.2	10.961	B
C-AB	43	442	0.097	43	0.1	9.028	A
C-A	864			864			
A-B	9			9			
A-C	716			716			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	55	441	0.124	55	0.1	9.343	A
C-AB	35	472	0.074	35	0.1	8.247	A
C-A	706			706			
A-B	7			7			
A-C	584			584			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	46	471	0.098	46	0.1	8.482	A
C-AB	29	494	0.059	29	0.1	7.755	A
C-A	591			591			
A-B	6			6			
A-C	489			489			

2027 Future Year + Committed Development + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A20 Ashford Road / Site Access	T-Junction	Two-way	Two-way	Two-way		0.72	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	42	Stream B-AC	0.72	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2027 Future Year + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A20 Ashford Road (W)		✓	677	100.000
B - Employment Site Access		✓	73	100.000
C - A20 Ashford Road (E)		✓	898	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A20 Ashford Road (W)	B - Employment Site Access	C - A20 Ashford Road (E)
From	A - A20 Ashford Road (W)	0	9	668
	B - Employment Site Access	14	0	59
	C - A20 Ashford Road (E)	860	38	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A20 Ashford Road (W)	B - Employment Site Access	C - A20 Ashford Road (E)
From	A - A20 Ashford Road (W)	0	0	1
	B - Employment Site Access	0	0	16
	C - A20 Ashford Road (E)	3	13	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.19	10.58	0.2	B
C-AB	0.09	8.16	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	55	515	0.107	54	0.1	7.815	A
C-AB	29	541	0.053	28	0.1	7.024	A
C-A	647			647			
A-B	7			7			
A-C	503			503			

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	66	477	0.137	65	0.2	8.740	A
C-AB	34	516	0.066	34	0.1	7.463	A
C-A	773			773			
A-B	8			8			
A-C	601			601			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	80	421	0.191	80	0.2	10.564	B
C-AB	42	483	0.087	42	0.1	8.156	A
C-A	947			947			
A-B	10			10			
A-C	735			735			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	80	420	0.191	80	0.2	10.584	B
C-AB	42	483	0.087	42	0.1	8.159	A
C-A	947			947			
A-B	10			10			
A-C	735			735			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	66	477	0.137	66	0.2	8.755	A
C-AB	34	516	0.066	34	0.1	7.469	A
C-A	773			773			
A-B	8			8			
A-C	601			601			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	55	515	0.107	55	0.1	7.838	A
C-AB	29	541	0.053	29	0.1	7.034	A
C-A	647			647			
A-B	7			7			
A-C	503			503			

2031 Future Year + Committed Development + Development , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A20 Ashford Road / Site Access	T-Junction	Two-way	Two-way	Two-way		0.72	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	48	Stream B-AC	0.72	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2031 Future Year + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A20 Ashford Road (W)		✓	675	100.000
B - Employment Site Access		✓	55	100.000
C - A20 Ashford Road (E)		✓	844	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A20 Ashford Road (W)	B - Employment Site Access	C - A20 Ashford Road (E)
From	A - A20 Ashford Road (W)	0	7	668
	B - Employment Site Access	8	0	47
	C - A20 Ashford Road (E)	809	35	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A20 Ashford Road (W)	B - Employment Site Access	C - A20 Ashford Road (E)
From	A - A20 Ashford Road (W)	0	0	3
	B - Employment Site Access	0	0	36
	C - A20 Ashford Road (E)	4	26	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.16	11.00	0.2	B
C-AB	0.09	9.18	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	41	461	0.090	41	0.1	8.562	A
C-AB	26	483	0.055	26	0.1	7.875	A
C-A	609			609			
A-B	5			5			
A-C	503			503			

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	49	432	0.115	49	0.1	9.409	A
C-AB	31	461	0.068	31	0.1	8.380	A
C-A	727			727			
A-B	6			6			
A-C	601			601			

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	61	388	0.156	60	0.2	10.982	B
C-AB	39	430	0.090	38	0.1	9.181	A
C-A	891			891			
A-B	8			8			
A-C	735			735			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	61	388	0.156	61	0.2	10.996	B
C-AB	39	430	0.090	39	0.1	9.184	A
C-A	891			891			
A-B	8			8			
A-C	735			735			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	49	432	0.115	50	0.1	9.427	A
C-AB	31	461	0.068	32	0.1	8.387	A
C-A	727			727			
A-B	6			6			
A-C	601			601			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	41	461	0.090	42	0.1	8.585	A
C-AB	26	483	0.055	26	0.1	7.887	A
C-A	609			609			
A-B	5			5			
A-C	503			503			

2031 Future Year + Committed Development + Development , PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A20 Ashford Road / Site Access	T-Junction	Two-way	Two-way	Two-way		0.63	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	42	Stream B-AC	0.63	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2031 Future Year + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A20 Ashford Road (W)		✓	691	100.000
B - Employment Site Access		✓	64	100.000
C - A20 Ashford Road (E)		✓	913	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A20 Ashford Road (W)	B - Employment Site Access	C - A20 Ashford Road (E)
From	A - A20 Ashford Road (W)	0	8	683
	B - Employment Site Access	12	0	52
	C - A20 Ashford Road (E)	879	34	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A20 Ashford Road (W)	B - Employment Site Access	C - A20 Ashford Road (E)
From	A - A20 Ashford Road (W)	0	0	1
	B - Employment Site Access	0	0	17
	C - A20 Ashford Road (E)	3	15	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.17	10.49	0.2	B
C-AB	0.08	8.30	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	48	509	0.095	48	0.1	7.800	A
C-AB	26	529	0.048	25	0.1	7.147	A
C-A	662			662			
A-B	6			6			
A-C	514			514			

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	58	471	0.122	57	0.1	8.696	A
C-AB	31	504	0.061	31	0.1	7.595	A
C-A	790			790			
A-B	7			7			
A-C	614			614			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	70	414	0.170	70	0.2	10.476	B
C-AB	37	471	0.079	37	0.1	8.300	A
C-A	968			968			
A-B	9			9			
A-C	752			752			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	70	414	0.170	70	0.2	10.491	B
C-AB	37	471	0.079	37	0.1	8.304	A
C-A	968			968			
A-B	9			9			
A-C	752			752			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	58	471	0.122	58	0.1	8.714	A
C-AB	31	504	0.061	31	0.1	7.601	A
C-A	790			790			
A-B	7			7			
A-C	614			614			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	48	509	0.095	48	0.1	7.821	A
C-AB	26	529	0.048	26	0.1	7.159	A
C-A	662			662			
A-B	6			6			
A-C	514			514			

2037 Future Year + Committed Development + Development , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A20 Ashford Road / Site Access	T-Junction	Two-way	Two-way	Two-way		0.78	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	41	Stream B-AC	0.78	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2037 Future Year + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A20 Ashford Road (W)		✓	700	100.000
B - Employment Site Access		✓	61	100.000
C - A20 Ashford Road (E)		✓	878	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A20 Ashford Road (W)	B - Employment Site Access	C - A20 Ashford Road (E)
From	A - A20 Ashford Road (W)	0	8	692
	B - Employment Site Access	10	0	51
	C - A20 Ashford Road (E)	839	39	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A20 Ashford Road (W)	B - Employment Site Access	C - A20 Ashford Road (E)
From	A - A20 Ashford Road (W)	0	0	3
	B - Employment Site Access	0	0	33
	C - A20 Ashford Road (E)	4	24	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.18	11.53	0.2	B
C-AB	0.10	9.27	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	46	461	0.100	45	0.1	8.648	A
C-AB	29	487	0.060	29	0.1	7.866	A
C-A	632			632			
A-B	6			6			
A-C	521			521			

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	55	429	0.128	55	0.1	9.621	A
C-AB	35	463	0.076	35	0.1	8.404	A
C-A	754			754			
A-B	7			7			
A-C	622			622			

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	67	379	0.177	67	0.2	11.513	B
C-AB	43	431	0.100	43	0.1	9.267	A
C-A	924			924			
A-B	9			9			
A-C	762			762			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	67	379	0.177	67	0.2	11.532	B
C-AB	43	431	0.100	43	0.1	9.272	A
C-A	924			924			
A-B	9			9			
A-C	762			762			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	55	429	0.128	55	0.1	9.638	A
C-AB	35	463	0.076	35	0.1	8.410	A
C-A	754			754			
A-B	7			7			
A-C	622			622			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	46	461	0.100	46	0.1	8.672	A
C-AB	29	487	0.060	29	0.1	7.877	A
C-A	632			632			
A-B	6			6			
A-C	521			521			

2037 Future Year + Committed Development + Development , PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A20 Ashford Road / Site Access	T-Junction	Two-way	Two-way	Two-way		0.72	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	35	Stream B-AC	0.72	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2037 Future Year + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A20 Ashford Road (W)		✓	720	100.000
B - Employment Site Access		✓	73	100.000
C - A20 Ashford Road (E)		✓	953	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A20 Ashford Road (W)	B - Employment Site Access	C - A20 Ashford Road (E)
From	A - A20 Ashford Road (W)	0	9	711
	B - Employment Site Access	14	0	59
	C - A20 Ashford Road (E)	915	38	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A20 Ashford Road (W)	B - Employment Site Access	C - A20 Ashford Road (E)
From	A - A20 Ashford Road (W)	0	0	1
	B - Employment Site Access	0	0	16
	C - A20 Ashford Road (E)	3	13	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.20	11.29	0.3	B
C-AB	0.09	8.38	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	55	503	0.109	54	0.1	8.019	A
C-AB	29	533	0.054	28	0.1	7.134	A
C-A	689			689			
A-B	7			7			
A-C	535			535			

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	66	462	0.142	65	0.2	9.065	A
C-AB	34	507	0.067	34	0.1	7.612	A
C-A	823			823			
A-B	8			8			
A-C	639			639			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	80	399	0.201	80	0.2	11.264	B
C-AB	42	471	0.089	42	0.1	8.376	A
C-A	1007			1007			
A-B	10			10			
A-C	783			783			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	80	399	0.201	80	0.3	11.290	B
C-AB	42	471	0.089	42	0.1	8.379	A
C-A	1007			1007			
A-B	10			10			
A-C	783			783			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	66	462	0.142	66	0.2	9.088	A
C-AB	34	507	0.067	34	0.1	7.615	A
C-A	823			823			
A-B	8			8			
A-C	639			639			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	55	503	0.109	55	0.1	8.044	A
C-AB	29	533	0.054	29	0.1	7.145	A
C-A	689			689			
A-B	7			7			
A-C	535			535			

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.1.1519

Filename: A20_M20 Roundabout AM (Lane Sim) Sensitivity.j10
Path: T:\Projects\15000 Series\15323ITB Ashford Road, Maidstone\Tech\Junction Assessments\Tech Notes
Report generation date: 16/05/2023 16:03:19

»Future Year 2027 + Commited Development + Development, AM
»Future Year 2031 + Commited Development + Development, AM
»Future Year 2037 + Committed Development + Development, AM

Summary of junction performance

	AM	
	Queue (Veh)	Delay (s)
	[Lane Simulation] - Future Year 2027 + Commited Development + Development	
1 - M20 link road	4.8	10.76
2 - A20 (E)	12.1	22.63
3 - A20 (W)	1.4	13.72
	[Lane Simulation] - Future Year 2031 + Commited Development + Development	
1 - M20 link road	5.4	11.65
2 - A20 (E)	17.0	27.93
3 - A20 (W)	1.9	13.98
	[Lane Simulation] - Future Year 2037 + Committed Development + Development	
1 - M20 link road	5.5	12.05
2 - A20 (E)	25.3	42.48
3 - A20 (W)	1.9	15.11

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. Arm and junction delays are averages for all movements, including movements with zero delay.

File summary

File Description

Title	
Location	
Site number	
Date	13/10/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\londonhotdesk
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓					0.85	36.00	20.00		500

Lane Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Average animation capture interval (s)	Use quick response	Do flow sampling	Suppress automatic lane creation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	1.00	100000	100000	-1	3	1	60	✓			922284775	101	11.14

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
D7	Future Year 2027 + Commited Development + Development	AM	ONE HOUR	07:15	08:45	15	✓
D8	Future Year 2031 + Commited Development + Development	AM	ONE HOUR	07:15	08:45	15	✓
D9	Future Year 2037 + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15	✓

Analysis Set Details

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

Future Year 2027 + Commited Development + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.
Info	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A20 / M20 Roundabout	Standard Roundabout		1, 2, 3	16.72	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	16.72	C

Arms

Arms

Arm	Name	Description	No give-way line
1	M20 link road		
2	A20 (E)		
3	A20 (W)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - M20 link road	7.40	10.40	7.8	44.9	59.0	34.0		
2 - A20 (E)	7.50	10.00	5.3	48.8	59.0	14.5		
3 - A20 (W)	3.80	6.10	10.3	25.3	59.0	20.5		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - M20 link road	0.738	2685
2 - A20 (E)	0.775	2787
3 - A20 (W)	0.561	1625

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

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
1 - M20 link road	Apportion from lane geometry	10.00
2 - A20 (E)	Apportion from lane geometry	20.00
3 - A20 (W)	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Has obstruction	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Signalised
1 - M20 link road	Entry	1	1	2	✓	2.00			0	99999	
			2	2	✓	2.00			0	99999	
			3	1, 3	✓	2.00			0	99999	
		2	1	(2)		Infinity					
			2	(1, 2, 3)		Infinity					
	Exit	1	1			Infinity					
2 - A20 (E)	Entry	1	1	(1), 3		Infinity			0	99999	
			2	1, 2		Infinity			0	99999	
	Exit	1	1			Infinity					
3 - A20 (W)	Entry	1	1	1, 2, 3		Infinity			0	99999	
	Exit	1	1			Infinity					

Entry Lane Geometry

Arm	Side	Lane level	Lane	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Notes
1 - M20 link road	Entry	1	1	3.70	3.70	0.0	44.9	59.0	34.0		
			2	3.70	3.70	0.0	44.9	59.0	34.0		
			3	3.00	3.00	0.0	44.9	59.0	34.0		
2 - A20 (E)	Entry	1	1	3.75	3.75	0.0	48.8	59.0	14.5		
			2	3.75	6.25	5.3	48.8	59.0	14.5		

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/hr)
1 - M20 link road	Entry	1	1	0.263	955
			2	0.263	955
			3	0.213	774
2 - A20 (E)	Entry	1	1	0.342	1230
			2	0.433	1557
3 - A20 (W)	Entry	1	1	0.561	1625

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm		
			M20 link road	A20 (E)	A20 (W)
1 - M20 link road	1	1		✓	
		2		✓	
		3	✓		✓
	2	1		✓	
		2	✓	✓	✓
2 - A20 (E)	1	1			✓
		2	✓	✓	
3 - A20 (W)	1	1	✓	✓	✓

Summary of Entry Lane allowed secondary movements

Arm	Lane Level	Lane	Destination arm		
			M20 link road	A20 (E)	A20 (W)
1 - M20 link road	1	1			
		2			
		3			
	2	1			
		2			
2 - A20 (E)	1	1	✓		
		2			
3 - A20 (W)	1	1			

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Future Year 2027 + Commited Development + Development	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - M20 link road		ONE HOUR	✓	1464	100.000
2 - A20 (E)		ONE HOUR	✓	1685	100.000
3 - A20 (W)		ONE HOUR	✓	364	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	1031	433
	2 - A20 (E)	1295	0	390
	3 - A20 (W)	337	25	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	8	7
	2 - A20 (E)	6	0	3
	3 - A20 (W)	9	4	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - M20 link road	10.76	4.8	12.1	B	1328	1992
2 - A20 (E)	22.63	12.1	28.3	C	1544	2316
3 - A20 (W)	13.72	1.4	5.2	B	334	501

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1094	274	19	1099	1173	1217	0.0	1.7	6.595	A
2 - A20 (E)	1260	315	325	1259	1330	794	0.0	2.5	6.285	A
3 - A20 (W)	269	67	968	269	297	616	0.0	0.4	5.365	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1286	321	23	1290	1398	1459	1.7	2.8	7.786	A
2 - A20 (E)	1495	374	378	1500	1576	935	2.5	3.5	8.657	A
3 - A20 (W)	319	80	1159	323	358	719	0.4	0.4	7.069	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1606	401	31	1607	1726	1778	2.8	4.8	10.756	B
2 - A20 (E)	1846	462	477	1830	1910	1161	3.5	12.1	18.842	C
3 - A20 (W)	404	101	1407	402	424	900	0.4	1.3	11.108	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1607	402	34	1606	1734	1829	4.8	4.3	10.088	B
2 - A20 (E)	1881	470	478	1894	1972	1163	12.1	11.0	22.629	C
3 - A20 (W)	408	102	1451	413	443	921	1.3	1.4	13.719	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1294	323	24	1292	1424	1455	4.3	2.8	7.809	A
2 - A20 (E)	1514	379	386	1510	1624	930	11.0	4.2	11.416	B
3 - A20 (W)	326	81	1150	329	353	746	1.4	0.6	8.323	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1082	271	18	1084	1186	1225	2.8	1.8	6.682	A
2 - A20 (E)	1270	317	322	1267	1344	781	4.2	2.2	6.623	A
3 - A20 (W)	275	69	968	276	303	621	0.6	0.3	5.720	A

Queue Variation Results for each time segment

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	1.70	0.00	0.68	3.62	5.38
2 - A20 (E)	2.47	0.00	1.24	5.82	6.51
3 - A20 (W)	0.44	0.00	0.00	1.04	1.62

07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	2.92	0.04	1.98	5.33	7.74
2 - A20 (E)	3.56	0.00	2.27	7.34	9.46
3 - A20 (W)	0.49	0.00	0.00	1.26	1.80

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	4.83	0.13	3.74	9.68	12.01
2 - A20 (E)	12.09	1.34	9.41	23.38	28.34
3 - A20 (W)	1.34	0.00	0.21	3.58	5.19

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	4.44	0.00	3.38	9.08	10.43
2 - A20 (E)	11.02	0.25	8.46	22.69	27.34
3 - A20 (W)	1.42	0.00	0.35	3.66	4.56

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	2.82	0.00	2.03	5.26	6.47
2 - A20 (E)	4.31	0.00	2.51	9.43	12.27
3 - A20 (W)	0.65	0.00	0.00	1.73	2.46

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	1.86	0.00	0.96	3.59	5.76
2 - A20 (E)	2.30	0.00	1.24	4.58	6.01
3 - A20 (W)	0.38	0.00	0.00	1.18	2.79

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	388	881	0.440	389	412	0.0	0.5	5.058	A
			2	2	386	879	0.439	387	417	0.0	0.5	4.992	A
			3	1, 3	322	719	0.449	324	344	0.0	0.5	6.902	A
		2	1	(2)	426			426	467	0.0	0.0	0.401	A
			2	(1, 2, 3)	668			670	712	0.0	0.2	1.416	A
	Exit	1	1		1217			1217	1303	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	424	1065	0.398	426	447	0.0	0.6	5.066	A
			2	1, 2	836	1330	0.628	833	883	0.0	1.9	6.913	A
	Exit	1	1		794			794	848	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	269	978	0.276	269	297	0.0	0.4	5.365	A
	Exit	1	1		616			616	649	0.0	0.0	0.000	A

07:30 - 07:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	466	879	0.530	466	497	0.5	0.8	5.321	A
			2	2	447	882	0.507	448	490	0.5	0.7	5.379	A
			3	1, 3	377	719	0.524	376	411	0.5	0.8	7.179	A
		2	1	(2)	528			530	583	0.0	0.1	0.735	A
			2	(1, 2, 3)	757			761	818	0.2	0.5	2.710	A
	Exit	1	1		1459			1459	1554	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	521	1050	0.496	520	534	0.6	0.9	6.107	A
			2	1, 2	974	1301	0.748	980	1042	1.9	2.6	9.991	A
	Exit	1	1		935			935	1010	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	319	863	0.371	323	358	0.4	0.4	7.069	A
	Exit	1	1		719			719	768	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	566	871	0.650	567	610	0.8	0.9	5.913	A
			2	2	565	877	0.644	565	611	0.7	0.9	5.843	A
			3	1, 3	473	717	0.660	475	506	0.8	1.0	7.950	A
		2	1	(2)	779			778	829	0.1	0.4	1.688	A
			2	(1, 2, 3)	827			826	899	0.5	1.6	6.602	A
	Exit	1	1		1778			1778	1873	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	676	1020	0.663	675	689	0.9	2.1	9.467	A
			2	1, 2	1170	1255	0.930	1155	1221	2.6	10.0	24.152	C
	Exit	1	1		1161			1161	1248	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	404	722	0.560	402	424	0.4	1.3	11.108	B
	Exit	1	1		900			900	938	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	566	872	0.649	566	614	0.9	0.9	5.803	A
			2	2	565	877	0.645	566	610	0.9	0.9	5.787	A
			3	1, 3	473	718	0.658	475	510	1.0	0.9	7.772	A
		2	1	(2)	750			749	823	0.4	0.3	1.461	A
			2	(1, 2, 3)	856			854	911	1.6	1.2	5.757	A
	Exit	1	1		1829			1829	1933	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	682	1012	0.674	682	707	2.1	2.1	10.653	B
			2	1, 2	1199	1261	0.951	1212	1265	10.0	8.9	29.450	D
	Exit	1	1		1163			1163	1253	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	408	702	0.581	413	443	1.3	1.4	13.719	B
	Exit	1	1		921			921	962	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	451	885	0.510	453	496	0.9	0.6	5.370	A
			2	2	457	882	0.517	456	504	0.9	0.7	5.313	A
			3	1, 3	385	717	0.538	383	424	0.9	0.9	7.438	A
		2	1	(2)	543			545	602	0.3	0.0	0.679	A
			2	(1, 2, 3)	750			749	819	1.2	0.6	2.694	A
	Exit	1	1		1455			1455	1583	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	531	1048	0.507	534	555	2.1	0.9	6.918	A
			2	1, 2	983	1294	0.759	976	1069	8.9	3.3	13.832	B
	Exit	1	1		930			930	1024	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	326	867	0.376	329	353	1.4	0.6	8.323	A
	Exit	1	1		746			746	794	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	381	886	0.431	381	421	0.6	0.5	5.146	A
			2	2	384	880	0.435	383	417	0.7	0.6	5.184	A
			3	1, 3	320	720	0.445	321	348	0.9	0.6	6.853	A
		2	1	(2)	430			430	469	0.0	0.0	0.365	A
			2	(1, 2, 3)	653			655	714	0.6	0.1	1.456	A
	Exit	1	1		1225			1225	1323	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	429	1072	0.400	429	445	0.9	0.6	5.355	A
			2	1, 2	841	1329	0.633	838	899	3.3	1.7	7.267	A
	Exit	1	1		781			781	857	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	275	976	0.282	276	303	0.6	0.3	5.720	A
	Exit	1	1		621			621	653	0.0	0.0	0.000	A

Lanes: Queue Variation Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.47	0.00	0.00	0.89	1.45
			2	0.50	0.00	0.00	0.91	1.43
			3	0.55	0.00	0.00	1.45	1.75
		2	1	0.02	0.00	0.00	0.00	0.00
			2	0.17	0.00	0.00	0.22	0.81
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.59	0.00	0.00	1.50	1.85
			2	1.88	0.00	0.69	4.71	5.98
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.44	0.00	0.00	1.04	1.62
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

07:30 - 07:45

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.78	0.00	0.19	1.54	1.73
			2	0.80	0.00	0.24	1.55	1.74
			3	0.79	0.00	0.23	1.52	1.71
		2	1	0.09	0.00	0.00	0.00	-0.02
			2	0.46	0.00	0.00	1.54	2.32
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.96	0.00	0.00	2.44	2.87
			2	2.59	0.00	1.35	6.57	7.49
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.49	0.00	0.00	1.26	1.80
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

07:45 - 08:00

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.87	0.00	0.42	1.84	1.84
			2	0.95	0.00	0.49	1.59	1.73
			3	1.04	0.00	0.75	1.68	1.79
		2	1	0.36	0.00	0.00	1.20	2.76
			2	1.59	0.00	0.00	4.62	5.56
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	2.17	0.00	1.12	4.74	6.56
			2	9.84	0.72	7.18	20.57	26.21
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	1.34	0.00	0.21	3.58	5.19
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:00 - 08:15

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.99	0.00	0.56	1.67	1.79
			2	0.91	0.00	0.37	1.67	1.80
			3	0.97	0.00	0.52	1.71	1.82
		2	1	0.28	0.00	0.00	0.91	1.50
			2	1.27	0.00	0.00	3.43	4.60
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	2.13	0.00	0.84	5.16	6.22
			2	8.87	0.00	5.81	19.73	25.44
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	1.42	0.00	0.35	3.66	4.56
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:15 - 08:30

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.62	0.00	0.00	1.46	1.69
			2	0.67	0.00	0.05	1.86	1.86
			3	0.95	0.00	0.45	1.67	1.81
		2	1	0.01	0.00	0.00	0.00	0.00
			2	0.57	0.00	0.00	2.14	3.48
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.98	0.00	0.22	2.19	2.87
			2	3.31	0.00	1.63	7.34	9.67
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.65	0.00	0.00	1.73	2.46
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:30 - 08:45

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.56	0.00	0.00	1.36	1.67
			2	0.56	0.00	0.00	1.85	1.85
			3	0.61	0.00	0.00	1.54	1.74
		2	1	0.02	0.00	0.00	0.00	0.00
			2	0.11	0.00	0.00	0.00	0.61
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.57	0.00	0.00	1.27	2.16
			2	1.72	0.00	0.68	3.65	5.34
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.38	0.00	0.00	1.18	2.79
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

Lane movements: Main Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	388	97	955	881	0.440	389	412	0.0	0.5	5.058	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	386	96	955	879	0.439	387	417	0.0	0.5	4.992	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	322	81	774	719	0.449	324	344	0.0	0.5	6.902	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	426	107	-	-	-	426	467	0.0	0.0	0.401	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	347	87	-	-	-	347	366	0.0	0.0	0.430	A
				3	321	80	-	-	-	322	346	0.0	0.2	2.455	A
2 - A20 (E)	Entry	1	1	1	134	34	1230	1048	0.128	135	143	0.0	0.1	4.732	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	290	72	1230	1074	0.270	291	304	0.0	0.4	5.219	A
			2	1	836	209	1557	1330	0.628	833	883	0.0	1.9	6.913	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	250	62	1625	974	0.257	249	277	0.0	0.4	5.386	A
				2	18	4	1625	1014	0.018	18	19	0.0	0.0	5.078	A
				3	1	0.36	451	287	0.005	1	2	0.0	0.0	5.258	A

07:30 - 07:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	466	117	955	879	0.530	466	497	0.5	0.8	5.321	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	447	112	955	882	0.507	448	490	0.5	0.7	5.379	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	377	94	774	719	0.524	376	411	0.5	0.8	7.179	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	528	132	-	-	-	530	583	0.0	0.1	0.735	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	382	96	-	-	-	384	406	0.2	0.1	0.783	A
				3	375	94	-	-	-	377	412	0.2	0.4	4.589	A
2 - A20 (E)	Entry	1	1	1	180	45	1230	1024	0.176	179	179	0.6	0.3	5.634	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	342	85	1230	1064	0.321	341	355	0.6	0.6	6.340	A
			2	1	974	244	1557	1301	0.749	980	1042	1.9	2.6	9.991	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	296	74	1625	865	0.343	300	333	0.4	0.4	7.078	A
				2	21	5	1625	880	0.024	21	23	0.4	0.0	6.858	A
				3	2	0.48	628	368	0.005	2	2	0.0	0.0	7.989	A

07:45 - 08:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	566	142	955	871	0.650	567	610	0.8	0.9	5.913	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	565	141	955	877	0.644	565	611	0.7	0.9	5.843	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	473	118	774	717	0.660	475	506	0.8	1.0	7.950	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	779	195	-	-	-	778	829	0.1	0.4	1.688	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	354	88	-	-	-	353	392	0.5	0.2	2.235	A
				3	473	118	-	-	-	473	507	0.5	1.5	9.908	A
2 - A20 (E)	Entry	1	1	1	250	63	1230	1000	0.250	252	258	0.9	0.7	8.970	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	425	106	1230	1033	0.412	423	431	0.9	1.5	9.756	A
			2	1	1170	293	1557	1255	0.930	1155	1221	2.6	10.0	24.152	C
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	374	94	1625	720	0.519	371	395	0.4	1.3	11.132	B
				2	28	7	1609	756	0.037	29	28	0.4	0.0	10.692	B
				3	2	0.56	531	262	0.009	2	2	0.0	0.0	12.712	B

08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	566	141	955	872	0.649	566	614	0.9	0.9	5.803	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	565	141	955	877	0.645	566	610	0.9	0.9	5.787	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	473	118	774	718	0.658	475	510	1.0	0.9	7.772	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	750	188	-	-	-	749	823	0.4	0.3	1.461	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	382	95	-	-	-	382	401	1.6	0.2	1.757	A
				3	474	119	-	-	-	473	510	1.6	1.1	8.864	A
2 - A20 (E)	Entry	1	1	1	240	60	1230	995	0.242	239	258	2.1	0.8	10.303	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	441	110	1230	1022	0.432	443	450	2.1	1.3	10.849	B
			2	1	1199	300	1557	1261	0.951	1212	1265	10.0	8.9	29.450	D
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	375	94	1625	700	0.535	379	411	1.3	1.3	13.734	B
				2	31	8	1625	737	0.042	32	29	1.3	0.1	13.653	B
				3	3	0.68	853	409	0.007	3	3	1.3	0.0	12.372	B

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	451	113	955	885	0.510	453	496	0.9	0.6	5.370	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	457	114	955	882	0.517	456	504	0.9	0.7	5.313	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	385	96	774	716	0.538	383	424	0.9	0.9	7.438	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	543	136	-	-	-	545	602	0.3	0.0	0.679	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	363	91	-	-	-	364	395	1.2	0.0	0.731	A
				3	387	97	-	-	-	385	423	1.2	0.6	4.523	A
2 - A20 (E)	Entry	1	1	1	173	43	1230	1028	0.168	174	187	2.1	0.3	6.434	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	358	90	1230	1057	0.339	360	368	2.1	0.7	7.154	A
			2	1	983	246	1557	1294	0.759	976	1069	8.9	3.3	13.832	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	302	76	1625	865	0.349	305	327	1.4	0.6	8.328	A
				2	22	5	1625	909	0.024	22	24	1.4	0.0	8.357	A
				3	2	0.48	756	414	0.005	2	2	1.4	0.0	7.353	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	381	95	955	885	0.431	381	421	0.6	0.5	5.146	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	384	96	955	880	0.435	383	417	0.7	0.6	5.184	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	320	80	774	720	0.445	321	348	0.9	0.6	6.853	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	430	107	-	-	-	430	469	0.0	0.0	0.365	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	335	84	-	-	-	335	368	0.6	0.0	0.384	A
				3	318	79	-	-	-	320	347	0.6	0.1	2.586	A
2 - A20 (E)	Entry	1	1	1	130	32	1230	1045	0.124	129	141	0.9	0.1	5.008	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	299	75	1230	1083	0.276	299	303	0.9	0.4	5.511	A
			2	1	841	210	1557	1330	0.633	838	899	3.3	1.7	7.267	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	257	64	1625	971	0.265	258	283	0.6	0.3	5.754	A
				2	17	4	1625	1022	0.017	17	20	0.6	0.0	5.240	A
				3	1	0.30	370	234	0.005	1	1	0.0	0.0	5.874	A

Future Year 2031 + Commited Development + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.
Info	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A20 / M20 Roundabout	Standard Roundabout		1, 2, 3	19.62	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	19.62	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Future Year 2031 + Commited Development + Development	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - M20 link road		ONE HOUR	✓	1504	100.000
2 - A20 (E)		ONE HOUR	✓	1734	100.000
3 - A20 (W)		ONE HOUR	✓	369	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	1062	442
	2 - A20 (E)	1333	0	401
	3 - A20 (W)	342	25	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	8	7
	2 - A20 (E)	6	0	3
	3 - A20 (W)	9	4	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - M20 link road	11.65	5.4	14.8	B	1377	2066
2 - A20 (E)	27.93	17.0	45.5	D	1589	2383
3 - A20 (W)	13.98	1.9	6.4	B	338	507

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1134	284	22	1136	1214	1266	0.0	2.0	6.713	A
2 - A20 (E)	1316	329	330	1314	1365	828	0.0	2.5	6.537	A
3 - A20 (W)	280	70	1006	282	306	639	0.0	0.4	5.622	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1348	337	25	1344	1447	1508	2.0	3.0	8.032	A
2 - A20 (E)	1567	392	392	1567	1639	977	2.5	4.2	9.517	A
3 - A20 (W)	330	83	1203	330	357	757	0.4	0.6	7.187	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1654	414	29	1653	1771	1813	3.0	5.0	11.028	B
2 - A20 (E)	1899	475	483	1890	1967	1199	4.2	13.9	22.428	C
3 - A20 (W)	398	99	1448	394	433	925	0.6	1.5	11.907	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1653	413	32	1658	1784	1808	5.0	5.2	11.651	B
2 - A20 (E)	1901	475	495	1870	1989	1195	13.9	16.8	27.926	D
3 - A20 (W)	409	102	1437	403	443	928	1.5	1.8	13.985	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1356	339	26	1356	1465	1505	5.2	3.0	8.236	A
2 - A20 (E)	1548	387	398	1550	1682	984	16.8	4.0	13.773	B
3 - A20 (W)	333	83	1196	334	367	752	1.8	0.7	8.457	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1120	280	21	1118	1218	1260	3.0	2.2	6.743	A
2 - A20 (E)	1302	326	333	1304	1388	805	4.0	2.4	6.739	A
3 - A20 (W)	276	69	1004	277	308	634	0.7	0.4	5.735	A

Queue Variation Results for each time segment

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	2.03	0.00	1.15	4.12	5.55
2 - A20 (E)	2.58	0.00	1.62	5.21	6.47
3 - A20 (W)	0.42	0.00	0.00	0.91	1.65

07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	3.15	0.00	2.04	6.25	7.77
2 - A20 (E)	4.30	0.00	2.81	9.13	10.87
3 - A20 (W)	0.65	0.00	0.00	1.58	2.22

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	5.12	0.00	3.31	9.97	12.90
2 - A20 (E)	13.96	0.75	10.66	29.37	36.94
3 - A20 (W)	1.61	0.00	0.41	4.07	5.51

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	5.39	0.00	3.71	10.64	14.80
2 - A20 (E)	16.96	0.97	12.80	34.04	45.41
3 - A20 (W)	1.87	0.00	0.56	4.87	6.41

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	3.03	0.00	1.83	6.39	8.49
2 - A20 (E)	4.14	0.00	3.03	8.14	10.20
3 - A20 (W)	0.76	0.00	0.00	1.92	3.11

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	2.31	0.00	1.39	5.02	5.92
2 - A20 (E)	2.37	0.00	1.14	5.35	7.01
3 - A20 (W)	0.41	0.00	0.00	0.89	2.05

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	404	877	0.461	406	429	0.0	0.5	5.071	A
			2	2	402	880	0.457	401	435	0.0	0.6	5.037	A
			3	1, 3	329	718	0.457	329	349	0.0	0.6	6.913	A
		2	1	(2)	453			454	486	0.0	0.0	0.386	A
			2	(1, 2, 3)	681			682	735	0.0	0.2	1.596	A
	Exit	1	1		1266			1266	1337	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	444	1067	0.416	444	451	0.0	0.6	5.311	A
			2	1, 2	872	1324	0.659	870	914	0.0	1.9	7.153	A
	Exit	1	1		828			828	885	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	280	942	0.297	282	306	0.0	0.4	5.622	A
	Exit	1	1		639			639	662	0.0	0.0	0.000	A

07:30 - 07:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	477	878	0.543	477	512	0.5	0.7	5.441	A
			2	2	477	878	0.543	477	517	0.6	0.7	5.384	A
			3	1, 3	393	719	0.547	390	418	0.6	0.9	7.439	A
		2	1	(2)	579			579	621	0.0	0.1	0.747	A
			2	(1, 2, 3)	768			767	829	0.2	0.7	2.969	A
	Exit	1	1		1508			1508	1599	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	543	1044	0.520	541	559	0.6	1.1	6.567	A
			2	1, 2	1024	1298	0.789	1027	1080	1.9	3.1	11.069	B
	Exit	1	1		977			977	1051	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	330	839	0.394	330	357	0.4	0.6	7.187	A
	Exit	1	1		757			757	793	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	588	876	0.670	588	630	0.7	0.9	5.899	A
			2	2	583	874	0.668	584	630	0.7	0.9	5.896	A
			3	1, 3	483	714	0.675	481	511	0.9	1.1	7.921	A
		2	1	(2)	802			802	859	0.1	0.5	1.809	A
			2	(1, 2, 3)	852			851	915	0.7	1.7	7.072	A
	Exit	1	1		1813			1813	1918	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	699	1011	0.692	698	717	1.1	2.1	10.681	B
			2	1, 2	1200	1256	0.955	1192	1250	3.1	11.8	29.121	D
	Exit	1	1		1199			1199	1288	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	398	704	0.566	394	433	0.6	1.5	11.907	B
	Exit	1	1		925			925	965	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	585	879	0.666	586	630	0.9	1.0	5.995	A
			2	2	580	873	0.664	580	632	0.9	0.9	5.974	A
			3	1, 3	491	717	0.685	492	522	1.1	1.1	8.044	A
		2	1	(2)	815			817	877	0.5	0.4	2.002	A
			2	(1, 2, 3)	838			839	907	1.7	1.9	7.996	A
	Exit	1	1		1808			1808	1948	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	693	1007	0.688	691	723	2.1	2.2	11.121	B
			2	1, 2	1207	1250	0.967	1179	1265	11.8	14.5	37.623	E
	Exit	1	1		1195			1195	1291	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	409	709	0.577	403	443	1.5	1.8	13.985	B
	Exit	1	1		928			928	976	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	482	878	0.549	482	517	1.0	0.7	5.383	A
			2	2	479	877	0.547	478	516	0.9	0.8	5.428	A
			3	1, 3	397	718	0.552	396	432	1.1	0.8	7.457	A
		2	1	(2)	582			582	629	0.4	0.2	0.807	A
			2	(1, 2, 3)	774			776	832	1.9	0.6	3.315	A
	Exit	1	1		1505			1505	1649	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	529	1042	0.507	527	569	2.2	1.0	7.096	A
			2	1, 2	1019	1298	0.785	1023	1113	14.5	3.0	17.379	C
	Exit	1	1		984			984	1057	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	333	847	0.393	334	367	1.8	0.7	8.457	A
	Exit	1	1		752			752	808	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	392	873	0.450	391	430	0.7	0.6	5.029	A
			2	2	396	882	0.450	395	432	0.8	0.6	4.991	A
			3	1, 3	331	719	0.460	331	356	0.8	0.6	7.013	A
		2	1	(2)	447			447	486	0.2	0.0	0.376	A
			2	(1, 2, 3)	673			673	730	0.6	0.3	1.674	A
	Exit	1	1		1260			1260	1363	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	437	1067	0.409	436	458	1.0	0.8	5.368	A
			2	1, 2	865	1323	0.654	869	930	3.0	1.6	7.431	A
	Exit	1	1		805			805	882	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	276	942	0.293	277	308	0.7	0.4	5.735	A
	Exit	1	1		634			634	670	0.0	0.0	0.000	A

Lanes: Queue Variation Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.58	0.00	0.00	1.33	1.63
			2	0.61	0.00	0.00	1.36	1.64
			3	0.57	0.00	0.00	1.41	1.65
		2	1	0.03	0.00	0.00	0.00	0.00
			2	0.23	0.00	0.00	0.49	1.51
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.65	0.00	0.00	1.53	1.89
			2	1.93	0.00	0.72	4.39	5.51
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.42	0.00	0.00	0.91	1.65
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

07:30 - 07:45

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.72	0.00	0.09	1.49	1.71
			2	0.70	0.00	0.06	1.47	1.69
			3	0.96	0.00	0.50	1.66	1.78
		2	1	0.11	0.00	0.00	0.00	0.42
			2	0.66	0.00	0.00	1.81	3.36
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	1.16	0.00	0.16	2.67	3.71
			2	3.13	0.00	1.66	7.50	9.32
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.65	0.00	0.00	1.58	2.22
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

07:45 - 08:00

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.96	0.00	0.48	1.65	1.79
			2	0.93	0.00	0.43	1.63	1.77
			3	1.09	0.00	0.89	1.70	1.79
		2	1	0.47	0.00	0.00	1.29	2.60
			2	1.68	0.00	0.00	4.20	7.38
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	2.11	0.00	0.65	5.55	8.14
			2	11.80	0.01	8.17	26.31	31.96
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	1.61	0.00	0.41	4.07	5.51
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:00 - 08:15

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	1.02	0.00	0.57	1.67	1.80
			2	1.00	0.00	0.55	1.66	1.79
			3	1.11	0.00	0.82	1.72	1.82
		2	1	0.37	0.00	0.00	0.81	2.30
			2	1.90	0.00	0.00	5.47	8.04
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	2.27	0.00	0.89	5.74	7.18
			2	14.61	0.00	9.88	32.57	42.27
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	1.87	0.00	0.56	4.87	6.41
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:15 - 08:30

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.75	0.00	0.13	1.51	1.70
			2	0.78	0.00	0.24	1.51	1.69
			3	0.78	0.00	0.11	1.87	1.87
		2	1	0.15	0.00	0.00	0.00	0.78
			2	0.57	0.00	0.00	2.04	2.91
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	1.07	0.00	0.24	2.52	3.28
			2	3.07	0.00	1.89	6.13	8.96
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.76	0.00	0.00	1.92	3.11
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:30 - 08:45

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.67	0.00	0.00	1.43	1.65
			2	0.65	0.00	0.04	1.37	1.62
			3	0.64	0.00	0.00	1.47	1.70
		2	1	0.02	0.00	0.00	0.00	0.00
			2	0.33	0.00	0.00	0.66	1.84
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.74	0.00	0.00	1.62	2.68
			2	1.62	0.00	0.50	4.12	5.18
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.41	0.00	0.00	0.89	2.05
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

Lane movements: Main Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	404	101	955	877	0.461	406	429	0.0	0.5	5.071	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	402	101	955	880	0.457	401	435	0.0	0.6	5.037	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	329	82	774	718	0.457	329	349	0.0	0.6	6.913	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	453	113	-	-	-	454	486	0.0	0.0	0.386	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	353	88	-	-	-	353	383	0.0	0.0	0.386	A
				3	328	82	-	-	-	329	352	0.0	0.2	2.896	A
2 - A20 (E)	Entry	1	1	1	136	34	1230	1045	0.130	135	140	0.0	0.2	4.804	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	308	77	1230	1076	0.286	308	311	0.0	0.4	5.532	A
			2	1	872	218	1557	1323	0.659	870	914	0.0	1.9	7.153	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	258	65	1625	940	0.275	260	284	0.0	0.4	5.627	A
				2	21	5	1618	969	0.021	21	21	0.0	0.0	5.644	A
				3	1	0.29	504	327	0.003	1	1	0.0	0.0	4.402	A

07:30 - 07:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	477	119	955	878	0.543	477	512	0.5	0.7	5.441	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	477	119	955	878	0.543	477	517	0.6	0.7	5.384	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	393	98	774	719	0.547	390	418	0.6	0.9	7.439	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	579	145	-	-	-	579	621	0.0	0.1	0.747	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	374	94	-	-	-	374	409	0.2	0.1	0.826	A
				3	394	99	-	-	-	393	420	0.2	0.5	5.035	A
2 - A20 (E)	Entry	1	1	1	177	44	1230	1031	0.172	176	186	0.6	0.3	6.014	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	366	92	1230	1050	0.348	364	372	0.6	0.8	6.836	A
			2	1	1024	256	1557	1298	0.789	1027	1080	1.9	3.1	11.069	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	305	76	1625	835	0.366	306	333	0.4	0.6	7.201	A
				2	23	6	1625	888	0.026	23	22	0.4	0.0	6.997	A
				3	2	0.50	658	374	0.005	2	2	0.0	0.0	7.103	A

07:45 - 08:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	588	147	955	876	0.670	588	630	0.7	0.9	5.899	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	583	146	955	874	0.668	584	630	0.7	0.9	5.896	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	483	121	774	714	0.675	481	511	0.9	1.1	7.921	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	802	200	-	-	-	802	859	0.1	0.5	1.809	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	368	92	-	-	-	368	403	0.7	0.2	2.272	A
				3	484	121	-	-	-	483	512	0.7	1.5	10.806	B
2 - A20 (E)	Entry	1	1	1	256	64	1230	998	0.257	257	265	1.1	0.8	10.248	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	443	111	1230	1019	0.435	442	452	1.1	1.3	10.927	B
			2	1	1200	300	1557	1256	0.955	1192	1250	3.1	11.8	29.121	D
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	369	92	1625	701	0.527	365	403	0.6	1.4	11.958	B
				2	27	7	1625	743	0.036	27	28	0.6	0.1	11.338	B
				3	2	0.48	611	294	0.007	2	2	0.6	0.0	10.202	B

08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	585	146	955	879	0.666	586	630	0.9	1.0	5.995	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	580	145	955	873	0.664	580	632	0.9	0.9	5.974	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	491	123	774	717	0.685	492	522	1.1	1.1	8.044	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	815	204	-	-	-	817	877	0.5	0.4	2.002	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	346	87	-	-	-	348	385	1.7	0.2	2.681	A
				3	491	123	-	-	-	491	522	1.7	1.7	11.889	B
2 - A20 (E)	Entry	1	1	1	258	64	1230	989	0.261	258	272	2.1	0.8	10.773	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	435	109	1230	1018	0.428	433	451	2.1	1.4	11.325	B
			2	1	1207	302	1557	1250	0.967	1179	1265	11.8	14.5	37.623	E
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	376	94	1625	706	0.533	371	411	1.5	1.7	14.008	B
				2	29	7	1625	721	0.041	29	29	1.5	0.1	13.694	B
				3	3	0.81	786	368	0.009	3	2	1.5	0.0	13.736	B

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	482	121	955	878	0.549	482	517	1.0	0.7	5.383	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	479	120	955	877	0.547	478	516	0.9	0.8	5.428	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	397	99	774	718	0.552	396	432	1.1	0.8	7.457	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	582	146	-	-	-	582	629	0.4	0.2	0.807	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	379	95	-	-	-	379	401	1.9	0.1	0.877	A
				3	395	99	-	-	-	397	431	1.9	0.5	5.593	A
2 - A20 (E)	Entry	1	1	1	174	43	1230	1026	0.170	173	196	2.2	0.3	6.650	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	355	89	1230	1051	0.338	354	374	2.2	0.7	7.322	A
			2	1	1019	255	1557	1298	0.785	1023	1113	14.5	3.0	17.379	C
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	307	77	1625	846	0.363	308	341	1.8	0.7	8.485	A
				2	24	6	1618	876	0.027	23	24	1.8	0.1	8.209	A
				3	2	0.55	712	378	0.006	2	2	1.8	0.0	7.037	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	392	98	955	873	0.450	391	430	0.7	0.6	5.029	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	396	99	955	882	0.450	395	432	0.8	0.6	4.991	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	331	83	774	719	0.460	331	356	0.8	0.6	7.013	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	447	112	-	-	-	447	486	0.2	0.0	0.376	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	342	86	-	-	-	342	375	0.6	0.0	0.385	A
				3	331	83	-	-	-	331	355	0.6	0.3	3.027	A
2 - A20 (E)	Entry	1	1	1	136	34	1230	1051	0.129	135	146	1.0	0.2	4.845	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	301	75	1230	1075	0.280	300	312	1.0	0.6	5.607	A
			2	1	865	216	1557	1322	0.654	869	930	3.0	1.6	7.431	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	256	64	1625	938	0.273	256	287	0.7	0.4	5.722	A
				2	19	5	1605	981	0.019	19	20	0.7	0.0	5.924	A
				3	2	0.51	557	342	0.006	2	2	0.7	0.0	5.630	A

Future Year 2037 + Committed Development + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.
Info	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A20 / M20 Roundabout	Standard Roundabout		1, 2, 3	26.81	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	26.81	D

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	Future Year 2037 + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - M20 link road		ONE HOUR	✓	1563	100.000
2 - A20 (E)		ONE HOUR	✓	1800	100.000
3 - A20 (W)		ONE HOUR	✓	383	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	1102	461
	2 - A20 (E)	1383	0	417
	3 - A20 (W)	355	26	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	8	7
	2 - A20 (E)	6	0	3
	3 - A20 (W)	8	4	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - M20 link road	12.05	5.5	14.8	B	1438	2157
2 - A20 (E)	42.48	25.3	57.6	E	1651	2477
3 - A20 (W)	15.11	1.9	7.9	C	352	528

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1196	299	23	1198	1272	1315	0.0	2.1	6.956	A
2 - A20 (E)	1355	339	354	1358	1424	866	0.0	2.4	7.086	A
3 - A20 (W)	295	74	1041	296	316	671	0.0	0.4	5.695	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1441	360	28	1439	1527	1555	2.1	3.6	8.458	A
2 - A20 (E)	1618	404	430	1619	1690	1037	2.4	4.9	10.391	B
3 - A20 (W)	348	87	1233	350	370	815	0.4	0.6	7.257	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1711	428	29	1714	1838	1882	3.6	5.3	11.955	B
2 - A20 (E)	1978	494	509	1955	2034	1235	4.9	20.2	29.308	D
3 - A20 (W)	423	106	1490	421	448	973	0.6	1.9	12.727	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1696	424	30	1708	1832	1896	5.3	5.5	12.047	B
2 - A20 (E)	1985	496	500	1974	2058	1239	20.2	25.1	42.482	E
3 - A20 (W)	413	103	1512	413	450	962	1.9	1.9	15.110	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1397	349	23	1398	1522	1591	5.5	3.4	8.592	A
2 - A20 (E)	1617	404	419	1642	1791	1002	25.1	5.2	22.748	C
3 - A20 (W)	344	86	1269	345	376	792	1.9	0.9	10.197	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1189	297	21	1190	1277	1307	3.4	2.3	6.882	A
2 - A20 (E)	1357	339	365	1354	1449	846	5.2	2.8	7.523	A
3 - A20 (W)	288	72	1039	289	317	680	0.9	0.4	6.038	A

Queue Variation Results for each time segment

07:15 - 07:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	2.23	0.00	1.33	4.07	5.87
2 - A20 (E)	2.44	0.00	1.36	5.21	6.63
3 - A20 (W)	0.39	0.00	0.00	0.88	1.45

07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	3.76	0.00	2.84	6.83	7.91
2 - A20 (E)	5.00	0.00	3.32	11.12	13.73
3 - A20 (W)	0.56	0.00	0.00	1.27	1.83

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	5.25	0.00	3.48	10.12	14.80
2 - A20 (E)	20.15	0.96	15.46	45.33	51.66
3 - A20 (W)	1.91	0.00	0.73	4.61	7.43

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	5.55	0.00	4.38	11.13	13.49
2 - A20 (E)	25.30	1.91	21.95	47.43	57.69
3 - A20 (W)	1.92	0.00	0.46	4.43	7.83

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	3.53	0.00	2.18	7.41	9.24
2 - A20 (E)	5.19	0.00	3.10	12.87	17.88
3 - A20 (W)	0.97	0.00	0.00	2.63	3.68

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	2.40	0.00	1.60	4.54	5.40
2 - A20 (E)	2.82	0.00	1.52	5.61	8.22
3 - A20 (W)	0.40	0.00	0.00	0.82	1.38

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	418	878	0.477	420	449	0.0	0.5	5.218	A
			2	2	424	882	0.481	425	452	0.0	0.5	5.100	A
			3	1, 3	353	717	0.491	353	371	0.0	0.7	7.150	A
		2	1	(2)	472			472	515	0.0	0.0	0.384	A
			2	(1, 2, 3)	724			724	765	0.0	0.3	1.757	A
	Exit	1	1		1315			1315	1393	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	459	1062	0.432	461	476	0.0	0.7	5.513	A
			2	1, 2	896	1314	0.682	898	948	0.0	1.7	7.892	A
	Exit	1	1		866			866	920	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	295	933	0.316	296	316	0.0	0.4	5.695	A
	Exit	1	1		671			671	699	0.0	0.0	0.000	A

07:30 - 07:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	499	881	0.566	498	531	0.5	0.8	5.617	A
			2	2	514	887	0.580	513	543	0.5	0.8	5.466	A
			3	1, 3	428	717	0.597	427	453	0.7	1.0	7.418	A
		2	1	(2)	636			636	675	0.0	0.2	0.885	A
			2	(1, 2, 3)	805			804	855	0.3	0.9	3.515	A
	Exit	1	1		1555			1555	1646	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	572	1030	0.556	573	585	0.7	1.1	7.106	A
			2	1, 2	1045	1280	0.817	1046	1105	1.7	3.8	12.157	B
	Exit	1	1		1037			1037	1100	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	348	828	0.421	350	370	0.4	0.6	7.257	A
	Exit	1	1		815			815	840	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	607	880	0.689	609	646	0.8	0.9	6.068	A
			2	2	598	875	0.683	599	652	0.8	0.9	5.978	A
			3	1, 3	507	716	0.707	506	540	1.0	1.1	8.091	A
		2	1	(2)	875			878	922	0.2	0.3	2.075	A
			2	(1, 2, 3)	836			834	917	0.9	2.1	8.521	A
	Exit	1	1		1882			1882	1978	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	754	999	0.753	748	758	1.1	3.3	12.124	B
			2	1, 2	1224	1245	0.983	1207	1276	3.8	16.9	39.365	E
	Exit	1	1		1235			1235	1327	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	423	687	0.615	421	448	0.6	1.9	12.727	B
	Exit	1	1		973			973	1014	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	598	880	0.679	600	649	0.9	1.0	6.075	A
			2	2	609	878	0.695	611	648	0.9	0.9	6.031	A
			3	1, 3	496	722	0.687	498	535	1.1	1.1	8.088	A
		2	1	(2)	845			847	920	0.3	0.6	2.172	A
			2	(1, 2, 3)	851			856	913	2.1	1.8	8.640	A
	Exit	1	1		1896			1896	2001	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	746	1005	0.743	755	776	3.3	2.2	13.416	B
			2	1, 2	1239	1255	0.986	1219	1283	16.9	22.9	59.874	F
	Exit	1	1		1239			1239	1328	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	413	671	0.617	413	450	1.9	1.9	15.110	C
	Exit	1	1		962			962	1012	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	492	878	0.559	493	535	1.0	0.7	5.450	A
			2	2	487	877	0.556	488	535	0.9	0.8	5.460	A
			3	1, 3	417	722	0.577	417	451	1.1	0.8	7.627	A
		2	1	(2)	608			608	670	0.6	0.3	0.964	A
			2	(1, 2, 3)	789			788	848	1.8	0.9	3.682	A
	Exit	1	1		1591			1591	1752	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	567	1036	0.547	567	608	2.2	1.1	7.830	A
			2	1, 2	1050	1280	0.819	1075	1183	22.9	4.1	31.082	D
	Exit	1	1		1002			1002	1094	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	344	802	0.430	345	376	1.9	0.9	10.197	B
	Exit	1	1		792			792	842	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	415	884	0.470	417	451	0.7	0.6	5.046	A
			2	2	411	879	0.468	411	449	0.8	0.7	5.113	A
			3	1, 3	362	725	0.501	363	378	0.8	0.7	6.987	A
		2	1	(2)	481			481	513	0.3	0.1	0.463	A
			2	(1, 2, 3)	709			708	763	0.9	0.3	1.768	A
	Exit	1	1		1307			1307	1417	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	462	1055	0.438	463	485	1.1	0.6	5.634	A
			2	1, 2	896	1314	0.682	891	964	4.1	2.2	8.496	A
	Exit	1	1		846			846	920	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	288	938	0.307	289	317	0.9	0.4	6.038	A
	Exit	1	1		680			680	707	0.0	0.0	0.000	A

Lanes: Queue Variation Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.61	0.00	0.00	1.32	1.62
			2	0.53	0.00	0.00	1.86	1.86
			3	0.74	0.00	0.18	1.86	1.86
		2	1	0.02	0.00	0.00	0.00	0.00
			2	0.33	0.00	0.00	0.54	2.31
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.74	0.00	0.00	1.91	2.88
			2	1.70	0.00	0.78	3.92	4.69
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.39	0.00	0.00	0.88	1.45
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

07:30 - 07:45

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.85	0.00	0.28	1.61	1.79
			2	0.82	0.00	0.21	1.61	1.80
			3	1.03	0.00	0.62	1.72	1.84
		2	1	0.19	0.00	0.00	-0.02	0.89
			2	0.88	0.00	0.00	2.41	3.09
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	1.19	0.00	0.30	2.55	3.51
			2	3.80	0.00	1.94	8.91	11.26
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.56	0.00	0.00	1.27	1.83
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

07:45 - 08:00

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.89	0.00	0.36	1.62	1.77
			2	0.93	0.00	0.46	1.61	1.74
			3	1.09	0.00	0.90	1.74	1.84
		2	1	0.29	0.00	0.00	0.59	2.15
			2	2.05	0.00	0.00	5.87	8.34
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	3.30	0.00	1.62	7.64	9.53
			2	16.79	0.16	11.78	39.44	48.96
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	1.91	0.00	0.73	4.61	7.43
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:00 - 08:15

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	1.03	0.00	0.61	1.67	1.79
			2	1.02	0.00	0.72	1.67	1.77
			3	1.12	0.00	0.99	1.72	1.81
		2	1	0.56	0.00	0.00	1.81	3.46
			2	1.83	0.00	0.30	4.65	6.54
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	2.25	0.00	0.99	5.15	6.68
			2	22.96	0.77	19.31	46.25	56.70
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	1.92	0.00	0.46	4.43	7.83
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:15 - 08:30

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.75	0.00	0.02	1.56	1.72
			2	0.80	0.00	0.17	1.59	1.75
			3	0.78	0.00	0.07	1.61	1.78
		2	1	0.27	0.00	0.00	0.51	1.83
			2	0.92	0.00	0.00	3.20	4.04
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	1.10	0.00	0.09	2.53	4.07
			2	4.07	0.00	1.31	12.62	14.97
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.97	0.00	0.00	2.63	3.68
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

08:30 - 08:45

Arm	Side	Lane level	Lane	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)
1 - M20 link road	Entry	1	1	0.58	0.00	0.00	1.42	1.69
			2	0.70	0.00	0.00	1.52	1.76
			3	0.73	0.00	0.00	1.58	1.80
		2	1	0.06	0.00	0.00	0.00	0.00
			2	0.34	0.00	0.00	0.92	1.85
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
2 - A20 (E)	Entry	1	1	0.61	0.00	0.00	1.36	2.10
			2	2.21	0.00	0.83	4.94	6.57
	Exit	1	1	0.00	0.00	0.00	0.00	0.00
3 - A20 (W)	Entry	1	1	0.40	0.00	0.00	0.82	1.38
	Exit	1	1	0.00	0.00	0.00	0.00	0.00

Lane movements: Main Results for each time segment

07:15 - 07:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	418	105	955	878	0.477	420	449	0.0	0.5	5.218	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	424	106	955	882	0.481	425	452	0.0	0.5	5.100	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	353	88	774	717	0.491	353	371	0.0	0.7	7.150	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	472	118	-	-	-	472	515	0.0	0.0	0.384	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	370	93	-	-	-	371	391	0.0	0.0	0.423	A
				3	353	88	-	-	-	353	374	0.0	0.3	3.135	A
2 - A20 (E)	Entry	1	1	1	144	36	1230	1057	0.136	144	150	0.0	0.2	4.944	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	316	79	1230	1066	0.296	317	327	0.0	0.5	5.768	A
			2	1	896	224	1557	1314	0.682	898	948	0.0	1.7	7.892	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	273	68	1625	932	0.293	274	295	0.0	0.4	5.711	A
				2	21	5	1577	929	0.023	21	19	0.0	0.0	5.457	A
				3	0.95	0.24	467	286	0.003	1	1	0.0	0.0	5.719	A

07:30 - 07:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	499	125	955	881	0.566	498	531	0.5	0.8	5.617	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	514	128	955	887	0.580	513	543	0.5	0.8	5.466	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	428	107	774	717	0.597	427	453	0.7	1.0	7.418	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	636	159	-	-	-	636	675	0.0	0.2	0.885	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	377	94	-	-	-	376	401	0.3	0.1	1.025	A
				3	428	107	-	-	-	428	454	0.3	0.8	5.706	A
2 - A20 (E)	Entry	1	1	1	187	47	1230	1011	0.186	187	199	0.7	0.4	6.583	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	385	96	1230	1040	0.370	385	385	0.7	0.7	7.371	A
			2	1	1045	261	1557	1280	0.817	1046	1105	1.7	3.8	12.157	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	321	80	1625	826	0.388	322	342	0.4	0.5	7.276	A
				2	25	6	1609	829	0.030	25	26	0.4	0.0	7.111	A
				3	3	0.65	692	384	0.007	2	2	0.0	0.0	6.140	A

07:45 - 08:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	607	152	955	880	0.689	609	646	0.8	0.9	6.068	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	598	149	955	875	0.683	599	652	0.8	0.9	5.978	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	507	127	774	716	0.707	506	540	1.0	1.1	8.091	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	875	219	-	-	-	878	922	0.2	0.3	2.075	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	325	81	-	-	-	326	377	0.9	0.2	2.840	A
				3	511	128	-	-	-	507	540	0.9	1.9	12.408	B
2 - A20 (E)	Entry	1	1	1	286	71	1230	981	0.291	283	286	1.1	1.2	11.803	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	468	117	1230	1011	0.462	465	472	1.1	2.1	12.313	B
			2	1	1224	306	1557	1245	0.983	1207	1276	3.8	16.9	39.365	E
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	394	99	1625	688	0.573	392	417	0.6	1.8	12.749	B
				2	26	7	1625	699	0.038	27	29	0.6	0.1	12.343	B
				3	2	0.53	740	351	0.006	2	2	0.6	0.0	13.883	B

08:00 - 08:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	598	149	955	880	0.679	600	649	0.9	1.0	6.075	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	609	152	955	878	0.695	611	648	0.9	0.9	6.031	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	496	124	774	722	0.687	498	535	1.1	1.1	8.088	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	845	211	-	-	-	847	920	0.3	0.6	2.172	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	356	89	-	-	-	360	378	2.1	0.2	3.065	A
				3	496	124	-	-	-	496	535	2.1	1.6	12.550	B
2 - A20 (E)	Entry	1	1	1	288	72	1230	983	0.293	293	301	3.3	0.8	13.392	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	459	115	1230	1019	0.450	462	475	3.3	1.5	13.431	B
			2	1	1239	310	1557	1255	0.985	1219	1283	16.9	22.9	59.874	F
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	383	96	1625	671	0.572	384	417	1.9	1.8	15.197	C
				2	28	7	1625	704	0.040	28	31	1.9	0.1	13.951	B
				3	2	0.48	756	343	0.006	2	2	1.9	0.0	15.450	C

08:15 - 08:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	492	123	955	878	0.559	493	535	1.0	0.7	5.450	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	487	122	955	876	0.556	488	535	0.9	0.8	5.460	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	417	104	774	722	0.577	417	451	1.1	0.8	7.627	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	608	152	-	-	-	608	670	0.6	0.3	0.964	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	372	93	-	-	-	371	398	1.8	0.2	1.011	A
				3	416	104	-	-	-	417	450	1.8	0.7	6.035	A
2 - A20 (E)	Entry	1	1	1	192	48	1230	1015	0.189	194	218	2.2	0.2	7.562	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	375	94	1230	1047	0.358	373	390	2.2	0.9	7.975	A
			2	1	1050	262	1557	1280	0.819	1075	1183	22.9	4.1	31.082	D
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	322	80	1625	799	0.403	322	350	1.9	0.9	10.186	B
				2	21	5	1625	822	0.026	21	24	1.9	0.0	10.491	B
				3	2	0.39	515	265	0.006	2	2	0.0	0.0	8.033	A

08:30 - 08:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	415	104	955	884	0.470	417	451	0.7	0.6	5.046	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	411	103	955	879	0.468	411	449	0.8	0.7	5.113	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	362	91	774	725	0.501	363	378	0.8	0.7	6.987	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	481	120	-	-	-	481	513	0.3	0.1	0.463	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	346	86	-	-	-	346	386	0.9	0.0	0.459	A
				3	363	91	-	-	-	362	377	0.9	0.3	3.092	A
2 - A20 (E)	Entry	1	1	1	149	37	1230	1036	0.144	148	158	1.1	0.2	5.235	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	313	78	1230	1065	0.294	315	327	1.1	0.4	5.823	A
			2	1	896	224	1557	1313	0.682	891	964	4.1	2.2	8.496	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	267	67	1625	941	0.284	268	295	0.9	0.4	6.006	A
				2	19	5	1625	968	0.019	19	20	0.9	0.0	6.419	A
				3	2	0.56	611	373	0.006	2	2	0.0	0.0	6.807	A

Junctions 10

ARCADY 10 - Roundabout Module

Filename: A20_M20 Roundabout PM (Lane Sim) Sensitivity.j10
Path: T:\Projects\15000 Series\15323ITB Ashford Road, Maidstone\Tech\Junction Assessments\Tech Notes
Report generation date: 11/05/2023 17:17:54

Summary of junction performance

	PM	
	Queue (Veh)	Delay (s)
	[Lane Simulation] - Future Year 2027 + CD + Development	
1 - M20 link road	15.4	23.61
2 - A20 (E)	5.3	9.40
3 - A20 (W)	0.8	7.45
	[Lane Simulation] - Future Year 2031 + CD + Development	
1 - M20 link road	17.5	27.82
2 - A20 (E)	5.3	11.20
3 - A20 (W)	1.0	7.49
	[Lane Simulation] - Future Year 2037 + CD + Development	
1 - M20 link road	28.3	40.36
2 - A20 (E)	6.3	12.75
3 - A20 (W)	1.3	7.99

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Arm and junction delays are averages for all movements, including movements with zero delay.

File summary

File Description

Title	
Location	
Site number	
Date	13/10/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\londonhotdesk
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Lane Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Average animation capture interval (s)	Use quick response	Do flow sampling	Suppress automatic lane creation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	1.00	100000	100000	-1	3	1	60	✓			1819453364	72	8.42

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
D7	Future Year 2027 + CD + Development	PM	ONE HOUR	16:30	18:00	15	✓
D8	Future Year 2031 + CD + Development	PM	ONE HOUR	16:30	18:00	15	✓
D9	Future Year 2037 + CD + Development	PM	ONE HOUR	16:30	18:00	15	✓

Analysis Set Details

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

Future Year 2027 + CD + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Info	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A20 / M20 Roundabout	Standard Roundabout		1, 2, 3	16.51	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	16.51	C

Arms

Arms

Arm	Name	Description	No give-way line
1	M20 link road		
2	A20 (E)		
3	A20 (W)		

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)	Entry only	Exit only
1 - M20 link road	7.40	10.40	7.8	44.9	59.0	34.0		
2 - A20 (E)	7.50	10.10	5.3	48.8	59.0	14.5		
3 - A20 (W)	3.80	6.10	10.3	25.3	59.0	20.5		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - M20 link road	0.738	2685
2 - A20 (E)	0.776	2792
3 - A20 (W)	0.561	1625

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

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
1 - M20 link road	Apportion from lane geometry	10.00
2 - A20 (E)	Apportion from lane geometry	20.00
3 - A20 (W)	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Has obstruction	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Signalised
1 - M20 link road	Entry	1	1	2	✓	2.00			0	99999	
			2	2	✓	2.00			0	99999	
			3	1, 3	✓	2.00			0	99999	
		2	1	(2)		Infinity					
			2	(1, 2, 3)		Infinity					
	Exit	1	1			Infinity					
2 - A20 (E)	Entry	1	1	(1), 3		Infinity			0	99999	
			2	1, 2		Infinity			0	99999	
	Exit	1	1			Infinity					
3 - A20 (W)	Entry	1	1	1, 2, 3		Infinity			0	99999	
	Exit	1	1			Infinity					

Entry Lane Geometry

Arm	Side	Lane level	Lane	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Notes
1 - M20 link road	Entry	1	1	3.70	3.70	0.0	44.9	59.0	34.0		
			2	3.70	3.70	0.0	44.9	59.0	34.0		
			3	3.00	3.00	0.0	44.9	59.0	34.0		
2 - A20 (E)	Entry	1	1	3.75	3.75	0.0	48.8	59.0	14.5		
			2	3.75	6.25	5.3	48.8	59.0	14.5		

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/hr)
1 - M20 link road	Entry	1	1	0.263	955
			2	0.263	955
			3	0.213	774
2 - A20 (E)	Entry	1	1	0.342	1232
			2	0.433	1560
3 - A20 (W)	Entry	1	1	0.561	1625

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm		
			M20 link road	A20 (E)	A20 (W)
1 - M20 link road	1	1		✓	
		2		✓	
		3	✓		✓
	2	1		✓	
		2	✓	✓	✓
2 - A20 (E)	1	1			✓
		2	✓	✓	
3 - A20 (W)	1	1	✓	✓	✓

Summary of Entry Lane allowed secondary movements

Arm	Lane Level	Lane	Destination arm		
			M20 link road	A20 (E)	A20 (W)
1 - M20 link road	1	1			
		2			
		3			
	2	1			
		2			
2 - A20 (E)	1	1	✓		
		2			
3 - A20 (W)	1	1			

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Future Year 2027 + CD + Development	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - M20 link road		ONE HOUR	✓	1941	100.000
2 - A20 (E)		ONE HOUR	✓	1472	100.000
3 - A20 (W)		ONE HOUR	✓	373	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	1463	478
	2 - A20 (E)	1046	0	426
	3 - A20 (W)	334	39	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	4	4
	2 - A20 (E)	4	0	2
	3 - A20 (W)	4	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - M20 link road	23.61	15.4	C	1776	2664
2 - A20 (E)	9.40	5.3	A	1353	2030
3 - A20 (W)	7.45	0.8	A	337	506

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1450	363	30	1450	1499	1027	0.0	3.1	7.422	A
2 - A20 (E)	1108	277	361	1108	1140	1118	0.0	1.7	5.155	A
3 - A20 (W)	283	71	775	283	289	694	0.0	0.3	4.180	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1731	433	30	1726	1797	1266	3.1	5.5	10.737	B
2 - A20 (E)	1345	336	432	1340	1377	1324	1.7	2.6	6.330	A
3 - A20 (W)	330	83	966	331	355	806	0.3	0.5	5.381	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	2124	531	41	2137	2183	1499	5.5	14.5	21.723	C
2 - A20 (E)	1614	404	517	1618	1675	1660	2.6	4.1	9.403	A
3 - A20 (W)	394	98	1142	398	413	993	0.5	0.7	7.223	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	2146	536	44	2112	2209	1518	14.5	15.5	23.606	C
2 - A20 (E)	1633	408	535	1622	1676	1620	4.1	5.2	9.382	A
3 - A20 (W)	415	104	1148	414	435	1009	0.7	0.9	7.452	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1746	436	35	1743	1853	1235	15.5	5.0	11.910	B
2 - A20 (E)	1319	330	432	1314	1385	1346	5.2	2.5	6.637	A
3 - A20 (W)	330	83	940	330	353	805	0.9	0.5	5.541	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1456	364	26	1458	1530	1025	5.0	2.7	7.747	A
2 - A20 (E)	1096	274	352	1096	1146	1132	2.5	1.3	5.314	A
3 - A20 (W)	270	68	782	269	288	666	0.5	0.4	4.307	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	542	910	0.595	540	565	0.0	0.9	5.539	A
			2	2	549	908	0.606	549	568	0.0	0.9	5.455	A
			3	1, 3	362	738	0.490	361	367	0.0	0.8	7.044	A
		2	1	(2)	626			627	652	0.0	0.1	0.875	A
			2	(1, 2, 3)	824			826	858	0.0	0.4	2.051	A
	Exit	1	1		1027			1027	1067	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	416	1077	0.386	415	425	0.0	0.6	5.218	A
			2	1, 2	692	1346	0.515	693	716	0.0	1.1	5.118	A
	Exit	1	1		1118			1118	1161	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	283	1130	0.251	283	289	0.0	0.3	4.180	A
	Exit	1	1		694			694	701	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	650	912	0.713	649	672	0.9	1.2	6.219	A
			2	2	647	910	0.710	644	679	0.9	1.2	6.157	A
			3	1, 3	432	744	0.581	432	446	0.8	0.9	7.617	A
		2	1	(2)	847			847	866	0.1	0.6	2.695	A
			2	(1, 2, 3)	884			882	934	0.4	1.6	5.552	A
	Exit	1	1		1266			1266	1314	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	498	1054	0.473	496	509	0.6	0.9	5.821	A
			2	1, 2	847	1316	0.644	843	869	1.1	1.7	6.633	A
	Exit	1	1		1324			1324	1384	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	330	1023	0.323	331	355	0.3	0.5	5.381	A
	Exit	1	1		806			806	831	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	817	906	0.902	817	835	1.2	1.7	6.823	A
			2	2	803	911	0.882	802	819	1.2	1.7	6.976	A
			3	1, 3	520	733	0.709	517	529	0.9	1.3	8.083	A
		2	1	(2)	1217			1224	1227	0.6	4.0	9.909	A
			2	(1, 2, 3)	908			917	962	1.6	5.8	20.358	C
	Exit	1	1		1499			1499	1565	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	625	1024	0.611	624	636	0.9	1.5	8.199	A
			2	1, 2	989	1282	0.772	994	1039	1.7	2.6	10.153	B
	Exit	1	1		1660			1660	1698	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	394	932	0.423	398	413	0.5	0.7	7.223	A
	Exit	1	1		993			993	1008	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	780	906	0.861	780	828	1.7	1.6	7.069	A
			2	2	799	902	0.886	797	836	1.7	1.6	7.017	A
			3	1, 3	533	735	0.725	535	545	1.3	1.1	8.362	A
		2	1	(2)	1243			1225	1281	4.0	4.2	10.219	B
			2	(1, 2, 3)	902			887	926	5.8	6.9	24.526	C
	Exit	1	1		1518			1518	1587	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	634	1017	0.624	624	641	1.5	2.0	8.163	A
			2	1, 2	999	1263	0.791	997	1035	2.6	3.2	10.146	B
	Exit	1	1		1620			1620	1708	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	415	920	0.451	414	435	0.7	0.9	7.452	A
	Exit	1	1		1009			1009	1024	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	656	915	0.717	656	693	1.6	1.2	6.269	A
			2	2	655	909	0.721	654	704	1.6	1.2	6.171	A
			3	1, 3	431	738	0.584	432	456	1.1	0.8	7.717	A
		2	1	(2)	833			833	904	4.2	0.5	3.723	A
			2	(1, 2, 3)	913			909	945	6.9	1.3	6.939	A
	Exit	1	1		1235			1235	1308	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	494	1050	0.470	489	516	2.0	1.1	6.112	A
			2	1, 2	825	1313	0.628	824	869	3.2	1.4	6.953	A
	Exit	1	1		1346			1346	1435	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	330	1040	0.318	330	353	0.9	0.5	5.541	A
	Exit	1	1		805			805	848	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	555	913	0.607	557	584	1.2	0.8	5.582	A
			2	2	548	904	0.606	549	568	1.2	0.8	5.786	A
			3	1, 3	352	745	0.473	352	378	0.8	0.6	7.043	A
		2	1	(2)	619			619	660	0.5	0.1	1.092	A
			2	(1, 2, 3)	837			836	865	1.3	0.4	2.224	A
	Exit	1	1		1025			1025	1082	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	409	1081	0.379	409	424	1.1	0.4	5.184	A
			2	1, 2	687	1341	0.512	687	723	1.4	0.9	5.392	A
	Exit	1	1		1132			1132	1179	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	270	1124	0.241	269	288	0.5	0.4	4.307	A
	Exit	1	1		666			666	703	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	542	135	955	910	0.595	540	565	0.0	0.9	5.539	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	549	137	955	908	0.606	549	568	0.0	0.9	5.455	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	362	90	774	738	0.491	361	367	0.0	0.8	7.044	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	626	156	-	-	-	627	652	0.0	0.1	0.875	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	463	116	-	-	-	464	489	0.0	0.1	0.846	A
				3	361	90	-	-	-	362	370	0.0	0.4	3.638	A
2 - A20 (E)	Entry	1	1	1	82	21	1232	1062	0.078	82	90	0.0	0.1	4.502	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	333	83	1232	1081	0.308	333	335	0.0	0.5	5.408	A
			2	1	692	173	1560	1346	0.515	693	716	0.0	1.1	5.118	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	253	63	1625	1127	0.225	253	261	0.0	0.3	4.153	A
				2	30	7	1603	1156	0.026	30	28	0.0	0.0	4.416	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	650	162	955	912	0.713	649	672	0.9	1.2	6.219	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	647	162	955	910	0.710	644	679	0.9	1.2	6.157	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	432	108	774	744	0.581	432	446	0.8	0.9	7.617	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	847	212	-	-	-	847	866	0.1	0.6	2.695	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	451	113	-	-	-	450	488	0.4	0.4	3.252	A
				3	432	108	-	-	-	432	447	0.4	1.2	8.045	A
2 - A20 (E)	Entry	1	1	1	123	31	1232	1040	0.118	123	124	0.6	0.1	4.761	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	375	94	1232	1058	0.355	374	385	0.6	0.7	6.158	A
			2	1	847	212	1560	1316	0.644	843	869	1.1	1.7	6.633	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	300	75	1625	1018	0.295	301	322	0.3	0.4	5.400	A
				2	30	8	1625	1065	0.028	30	33	0.3	0.0	5.200	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	817	204	955	906	0.902	817	835	1.2	1.7	6.823	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	803	201	955	911	0.882	802	819	1.2	1.7	6.976	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	520	130	774	733	0.709	517	529	0.9	1.3	8.083	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	1217	304	-	-	-	1224	1227	0.6	4.0	9.909	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	389	97	-	-	-	397	431	1.6	1.5	14.216	B
				3	519	130	-	-	-	520	531	1.6	4.3	25.314	D
2 - A20 (E)	Entry	1	1	1	149	37	1232	1014	0.147	148	158	0.9	0.3	6.893	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	476	119	1232	1029	0.463	476	478	0.9	1.2	8.622	A
			2	1	989	247	1560	1282	0.772	994	1039	1.7	2.6	10.153	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	353	88	1625	926	0.381	356	368	0.5	0.6	7.246	A
				2	41	10	1625	949	0.043	41	44	0.5	0.1	7.036	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	780	195	955	906	0.861	780	828	1.7	1.6	7.069	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	799	200	955	902	0.886	797	836	1.7	1.6	7.017	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	533	133	774	735	0.725	535	545	1.3	1.1	8.362	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	1243	311	-	-	-	1225	1281	4.0	4.2	10.219	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	363	91	-	-	-	354	381	5.8	1.9	16.332	C
				3	539	135	-	-	-	533	545	5.8	5.0	30.247	D
2 - A20 (E)	Entry	1	1	1	153	38	1232	1003	0.153	150	162	1.5	0.4	7.163	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	481	120	1232	1023	0.471	474	479	1.5	1.7	8.493	A
			2	1	999	250	1560	1263	0.791	997	1035	2.6	3.2	10.146	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	371	93	1625	919	0.403	370	391	0.7	0.8	7.474	A
				2	44	11	1625	949	0.046	44	44	0.7	0.1	7.262	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	656	164	955	915	0.717	656	693	1.6	1.2	6.269	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	655	164	955	909	0.721	654	704	1.6	1.2	6.171	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	431	108	774	738	0.584	432	456	1.1	0.8	7.717	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	833	208	-	-	-	833	904	4.2	0.5	3.723	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	479	120	-	-	-	478	490	6.9	0.4	3.994	A
				3	434	108	-	-	-	431	455	6.9	0.8	10.188	B
2 - A20 (E)	Entry	1	1	1	120	30	1232	1036	0.116	116	124	2.0	0.4	5.294	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	374	93	1232	1056	0.354	373	392	2.0	0.7	6.369	A
			2	1	825	206	1560	1313	0.628	824	869	3.2	1.4	6.953	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	296	74	1625	1038	0.285	294	316	0.9	0.5	5.516	A
				2	35	9	1625	1074	0.032	35	38	0.9	0.0	5.743	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	555	139	955	913	0.607	557	584	1.2	0.8	5.582	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	548	137	955	904	0.606	549	568	1.2	0.8	5.786	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	352	88	774	745	0.473	352	378	0.8	0.6	7.043	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	619	155	-	-	-	619	660	0.5	0.1	1.092	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	483	121	-	-	-	483	487	1.3	0.1	1.080	A
				3	353	88	-	-	-	352	377	1.3	0.3	3.708	A
2 - A20 (E)	Entry	1	1	1	95	24	1232	1074	0.089	95	99	1.1	0.1	4.526	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	315	79	1232	1085	0.290	315	325	1.1	0.3	5.379	A
			2	1	687	172	1560	1341	0.512	687	723	1.4	0.9	5.392	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	245	61	1625	1118	0.219	243	261	0.5	0.4	4.347	A
				2	26	6	1625	1173	0.022	26	27	0.5	0.0	3.942	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

Future Year 2031 + CD + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Info	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A20 / M20 Roundabout	Standard Roundabout		1, 2, 3	19.41	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	19.41	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Future Year 2031 + CD + Development	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - M20 link road		ONE HOUR	✓	1980	100.000
2 - A20 (E)		ONE HOUR	✓	1504	100.000
3 - A20 (W)		ONE HOUR	✓	375	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	1496	484
	2 - A20 (E)	1070	0	434
	3 - A20 (W)	335	40	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	4	4
	2 - A20 (E)	4	0	2
	3 - A20 (W)	4	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - M20 link road	27.82	17.5	D	1818	2727
2 - A20 (E)	11.20	5.3	B	1376	2064
3 - A20 (W)	7.49	1.0	A	343	514

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1481	370	30	1482	1530	1049	0.0	3.0	7.578	A
2 - A20 (E)	1132	283	358	1128	1176	1154	0.0	1.9	5.272	A
3 - A20 (W)	278	69	801	277	288	684	0.0	0.3	4.278	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1771	443	38	1772	1833	1275	3.0	4.9	10.229	B
2 - A20 (E)	1353	338	434	1355	1390	1376	1.9	2.6	6.728	A
3 - A20 (W)	349	87	963	350	351	825	0.3	0.6	5.121	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	2196	549	43	2151	2213	1541	4.9	17.4	22.975	C
2 - A20 (E)	1677	419	520	1674	1707	1675	2.6	5.2	10.012	B
3 - A20 (W)	404	101	1180	405	430	1014	0.6	0.9	7.083	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	2181	545	40	2199	2289	1507	17.4	15.3	27.820	D
2 - A20 (E)	1623	406	539	1627	1694	1700	5.2	4.8	11.202	B
3 - A20 (W)	399	100	1151	396	423	1014	0.9	1.0	7.485	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1796	449	35	1776	1907	1245	15.3	6.6	12.637	B
2 - A20 (E)	1334	333	430	1329	1400	1381	4.8	3.1	7.034	A
3 - A20 (W)	339	85	943	337	351	816	1.0	0.5	5.421	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1483	371	29	1490	1561	1068	6.6	2.7	8.043	A
2 - A20 (E)	1135	284	360	1138	1178	1158	3.1	1.5	5.431	A
3 - A20 (W)	286	72	811	286	296	687	0.5	0.3	4.367	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	555	910	0.610	557	583	0.0	0.8	5.523	A
			2	2	566	910	0.622	568	578	0.0	0.8	5.603	A
			3	1, 3	359	736	0.487	358	370	0.0	0.8	6.983	A
		2	1	(2)	638			638	661	0.0	0.1	1.122	A
			2	(1, 2, 3)	842			841	879	0.0	0.6	2.079	A
	Exit	1	1		1049			1049	1099	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	420	1078	0.390	420	434	0.0	0.6	5.082	A
			2	1, 2	712	1354	0.526	708	742	0.0	1.3	5.384	A
	Exit	1	1		1154			1154	1190	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	278	1125	0.247	277	288	0.0	0.3	4.278	A
	Exit	1	1		684			684	705	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	679	908	0.748	680	695	0.8	1.1	6.194	A
			2	2	659	910	0.724	658	695	0.8	1.2	6.264	A
			3	1, 3	432	739	0.585	434	443	0.8	0.8	7.324	A
		2	1	(2)	846			846	873	0.1	0.5	2.559	A
			2	(1, 2, 3)	925			924	963	0.6	1.3	4.787	A
	Exit	1	1		1275			1275	1307	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	516	1054	0.490	517	522	0.6	0.8	6.130	A
			2	1, 2	838	1313	0.639	838	868	1.3	1.8	7.093	A
	Exit	1	1		1376			1376	1427	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	349	1022	0.342	350	351	0.3	0.6	5.121	A
	Exit	1	1		825			825	841	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	810	907	0.893	808	838	1.1	1.7	6.931	A
			2	2	823	903	0.911	823	842	1.2	1.6	6.885	A
			3	1, 3	521	738	0.706	520	532	0.8	1.2	7.910	A
		2	1	(2)	1244			1223	1249	0.5	5.2	10.730	B
			2	(1, 2, 3)	952			932	969	1.3	7.7	22.258	C
	Exit	1	1		1541			1541	1598	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	656	1027	0.639	651	660	0.8	1.9	8.084	A
			2	1, 2	1021	1278	0.800	1023	1047	1.8	3.3	11.248	B
	Exit	1	1		1675			1675	1724	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	404	904	0.447	405	430	0.6	0.9	7.083	A
	Exit	1	1		1014			1014	1027	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	835	907	0.920	835	865	1.7	1.6	6.988	A
			2	2	827	909	0.910	826	860	1.6	1.6	7.067	A
			3	1, 3	539	736	0.733	539	564	1.2	1.3	8.374	A
		2	1	(2)	1292			1304	1357	5.2	3.6	12.980	B
			2	(1, 2, 3)	889			897	933	7.7	7.1	31.353	D
	Exit	1	1		1507			1507	1591	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	643	1011	0.635	638	653	1.9	1.8	8.790	A
			2	1, 2	981	1264	0.776	989	1041	3.3	3.0	12.735	B
	Exit	1	1		1700			1700	1767	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	399	917	0.436	396	423	0.9	1.0	7.485	A
	Exit	1	1		1014			1014	1048	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	673	908	0.742	672	716	1.6	1.3	6.218	A
			2	2	675	906	0.745	674	709	1.6	1.3	6.256	A
			3	1, 3	432	737	0.586	430	483	1.3	1.0	7.808	A
		2	1	(2)	878			872	959	3.6	1.0	3.510	A
			2	(1, 2, 3)	918			908	944	7.1	2.0	8.610	A
	Exit	1	1		1245			1245	1314	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	504	1048	0.481	502	526	1.8	1.2	6.360	A
			2	1, 2	830	1313	0.631	827	874	3.0	1.9	7.445	A
	Exit	1	1		1381			1381	1461	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	339	1032	0.328	337	351	1.0	0.5	5.421	A
	Exit	1	1		816			816	884	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	564	913	0.617	563	587	1.3	0.9	5.628	A
			2	2	565	910	0.621	567	592	1.3	0.7	5.590	A
			3	1, 3	359	737	0.487	360	381	1.0	0.7	7.253	A
		2	1	(2)	660			661	692	1.0	0.1	1.287	A
			2	(1, 2, 3)	824			826	863	2.0	0.3	2.657	A
	Exit	1	1		1068			1068	1107	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	418	1079	0.388	419	435	1.2	0.6	5.349	A
			2	1, 2	717	1343	0.534	719	743	1.9	0.9	5.479	A
	Exit	1	1		1158			1158	1209	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	286	1112	0.258	286	296	0.5	0.3	4.367	A
	Exit	1	1		687			687	719	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	555	139	955	910	0.610	557	583	0.0	0.8	5.523	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	566	141	955	910	0.622	568	578	0.0	0.8	5.603	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	359	90	774	736	0.487	358	370	0.0	0.8	6.983	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	638	159	-	-	-	638	661	0.0	0.1	1.122	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	482	121	-	-	-	482	506	0.0	0.1	1.109	A
				3	360	90	-	-	-	359	373	0.0	0.4	3.387	A
2 - A20 (E)	Entry	1	1	1	94	23	1232	1062	0.088	93	99	0.0	0.1	4.381	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	326	82	1232	1082	0.302	326	335	0.0	0.4	5.285	A
			2	1	712	178	1560	1353	0.526	708	742	0.0	1.3	5.384	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	248	62	1625	1119	0.222	247	258	0.0	0.3	4.324	A
				2	29	7	1625	1152	0.026	30	30	0.0	0.0	3.900	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	679	170	955	908	0.749	680	695	0.8	1.1	6.194	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	659	165	955	910	0.724	658	695	0.8	1.2	6.264	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	432	108	774	739	0.585	434	443	0.8	0.8	7.324	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	846	211	-	-	-	846	873	0.1	0.5	2.559	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	491	123	-	-	-	492	520	0.6	0.3	2.864	A
				3	434	109	-	-	-	432	443	0.6	1.0	7.031	A
2 - A20 (E)	Entry	1	1	1	125	31	1232	1038	0.120	125	124	0.6	0.1	5.387	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	391	98	1232	1058	0.370	391	398	0.6	0.6	6.357	A
			2	1	838	209	1560	1313	0.639	838	868	1.3	1.8	7.093	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	312	78	1625	1018	0.306	312	314	0.3	0.5	5.123	A
				2	38	9	1625	1066	0.035	38	37	0.3	0.1	5.109	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	810	202	955	907	0.893	808	838	1.1	1.7	6.931	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	823	206	955	903	0.911	823	842	1.2	1.6	6.885	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	521	130	774	738	0.706	520	532	0.8	1.2	7.910	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	1244	311	-	-	-	1223	1249	0.5	5.2	10.730	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	416	104	-	-	-	410	435	1.3	2.2	15.922	C
				3	536	134	-	-	-	521	534	1.3	5.5	27.342	D
2 - A20 (E)	Entry	1	1	1	159	40	1232	1007	0.158	157	165	0.8	0.4	7.039	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	497	124	1232	1033	0.481	494	495	0.8	1.5	8.426	A
			2	1	1021	255	1560	1278	0.800	1023	1047	1.8	3.3	11.248	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	361	90	1625	900	0.401	361	386	0.6	0.8	7.065	A
				2	43	11	1625	937	0.046	43	44	0.6	0.1	7.240	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	835	209	955	907	0.920	835	865	1.7	1.6	6.988	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	827	207	955	909	0.910	826	860	1.6	1.6	7.067	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	539	135	774	736	0.733	539	564	1.2	1.3	8.374	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	1292	323	-	-	-	1304	1357	5.2	3.6	12.980	B
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	355	89	-	-	-	357	369	7.7	1.7	21.159	C
				3	534	133	-	-	-	539	564	7.7	5.4	37.964	E
2 - A20 (E)	Entry	1	1	1	162	41	1232	992	0.164	162	168	1.9	0.3	7.534	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	481	120	1232	1018	0.472	476	484	1.9	1.5	9.216	A
			2	1	981	245	1560	1264	0.776	989	1041	3.3	3.0	12.735	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	358	90	1625	913	0.393	356	382	0.9	0.8	7.443	A
				2	41	10	1625	950	0.043	40	42	0.9	0.1	7.853	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	673	168	955	908	0.742	672	716	1.6	1.3	6.218	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	675	169	955	906	0.745	674	709	1.6	1.3	6.256	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	432	108	774	737	0.586	430	483	1.3	1.0	7.808	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	878	220	-	-	-	872	959	3.6	1.0	3.510	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	482	120	-	-	-	476	463	7.1	0.7	4.157	A
				3	436	109	-	-	-	432	481	7.1	1.3	13.012	B
2 - A20 (E)	Entry	1	1	1	118	29	1232	1028	0.115	116	125	1.8	0.3	5.603	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	386	97	1232	1055	0.366	385	401	1.8	0.9	6.593	A
			2	1	830	207	1560	1313	0.631	827	874	3.0	1.9	7.445	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	303	76	1625	1027	0.295	302	315	1.0	0.4	5.432	A
				2	36	9	1625	1070	0.033	35	36	1.0	0.0	5.330	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	564	141	955	913	0.617	563	587	1.3	0.9	5.628	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	565	141	955	910	0.621	567	592	1.3	0.7	5.590	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	359	90	774	737	0.487	360	381	1.0	0.7	7.253	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	660	165	-	-	-	661	692	1.0	0.1	1.287	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	466	116	-	-	-	468	483	2.0	0.0	1.359	A
				3	358	89	-	-	-	359	380	2.0	0.2	4.319	A
2 - A20 (E)	Entry	1	1	1	92	23	1232	1067	0.086	92	97	1.2	0.1	4.423	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	326	82	1232	1083	0.301	327	338	1.2	0.4	5.610	A
			2	1	717	179	1560	1343	0.534	719	743	1.9	0.9	5.479	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	258	64	1625	1108	0.233	257	267	0.5	0.3	4.355	A
				2	29	7	1625	1153	0.025	29	30	0.5	0.0	4.473	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

Future Year 2037 + CD + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Info	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. For detailed information on this mode, please see the User Guide.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A20 / M20 Roundabout	Standard Roundabout		1, 2, 3	26.43	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	26.43	D

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	Future Year 2037 + CD + Development	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - M20 link road		ONE HOUR	✓	2064	100.000
2 - A20 (E)		ONE HOUR	✓	1568	100.000
3 - A20 (W)		ONE HOUR	✓	394	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	1558	506
	2 - A20 (E)	1115	0	453
	3 - A20 (W)	352	42	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - M20 link road	2 - A20 (E)	3 - A20 (W)
From	1 - M20 link road	0	4	4
	2 - A20 (E)	4	0	2
	3 - A20 (W)	4	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - M20 link road	40.36	28.3	E	1892	2838
2 - A20 (E)	12.75	6.3	B	1444	2167
3 - A20 (W)	7.99	1.3	A	367	550

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1559	390	34	1552	1599	1096	0.0	3.8	8.063	A
2 - A20 (E)	1159	290	381	1163	1214	1205	0.0	1.6	5.640	A
3 - A20 (W)	308	77	820	310	311	723	0.0	0.3	4.515	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1821	455	39	1821	1894	1346	3.8	6.4	12.289	B
2 - A20 (E)	1423	356	445	1433	1470	1415	1.6	2.5	7.342	A
3 - A20 (W)	365	91	1018	368	374	859	0.3	0.6	5.806	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	2274	568	41	2266	2295	1607	6.4	23.8	30.709	D
2 - A20 (E)	1712	428	557	1713	1767	1749	2.5	6.2	11.571	B
3 - A20 (W)	437	109	1212	437	444	1059	0.6	1.0	7.729	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	2305	576	45	2243	2337	1654	23.8	28.3	40.361	E
2 - A20 (E)	1763	441	536	1757	1798	1752	6.2	6.0	12.746	B
3 - A20 (W)	445	111	1259	440	455	1034	1.0	1.3	7.989	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1845	461	38	1857	2015	1325	28.3	6.6	19.292	C
2 - A20 (E)	1433	358	461	1439	1481	1434	6.0	2.8	7.867	A
3 - A20 (W)	349	87	1016	348	362	884	1.3	0.6	5.686	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	1547	387	29	1552	1627	1089	6.6	3.3	8.453	A
2 - A20 (E)	1178	294	378	1172	1216	1202	2.8	2.0	5.560	A
3 - A20 (W)	296	74	824	295	310	727	0.6	0.3	4.513	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	580	916	0.633	579	598	0.0	0.9	5.669	A
			2	2	593	909	0.653	592	606	0.0	0.9	5.614	A
			3	1, 3	383	738	0.519	381	395	0.0	0.9	7.195	A
		2	1	(2)	701			701	707	0.0	0.2	1.297	A
			2	(1, 2, 3)	858			854	903	0.0	0.9	2.609	A
	Exit	1	1		1096			1096	1142	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	441	1069	0.412	443	453	0.0	0.7	5.556	A
			2	1, 2	718	1334	0.538	720	761	0.0	1.0	5.690	A
	Exit	1	1		1205			1205	1237	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	308	1103	0.280	310	311	0.0	0.3	4.515	A
	Exit	1	1		723			723	745	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	697	908	0.768	697	717	0.9	1.3	6.256	A
			2	2	679	909	0.747	679	710	0.9	1.2	6.368	A
			3	1, 3	446	741	0.602	445	467	0.9	1.1	7.834	A
		2	1	(2)	894			894	947	0.2	0.9	3.620	A
			2	(1, 2, 3)	927			928	950	0.9	2.0	7.559	A
	Exit	1	1		1346			1346	1389	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	541	1052	0.514	542	552	0.7	1.0	6.452	A
			2	1, 2	882	1308	0.674	890	918	1.0	1.5	7.885	A
	Exit	1	1		1415			1415	1465	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	365	994	0.367	368	374	0.3	0.6	5.806	A
	Exit	1	1		859			859	883	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	850	906	0.938	850	873	1.3	1.7	7.120	A
			2	2	860	910	0.946	859	864	1.2	1.7	7.195	A
			3	1, 3	557	731	0.760	557	558	1.1	1.3	8.225	A
		2	1	(2)	1368			1364	1353	0.9	8.0	16.417	C
			2	(1, 2, 3)	906			904	947	2.0	11.1	32.900	D
	Exit	1	1		1607			1607	1653	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	666	1007	0.661	667	685	1.0	1.6	9.157	A
			2	1, 2	1047	1265	0.829	1046	1082	1.5	4.5	13.109	B
	Exit	1	1		1749			1749	1780	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	437	894	0.489	437	444	0.6	1.0	7.729	A
	Exit	1	1		1059			1059	1073	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	843	904	0.933	841	873	1.7	1.7	7.410	A
			2	2	867	907	0.957	866	896	1.7	1.8	7.202	A
			3	1, 3	537	736	0.730	536	568	1.3	1.3	8.427	A
		2	1	(2)	1422			1396	1423	8.0	10.0	22.487	C
			2	(1, 2, 3)	883			852	915	11.1	13.5	48.718	E
	Exit	1	1		1654			1654	1706	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	688	1017	0.677	682	689	1.6	1.9	9.490	A
			2	1, 2	1074	1265	0.849	1075	1109	4.5	4.0	14.812	B
	Exit	1	1		1752			1752	1814	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	445	857	0.519	440	455	1.0	1.3	7.989	A
	Exit	1	1		1034			1034	1070	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	707	906	0.779	708	757	1.7	1.2	6.595	A
			2	2	687	907	0.757	688	754	1.8	1.2	6.681	A
			3	1, 3	460	738	0.624	461	504	1.3	0.9	7.998	A
		2	1	(2)	929			929	1068	10.0	1.1	8.665	A
			2	(1, 2, 3)	916			926	940	13.5	2.2	16.596	C
	Exit	1	1		1325			1325	1383	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	554	1042	0.531	552	560	1.9	1.0	6.629	A
			2	1, 2	880	1302	0.675	887	921	4.0	1.8	8.632	A
	Exit	1	1		1434			1434	1550	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	349	995	0.350	348	362	1.3	0.6	5.686	A
	Exit	1	1		884			884	925	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	2	588	908	0.648	590	614	1.2	0.9	5.704	A
			2	2	582	914	0.638	583	608	1.2	0.8	5.770	A
			3	1, 3	379	733	0.517	378	406	0.9	0.8	7.151	A
		2	1	(2)	700			700	732	1.1	0.3	1.462	A
			2	(1, 2, 3)	846			849	892	2.2	0.6	3.138	A
	Exit	1	1		1089			1089	1140	0.0	0.0	0.000	A
2 - A20 (E)	Entry	1	1	(1), 3	449	1064	0.421	449	455	1.0	0.8	5.518	A
			2	1, 2	729	1341	0.545	723	761	1.8	1.2	5.586	A
	Exit	1	1		1202			1202	1253	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1, 2, 3	296	1101	0.269	295	310	0.6	0.3	4.513	A
	Exit	1	1		727			727	760	0.0	0.0	0.000	A

Lane movements: Main Results for each time segment

16:30 - 16:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	580	145	955	916	0.633	579	598	0.0	0.9	5.669	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	593	148	955	909	0.652	592	606	0.0	0.9	5.614	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	383	96	774	738	0.519	381	395	0.0	0.9	7.195	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	701	175	-	-	-	701	707	0.0	0.2	1.297	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	472	118	-	-	-	472	504	0.0	0.2	1.347	A
				3	386	97	-	-	-	383	399	0.0	0.7	4.192	A
2 - A20 (E)	Entry	1	1	1	99	25	1232	1052	0.094	100	103	0.0	0.1	4.767	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	341	85	1232	1073	0.318	342	350	0.0	0.6	5.785	A
			2	1	718	179	1560	1333	0.538	720	761	0.0	1.0	5.690	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	275	69	1625	1095	0.251	276	278	0.0	0.3	4.526	A
				2	34	8	1625	1138	0.030	34	33	0.0	0.0	4.425	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

16:45 - 17:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	697	174	955	908	0.768	697	717	0.9	1.3	6.256	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	679	170	955	909	0.747	679	710	0.9	1.2	6.368	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	446	111	774	741	0.602	445	467	0.9	1.1	7.834	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	894	223	-	-	-	894	947	0.2	0.9	3.620	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	485	121	-	-	-	482	482	0.9	0.8	4.544	A
				3	442	111	-	-	-	446	468	0.9	1.2	10.658	B
2 - A20 (E)	Entry	1	1	1	128	32	1232	1034	0.124	128	136	0.7	0.2	5.449	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	413	103	1232	1056	0.390	415	416	0.7	0.8	6.773	A
			2	1	882	221	1560	1308	0.674	890	918	1.0	1.5	7.885	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	325	81	1625	991	0.328	328	335	0.3	0.5	5.825	A
				2	40	10	1625	1030	0.038	39	38	0.3	0.1	5.647	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	850	213	955	906	0.938	850	873	1.3	1.7	7.120	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	860	215	955	910	0.946	859	864	1.2	1.7	7.195	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	557	139	774	731	0.760	557	558	1.1	1.3	8.225	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	1368	342	-	-	-	1364	1353	0.9	8.0	16.417	C
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	348	87	-	-	-	347	389	2.0	3.7	26.379	D
				3	557	139	-	-	-	557	559	2.0	7.3	37.394	E
2 - A20 (E)	Entry	1	1	1	163	41	1232	994	0.164	166	170	1.0	0.3	7.649	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	502	126	1232	1012	0.496	502	515	1.0	1.3	9.647	A
			2	1	1047	262	1560	1265	0.829	1046	1082	1.5	4.5	13.109	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	396	99	1625	891	0.445	396	401	0.6	0.9	7.746	A
				2	41	10	1625	914	0.045	41	43	0.6	0.1	7.581	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	843	211	955	904	0.933	841	873	1.7	1.7	7.410	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	867	217	955	907	0.957	866	896	1.7	1.8	7.202	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	537	134	774	736	0.730	536	568	1.3	1.3	8.427	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	1422	355	-	-	-	1396	1423	8.0	10.0	22.487	C
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	325	81	-	-	-	314	346	11.1	4.1	39.473	E
				3	558	139	-	-	-	537	568	11.1	9.4	54.294	F
2 - A20 (E)	Entry	1	1	1	187	47	1232	1001	0.187	184	187	1.6	0.5	8.655	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	502	125	1232	1022	0.491	498	502	1.6	1.4	9.799	A
			2	1	1074	269	1560	1265	0.849	1075	1109	4.5	4.0	14.812	B
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	400	100	1625	854	0.469	395	410	1.0	1.2	8.044	A
				2	45	11	1625	889	0.051	45	45	1.0	0.1	7.511	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	707	177	955	906	0.779	708	757	1.7	1.2	6.595	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	687	172	955	907	0.757	688	754	1.8	1.2	6.681	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	460	115	774	738	0.624	461	504	1.3	0.9	7.998	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	929	232	-	-	-	929	1068	10.0	1.1	8.665	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	465	116	-	-	-	465	438	13.5	0.5	9.332	A
				3	451	113	-	-	-	460	502	13.5	1.7	23.143	C
2 - A20 (E)	Entry	1	1	1	130	32	1232	1027	0.126	129	139	1.9	0.2	5.715	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	424	106	1232	1047	0.404	423	422	1.9	0.7	6.921	A
			2	1	880	220	1560	1301	0.676	887	921	4.0	1.8	8.632	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	311	78	1625	991	0.314	310	323	1.3	0.6	5.655	A
				2	38	9	1625	1038	0.036	38	39	1.3	0.1	5.930	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	To Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Simulation max flow (PCU/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - M20 link road	Entry	1	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	588	147	955	908	0.648	590	614	1.2	0.9	5.704	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	582	146	955	914	0.638	583	608	1.2	0.8	5.770	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			3	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	379	95	774	733	0.517	378	406	0.9	0.8	7.151	A
		2	1	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	700	175	-	-	-	700	732	1.1	0.3	1.462	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
			2	1	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				2	471	118	-	-	-	470	486	2.2	0.2	1.504	A
				3	376	94	-	-	-	379	406	2.2	0.5	5.125	A
2 - A20 (E)	Entry	1	1	1	100	25	1232	1055	0.095	100	102	1.0	0.1	4.570	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	348	87	1232	1069	0.326	349	354	1.0	0.6	5.785	A
			2	1	729	182	1560	1341	0.544	723	761	1.8	1.2	5.586	A
				2	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A
3 - A20 (W)	Entry	1	1	1	267	67	1625	1098	0.242	265	278	0.6	0.3	4.507	A
				2	30	7	1625	1140	0.026	29	32	0.6	0.0	4.565	A
				3	0	0	0	0	0.000	0	0	0.0	0.0	0.000	A

Junctions 10

ARCADY 10 - Roundabout Module

Filename: M20 Junction 8 - AM Sensitivity.j10
Path: T:\Projects\15000 Series\15323ITB Ashford Road, Maidstone\Tech\Junction Assessments\Tech Notes
Report generation date: 16/05/2023 16:10:50

»Future Year 2027 + Committed Development + Development, AM
»Future Year 2031 + Committed Development + Development, AM
»Future Year 2037 + Committed Development + Development, AM

Summary of junction performance

	AM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	Future Year 2027 + Committed Development + Development				
1 - Maidstone Services	D7	0.3	3.43	0.24	A
2 - M20 On/Off Slip (E)		0.5	5.44	0.32	A
3 - A20 Link Road		1.6	3.18	0.61	A
4 - M20 On/Off Slip (W)		2.3	5.85	0.70	A
	Future Year 2031 + Committed Development + Development				
1 - Maidstone Services	D8	0.3	3.57	0.25	A
2 - M20 On/Off Slip (E)		0.5	5.80	0.34	A
3 - A20 Link Road		1.7	3.34	0.63	A
4 - M20 On/Off Slip (W)		2.6	6.33	0.72	A
	Future Year 2037 + Committed Development + Development				
1 - Maidstone Services	D9	0.4	3.79	0.27	A
2 - M20 On/Off Slip (E)		0.6	6.41	0.37	A
3 - A20 Link Road		1.9	3.62	0.66	A
4 - M20 On/Off Slip (W)		3.1	7.22	0.76	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	
Location	
Site number	
Date	13/10/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\londonhotdesk
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

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
D7	Future Year 2027 + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15	✓
D8	Future Year 2031 + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15	✓
D9	Future Year 2037 + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15	✓

Analysis Set Details

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

Future Year 2027 + Committed Development + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M20 Junction 8	Large Roundabout		1, 2, 3, 4	4.39	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.39	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Maidstone Services		
2	M20 On/Off Slip (E)		
3	A20 Link Road		
4	M20 On/Off Slip (W)		

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)	Entry only	Exit only
1 - Maidstone Services	6.70	10.00	7.9	23.1	170.5	24.0		
2 - M20 On/Off Slip (E)	6.60	7.50	1.9	46.6	170.5	29.0		
3 - A20 Link Road	7.50	8.30	28.4	73.3	170.5	24.0		
4 - M20 On/Off Slip (W)	6.30	6.60	1.9	76.0	170.5	22.0		

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - Maidstone Services	1487		0.00
2 - M20 On/Off Slip (E)	1593	✓	125.60
3 - A20 Link Road	265		0.00
4 - M20 On/Off Slip (W)	328	✓	122.20

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Maidstone Services	0.888	3052
2 - M20 On/Off Slip (E)	0.792	2403
3 - A20 Link Road	1.197	3446
4 - M20 On/Off Slip (W)	1.035	2624

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
D7	Future Year 2027 + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Maidstone Services		ONE HOUR	✓	299	100.000
2 - M20 On/Off Slip (E)		ONE HOUR	✓	284	100.000
3 - A20 Link Road		ONE HOUR	✓	1631	100.000
4 - M20 On/Off Slip (W)		ONE HOUR	✓	1321	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	86	87	126
	2 - M20 On/Off Slip (E)	78	0	206	0
	3 - A20 Link Road	57	149	0	1425
	4 - M20 On/Off Slip (W)	150	1	1170	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	29	6	24
	2 - M20 On/Off Slip (E)	20	0	8	0
	3 - A20 Link Road	13	8	0	6
	4 - M20 On/Off Slip (W)	19	0	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Maidstone Services	0.24	3.43	0.3	A	274	412
2 - M20 On/Off Slip (E)	0.32	5.44	0.5	A	261	391
3 - A20 Link Road	0.61	3.18	1.6	A	1497	2245
4 - M20 On/Off Slip (W)	0.70	5.85	2.3	A	1212	1818

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	225	56	991	1748	0.129	225	214	0.0	0.1	2.363	A
2 - M20 On/Off Slip (E)	214	53	1038	1352	0.158	213	177	0.0	0.2	3.160	A
3 - A20 Link Road	1228	307	153	3027	0.406	1225	1098	0.0	0.7	1.996	A
4 - M20 On/Off Slip (W)	995	249	213	2175	0.457	991	1165	0.0	0.8	3.031	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	269	67	1185	1593	0.169	269	256	0.1	0.2	2.718	A
2 - M20 On/Off Slip (E)	255	64	1242	1193	0.214	255	212	0.2	0.3	3.838	A
3 - A20 Link Road	1466	367	183	2985	0.491	1465	1313	0.7	1.0	2.367	A
4 - M20 On/Off Slip (W)	1188	297	255	2131	0.557	1186	1393	0.8	1.2	3.803	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	329	82	1449	1382	0.238	329	313	0.2	0.3	3.416	A
2 - M20 On/Off Slip (E)	313	78	1519	977	0.320	312	259	0.3	0.5	5.401	A
3 - A20 Link Road	1796	449	224	2929	0.613	1793	1606	1.0	1.6	3.164	A
4 - M20 On/Off Slip (W)	1454	364	312	2070	0.703	1450	1705	1.2	2.3	5.767	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	329	82	1453	1379	0.239	329	314	0.3	0.3	3.429	A
2 - M20 On/Off Slip (E)	313	78	1523	974	0.321	313	260	0.5	0.5	5.440	A
3 - A20 Link Road	1796	449	225	2928	0.613	1796	1611	1.6	1.6	3.178	A
4 - M20 On/Off Slip (W)	1454	364	313	2070	0.703	1454	1708	2.3	2.3	5.850	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	269	67	1191	1588	0.169	269	257	0.3	0.2	2.729	A
2 - M20 On/Off Slip (E)	255	64	1247	1189	0.215	256	213	0.5	0.3	3.863	A
3 - A20 Link Road	1466	367	184	2984	0.491	1469	1320	1.6	1.0	2.380	A
4 - M20 On/Off Slip (W)	1188	297	256	2130	0.558	1192	1397	2.3	1.3	3.854	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	225	56	995	1744	0.129	225	215	0.2	0.1	2.371	A
2 - M20 On/Off Slip (E)	214	53	1043	1348	0.159	214	178	0.3	0.2	3.178	A
3 - A20 Link Road	1228	307	154	3026	0.406	1229	1103	1.0	0.7	2.004	A
4 - M20 On/Off Slip (W)	995	249	214	2174	0.457	996	1169	1.3	0.8	3.061	A

Future Year 2031 + Committed Development + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M20 Junction 8	Large Roundabout		1, 2, 3, 4	4.68	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.68	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - Maidstone Services	1487		0.00
2 - M20 On/Off Slip (E)	1593	✓	125.60
3 - A20 Link Road	265		0.00
4 - M20 On/Off Slip (W)	328	✓	122.20

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Future Year 2031 + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Maidstone Services		ONE HOUR	✓	309	100.000
2 - M20 On/Off Slip (E)		ONE HOUR	✓	291	100.000
3 - A20 Link Road		ONE HOUR	✓	1674	100.000
4 - M20 On/Off Slip (W)		ONE HOUR	✓	1358	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	89	90	130
	2 - M20 On/Off Slip (E)	80	0	211	0
	3 - A20 Link Road	59	152	0	1463
	4 - M20 On/Off Slip (W)	155	1	1202	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	29	6	24
	2 - M20 On/Off Slip (E)	20	0	8	0
	3 - A20 Link Road	13	8	0	6
	4 - M20 On/Off Slip (W)	18	0	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Maidstone Services	0.25	3.57	0.3	A	284	425
2 - M20 On/Off Slip (E)	0.34	5.80	0.5	A	267	401
3 - A20 Link Road	0.63	3.34	1.7	A	1536	2304
4 - M20 On/Off Slip (W)	0.72	6.33	2.6	A	1246	1869

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	233	58	1017	1727	0.135	232	221	0.0	0.2	2.406	A
2 - M20 On/Off Slip (E)	219	55	1067	1329	0.165	218	182	0.0	0.2	3.240	A
3 - A20 Link Road	1260	315	158	3020	0.417	1257	1128	0.0	0.7	2.038	A
4 - M20 On/Off Slip (W)	1022	256	219	2172	0.471	1019	1197	0.0	0.9	3.114	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	278	69	1216	1568	0.177	278	264	0.2	0.2	2.789	A
2 - M20 On/Off Slip (E)	262	65	1277	1166	0.224	261	217	0.2	0.3	3.978	A
3 - A20 Link Road	1505	376	189	2978	0.505	1504	1349	0.7	1.0	2.439	A
4 - M20 On/Off Slip (W)	1221	305	261	2126	0.574	1219	1431	0.9	1.3	3.960	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	340	85	1487	1352	0.252	340	323	0.2	0.3	3.555	A
2 - M20 On/Off Slip (E)	320	80	1561	944	0.339	320	266	0.3	0.5	5.752	A
3 - A20 Link Road	1843	461	231	2920	0.631	1840	1650	1.0	1.7	3.327	A
4 - M20 On/Off Slip (W)	1495	374	320	2064	0.724	1490	1751	1.3	2.6	6.222	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	340	85	1492	1348	0.252	340	324	0.3	0.3	3.571	A
2 - M20 On/Off Slip (E)	320	80	1566	941	0.341	320	266	0.5	0.5	5.801	A
3 - A20 Link Road	1843	461	231	2919	0.631	1843	1655	1.7	1.7	3.345	A
4 - M20 On/Off Slip (W)	1495	374	320	2063	0.725	1495	1754	2.6	2.6	6.330	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	278	69	1223	1563	0.178	278	265	0.3	0.2	2.803	A
2 - M20 On/Off Slip (E)	262	65	1283	1161	0.225	262	218	0.5	0.3	4.011	A
3 - A20 Link Road	1505	376	189	2977	0.506	1508	1356	1.7	1.0	2.456	A
4 - M20 On/Off Slip (W)	1221	305	262	2125	0.574	1226	1435	2.6	1.4	4.025	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	233	58	1022	1723	0.135	233	222	0.2	0.2	2.415	A
2 - M20 On/Off Slip (E)	219	55	1072	1325	0.165	219	182	0.3	0.2	3.260	A
3 - A20 Link Road	1260	315	158	3019	0.417	1262	1134	1.0	0.7	2.048	A
4 - M20 On/Off Slip (W)	1022	256	219	2171	0.471	1024	1200	1.4	0.9	3.143	A

Future Year 2037 + Committed Development + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M20 Junction 8	Large Roundabout		1, 2, 3, 4	5.21	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.21	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - Maidstone Services	1487		0.00
2 - M20 On/Off Slip (E)	1593	✓	125.60
3 - A20 Link Road	265		0.00
4 - M20 On/Off Slip (W)	328	✓	122.20

Slope / Intercept / Capacity

[same as above]

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	Future Year 2037 + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Maidstone Services		ONE HOUR	✓	320	100.000
2 - M20 On/Off Slip (E)		ONE HOUR	✓	303	100.000
3 - A20 Link Road		ONE HOUR	✓	1737	100.000
4 - M20 On/Off Slip (W)		ONE HOUR	✓	1410	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	92	93	135
	2 - M20 On/Off Slip (E)	83	0	220	0
	3 - A20 Link Road	61	158	0	1518
	4 - M20 On/Off Slip (W)	161	1	1248	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	29	6	24
	2 - M20 On/Off Slip (E)	20	0	8	0
	3 - A20 Link Road	13	8	0	6
	4 - M20 On/Off Slip (W)	18	0	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Maidstone Services	0.27	3.79	0.4	A	294	440
2 - M20 On/Off Slip (E)	0.37	6.41	0.6	A	278	417
3 - A20 Link Road	0.66	3.62	1.9	A	1594	2391
4 - M20 On/Off Slip (W)	0.76	7.22	3.1	A	1294	1941

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	241	60	1056	1696	0.142	240	229	0.0	0.2	2.471	A
2 - M20 On/Off Slip (E)	228	57	1107	1298	0.176	227	188	0.0	0.2	3.358	A
3 - A20 Link Road	1308	327	164	3012	0.434	1305	1171	0.0	0.8	2.105	A
4 - M20 On/Off Slip (W)	1062	265	227	2163	0.491	1058	1242	0.0	1.0	3.247	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	288	72	1263	1531	0.188	287	274	0.2	0.2	2.895	A
2 - M20 On/Off Slip (E)	272	68	1325	1128	0.241	272	225	0.2	0.3	4.202	A
3 - A20 Link Road	1562	390	196	2968	0.526	1560	1401	0.8	1.1	2.555	A
4 - M20 On/Off Slip (W)	1268	317	271	2116	0.599	1265	1485	1.0	1.5	4.224	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	352	88	1543	1307	0.270	352	335	0.2	0.4	3.767	A
2 - M20 On/Off Slip (E)	334	83	1619	899	0.371	333	276	0.3	0.6	6.342	A
3 - A20 Link Road	1912	478	239	2908	0.658	1909	1712	1.1	1.9	3.593	A
4 - M20 On/Off Slip (W)	1552	388	332	2051	0.757	1546	1817	1.5	3.0	7.045	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	352	88	1549	1302	0.271	352	336	0.4	0.4	3.788	A
2 - M20 On/Off Slip (E)	334	83	1625	895	0.373	334	276	0.6	0.6	6.414	A
3 - A20 Link Road	1912	478	240	2907	0.658	1912	1718	1.9	1.9	3.619	A
4 - M20 On/Off Slip (W)	1552	388	332	2050	0.757	1552	1820	3.0	3.1	7.219	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	288	72	1271	1524	0.189	288	275	0.4	0.2	2.915	A
2 - M20 On/Off Slip (E)	272	68	1333	1122	0.243	273	226	0.6	0.3	4.246	A
3 - A20 Link Road	1562	390	197	2967	0.526	1565	1410	1.9	1.1	2.572	A
4 - M20 On/Off Slip (W)	1268	317	272	2115	0.599	1274	1489	3.1	1.5	4.313	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	241	60	1061	1692	0.142	241	230	0.2	0.2	2.484	A
2 - M20 On/Off Slip (E)	228	57	1113	1293	0.176	229	189	0.3	0.2	3.385	A
3 - A20 Link Road	1308	327	164	3011	0.434	1309	1178	1.1	0.8	2.118	A
4 - M20 On/Off Slip (W)	1062	265	228	2162	0.491	1064	1246	1.5	1.0	3.283	A

Junctions 10

ARCADY 10 - Roundabout Module

Filename: M20 Junction 8 - PM (Calibrated) Sensitivity.j10
Path: T:\Projects\15000 Series\15323ITB Ashford Road, Maidstone\Tech\Junction Assessments\Tech Notes
Report generation date: 16/05/2023 16:13:00

»Future Year 2027 + Committed Development + Development, PM
»Future Year 2031 + Committed Development + Development, PM
»Future Year 2037 + Committed Development + Development, PM

Summary of junction performance

	PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	Future Year 2027 + Committed Development + Development				
1 - Maidstone Services	D7	0.4	4.40	0.26	A
2 - M20 On/Off Slip (E)		0.6	7.85	0.37	A
3 - A20 Link Road		1.0	2.30	0.49	A
4 - M20 On/Off Slip (W)		4.5	8.26	0.82	A
	Future Year 2031 + Committed Development + Development				
1 - Maidstone Services	D8	0.4	4.57	0.27	A
2 - M20 On/Off Slip (E)		0.6	8.44	0.39	A
3 - A20 Link Road		1.0	2.35	0.50	A
4 - M20 On/Off Slip (W)		5.1	9.18	0.84	A
	Future Year 2037 + Committed Development + Development				
1 - Maidstone Services	D9	0.4	5.01	0.30	A
2 - M20 On/Off Slip (E)		0.8	10.06	0.44	B
3 - A20 Link Road		1.1	2.47	0.53	A
4 - M20 On/Off Slip (W)		7.0	12.29	0.88	B

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

File summary

File Description

Title	
Location	
Site number	
Date	13/10/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\londonhotdesk
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

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
D7	Future Year 2027 + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15	✓
D8	Future Year 2031 + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15	✓
D9	Future Year 2037 + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15	✓

Analysis Set Details

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

Future Year 2027 + Committed Development + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M20 Junction 8	Large Roundabout		1, 2, 3, 4	5.76	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.76	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Maidstone Services		
2	M20 On/Off Slip (E)		
3	A20 Link Road		
4	M20 On/Off Slip (W)		

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)	Entry only	Exit only
1 - Maidstone Services	6.70	10.00	7.9	23.1	170.5	24.0		
2 - M20 On/Off Slip (E)	6.60	7.50	1.9	46.6	170.5	29.0		
3 - A20 Link Road	7.50	8.30	28.4	73.3	170.5	24.0		
4 - M20 On/Off Slip (W)	6.30	6.60	1.9	76.0	170.5	22.0		

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - Maidstone Services	1979		0.00
2 - M20 On/Off Slip (E)	2029	✓	125.60
3 - A20 Link Road	190		0.00
4 - M20 On/Off Slip (W)	301	✓	122.20

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - Maidstone Services	None		
2 - M20 On/Off Slip (E)	None		
3 - A20 Link Road	None		
4 - M20 On/Off Slip (W)	Direct	Queue Lengths	300

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Maidstone Services	0.782	2937
2 - M20 On/Off Slip (E)	0.706	2302
3 - A20 Link Road	1.214	3463
4 - M20 On/Off Slip (W)	1.040	2931

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
D7	Future Year 2027 + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Maidstone Services		ONE HOUR	✓	265	100.000
2 - M20 On/Off Slip (E)		ONE HOUR	✓	240	100.000
3 - A20 Link Road		ONE HOUR	✓	1380	100.000
4 - M20 On/Off Slip (W)		ONE HOUR	✓	1822	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	92	87	86
	2 - M20 On/Off Slip (E)	57	0	183	0
	3 - A20 Link Road	55	146	0	1179
	4 - M20 On/Off Slip (W)	152	1	1669	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	27	2	24
	2 - M20 On/Off Slip (E)	30	0	5	0
	3 - A20 Link Road	8	7	0	4
	4 - M20 On/Off Slip (W)	34	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Maidstone Services	0.26	4.40	0.4	A	243	365
2 - M20 On/Off Slip (E)	0.37	7.85	0.6	A	220	330
3 - A20 Link Road	0.49	2.30	1.0	A	1266	1899
4 - M20 On/Off Slip (W)	0.82	8.26	4.5	A	1672	2508

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	200	50	1363	1551	0.129	199	198	0.0	0.1	2.661	A
2 - M20 On/Off Slip (E)	181	45	1382	1153	0.157	180	180	0.0	0.2	3.697	A
3 - A20 Link Road	1039	260	107	3157	0.329	1037	1455	0.0	0.5	1.696	A
4 - M20 On/Off Slip (W)	1372	343	194	2539	0.540	1367	950	0.0	1.2	3.058	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	238	60	1630	1366	0.174	238	237	0.1	0.2	3.191	A
2 - M20 On/Off Slip (E)	216	54	1653	973	0.222	215	215	0.2	0.3	4.751	A
3 - A20 Link Road	1241	310	128	3126	0.397	1240	1740	0.5	0.7	1.908	A
4 - M20 On/Off Slip (W)	1638	409	232	2497	0.656	1635	1137	1.2	1.9	4.160	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	292	73	1990	1117	0.261	291	290	0.2	0.4	4.357	A
2 - M20 On/Off Slip (E)	264	66	2018	729	0.362	263	263	0.3	0.6	7.709	A
3 - A20 Link Road	1519	380	157	3084	0.493	1518	2125	0.7	1.0	2.296	A
4 - M20 On/Off Slip (W)	2006	502	284	2441	0.822	1996	1392	1.9	4.4	7.921	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	292	73	1999	1111	0.263	292	291	0.4	0.4	4.396	A
2 - M20 On/Off Slip (E)	264	66	2028	723	0.366	264	263	0.6	0.6	7.847	A
3 - A20 Link Road	1519	380	157	3083	0.493	1519	2134	1.0	1.0	2.301	A
4 - M20 On/Off Slip (W)	2006	502	284	2440	0.822	2006	1393	4.4	4.5	8.265	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	238	60	1642	1357	0.175	239	239	0.4	0.2	3.218	A
2 - M20 On/Off Slip (E)	216	54	1666	964	0.224	217	215	0.6	0.3	4.825	A
3 - A20 Link Road	1241	310	129	3125	0.397	1242	1754	1.0	0.7	1.911	A
4 - M20 On/Off Slip (W)	1638	409	232	2497	0.656	1648	1138	4.5	1.9	4.292	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	200	50	1370	1546	0.129	200	199	0.2	0.1	2.674	A
2 - M20 On/Off Slip (E)	181	45	1390	1148	0.157	181	180	0.3	0.2	3.722	A
3 - A20 Link Road	1039	260	108	3156	0.329	1040	1463	0.7	0.5	1.703	A
4 - M20 On/Off Slip (W)	1372	343	194	2538	0.540	1375	953	1.9	1.2	3.103	A

Future Year 2031 + Committed Development + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M20 Junction 8	Large Roundabout		1, 2, 3, 4	6.28	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.28	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - Maidstone Services	1979		0.00
2 - M20 On/Off Slip (E)	2029	✓	125.60
3 - A20 Link Road	190		0.00
4 - M20 On/Off Slip (W)	301	✓	122.20

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Future Year 2031 + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Maidstone Services		ONE HOUR	✓	271	100.000
2 - M20 On/Off Slip (E)		ONE HOUR	✓	244	100.000
3 - A20 Link Road		ONE HOUR	✓	1405	100.000
4 - M20 On/Off Slip (W)		ONE HOUR	✓	1861	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	94	89	88
	2 - M20 On/Off Slip (E)	58	0	186	0
	3 - A20 Link Road	56	147	0	1202
	4 - M20 On/Off Slip (W)	155	1	1705	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	26	2	24
	2 - M20 On/Off Slip (E)	29	0	5	0
	3 - A20 Link Road	8	7	0	4
	4 - M20 On/Off Slip (W)	33	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Maidstone Services	0.27	4.57	0.4	A	249	373
2 - M20 On/Off Slip (E)	0.39	8.44	0.6	A	224	336
3 - A20 Link Road	0.50	2.35	1.0	A	1289	1934
4 - M20 On/Off Slip (W)	0.84	9.18	5.1	A	1708	2562

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	204	51	1390	1536	0.133	203	202	0.0	0.2	2.699	A
2 - M20 On/Off Slip (E)	184	46	1412	1136	0.162	183	182	0.0	0.2	3.773	A
3 - A20 Link Road	1058	264	110	3154	0.335	1056	1485	0.0	0.5	1.713	A
4 - M20 On/Off Slip (W)	1401	350	196	2539	0.552	1396	969	0.0	1.2	3.137	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	244	61	1663	1347	0.181	243	241	0.2	0.2	3.261	A
2 - M20 On/Off Slip (E)	219	55	1689	951	0.231	219	217	0.2	0.3	4.917	A
3 - A20 Link Road	1263	316	131	3123	0.404	1262	1777	0.5	0.7	1.935	A
4 - M20 On/Off Slip (W)	1673	418	234	2497	0.670	1670	1159	1.2	2.0	4.336	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	298	75	2029	1093	0.273	298	295	0.2	0.4	4.524	A
2 - M20 On/Off Slip (E)	269	67	2061	702	0.383	267	266	0.3	0.6	8.256	A
3 - A20 Link Road	1547	387	160	3080	0.502	1546	2168	0.7	1.0	2.343	A
4 - M20 On/Off Slip (W)	2049	512	287	2440	0.840	2037	1419	2.0	5.0	8.702	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	298	75	2040	1086	0.275	298	296	0.4	0.4	4.571	A
2 - M20 On/Off Slip (E)	269	67	2072	695	0.387	269	266	0.6	0.6	8.440	A
3 - A20 Link Road	1547	387	161	3079	0.502	1547	2179	1.0	1.0	2.348	A
4 - M20 On/Off Slip (W)	2049	512	287	2439	0.840	2048	1420	5.0	5.1	9.179	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	244	61	1677	1337	0.182	244	243	0.4	0.2	3.294	A
2 - M20 On/Off Slip (E)	219	55	1703	941	0.233	221	218	0.6	0.3	5.006	A
3 - A20 Link Road	1263	316	132	3122	0.405	1264	1792	1.0	0.7	1.940	A
4 - M20 On/Off Slip (W)	1673	418	235	2496	0.670	1685	1161	5.1	2.1	4.504	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	204	51	1398	1531	0.133	204	203	0.2	0.2	2.713	A
2 - M20 On/Off Slip (E)	184	46	1420	1130	0.162	184	182	0.3	0.2	3.807	A
3 - A20 Link Road	1058	264	110	3154	0.335	1058	1494	0.7	0.5	1.720	A
4 - M20 On/Off Slip (W)	1401	350	197	2538	0.552	1404	972	2.1	1.2	3.185	A

Future Year 2037 + Committed Development + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	M20 Junction 8	Large Roundabout		1, 2, 3, 4	7.99	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.99	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - Maidstone Services	1979		0.00
2 - M20 On/Off Slip (E)	2029	✓	125.60
3 - A20 Link Road	190		0.00
4 - M20 On/Off Slip (W)	301	✓	122.20

Slope / Intercept / Capacity

[same as above]

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	Future Year 2037 + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Maidstone Services		ONE HOUR	✓	281	100.000
2 - M20 On/Off Slip (E)		ONE HOUR	✓	256	100.000
3 - A20 Link Road		ONE HOUR	✓	1467	100.000
4 - M20 On/Off Slip (W)		ONE HOUR	✓	1939	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	98	92	91
	2 - M20 On/Off Slip (E)	61	0	195	0
	3 - A20 Link Road	58	155	0	1254
	4 - M20 On/Off Slip (W)	162	1	1776	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Maidstone Services	2 - M20 On/Off Slip (E)	3 - A20 Link Road	4 - M20 On/Off Slip (W)
From	1 - Maidstone Services	0	26	2	23
	2 - M20 On/Off Slip (E)	29	0	5	0
	3 - A20 Link Road	8	7	0	4
	4 - M20 On/Off Slip (W)	33	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Maidstone Services	0.30	5.01	0.4	A	258	387
2 - M20 On/Off Slip (E)	0.44	10.06	0.8	B	235	352
3 - A20 Link Road	0.53	2.47	1.1	A	1346	2019
4 - M20 On/Off Slip (W)	0.88	12.29	7.0	B	1779	2669

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	212	53	1449	1499	0.141	211	211	0.0	0.2	2.793	A
2 - M20 On/Off Slip (E)	193	48	1469	1098	0.176	192	191	0.0	0.2	3.971	A
3 - A20 Link Road	1104	276	114	3149	0.351	1102	1547	0.0	0.5	1.757	A
4 - M20 On/Off Slip (W)	1460	365	206	2528	0.577	1454	1011	0.0	1.4	3.336	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	253	63	1733	1302	0.194	252	252	0.2	0.2	3.430	A
2 - M20 On/Off Slip (E)	230	58	1757	905	0.254	230	228	0.2	0.3	5.323	A
3 - A20 Link Road	1319	330	136	3116	0.423	1318	1851	0.5	0.7	2.001	A
4 - M20 On/Off Slip (W)	1743	436	246	2484	0.702	1739	1208	1.4	2.3	4.809	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	309	77	2111	1039	0.298	309	307	0.2	0.4	4.924	A
2 - M20 On/Off Slip (E)	282	70	2140	650	0.434	280	279	0.3	0.8	9.701	A
3 - A20 Link Road	1615	404	167	3072	0.526	1614	2254	0.7	1.1	2.467	A
4 - M20 On/Off Slip (W)	2135	534	301	2424	0.881	2117	1479	2.3	6.7	11.161	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	309	77	2126	1029	0.301	309	309	0.4	0.4	5.005	A
2 - M20 On/Off Slip (E)	282	70	2156	639	0.441	282	280	0.8	0.8	10.062	B
3 - A20 Link Road	1615	404	167	3071	0.526	1615	2270	1.1	1.1	2.472	A
4 - M20 On/Off Slip (W)	2135	534	302	2423	0.881	2134	1481	6.7	7.0	12.290	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	253	63	1754	1287	0.196	253	255	0.4	0.2	3.483	A
2 - M20 On/Off Slip (E)	230	58	1778	891	0.258	232	229	0.8	0.4	5.473	A
3 - A20 Link Road	1319	330	137	3115	0.423	1320	1873	1.1	0.7	2.009	A
4 - M20 On/Off Slip (W)	1743	436	247	2483	0.702	1762	1211	7.0	2.4	5.113	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Maidstone Services	212	53	1458	1493	0.142	212	212	0.2	0.2	2.810	A
2 - M20 On/Off Slip (E)	193	48	1479	1092	0.177	193	191	0.4	0.2	4.011	A
3 - A20 Link Road	1104	276	115	3148	0.351	1105	1557	0.7	0.5	1.765	A
4 - M20 On/Off Slip (W)	1460	365	207	2527	0.578	1464	1013	2.4	1.4	3.397	A