



London Borough of Bexley Local Plan Local junction modelling

On behalf of



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1 Introduction

- 1.1.1 Stantec have been appointed by the London Borough of Bexley (LB Bexley) to undertake modelling for a number of local junctions within Bexley. The local junctions were selected by LB Bexley on the basis of their location within growth areas and their possible impacts on the network and are considered to provide a good strategic indication of the impacts of proposed development within the draft Local Plan
- 1.1.2 The purpose of the appointment is to assess the potential effect of the traffic associated with the proposed LB Bexley Local Plan.
- 1.1.3 The junctions to be assessed are as follows:
- Harrow Manorway / Yarnton Way
 - Picardy Manorway / Bronze Age Way
 - Queens Road / Bexley Road
 - Thames Road / Perry Street
 - Gravel Hill / Albion Road
 - Crayford High Street gyratory, comprising
 - Crayford High Street / London Road
 - Crayford High Street / Crayford Way
 - Crayford Road / Roman Way
 - London Road / Roman Way
 - Thames Road / Crayford Way
 - Thames Road / Bob Dunn Way
- 1.1.4 The following report has been prepared to summarise the modelling methodology adopted and the modelling parameters used for each of the models. The potential effects that the Local Plan traffic will have at each location is then summarised.

1.2 This report

- 1.2.1 This document has been structured in the following way:
- Section 2 presents the information used from the LTAM models within each of the models.
 - Section 3 describes the modelling exercise completed.
 - Section 4 presents the modelling results for the Harrow Manorway / Yarnton Way junction.
 - Section 5 presents the modelling results for the Picardy Manorway / Bronze Age Way junction.
 - Section 6 presents the modelling results for the Queens Road / Bexley Road junction.
 - Section 7 presents the modelling results for the Thames Road / Perry Street junction.
 - Section 8 presents the modelling results for the Gravel Hill / Albion Road junction.
 - Section 9 presents the modelling results for the Crayford High Street gyratory.

- Section 10 presents the modelling results for the Thames Road / Crayford Way roundabout.
- Section 11 presents the modelling results for the Thames Way / Bob Dunn Way roundabout as existing.
- Section 12 summarises the report

2 Lower Thames Area Model (LTAM)

- 2.1.1 The model used for this study is the LTAM which has been developed by National Highways (NH) to assess the Lower Thames Crossing (LTC) scheme. It has a base year of 2016, with a number of forecast years comprising 2029, 2036, 2044 and 2051.
- 2.1.2 LB Bexley have been provided with a LB Bexley cordon area of the LTAM by NH during July 2021. This model forms the basis of a strategic modelling assessment detailed within a Stantec report titled *“London Borough of Bexley Local Plan, Strategic transport modelling, A282 / M25 corridor (J1a, J1b and J2), A2 corridor (A2 / A2018 junction and Bean junction)”*
- 2.1.3 Stantec’s remit was to review and update the LTAM to create a 2038 Reference Case model and a 2038 “with Local Plan” model. The purpose is to assess the potential effect of the LB Bexley Local Plan on the SRN. The turning flows from the Stantec strategic modelling appointment have been used for input to this junction modelling appointment.
- 2.1.4 In addition, a sensitivity assessment has also been completed and is also described in the Stantec strategic modelling report referenced above. The sensitivity assessment considers the potential for mode shift away from private car in accordance with the Mayor’s Transport Strategy and the London Borough of Bexley Local Implementation Plan.
- 2.1.5 The Mayor’s Transport Strategy (MTS) sets out the need to generate a mode shift away from the private car towards sustainable transport modes with the aim of 80% of all trips in London to be made on foot, by cycle or using public transport by 2041.
- 2.1.6 The LB Bexley Local Implementation Plan (LIP) sets out LB Bexley’s response to achieving the aims of the MTS. It states that currently, 57% of journeys made by LB Bexley residents are by car. The trajectory is to reduce this to 37% by 2041.
- 2.1.7 Achieving a 37% car mode share by 2041 would mean achieving 39.5% by 2038 (the Local Plan horizon). This would mean a reduction in car trips of 31.9% by 2038. For the purpose of this sensitivity assessment an assumption of a 30% reduction is made as described in the Stantec strategic modelling report referenced above.
- 2.1.8 The sensitivity assessment assumes that a 30% reduction in traffic generation can be applied to all Local Plan traffic generation for trips that remain within Bexley (ie those with an origin and destination within Bexley) and those trips between Bexley and other London Boroughs. This will capture the relatively shorter distance (local) trips and urban (London) trips that are more likely to transfer to walking, cycling and public transport.
- 2.1.9 With respect to all other Local Plan journeys (those external to Bexley and Greater London) a reduction of 10% has been assumed. This is on the basis that Travel Plans for new development sites typically use a 10% reduction in vehicle generation as a starting position target, regardless of trip length.
- 2.1.10 The above assumptions are considered reasonable for the purposes of this assessment in the context of policy and strategy targets. The above assumptions are also considered robust insofar as they are only being applied to journeys to and from new Local Plan sites. In practice, the policy and strategy targets have been set for all journeys, including existing (background / baseline) journeys to and from established developments within Bexley.
- 2.1.11 On this basis it can be reasonably expected that a proportion of background traffic would also mode switch as a result of the MTS and LIP targets and policies and this has not been allowed for in the assessment. As a result the sensitivity test undertaken can be considered a minimum effect resulting from these factors.

2.1.12 The following section summarises the information extracted and used for analysis within the assessment junction models.

2.2 Modelling scenarios

2.2.1 For each of the junctions assessed within this report, the following scenarios have been analysed.

- 2021 Baseline AM / PM
- 2038 Reference Case (No LTC) AM / PM
- 2038 Reference Case (With LTC) AM / PM
- 2038 Local Plan Case (No LTC) AM / PM – Core Assessment
- 2038 Local Plan Case (With LTC) AM / PM – Core Assessment
- 2038 Local Plan Case (No LTC) AM / PM – Sensitivity Assessment
- 2038 Local Plan Case (With LTC) AM / PM – Sensitivity Assessment
- 2038 Local Plan Case (No LTC) AM / PM – Mitigation Assessment
- 2038 Local Plan Case (With LTC) AM / PM – Mitigation Assessment

2.2.2 It has been considered appropriate to consider both a “with” and “without” LTC scenario on the basis that whilst the LTC does not yet have consent, it must be considered likely to be implemented.

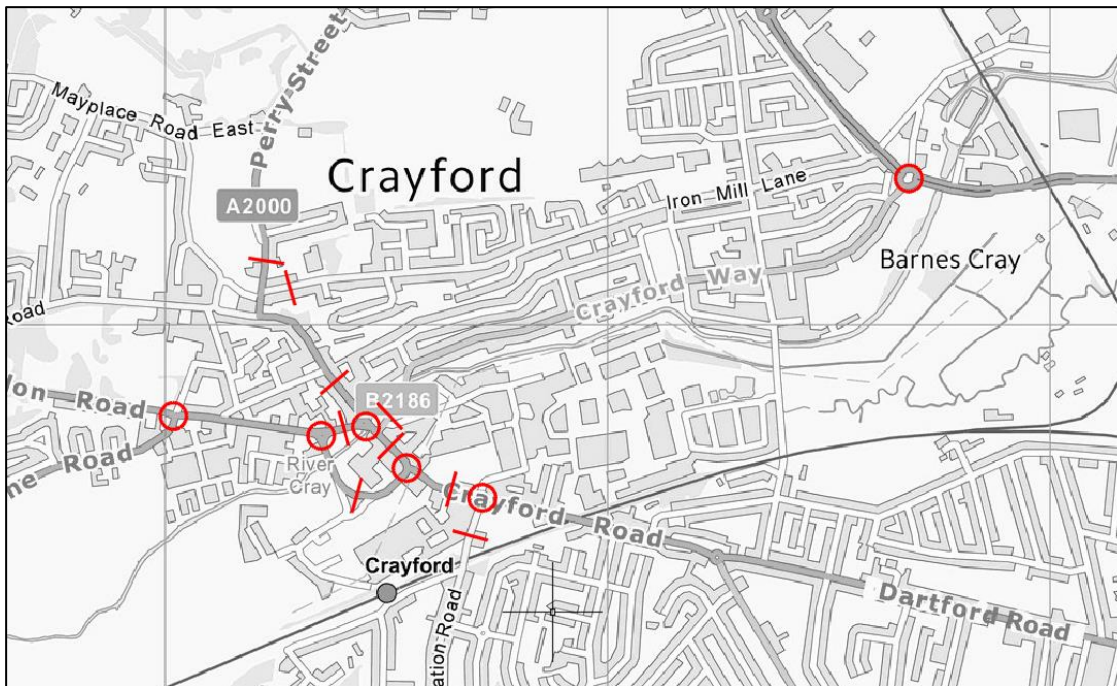
2.2.3 Within the assessment presented within this report, the differences between a “with” and “without” LTC scenario is summarised. The purpose is to highlight any effects that LTC is predicted to have over and above the Local Plan.

2.3 AM peak hour flows

2.3.1 The AM peak hour adopted by the LTAM model is 0700-0800, which is a peak associated with the Strategic Road Network (SRN). It is typical to adopt a peak hour of 0800-0900 for the Local Road Network (LRN).

2.3.2 The LTAM 0700-0800 turning flows have been factored to instead represent the 0800-0900 peak hour. To complete this, several manual classified count (MCC) surveys and automatic traffic count (ATC) surveys have been analysed. An average adjustment factor has been derived to convert 0700-0800 flows to 0800-0900 flows.

2.3.3 The plan below shows an indicative location of the surveys, with MCC surveys marked by red circles and ATCs marked by the red lines:



2.3.4 From each of the surveys, a factor has been calculated by looking at the total throughput during the 0700-0800 and 0800-0900 periods and calculating the ratio. This exercise was also completed individually for cars and HGVs.

2.3.5 The table below provides the factors calculated for each category analysed:

Vehicle category	Adjustment factor
All PCUs	1.13406
Car	1.14997
HGVs	1.07844

2.3.6 From the above table, the difference in the adjustment factor between cars and HGVs is significant enough to apply these separately. The raw data has been provided within Appendix A.

2.4 2021 baseline flows

2.4.1 A number of the junctions have been previously modelled by a third party consultant on behalf of LB Bexley, and LB Bexley have provided Stantec with these models as a starting point. For each of the junction models provided, a base year is available (based upon survey data) spanning between 2014 and 2019. Remaining junctions have been created from outputs contained within submitted Transport Assessments as a starting point.

2.4.2 Each of the base year junction models has been factored to a common 2021 base year by interpolating between the original base year for that model (2014 – 2019) and the LTAM 2029 model for that junction. These flows have been translated into a 2021 turning flow diagram which can be seen within Appendix B.

- 2.4.3 This process was completed for both the AM and PM peaks, using the without LTC model scenario. The HGV profile determined from the 2029 SATURN model was retained for the 2021 scenario.

2.5 LTAM forecast year demand data

- 2.5.1 The forecast year LTAM models were analysed and the total demand flow information for each user class was extracted from the models to create an OD matrix at each junction to be modelled. These flows have been translated into turning flow diagrams which can be seen within Appendix B.
- 2.5.2 Due to the layout of the Thames Road / Perry Street junction, a select link analysis had to be completed where the values for flow are directly read from the screen. This process was also completed for each scenario to produce the OD matrix required for the modelling of this junction.

3 Junction modelling assessment

3.1.1 The local junctions have been assessed, in terms of capacity for the following scenarios.

- 2021 Baseline AM / PM
- 2038 Reference Case (No LTC) AM / PM
- 2038 Reference Case (With LTC) AM / PM
- 2038 Local Plan Case (No LTC) AM / PM – Core Assessment
- 2038 Local Plan Case (With LTC) AM / PM – Core Assessment
- 2038 Local Plan Case (No LTC) AM / PM – Sensitivity Assessment
- 2038 Local Plan Case (With LTC) AM / PM – Sensitivity Assessment

3.1.2 All scenarios have been assessed for both the AM (0800-0900) and PM (1700-1800) peak hours.

3.2 Modelling software

3.2.1 Modelling has been completed using either the Junctions10 software package (for roundabouts and priority junctions) or LinSig (for signal-controlled junctions).

3.2.2 The geometric inputs to each model have been based upon either the models provided by LB Bexley, or measurements taken from aerial data.

3.3 Modelling results

3.3.1 Using the Junctions10 modelling program, the ratio of flow to capacity (RFC) for each arm is typically reported to provide an understanding of junction performance. This value varies depending on two primary factors, namely the capacity of the arm and the level of traffic demand.

3.3.2 An RFC value of zero means that there is 100% spare capacity on the arm and an RFC value of 1.00 means that there is 0% theoretical spare capacity on the arm. Generally, a maximum desirable RFC value of 0.85 is the objective for new junctions, which provides a 15% capacity buffer. However, an RFC greater than 0.85 is not necessarily regarded as unacceptable, particularly for existing junctions. For example, an RFC value of 0.86 - 1.00 means that the junction is predicted to operate above the desired capacity, but within theoretical maximum capacity.

3.3.3 Using the LinSig modelling program, the Practical Reserve Capacity (PRC) value is typically referred to as an understanding of junction performance. Generally, the maximum desirable PRC value for new junctions is 90% on each arm which provides a 10% capacity buffer. However, a PRC greater than 90% is not necessarily regarded as unacceptable, particularly for existing junctions.

3.3.4 The results from the modelling exercise are presented such that a colour coding system has been adopted to demonstrate the following:

- Green indicates that the approach arm is operating within the desirable capacity parameters generally adopted for new junctions. This is typically an RFC of 0.85 for priority and roundabout junctions and 90% for signal controlled junctions.

- Amber indicates that the approach arm exceeds desirable capacity parameters but remains within theoretical capacity. This is typically an RFC of 0.85 to 1.00 for priority and roundabout junctions and 90% to 100% for signal controlled junctions. Amber does not necessarily indicate unacceptable operation, particularly for an existing junction
- Red indicates that the approach arm exceeds theoretical capacity parameters. This is an RFC greater than 1.00 for priority and roundabout junctions and greater than 100% for signal controlled junctions.

3.3.5 The following sections consider each of the junctions in turn.

3.4 Consideration of mitigation

3.4.1 Mitigation has been considered for each junction if the criteria below is met.

3.4.2 If the junction operates above maximum capacity parameters under Reference Case conditions and the Local Plan scenario worsens this. In this situation mitigation is considered with an objective of nil detriment with respect to the operation of the junction.

3.4.3 The Local Plan scenario pushes the operation of the junction to exceed maximum capacity whilst the Reference Case operates within maximum capacity. In this situation mitigation is considered with the objective of bringing the junction within maximum capacity parameters.

4 Harrow Manorway / Yarnton Way

4.1 Existing layout

- 4.1.1 The Harrow Manorway / Yarnton Way junction is located south of the A2016 Eastern Way. It is a 4 arm roundabout with pedestrian crossing facilities located on each of its approach arms.
- 4.1.2 The southern arm pedestrian crossing is a signal controlled staggered crossing, set back from the roundabout give way, whilst the remaining 3 arms are set up as zebra crossings.
- 4.1.3 Cyclists also have access to cycle lanes segregated from the main circulatory to give them access to these crossing points if they are not cycling on the carriageway at this junction.

4.2 Percentage effect of Local Plan

- 4.2.1 The table below summarises the predicted percentage effect of implementing the proposed Local Plan. This is based upon a comparison of junction throughput between the Reference Case scenario and the Local Plan scenario.

No LTC	Core Assessment		Sensitivity Assessment	
	AM	PM	AM	PM
2038 Reference Case	1816	2181	1816	2181
2038 Local Plan scenario	2190	2471	2107	2403
Increase	374	290	292	222
% increase	20.6%	13.3%	16.1%	10.2%

With LTC	Core Assessment		Sensitivity Assessment	
	AM	PM	AM	PM
2038 Reference Case	1842	2186	1842	2186
2038 Local Plan scenario	2210	2470	2134	2398
Increase	367	284	291	212
% increase	19.9%	13.0%	15.8%	9.7%

- 4.2.2 The proposed Local Plan quanta is predicted to increase traffic flows at this junction by around 10% to 21%.

4.3 Modelling results – Core Assessment

- 4.3.1 The model for this junction has been provided by LB Bexley. This junction has been upgraded in recent years and the model has been updated to reflect the current geometry as provided by LB Bexley.
- 4.3.2 Using the same model, the new scenario flow groups and vehicle mix values have been added for the Core Assessment. The results of these scenarios are shown below.

Existing Layout 2021 Baseline	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
A - Harrow Manorway (N)	2	8	0.66	3	10	0.75
B - Yarnton Way	0	3	0.26	0	3	0.26
C - Harrow Manorway (S)	1	5	0.56	1	5	0.53
D - Eynsham Drive	1	6	0.26	0	5	0.20

Existing Layout 2038 - No LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Reference Case						
A - Harrow Manorway (N)	1	6	0.57	3	9	0.75
B - Yarnton Way	0	3	0.08	0	3	0.14
C - Harrow Manorway (S)	1	4	0.51	1	5	0.55
D - Eynsham Drive	0	3	0.01	0	3	0.01
Local Plan Case						
A - Harrow Manorway (N)	2	7	0.66	8	21	0.90
B - Yarnton Way	0	3	0.11	0	4	0.22
C - Harrow Manorway (S)	2	6	0.63	1	5	0.55
D - Eynsham Drive	0	3	0.03	0	3	0.05

Existing Layout 2038 - With LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Reference Case						
A - Harrow Manorway (N)	2	6	0.58	3	9	0.76
B - Yarnton Way	0	3	0.08	0	3	0.14

C - Harrow Manorway (S)	1	4	0.52	1	5	0.55
D - Eynsham Drive	0	3	0.01	0	3	0.01
Local Plan Case						
A - Harrow Manorway (N)	2	7	0.67	8	21	0.90
B - Yarnton Way	0	3	0.11	0	4	0.22
C - Harrow Manorway (S)	2	6	0.64	1	5	0.56
D - Eynsham Drive	0	3	0.03	0	3	0.05

4.3.3 The full output report of the modelling can be found within Appendix C.

4.4 Findings – Core Assessment

4.4.1 It is noted that the junction is predicted to work within theoretical capacity for all scenarios. It is noted that the Harrow Manorway (N) arm exceeds an RFC of 0.85 during the evening peak hour when the Local Plan traffic is added, but nevertheless the junction is demonstrated to operate within capacity.

4.4.2 It is noted that the “with LTC” scenario indicates a marginal increase in RFC value on the Harrow Manorway arms, although it is unlikely that this would be perceptible in practice.

4.5 Modelling results – Sensitivity Assessment

4.5.1 Using the same model, the Sensitivity Assessment flow groups and vehicle mix values have been added. The results of these scenarios are shown below.

Existing Layout 2038 - No LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
A - Harrow Manorway (N)	2	7	0.64	6	16	0.86
B - Yarnton Way	0	3	0.10	0	4	0.20
C - Harrow Manorway (S)	2	5	0.61	1	5	0.56
D - Eynsham Drive	0	3	0.02	0	3	0.04

Existing Layout 2038 - With LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
A - Harrow Manorway (N)	2	7	0.64	6	16	0.86
B - Yarnton Way	0	3	0.10	0	4	0.19
C - Harrow Manorway (S)	2	5	0.62	1	5	0.55
D - Eynsham Drive	0	3	0.02	0	3	0.03

4.5.2 The full output report of the modelling can be found within Appendix C.

4.6 Findings – Sensitivity Assessment

- 4.6.1 It is noted that the junction is predicted to work within theoretical capacity for all scenarios. It is noted that the Harrow Manorway (N) arm exceeds an RFC of 0.85 during the evening peak hour when the Local Plan traffic is added, but nevertheless the junction is demonstrated to operate within capacity.
- 4.6.2 When compared to the Core Assessment, it is noted that the Sensitivity Assessment results demonstrate a marginal improvement in junction operation for all scenarios.
- 4.6.3 It is noted that the “with LTC” scenario indicates a marginal increase in RFC value on the Harrow Manorway (S) arm during the morning peak hour and a reduction in RFC value on three arms in the evening peak hour, although it is unlikely that these effects would be perceptible in practice.

5 Picardy Manorway / Bronze Age Way

5.1 Existing layout

- 5.1.1 The Picardy Manorway / Bronze Age Way junction is a 4 arm roundabout junction which forms the intersection of the B253 and A2016, known locally as The Cob roundabout.
- 5.1.2 There are pedestrian footpaths which span along the northern side of the roundabout providing access to the north, east, and west arms. There is a single crossing located on the north arm (A2016 Picardy Manorway) in the form of a dropped kerb.

5.2 Percentage effect of Local Plan

- 5.2.1 The table below summarises the predicted percentage effect of implementing the proposed Local Plan. This is based upon a comparison of junction throughput between the Reference Case scenario and the Local Plan scenario.

No LTC	Core Assessment		Sensitivity Assessment	
	AM	PM	AM	PM
2038 Reference Case	2658	2924	2658	2924
2038 Local Plan scenario	3120	3335	3006	3264
Increase	462	411	348	340
% increase	17.4%	14.1%	13.1%	11.6%

With LTC	Core Assessment		Sensitivity Assessment	
	AM	PM	AM	PM
2038 Reference Case	2696	2943	2696	2943
2038 Local Plan scenario	3179	3378	3055	3300
Increase	483	436	359	357
% increase	17.9%	14.8%	13.3%	12.1%

- 5.2.2 The proposed Local Plan quanta is predicted to increase traffic flows at this junction by around 12% to 18%.

5.3 Modelling results – Core Assessment

- 5.3.1 The model for this junction has been provided by LB Bexley. It is noted that the left turning traffic from Anderson Way uses a bypass and merges with south-east travelling traffic on Bronze Age Way. This has been reflected in the model using a widened entry width which encompasses all of the available lanes.
- 5.3.2 Using the same model, the new scenario flow groups and vehicle mix values have been added. The results of these scenarios are shown below.

Existing Layout 2021 Baseline	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
1 - A2016 Picardy Manorway	1	3	0.45	2	4	0.61
2 - Anderson Way	0	2	0.13	0	3	0.24
3 - A2016 Bronze Age Way	1	3	0.56	1	3	0.46
4 - B253 Picardy Manorway	1	4	0.30	0	3	0.15

Existing Layout 2038 - No LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Reference Case						
1 - A2016 Picardy Manorway	1	3	0.46	1	3	0.53
2 - Anderson Way	0	2	0.08	0	2	0.18
3 - A2016 Bronze Age Way	1	3	0.55	1	3	0.52
4 - B253 Picardy Manorway	0	3	0.01	0	3	0.01
Local Plan Case						
1 - A2016 Picardy Manorway	1	3	0.54	2	3	0.58
2 - Anderson Way	0	2	0.12	0	3	0.24
3 - A2016 Bronze Age Way	2	4	0.65	2	4	0.62
4 - B253 Picardy Manorway	0	3	0.02	0	3	0.01

Existing Layout 2038 - With LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Reference Case						
1 - A2016 Picardy Manorway	1	3	0.47	1	3	0.54
2 - Anderson Way	0	2	0.07	0	2	0.18

3 - A2016 Bronze Age Way	2	3	0.57	1	3	0.52
4 - B253 Picardy Manorway	0	3	0.01	0	3	0.01
Local Plan Case						
1 - A2016 Picardy Manorway	1	3	0.55	2	3	0.58
2 - Anderson Way	0	3	0.12	0	3	0.25
3 - A2016 Bronze Age Way	2	4	0.67	2	4	0.63
4 - B253 Picardy Manorway	0	3	0.02	0	3	0.01

5.3.3 The full output report of the modelling can be found within Appendix D.

5.4 Findings – Core Assessment

5.4.1 It is noted that the junction is predicted to work within capacity for all scenarios.

5.4.2 It is noted that the “with LTC” scenario indicates a marginal increase in RFC value on the Picardy manorway and Bronze Age Way arms, although it is unlikely that these effects would be perceptible in practice.

5.5 Modelling results – Sensitivity Assessment

5.5.1 Using the same model, the Sensitivity Assessment flow groups and vehicle mix values have been added. The results of these scenarios are shown below.

Existing Layout 2038 - No LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
1 - A2016 Picardy Manorway	1	3	0.52	2	3	0.58
2 - Anderson Way	0	2	0.11	0	3	0.23
3 - A2016 Bronze Age Way	2	4	0.63	2	4	0.60
4 - B253 Picardy Manorway	0	3	0.02	0	3	0.01

Existing Layout 2038 - With LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
1 - A2016 Picardy Manorway	1	3	0.52	2	3	0.58

2 - Anderson Way	0	2	0.11	0	3	0.24
3 - A2016 Bronze Age Way	2	4	0.64	2	4	0.61
4 - B253 Picardy Manorway	0	3	0.02	0	3	0.01

5.5.2 The full output report of the modelling can be found within Appendix D.

5.6 Findings – Sensitivity Assessment

5.6.1 It is noted that the junction is predicted to work within capacity for all scenarios.

5.6.2 When compared to the Core Assessment, it is noted that the Sensitivity Assessment results demonstrate a marginal improvement in junction operation for all scenarios in terms of RFC value. However, this is unlikely to be perceptible in practice and queue and delay values do not change.

5.6.3 It is noted that the “with LTC” scenario indicates a marginal increase in RFC value on the Anderson Way and Bronze Age Way arms, although it is unlikely that these effects would be perceptible in practice.

6 Queens Road / Bexley Road

6.1 Existing layout

- 6.1.1 The Queens Road / Bexley Road junction is 5 arm roundabout which forms the intersection of the A206 with the A2016, also known as the Queens Road roundabout and also, more recently, the Fish Roundabout. Walnut Tree Road is an exit only from the roundabout.
- 6.1.2 Pedestrians are able to move around this roundabout using crossing points on the east, south, and west arms. There is also provision of an underpass to the north to facilitate pedestrian movement under the A2016, which also provides access to Erith Station.

6.2 Percentage effect of Local Plan

- 6.2.1 The table below summarises the predicted percentage effect of implementing the proposed Local Plan. This is based upon a comparison of junction throughput between the Reference Case scenario and the Local Plan scenario.

No LTC	Core Assessment		Sensitivity Assessment	
	AM	PM	AM	PM
2038 Reference Case	3914	3699	3914	3699
2038 Local Plan scenario	4417	4190	4303	4109
Increase	503	491	389	410
% increase	12.8%	13.3%	9.9%	11.1%

With LTC	Core Assessment		Sensitivity Assessment	
	AM	PM	AM	PM
2038 Reference Case	3993	3689	3993	3689
2038 Local Plan scenario	4539	4187	4414	4115
Increase	546	498	421	426
% increase	13.7%	13.5%	10.5%	11.5%

- 6.2.2 The proposed Local Plan quanta is predicted to increase traffic flows at this junction by around 10% to 14%.

6.3 Modelling results – Core Assessment

- 6.3.1 The model for this junction was provided by LB Bexley, where the geometry was checked and adjusted accordingly within the model to reflect aerial photography. The results of these scenarios are shown below.

Existing Layout 2021 Baseline	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
1 - Bronze Age Way	1	5	0.57	2	6	0.65
3 - Bexley Road (E)	1	10	0.47	2	17	0.68
4 - Queens Road	3	7	0.76	2	5	0.63
5 - Bexley Road (W)	49	208	1.17	3	16	0.76

Existing Layout 2038 - No LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Reference Case						
1 - Bronze Age Way	2	6	0.64	3	8	0.76
3 - Bexley Road (E)	3	21	0.72	11	73	1.01
4 - Queens Road	3	7	0.73	2	5	0.59
5 - Bexley Road (W)	45	230	1.20	2	16	0.70
Local Plan Case						
1 - Bronze Age Way	3	9	0.74	4	10	0.79
3 - Bexley Road (E)	22	127	1.07	134	713	1.52
4 - Queens Road	5	11	0.83	2	6	0.64
5 - Bexley Road (W)	156	925	1.67	18	100	1.04

Existing Layout 2038 - With LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Reference Case						
1 - Bronze Age Way	2	6	0.63	3	8	0.75
3 - Bexley Road (E)	3	20	0.71	12	72	1.01
4 - Queens Road	4	8	0.76	2	5	0.59
5 - Bexley Road (W)	83	422	1.37	2	17	0.70
Local Plan Case						
1 - Bronze Age Way	3	9	0.75	4	10	0.80
3 - Bexley Road (E)	50	250	1.19	137	716	1.53

4 - Queens Road	6	14	0.86	2	5	0.64
5 - Bexley Road (W)	178	1132	1.78	10	59	0.97

6.3.2 The full output report of the modelling can be found within Appendix E.

6.4 Findings – Core Assessment

6.4.1 On the basis of the modelling completed it is evident that the operation of the junction exceeds capacity under Reference Case conditions (Bexley Road W in the morning peak hour and Bexley Road E in the evening peak hour). The operation of these arms deteriorates with the addition of Local Plan traffic.

6.4.2 The addition of the Local Plan also results in these two arms exceeding capacity in both of the peak hours, rather than just one peak hour.

6.4.3 On this basis, it may be necessary for Local Plan developments that introduce additional traffic at this junction to consider their impact and potential mitigation as they come forward for planning. This is considered further below.

6.4.4 It is noted that the “with LTC” scenario indicates an increase in RFC value on the Bexley Road (W) arm during the morning peak hour when compared to the “no LTC” scenario. This has an associated increase in queues and delay on this arm. The “with LTC” scenario also indicates an increase in RFC value on the Bexley Road (E) and (W) arms during the evening peak hour when the Local Plan is implemented when compared to the “no LTC” scenario. This has an associated increase in queues and delay on these arms.

6.5 Modelling results – Sensitivity Assessment

6.5.1 Using the same model, the Sensitivity Assessment flow groups and vehicle mix values have been added. The results of these scenarios are shown below.

Existing Layout 2038 - No LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
1 - Bronze Age Way	3	8	0.72	4	10	0.79
3 - Bexley Road (E)	11	63	0.97	113	601	1.48
4 - Queens Road	5	10	0.81	2	5	0.63
5 - Bexley Road (W)	128	760	1.58	9	51	0.95

Existing Layout 2038 - With LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
1 - Bronze Age Way	3	8	0.72	4	10	0.79
3 - Bexley Road (E)	18	103	1.04	118	624	1.49
4 - Queens Road	6	13	0.85	2	6	0.63

5 - Bexley Road (W)	165	1020	1.75	8	47	0.93
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6.5.2 The full output report of the modelling can be found within Appendix E.

6.6 Findings – Sensitivity Assessment

6.6.1 When compared to the Core Assessment, it is noted that the Sensitivity Assessment results demonstrate an improvement in junction operation for all scenarios in terms of RFC value, most notably for the Bexley Road (E) and (W) arms.

6.6.2 It is noted that the “with LTC” scenario indicates an increase in RFC value on the Bexley Road (W) arm during the morning peak hour when compared to the “no LTC” scenario. This has an associated increase in queues and delay on this arm. The “with LTC” scenario also indicates an increase in RFC value on the Bexley Road (E) and (W) arms during the evening peak hour when the Local Plan is implemented when compared to the “no LTC” scenario. This has an associated increase in queues and delay on these arms.

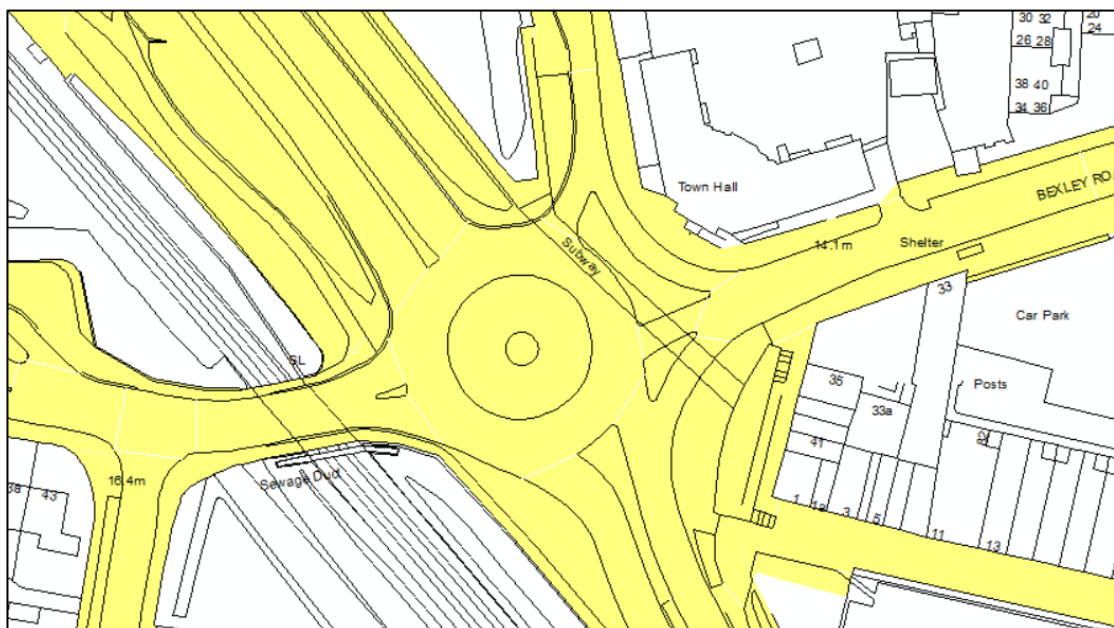
6.6.3 The addition of the Local Plan sensitivity assessment results in the Bexley Road arms exceeding capacity, albeit to a lesser extent than the Core Assessment.

6.6.4 On this basis, it may be necessary for Local Plan developments that introduce additional traffic at this junction to consider their impact and potential mitigation as they come forward for planning. This is considered further below.

6.7 Potential mitigation

6.7.1 As Local Plan (and other local) applications come forward it will be necessary for them to assess the operation of this junction in detail, following scoping with the Highway Authority. This will determine whether it would be appropriate or necessary for the proposed development to implement mitigation measures at this location. This assessment may be undertaken on the basis of detailed contemporary traffic count data rather than the LTAM strategic modelling output.

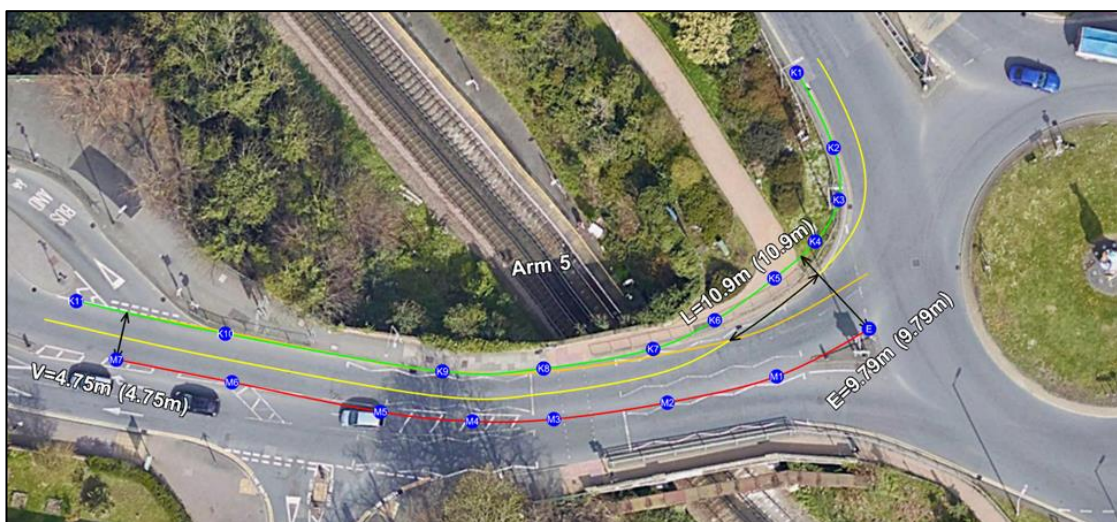
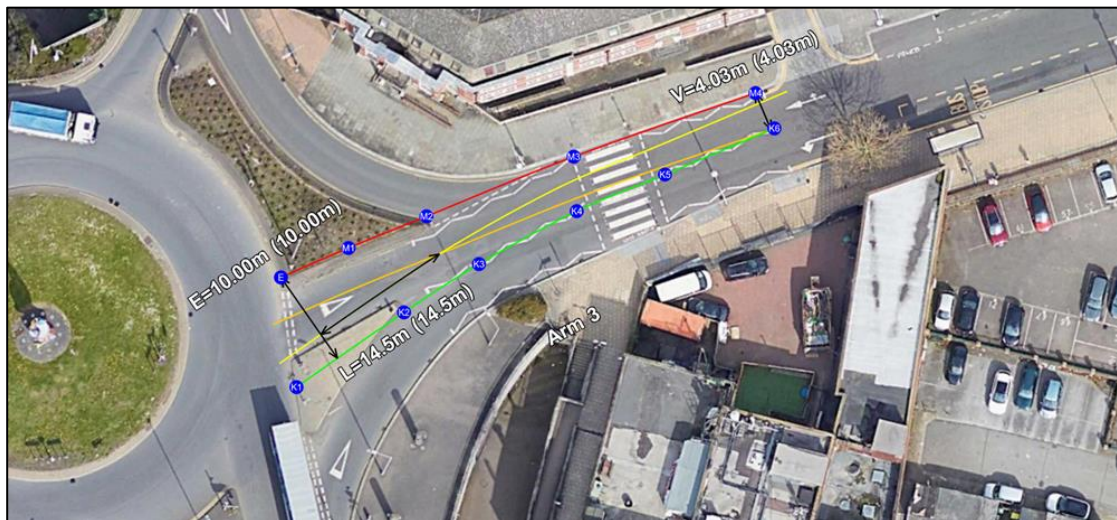
6.7.2 At this stage it is considered appropriate to consider the potential for mitigation at this junction to support Local Plan development, on the basis of the modelling exercise completed above. Reference has been made to highway boundary mapping provided for this junction by LB Bexley as shown below.



6.7.3 On the basis of the model outputs above the following mitigation measures have been considered :

- Bexley Road (E)
 - Widening of the carriageway reducing the existing islands on both sides of the existing lane
 - Entry width increased from 6.43m to 10.00m,
 - Flare length decreased from 14.5m to 10.0m,
 - Entry radius increased from 9.2m to 31.0m,
 - Conflict angle changed from 34.2 to 37.4.
- Bexley Road (W)
 - Widening of the carriageway into the existing footway on the nearside kerb. Works will not require any changes to the existing signalised pedestrian crossing
 - Entry width increased from 7.90m to 9.79m,
 - Flare length increased from 3.3m to 10.9m,
 - Entry radius increased from 11.1m to 11.4m,
 - Conflict angle increased from 34.9 to 36.4.

6.7.4 The figures below illustrate the above mitigation geometry assessed for the purposes of this exercise.



6.7.5 The above measures have been input to the modelling for the Core Assessment and the results summarised below.

Core assessment 2038 - No LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
1 - Bronze Age Way	4	11	0.79	4	11	0.80
3 - Bexley Road (E)	3	19	0.77	13	56	1.00
4 - Queens Road	6	13	0.85	3	8	0.71
5 - Bexley Road (W)	40	191	1.17	5	27	0.85

Core Assessment 2038 - With LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
1 - Bronze Age Way	4	11	0.79	4	11	0.80
3 - Bexley Road (E)	5	25	0.84	14	56	1.01
4 - Queens Road	8	18	0.90	3	8	0.71
5 - Bexley Road (W)	61	294	1.26	4	22	0.80

Sensitivity assessment 2038 - No LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
1 - Bronze Age Way	4	10	0.77	4	10	0.80
3 - Bexley Road (E)	3	15	0.70	10	45	0.96
4 - Queens Road	6	11	0.82	3	7	0.70
5 - Bexley Road (W)	40	127	1.10	3	19	0.77

Sensitivity Assessment 2038 - With LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
1 - Bronze Age Way	4	10	0.76	4	10	0.80
3 - Bexley Road (E)	3	17	0.75	11	47	0.97
4 - Queens Road	7	14	0.87	3	7	0.70
5 - Bexley Road (W)	46	223	1.20	3	18	0.76

- 6.7.6 It is noted from the above results that the mitigation measures assessed would mitigate the effect of the Local Plan when compared to the Reference Case scenario.
- 6.7.7 Notwithstanding the mitigation measures assessed above, it is understood that the LB Bexley Council and TfL have been actively looking at potential improvements to the junction as part of the Erith Links regeneration scheme. This project aims to unlock growth in the area through enhancing public realm and facilities for public transport and active travel as well as reducing severance. Work is ongoing to develop detailed plans for the junction in this context with a view to supporting future funding bids.

7 Thames Road / Perry Street

7.1 Existing layout

- 7.1.1 The Thames Road / Perry Street junction is a signal controlled 5 arm roundabout which is the intersection of the A206 and A2000. This roundabout includes 3 arms which are signal controlled whilst the remaining 2 arms give way to traffic on the circulatory. Keep clear boxes are painted at each intersection point of the junction.
- 7.1.2 Pedestrian crossings are located on each arm of this junction, incorporated to the signal controlled arms as signalised crossing points. Dropped kerb crossings are provided on both of the give way arms.

7.2 Percentage effect of Local Plan

- 7.2.1 The table below summarises the predicted percentage effect of implementing the proposed Local Plan. This is based upon a comparison of junction throughput between the Reference Case scenario and the Local Plan scenario.

No LTC	Core Assessment		Sensitivity Assessment	
	AM	PM	AM	PM
2038 Reference Case	4296	4340	4296	4340
2038 Local Plan scenario	4484	4649	4452	4597
Increase	188	309	156	256
% increase	4.4%	7.1%	3.6%	5.9%

With LTC	Core Assessment		Sensitivity Assessment	
	AM	PM	AM	PM
2038 Reference Case	4409	4386	4409	4386
2038 Local Plan scenario	4633	4670	4604	4626
Increase	224	284	195	240
% increase	5.1%	6.5%	4.4%	5.5%

- 7.2.2 The proposed Local Plan quanta is predicted to increase traffic flows at this junction by around 4% to 7%.

7.3 Modelling results – Core Assessment

- 7.3.1 The model for this junction has been provided by LB Bexley. It is noted that the model provided by LB Bexley has been set up using give-way parameters which are more suitable for right turning traffic against opposing mainline and turning traffic. These parameters have been amended to be more suited to the layout of the junction.
- 7.3.2 The lane saturation flows have been amended from their generic values to those which have been calculated using the geometrical values in the RR67 calculations within LinSig.

7.3.3 As the junction model is a signal-controlled layout, each scenario has been allowed to optimise signal timings to determine the optimum stage timings and offsets.

7.3.4 The new scenario flow groups and vehicle mix values have been added to the model and the results of these scenarios are shown below.

2021 baseline	AM		PM	
	PRC (%)	Delay (pcuHr)	PRC (%)	Delay (pcuHr)
2021 Baseline	11.8	37.47	16.1	32.48

7.3.5 Reference to the 2021 Linsig model suggests the following queues.

2021 baseline	Ave Max Q	
	AM	PM
A206 Northend Road	16	15
A206 Thames Road	19	21
Wyatt Road	1	1
A2000 Perry Street	10	8
Parkside Avenue	4	2

7.3.6 For information, reference has been made to the Howbury RFI Transport Assessment report (2015) which summarises the observed 2015 queues at this junction. An extract is shown below.

Table 4-1 Thames Road / Northend Road / Perry Street: Observed Average Queues (PCUs)

ARM	AM PEAK		PM PEAK	
	Average Queue every 5 min	Average Maximum Queue during each 5 min period	Average Queue every 5 min	Average Maximum Queue during each 5 min period
A206 Northend Road	14.1	22.1	12.9	21.2
A206 Thames Road	13.0	21.2	6.4	10.9
Wyatt Road	1.4	3.8	0.7	3.8
A2000 Perry Street	7.2	11.3	5.1	2.9
Parkside Avenue	6.5	9.2	2.3	9.9

7.3.7 It is noted that the observed queues are relatively similar to the 2021 modelled queues during the morning peak hour. Whilst the evening peak hour queues are of a similar order of magnitude to those modelled, the arms on which they occur may differ.

7.3.8 The differences between modelled and observed queues are likely to be a result of comparing different years and observed vs model generated turning movements.

No LTC	AM		PM	
	PRC (%)	Delay (pcuHr)	PRC (%)	Delay (pcuHr)
2038 Reference Case - No LTC	0.6	44.88	10.4	39.47
2038 Local Plan Case - No LTC	-0.4	66.61	1.2	56.52

With LTC	AM		PM	
	PRC (%)	Delay (pcuHr)	PRC (%)	Delay (pcuHr)
2038 Reference Case - With LTC	-0.5	54.13	9.6	41.19
2038 Local Plan Case - With LTC	-2.6	64.16	0.7	50.72

7.3.9 The full output report of the modelling can be found within Appendix F.

7.4 Findings – Core Assessment

7.4.1 The junction is predicted to work within maximum theoretical capacity for all scenarios (ie all arms within 100% DoS).

7.4.2 However, it is noted that the AM peak hour experiences negative PRC values. Closer inspection at the model output in Appendix F shows that this occurs on Parkside Avenue, where the PRC rises to 90.4% PRC. In the AM with LTC Local Plan scenario, the circulatory is shown within the model output in Appendix F to rise to 92.4% PRC at Perry Street, however the mean max queue is not shown to extend significantly in this scenario.

7.4.3 On this basis, it may be necessary for Local Plan developments that introduce additional traffic at this junction to consider their impact and potential mitigation as they come forward for planning. This may include physical alterations or adjustment to the cycle time for example.

7.4.4 It is noted that the “with LTC” scenario indicates an increase in delays and reduced PRC under the Reference Case scenarios when compared to the “no LTC” scenario. With respect to the Local Plan scenarios the PRC reduces although the delays also reduce.

7.5 Modelling results – Sensitivity Assessment

7.5.1 Using the same model, the Sensitivity Assessment flow groups and vehicle mix values have been added. The results of these scenarios are shown below.

No LTC	AM		PM	
	PRC (%)	Delay (pcuHr)	PRC (%)	Delay (pcuHr)
2038 Local Plan Case - No LTC	2.6	60.87	-1.9	53.35

With LTC	AM		PM	
	PRC (%)	Delay (pcuHr)	PRC (%)	Delay (pcuHr)
2038 Local Plan Case - With LTC	-1.6	62.36	2.2	48.40

7.5.2 The full output report of the modelling can be found within Appendix F.

7.6 Findings – Sensitivity Assessment

7.6.1 The junction is predicted to work within maximum theoretical capacity for all scenarios (ie all arms within 100% DoS).

7.6.2 When compared to the Core Assessment, it is noted that the Sensitivity Assessment results demonstrate an improvement in junction operation for all scenarios in terms of delays, albeit the PRC reduces for the evening peak hour under the “no LTC” scenario.

7.6.3 It is noted that the “with LTC” scenario indicates an increase in delays and reduced PRC during the morning peak hour, but an improvement during the evening peak hour.

8 Gravel Hill / Albion Road

8.1 Existing layout

- 8.1.1 The Gravel Hill / Albion Road junction is a 3 arm roundabout which forms the intersection between the A207 and the A220.
- 8.1.2 The roundabout has access for pedestrians on all arms, whereby the north and west arms have signal controlled crossings and the south arm has a raised plateau which provides access to an island refuge in the centre.
- 8.1.3 The arms of this junction also incorporate a footway mounting for cyclists from the carriageway to use these crossings if they would rather not use the roundabout circulatory.

8.2 Percentage effect of Local Plan

- 8.2.1 The table below summarises the predicted percentage effect of implementing the proposed Local Plan. This is based upon a comparison of junction throughput between the Reference Case scenario and the Local Plan scenario.

No LTC	Core Assessment		Sensitivity Assessment	
	AM	PM	AM	PM
2038 Reference Case	3490	3185	3490	3185
2038 Local Plan scenario	3680	3315	3640	3288
Increase	190	130	150	103
% increase	5.4%	4.1%	4.3%	3.2%

With LTC	Core Assessment		Sensitivity Assessment	
	AM	PM	AM	PM
2038 Reference Case	3463	3169	3463	3169
2038 Local Plan scenario	3673	3228	3625	3213
Increase	209	59	162	44
% increase	6.0%	1.9%	4.7%	1.4%

- 8.2.2 The proposed Local Plan quanta is predicted to increase traffic flows at this junction by around 1% to 6%.

8.3 Modelling results – Core Assessment

- 8.3.1 The model for this junction has been provided by LB Bexley. Using the same model, the new scenario flow groups and vehicle mix values have been added. The results of these scenarios are shown below.

Existing Layout 2021 Baseline	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
1 - A220 Gravel Hill (N)	3	9	0.75	2	7	0.69
2 - A220 Gravel Hill (S)	4	9	0.79	2	6	0.68
3 - Albion Road	1	4	0.36	1	6	0.54

Existing Layout 2038 - No LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Reference Case						
1 - A220 Gravel Hill (N)	6	15	0.85	3	9	0.75
2 - A220 Gravel Hill (S)	11	23	0.92	4	9	0.78
3 - Albion Road	1	4	0.36	1	5	0.48
Local Plan Case						
1 - A220 Gravel Hill (N)	9	22	0.90	4	10	0.77
2 - A220 Gravel Hill (S)	18	35	0.96	4	9	0.79
3 - Albion Road	1	5	0.40	1	6	0.55

Existing Layout 2038 - With LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Reference Case						
1 - A220 Gravel Hill (N)	5	13	0.84	3	9	0.74
2 - A220 Gravel Hill (S)	11	24	0.93	3	8	0.77
3 - Albion Road	1	4	0.35	1	5	0.48
Local Plan Case						
1 - A220 Gravel Hill (N)	8	20	0.90	3	9	0.74
2 - A220 Gravel Hill (S)	19	37	0.97	3	8	0.76
3 - Albion Road	1	4	0.39	1	6	0.55

8.3.2 The full output report of the modelling can be found within Appendix G.

8.4 Findings – Core Assessment

- 8.4.1 It is noted that the junction is predicted to work within theoretical capacity for all scenarios. It is noted that the Gravel Hill arms exceed an RFC of 0.85 during the morning peak hour under Reference Case conditions and this deteriorates when Local Plan traffic is added, but nevertheless the junction is demonstrated to operate within capacity.
- 8.4.2 It is noted that the “with LTC” scenario generally indicates a marginal improvement to junction operation when compared to the “no LTC” scenario.

8.5 Modelling results – Sensitivity Assessment

- 8.5.1 Using the same model, the Sensitivity Assessment flow groups and vehicle mix values have been added. The results of these scenarios are shown below. The full output report of the modelling can be found within Appendix G.

Existing Layout 2038 – No LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
1 - A220 Gravel Hill (N)	8	20	0.89	3	10	0.76
2 - A220 Gravel Hill (S)	16	32	0.95	4	9	0.79
3 - Albion Road	1	4	0.39	1	5	0.53

Existing Layout 2038 – With LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
1 - A220 Gravel Hill (N)	8	19	0.89	3	9	0.73
2 - A220 Gravel Hill (S)	16	32	0.95	3	8	0.76
3 - Albion Road	1	4	0.39	1	5	0.54

8.6 Findings – Sensitivity Assessment

- 8.6.1 It is noted that the junction is predicted to work within theoretical capacity for all scenarios. It is noted that the Gravel Hill arms exceed an RFC of 0.85 during the morning peak hour under Sensitivity Assessment conditions, but nevertheless the junction is demonstrated to operate within capacity.
- 8.6.2 When compared to the Core Assessment, it is noted that the Sensitivity Assessment results demonstrate a marginal improvement in junction operation for all scenarios in terms of RFC value. However, this is unlikely to be perceptible in practice.
- 8.6.3 It is noted that the “with LTC” scenario indicates a marginal improvement to junction operation, although it is unlikely that these effects would be perceptible in practice.

9 London Road / Crayford High Street / Crayford Way / Roman Way

9.1 Existing layout

- 9.1.1 The London Road / Crayford High Street / Crayford Way / Roman Way junctions are part of a one-way gyratory system located within Crayford and circling the ALDI supermarket. The signal controlled junctions assessed form the north and east sides of the one-way system.
- 9.1.2 The signal controlled junctions operate under the SCOOT system, allowing the signals to adapt to on site conditions.

9.2 Percentage effect of Local Plan

- 9.2.1 The table below summarises the predicted percentage effect of implementing the proposed Local Plan. This is based upon a comparison of junction throughput between the Reference Case scenario and the Local Plan scenario.

No LTC	Core Assessment		Sensitivity Assessment	
	AM	PM	AM	PM
2038 Reference Case	2583	2649	2583	2649
2038 Local Plan scenario	3059	2897	2979	2834
Increase	476	248	396	185
% increase	18.4%	9.4%	15.3%	7.0%

With LTC	Core Assessment		Sensitivity Assessment	
	AM	PM	AM	PM
2038 Reference Case	2709	2688	2709	2688
2038 Local Plan scenario	3086	2919	3007	2855
Increase	377	232	297	167
% increase	13.9%	8.6%	11.0%	6.2%

- 9.2.2 The proposed Local Plan quanta is predicted to increase traffic flows at this junction by around 6% to 18%.

9.3 Modelling results – Core Assessment

- 9.3.1 The model for the Crayford High Street and Crayford Way junction has been provided by LB Bexley from a previous analysis of the Local Plan.
- 9.3.2 This has further been extended by Stantec to include the London Road / Roman Way junction and the Crayford Way / Roman Way junctions. The extra junctions have been modelled using measurements gathered from aerial photography.

- 9.3.3 As the extra junctions are new to the model, a full set of survey information could not be extracted from the existing junction model to determine interpolated 2021 baseline flows. Therefore, only a future year assessment has been completed.
- 9.3.4 The southern section of the Crayford gyratory is not signal controlled but instead comprises a small number of give way junctions along its length. Traffic count data is not available for this section of the gyratory and hence these have not been included within the Linsig model, although Linsig would not be the most appropriate tool for modelling the give way junctions.
- 9.3.5 It is not anticipated that the omission of this section of the gyratory detracts from the modelling completed using the Linsig model as the inputs to the signal controlled junctions at each end of the model (ie London Road / Roman Way and Crayford Road / Roman Way) incorporate the flows entering and / or leaving the southern section of the gyratory.
- 9.3.6 As the junction model is a signal controlled layout, each scenario has been allowed to optimise signal timings to determine the optimum cycle time and stage splits.
- 9.3.7 The new scenario flow groups and vehicle mix values have been added to the model and the results of these scenarios are shown below.

No LTC	AM		PM	
	PRC (%)	Delay (pcuHr)	PRC (%)	Delay (pcuHr)
2038 Reference Case - No LTC	19.8	30.69	8.8	30.67
2038 Local Plan Case - No LTC	1.3	41.30	8.9	31.41

With LTC	AM		PM	
	PRC (%)	Delay (pcuHr)	PRC (%)	Delay (pcuHr)
2038 Reference Case - With LTC	4.1	32.39	4.2	30.94
2038 Local Plan Case - With LTC	-6.6	42.72	2.9	31.53

- 9.3.8 The full output report of the modelling can be found within Appendix H.

9.4 Findings – Core Assessment

- 9.4.1 On reference to the model output at Appendix H the junction is predicted to work within maximum theoretical capacity for all scenarios (ie all arms within 100% DoS).
- 9.4.2 It is noted that the “with LTC” scenario indicates an increase in delays and reduced PRC under all scenarios when compared to the “no LTC” scenario. This is most notable during the morning peak hour.

9.5 Modelling results – Sensitivity Assessment

- 9.5.1 Using the same model, the Sensitivity Assessment flow groups and vehicle mix values have been added. The results of these scenarios are shown below.

No LTC	AM		PM	
	PRC (%)	Delay (pcuHr)	PRC (%)	Delay (pcuHr)
2038 Local Plan Case - No LTC	3.4	38.05	8.9	30.36

With LTC	AM		PM	
	PRC (%)	Delay (pcuHr)	PRC (%)	Delay (pcuHr)
2038 Local Plan Case - With LTC	-6.4	39.72	5.6	30.29

9.5.2 The full output report of the modelling can be found within Appendix F.

9.6 Findings – Sensitivity Assessment

- 9.6.1 The junction is predicted to work within maximum theoretical capacity for all scenarios (ie all arms within 100% DoS).
- 9.6.2 When compared to the Core Assessment, it is noted that the Sensitivity Assessment results demonstrate an improvement in junction operation for all scenarios in terms of delays.
- 9.6.3 It is noted that the “with LTC” scenario indicates an increase in delays and reduced PRC during the morning peak hour, but an improvement in PRC during the evening peak hour.

10 Thames Road / Crayford Way

10.1 Existing layout

10.1.1 The Thames Road / Crayford Way junction is located towards the east boundary of the London Borough of Bexley. It is a 4 arm roundabout with controlled pedestrian crossing facilities on the south and west arms and dropped kerb crossings on the north and east arms. A segregated cycle facility is provided on the A206 corridor.

10.2 Percentage effect of Local Plan

10.2.1 The table below summarises the predicted percentage effect of implementing the proposed Local Plan. This is based upon a comparison of junction throughput between the Reference Case scenario and the Local Plan scenario.

No LTC	Core Assessment		Sensitivity Assessment	
	AM	PM	AM	PM
2038 Reference Case	5109	4805	5109	4805
2038 Local Plan scenario	5423	5122	5384	5078
Increase	314	317	275	273
% increase	6.1%	6.6%	5.4%	5.7%

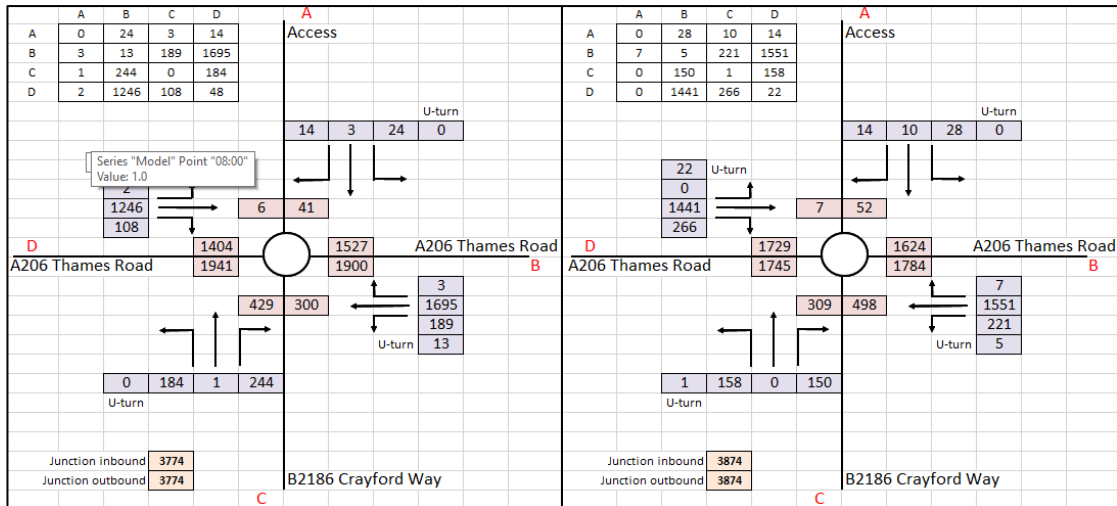
With LTC	Core Assessment		Sensitivity Assessment	
	AM	PM	AM	PM
2038 Reference Case	5139	4802	5139	4802
2038 Local Plan scenario	5530	5145	5474	5102
Increase	392	344	335	300
% increase	7.6%	7.2%	6.5%	6.2%

10.2.2 The proposed Local Plan quanta is predicted to increase traffic flows at this junction by around 5% to 8%.

10.3 2015 base year model

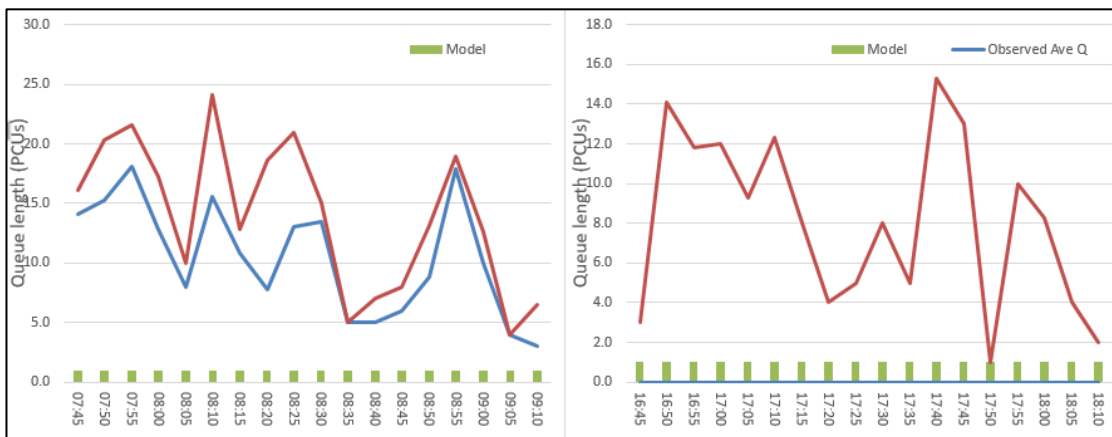
10.3.1 An exercise has been completed to develop a 2015 base year model for this junction based upon available 2015 count and queue data from the Howbury RFI Transport Assessment 2015.

10.3.2 The 2015 turning movements (in PCUs) for the morning and evening peak hours are illustrated below. These have been extracted from the Howbury RFI Transport Assessment.

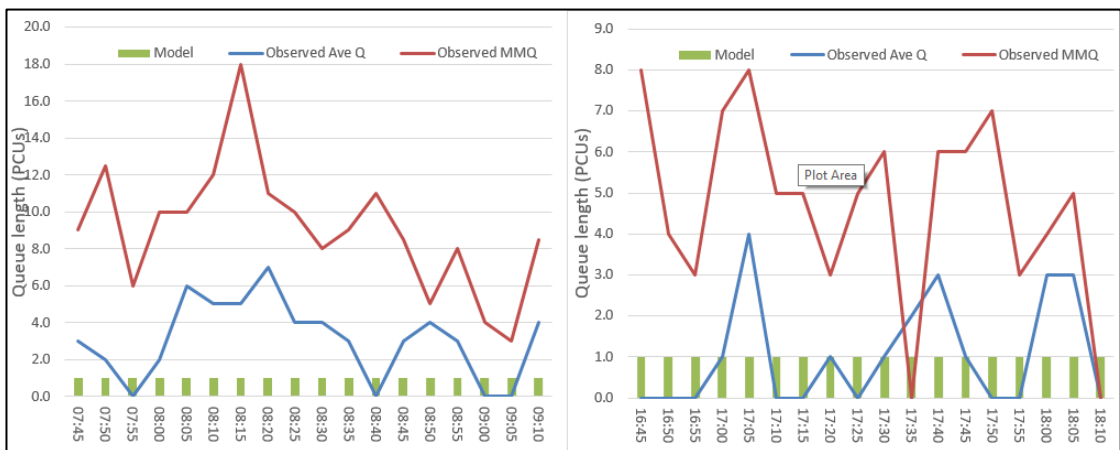


10.3.3 The above turning flows have been input to a Junctions10 model based upon geometry extracted from aerial photography. 2015 queue data has been extracted from the Howbury TA and is illustrated by the graphs below.

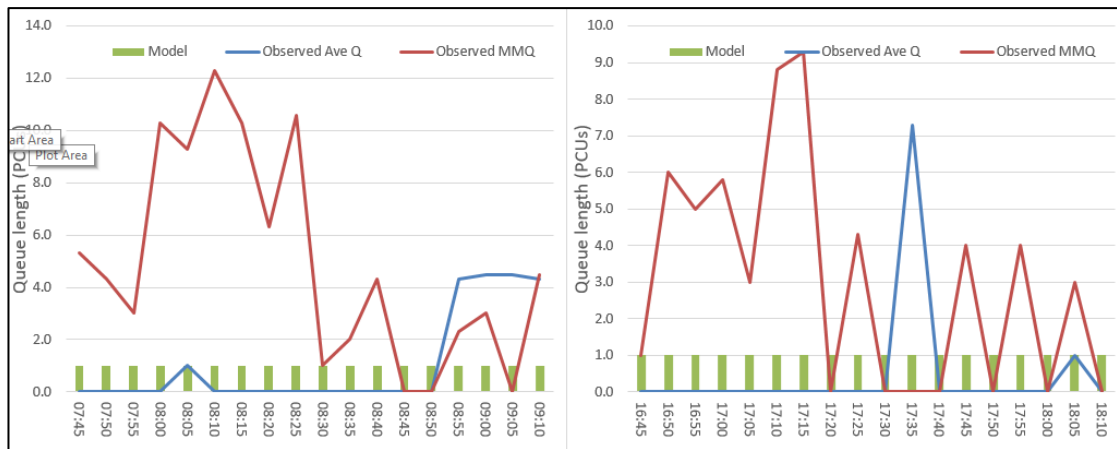
Thames Road (W)



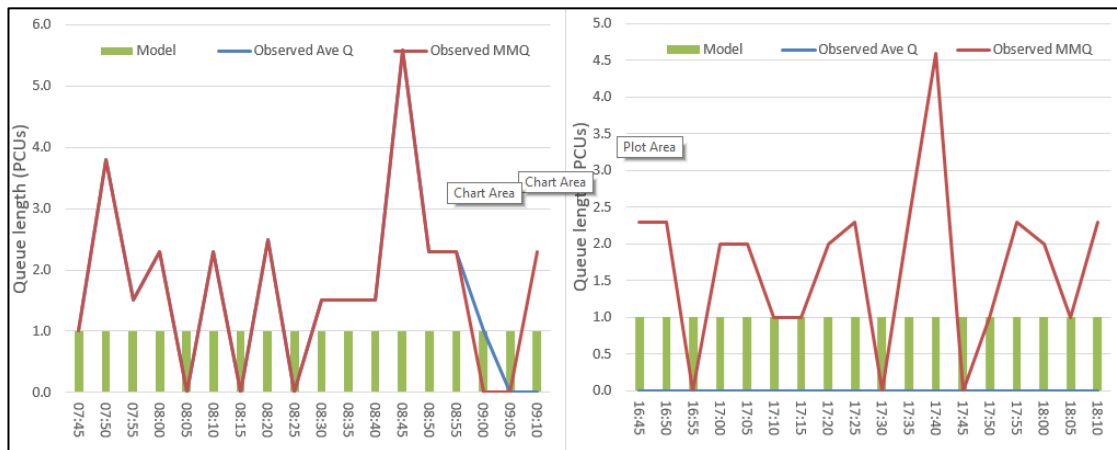
Crayford Way



Thames Road (E)



London Loop



10.3.4 Whilst the eastbound exit from the roundabout merges from 2 lanes to 1 before heading under the Cray Mill Rail bridge, the Howbury RFI TA does not record any particular issues with this in terms of blocking back to the roundabout. The queue data does not suggest a particular issue either.

10.3.5 Nevertheless, to better represent the observed queues at this roundabout, adjustments have been made to the Junctions10 model. The adjustment takes the form of intercept value adjustments to either add or remove capacity from entry arms. On this basis the 2015 junction model includes intercept adjustments as follows :

- Thames Road (E) 150 AM 200 PM
- Crayford Way 0 AM -225 PM
- Thames Road (W) -470 AM -75 PM

10.3.6 The results of the 2015 modelling is summarised below.

Existing Layout 2015 Baseline	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
A – London Loop	0	11	0.11	0	17	0.21
B – Thames Road (E)	7	13	0.88	5	10	0.84
C – Crayford Way	10	80	0.95	6	71	0.89
D – Thames Road (W)	17	41	0.96	10	21	0.92

10.3.7 It is noted from the results above that the modelled queues are relatively consistent with the observed queues at the roundabout and this suggests that the model is appropriately representing the operation of the roundabout.

10.4 Modelling results – Core Assessment

10.4.1 The new scenario flow groups and vehicle mix values have been added for the Core Assessment. The results of these scenarios are shown below.

Existing Layout 2038 - No LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Reference Case						
A – London Loop	26	250	1.09	100	1056	1.87
B – Thames Road (E)	151	220	1.13	36	60	1.00
C – Crayford Way	84	561	1.28	161	1089	1.76
D – Thames Road (W)	340	732	1.32	28	49	0.99
Local Plan Case						
A – London Loop	46	454	1.19	126	1833	1.87
B – Thames Road (E)	182	282	1.16	76	110	1.06
C – Crayford Way	104	724	1.34	236	1648	2.00
D – Thames Road (W)	496	1060	1.42	132	189	1.11

Existing Layout 2038 - With LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Reference Case						
A – London Loop	22	208	1.07	99	1031	1.85
B – Thames Road (E)	178	269	1.15	35	57	1.00
C – Crayford Way	90	659	1.32	164	1123	1.81
D – Thames Road (W)	301	638	1.29	25	46	0.98
Local Plan Case						
A – London Loop	39	358	1.15	124	2171	1.79
B – Thames Road (E)	227	368	1.19	73	106	1.05
C – Crayford Way	122	977	1.42	237	1672	2.05
D – Thames Road (W)	491	1005	1.40	154	233	1.13

10.4.2 The full output report of the modelling can be found within Appendix I.

10.5 Findings – Core Assessment

10.5.1 It is noted that the junction is predicted to exceed theoretical capacity for all scenarios, including Reference Case. It is further noted that queues predicted are significant and would block back to the downstream roundabouts on the east, west and south arms.

10.5.2 It is noted that the “with LTC” scenario generally indicates a mixed effect on the junction operation when compared to the “no LTC” scenario. Some arms increase in RFC value and some decrease, albeit the effect is generally marginal.

10.6 Modelling results – Sensitivity Assessment

10.6.1 Using the same model, the Sensitivity Assessment flow groups and vehicle mix values have been added. The results of these scenarios are shown below.

Existing Layout 2038 - No LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
A – London Loop	43	421	1.18	130	1658	1.92
B – Thames Road (E)	179	275	1.15	68	99	1.05
C – Crayford Way	100	689	1.33	228	1588	2.01

D – Thames Road (W)	483	1036	1.41	111	152	1.09
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Existing Layout 2038 - With LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
A – London Loop	35	314	1.13	122	1694	1.86
B – Thames Road (E)	220	353	1.19	68	100	1.05
C – Crayford Way	117	926	1.40	229	1647	2.06
D – Thames Road (W)	462	948	1.39	126	176	1.11

10.6.2 The full output report of the modelling can be found within Appendix I.

10.7 Findings – Sensitivity Assessment

10.7.1 It is noted that the junction is predicted to exceed theoretical capacity for all scenarios. It is further noted that queues predicted are significant and would block back to the downstream roundabouts on the east, west and south arms.

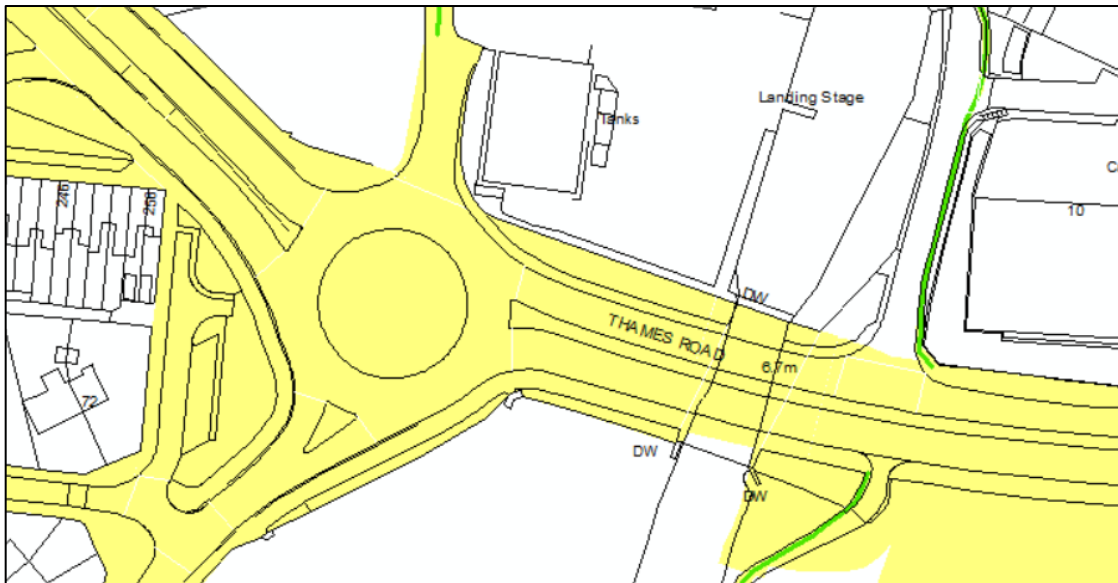
10.7.2 When compared to the Core Assessment, it is noted that the Sensitivity Assessment results demonstrate a marginal improvement in junction operation for all scenarios in terms of RFC value. However, the London Loop arm operation worsens during the evening peak hour.

10.7.3 It is noted that the “with LTC” scenario generally indicates a mixed effect on the junction operation when compared to the “no LTC” scenario. Some arms increase in RFC value and some decrease, albeit the effect is generally marginal.

10.8 Potential mitigation

10.8.1 As Local Plan (and other local) applications come forward it will be necessary for them to assess the operation of this junction in detail, following scoping with the Highway Authority. This will determine whether it would be appropriate or necessary for the proposed development to implement mitigation measures at this location. This assessment may be undertaken on the basis of detailed contemporary traffic count data rather than the LTAM strategic modelling output. This assessment may be undertaken on the basis of detailed contemporary traffic count data rather than the LTAM strategic modelling output.

10.8.2 At this stage it is considered appropriate to consider the potential for mitigation at this junction to support Local Plan development, on the basis of the modelling exercise completed above. Reference has been made to highway boundary mapping provided for this junction by LB Bexley as shown below.



10.8.3 On the basis of the model outputs above the following mitigation measures have been considered :

- Thames Road (E)
 - Carriageway widened into existing central island splitting dual carriageway
 - Entry width increased from 9.34m to 10.01m,
 - Flare length increased from 119.1m to 154.9m,
 - Conflict angle increased from 58.1 to 63.0.
- Crayford Way
 - Widening of carriageway into nearside kerb and into existing footway which will need to be realigned. The proposed mitigation does not impact the local pedestrian signalised crossing.
 - Entry width increased from 7.03m to 7.64m,
 - Flare length increased from 3.6m to 8.9m,
 - Entry radius decreased from 17.8m to 13.6m,
 - Conflict angle decreased from 44.3 to 35.6.
- Thames Road (W)
 - Carriageway widened into existing wide footway area on nearside kerblines. The proposed mitigation avoids impacting the existing pedestrian signalised crossing.
 - Entry width increased from 9.50m to 10.51m,
 - Flare length increased from 8.4m to 25.5m,
 - Conflict angle decreased from 66.6 to 63.7.

10.8.4 The figures below illustrate the above mitigation geometry assessed for the purposes of this exercise.



10.8.5 The above measures have been input to the modelling for the Core Assessment and the results summarised below.

Core assessment 2038 - No LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
A – London Loop	179	2641	1.89	175	2196	4.20
B – Thames Road (E)	114	145	1.09	37	58	1.00

C – Crayford Way	59	352	1.20	125	725	1.59
D – Thames Road (W)	237	446	1.22	28	44	0.99

Core Assessment 2038 - With LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
A – London Loop	161	2230	1.79	177	2300	4.56
B – Thames Road (E)	154	208	1.12	35	56	1.00
C – Crayford Way	75	517	1.27	126	747	1.62
D – Thames Road (W)	229	408	1.21	38	56	1.00

Sensitivity assessment 2038 - No LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
A – London Loop	171	2547	1.87	169	4062	3.73
B – Thames Road (E)	111	142	1.08	32	51	0.99
C – Crayford Way	56	327	1.18	122	702	1.58
D – Thames Road (W)	229	432	1.22	21	35	0.97

Sensitivity Assessment 2038 - With LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
A – London Loop	151	2115	1.76	170	4416	3.98
B – Thames Road (E)	148	195	1.12	32	51	0.99
C – Crayford Way	70	485	1.26	123	732	1.61
D – Thames Road (W)	213	377	1.19	26	41	0.98

- 10.8.6 It is noted from the above results that the mitigation measures assessed would generally mitigate the effect of the Local Plan in overall terms when compared to the Reference Case scenario, with the exception of London Loop arm which is constrained by available highway boundary. This would represent a “nil detriment” mitigation measure.
- 10.8.7 However, it is also evident that whilst Local Plan traffic is mitigated, the junction is still predicted to be operating over capacity due to baseline (Reference Case) traffic. Hence, an upgrade of this junction may be necessary regardless of the addition of Local Plan traffic.

11 Thames Road / Bob Dunn Way

11.1 Existing layout

11.1.1 The Thames Road / Bob Dunn Way / Burnham Road junction is located east of the London Borough of Bexley boundary and within Dartford Borough Council. It is a 3 arm roundabout with a bypass lane for west to east movements.

11.2 Percentage effect of Local Plan

11.2.1 The table below summarises the predicted percentage effect of implementing the proposed Local Plan. This is based upon a comparison of junction throughput between the Reference Case scenario and the Local Plan scenario.

No LTC	Core Assessment		Sensitivity Assessment	
	AM	PM	AM	PM
2038 Reference Case	5005	4800	5005	4800
2038 Local Plan scenario	5252	4971	5230	4955
Increase	246	171	225	155
% increase	4.9%	3.6%	4.5%	3.2%

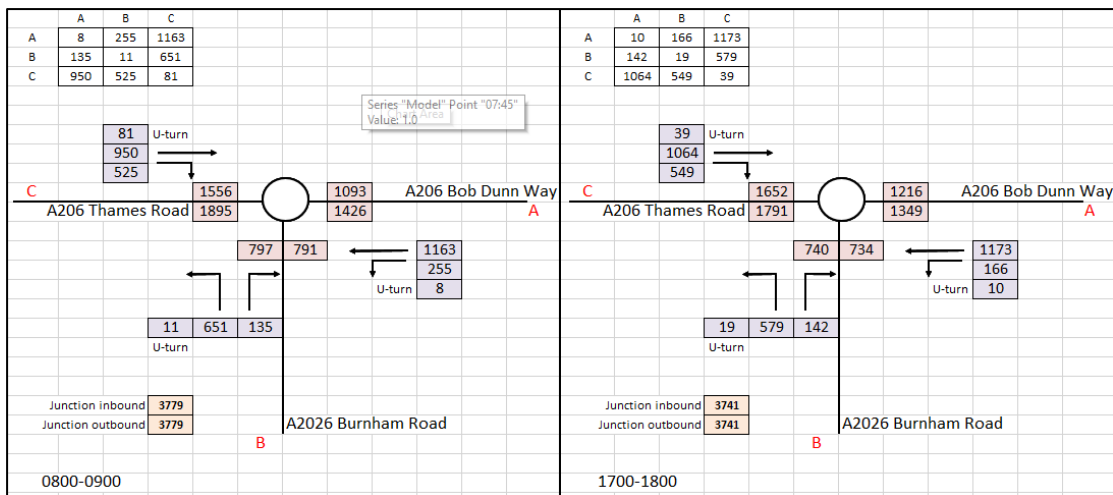
With LTC	Core Assessment		Sensitivity Assessment	
	AM	PM	AM	PM
2038 Reference Case	5172	4912	5172	4912
2038 Local Plan scenario	5442	5100	5423	5084
Increase	271	188	252	172
% increase	5.2%	3.8%	4.9%	3.5%

11.2.2 The proposed Local Plan quanta is predicted to increase traffic flows at this junction by around 3% to 5%.

11.3 2015 base year model

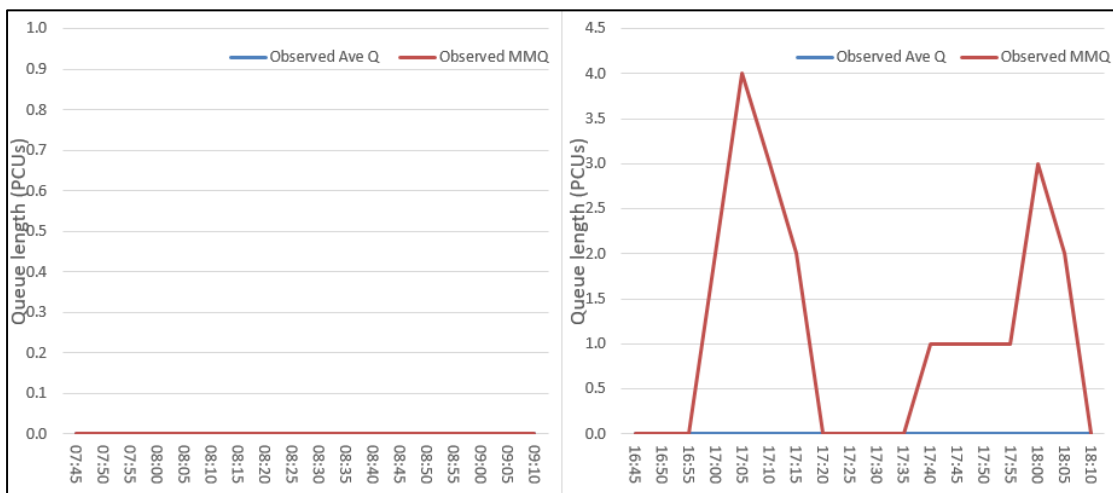
11.3.1 An exercise has been completed to develop a 2015 base year model for this junction based upon available 2015 count and queue data from the Howbury RFI Transport Assessment 2015. This exercise has been undertaken on the basis that local conditions created by the Cray Mill Rail bridge generates a constraint to westbound traffic exiting the roundabout on Thames Road. It has been considered appropriate to try and replicate this effect in the modelling exercise.

11.3.2 The 2015 turning movements (in PCUs) for the morning and evening peak hours are illustrated below. These have been extracted from the Howbury RFI Transport Assessment.

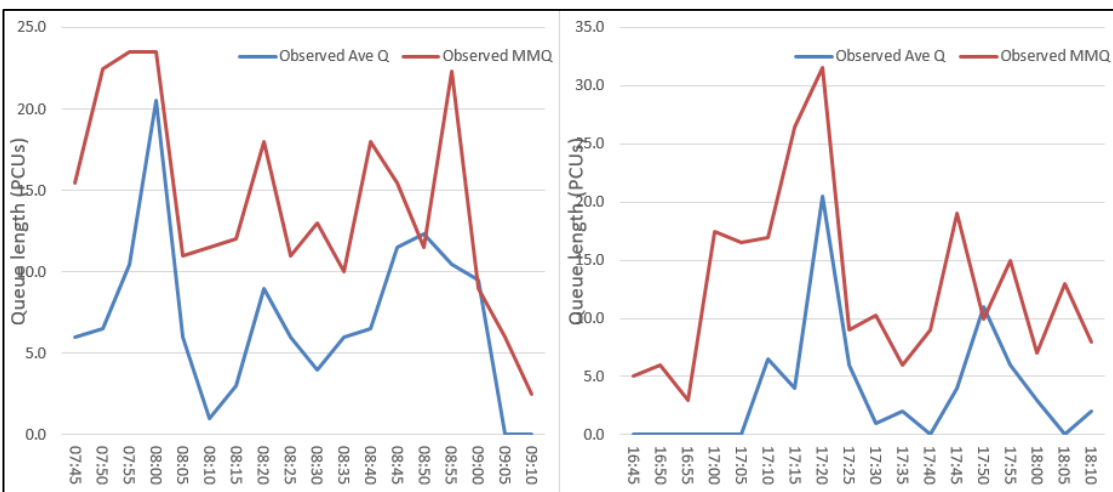


11.3.3 The above turning flows have been input to a Junctions10 model based upon geometry extracted from aerial photography. On running the model it was noted that the junction operates within capacity with little queuing. This is contrary to the observed queues noted by the Howbury RFI TA. The 2015 queue data has been extracted from the Howbury TA and is illustrated by the graphs below.

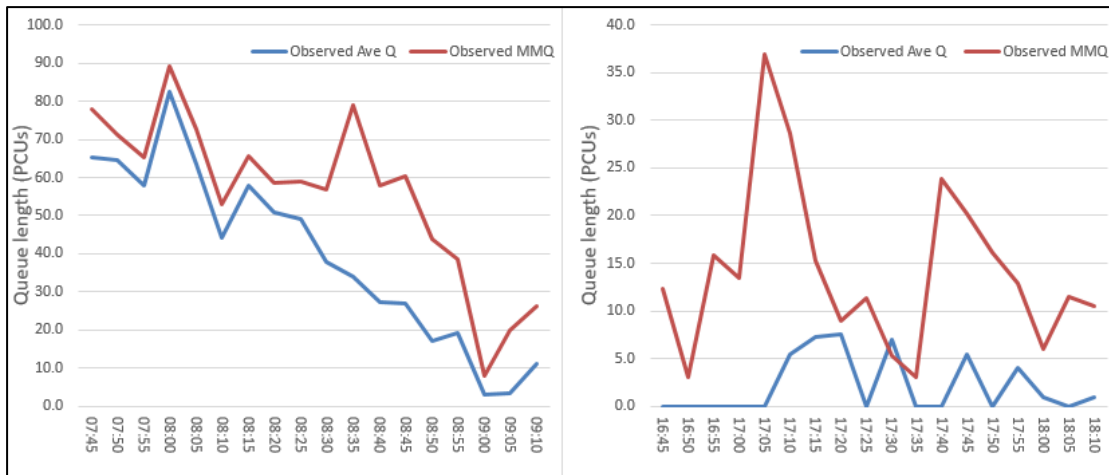
Thames Road



Burnham Road



Bob Dunn Way



- 11.3.4 It is noted from the observed queues above that long observed queues occur on Bob Dunn Way and Burnham Road. The Howbury RFI TA notes that this is a result of Thames Road reducing from two lanes to a single lane in the westbound direction to the west of the roundabout due to the width restriction created through the Cray Mill Rail Bridge.
- 11.3.5 This effect generates an observed queue of around 15-20 vehicles on Burnham Road and around 60-70 vehicles on Bob Dunn Way during the morning peak hour. This equates to a combined queue of around 75-90 vehicles held at the roundabout as a result of the Cray Mill bridge width restriction. The equivalent observations for the evening peak hour are 15-20 vehicles on Burnham Road, 20-25 vehicles on Bob Dunn Way, equating to a combined queue of around 35-45 vehicles held at the roundabout
- 11.3.6 To better represent the observed effect of the Cray Mill bridge restriction, adjustments have been made to the Junctions10 model. The adjustment takes the form of an exit restriction on the Thames Road exit (ie westbound).
- 11.3.7 Whilst calibrating the exit restriction value it was noted that the u-turn movements on the Thames Road arm cause disproportionate model queues to develop on the Thames Road entry arm. This is contrary to the observed queues on Thames Road which are typically zero. To adjust for this, the u-turn movements have been removed for Thames Road. This is also consistent with the forecast year model flows which do not predict u-turn movements on Thames Road.
- 11.3.8 On the basis of the approach above, the 2015 junction model includes an exit restriction of 1860 PCUs during the AM peak hour and 1860 PCUs during the PM peak hour. The results of the 2015 modelling is summarised below.

Existing Layout 2015 Baseline	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
A – Bob Dunn Way	54	110	1.07	26	58	1.01
B – Burnham Road	31	118	1.06	16	67	1.00
C – Thames Road	1	5	0.46	1	6	0.48

11.3.9 It is noted from the results above that the combined queue during the AM peak hour is 86 and during the evening peak hour is 43. This is consistent with the observed combined queues at the roundabout and suggests that the model is appropriately representing the Cray Mill bridge restriction.

11.4 Modelling results – Core Assessment

11.4.1 The 2015 models described above have been adopted for forecasting purposes and the 2038 scenario flow groups and vehicle mix values have been added. The results of these scenarios are shown below.

Existing Layout 2038 - No LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Reference Case						
A – Bob Dunn Way	276	596	1.31	165	293	1.18
B – Burnham Road	207	842	1.41	60	217	1.11
C – Thames Road	2	8	0.63	14	48	0.95
Local Plan Case						
A – Bob Dunn Way	320	657	1.33	204	388	1.22
B – Burnham Road	242	1045	1.47	73	280	1.15
C – Thames Road	2	10	0.69	19	64	0.98

Existing Layout 2038 - With LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Reference Case						
A – Bob Dunn Way	438	823	1.39	164	288	1.17
B – Burnham Road	150	739	1.36	78	274	1.15
C – Thames Road	2	8	0.61	7	29	0.89
Local Plan Case						
A – Bob Dunn Way	474	865	1.41	205	382	1.21
B – Burnham Road	225	1151	1.50	87	328	1.18

C – Thames Road	2	10	0.68	10	39	0.93
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11.4.2 The full output report of the modelling can be found within Appendix J.

11.5 Findings – Core Assessment

11.5.1 It is noted that the junction is predicted to exceed capacity for all scenarios with respect to the Bob Dunn Way and Burnham Road arms. This is exacerbated by the Local Plan development traffic. The Thames Road arm operates within theoretical capacity for all scenarios.

11.5.2 It is noted that the “with LTC” scenario generally indicates a mixed effect on the junction operation when compared to the “no LTC” scenario. Some arms increase in RFC value and some decrease, albeit the effect is generally modest.

11.6 Modelling results – Sensitivity Assessment

11.6.1 Using the same model, the Sensitivity Assessment flow groups and vehicle mix values have been added. The results of these scenarios are shown below.

Existing Layout 2038 - No LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
A – Bob Dunn Way	315	649	1.33	199	374	1.21
B – Burnham Road	237	1018	1.46	72	275	1.15
C – Thames Road	2	10	0.68	17	59	0.97

Existing Layout 2038 - With LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
A – Bob Dunn Way	471	861	1.41	205	382	1.22
B – Burnham Road	219	1126	1.50	86	327	1.18
C – Thames Road	2	10	0.68	10	39	0.93

11.6.2 The full output report of the modelling can be found within Appendix J.

11.7 Findings – Sensitivity Assessment

11.7.1 It is noted that the junction is predicted to exceed capacity for all scenarios with respect to the Bob Dunn Way and Burnham Road arms. This is exacerbated by the Local Plan development traffic. The Thames Road arm operates within theoretical capacity for all scenarios.

11.7.2 When compared to the Core Assessment, it is noted that the Sensitivity Assessment results demonstrate a marginal improvement in junction operation for all scenarios in terms of RFC value.

11.7.3 It is noted that the “with LTC” scenario generally indicates a mixed effect on the junction operation when compared to the “no LTC” scenario. Some arms increase in RFC value and some decrease, albeit the effect is generally modest.

11.8 Potential mitigation

11.8.1 It appears evident that the Cray Mill bridge restriction generates the queues at the roundabout. It is understood that the Local Plan identifies this as an issue and proposes safeguarding to enable the completion of the Thames Road dualling scheme in the future to solve the restriction. The Local Plan proposes the creation of a working group of strategic partners to identify and deliver an appropriate solution that will support sustainable travel and reduce the risk of accidents while alleviating air quality impacts and delays.

11.8.2 For the purposes of this study it has been considered appropriate to review the interim mitigation that may be required to reduce this restriction. To determine the extent of interim mitigation required to offset the Local Plan traffic the exit restriction has been increased until the Local Plan model results reflect the Reference Case results.

11.8.3 On this basis the junction model exit restriction has been increased from 1860 PCUs to 2000 PCUs during the AM peak hour and from 1860 PCUs to 1950 PCUs during the PM peak hour. The above parameters have been input to the modelling and the results summarised below.

Core assessment 2038 - No LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
A – Bob Dunn Way	212	419	1.24	156	256	1.16
B – Burnham Road	163	603	1.34	56	190	1.10
C – Thames Road	2	11	0.70	21	69	0.99

Core Assessment 2038 - With LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
A – Bob Dunn Way	340	592	1.31	156	256	1.16
B – Burnham Road	156	673	1.36	68	223	1.10
C – Thames Road	2	10	0.69	11	43	0.99

Sensitivity assessment 2038 - No LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
A – Bob Dunn Way	208	4.12	1.23	156	256	1.16
B – Burnham Road	158	588	1.33	56	190	1.10
C – Thames Road	2	11	0.69	21	69	0.99

Sensitivity Assessment 2038 - With LTC	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
A – Bob Dunn Way	338	589	1.31	156	256	1.16
B – Burnham Road	152	656	1.35	67	222	1.13
C – Thames Road	2	10	0.68	11	43	0.94

11.8.4 It is noted from the above results that the easing of the exit restriction as described would mitigate the effect of the Local Plan when compared to the Reference Case scenario. Hence, a mitigation measure to increase the capacity of the westbound merge by 140 PCUs in the AM peak hour and 90 PCUs during the PM peak hour would be appropriate.

11.8.5 Therefore, as Local Plan (and other local) applications come forward it will be necessary for them to assess the operation of this junction and westbound merge in further detail, and following scoping with the Highway Authority. This will determine whether it would be appropriate or necessary for the proposed development to implement mitigation measures at this location.

11.8.6 Such an assessment may use detailed contemporary traffic count data. Due to the location of the Cray Mill Rail bridge it may be appropriate to model this junction in tandem with the roundabout to the west using microsimulation software. This will be able to replicate the effect of the westbound lane merge.

11.8.7 The assessment would also allow consideration of any mitigation measures that may provide a suitable interim mitigation scheme to address the westbound merge capacity described above. This may, for example, include the following considerations:

- Reconfiguration of the merge. This may, for example, look at widening or lengthening of the existing merge to increase the merging capacity at this location by the required amount identified above.
- Installation of signal control at the roundabout. This will create vehicle platoons exiting the roundabout rather than a constant stream of vehicles. Such control may allow the existing merge layout to operate more effectively or discharge between platoons.

- Lowering of the road under the rail bridge. This would allow more width to be used under the rail bridge to potentially achieve 2 lanes of traffic flow.

12 Summary

- 12.1.1 Stantec have been appointed by LB Bexley to undertake modelling for a number of local junctions within Bexley. The purpose of the appointment is to assess the potential effect of the traffic associated with the proposed LB Bexley Local Plan.
- 12.1.2 This report has been prepared to summarise the modelling methodology adopted, the modelling parameters used for each of the models and the potential effects of the Local Plan traffic.
- 12.1.3 The model used for this study is the LTAM which has been developed by NH to assess the Lower Thames Crossing scheme. LB Bexley have been provided with a LB Bexley cordon area of the LTAM. Stantec updated the LTAM to create a 2038 Reference Case model and a 2038 “with Local Plan” model.
- 12.1.4 A sensitivity assessment has been completed which considers the potential for mode shift away from private car in accordance with the MTS and LIP. The sensitivity assumptions adopted are considered robust insofar as they are only being applied to journeys to and from new Local Plan sites. In practise, the policy and strategy targets have been set for all journeys, including existing (background / baseline) journeys to and from established developments within Bexley.
- 12.1.5 On this basis it can be reasonably expected that a proportion of background traffic would also mode switch as a result of the MTS and LIP targets and policies and this has not been allowed for in the assessment.
- 12.1.6 The turning flows from the strategic modelling work have been used for input to this junction modelling appointment. The LTAM 0700-0800 turning flows have been factored to represent the 0800-0900 peak hour.
- 12.1.7 Each of the base year junction models has been factored to a common 2021 base year. Junction modelling has been completed using either the Junctions10 software package (for roundabouts and priority junctions) or LinSig (for signal-controlled junctions). The geometric inputs to each model have been based upon either the models provided by LB Bexley, or measurements taken from aerial data.
- 12.1.8 With respect to the modelling findings, these are summarised below. The tables are intended to provide a quick comparison of the RFC (roundabouts) and PRC (signals) parameters for each junction and for each scenario. An average RFC has also been shown for information. The colours indicate the following :
- Green – operating within usually desirable maximum capacity parameters.
 - Amber – Operating within capacity, but exceeds desirable maximum parameters.
 - Red – Exceeds theoretical maximum capacity parameters.
- 12.1.9 Harrow Manorway / Yarnton Way - The proposed Local Plan quanta is predicted to increase traffic flows at this junction by around 10% to 21%. The junction is predicted to work within theoretical capacity for all scenarios. It is noted that the Harrow Manorway (N) arm exceeds an RFC of 0.85 during the evening peak hour when the Local Plan traffic is added, but nevertheless the junction is demonstrated to operate within capacity. The tables below provide an overview of RFC values for this junction.

AM peak hour	No LTC			With LTC		
	Ref	Core	Sens	Ref	Core	Sens
A - Harrow Manorway (N)	0.57	0.66	0.64	0.58	0.67	0.64
B - Yarnton Way	0.08	0.11	0.10	0.08	0.11	0.10
C - Harrow Manorway (S)	0.51	0.63	0.61	0.52	0.64	0.62
D - Eynsham Drive	0.01	0.03	0.02	0.01	0.03	0.02
Average	0.29	0.36	0.34	0.30	0.36	0.35

PM peak hour	No LTC			With LTC		
	Ref	Core	Sens	Ref	Core	Sens
A - Harrow Manorway (N)	0.75	0.90	0.86	0.76	0.90	0.86
B - Yarnton Way	0.14	0.22	0.20	0.14	0.22	0.19
C - Harrow Manorway (S)	0.55	0.55	0.56	0.55	0.56	0.55
D - Eynsham Drive	0.01	0.05	0.04	0.01	0.05	0.03
Average	0.36	0.43	0.42	0.37	0.43	0.41

12.1.10 Picardy Manorway / Bronze Age Way - The proposed Local Plan quanta is predicted to increase traffic flows at this junction by around 12% to 18%. The junction is predicted to work within capacity for all scenarios. The tables below provide an overview of RFC values for this junction.

AM peak hour	No LTC			With LTC		
	Ref	Core	Sens	Ref	Core	Sens
1 - A2016 Picardy Manorway	0.46	0.54	0.52	0.47	0.55	0.52
2 - Anderson Way	0.08	0.12	0.11	0.07	0.12	0.11
3 - A2016 Bronze Age Way	0.55	0.65	0.63	0.57	0.67	0.64
4 - B253 Picardy Manorway	0.01	0.02	0.02	0.01	0.02	0.02
Average	0.28	0.33	0.32	0.28	0.34	0.32

PM peak hour	No LTC			With LTC		
	Ref	Core	Sens	Ref	Core	Sens
1 - A2016 Picardy Manorway	0.53	0.58	0.58	0.54	0.58	0.58
2 - Anderson Way	0.18	0.24	0.23	0.18	0.25	0.24
3 - A2016 Bronze Age Way	0.52	0.62	0.60	0.52	0.63	0.61
4 - B253 Picardy Manorway	0.01	0.01	0.01	0.01	0.01	0.01

Average	0.31	0.36	0.36	0.31	0.37	0.36
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12.1.11 Queens Road / Bexley Road - The proposed Local Plan quanta is predicted to increase traffic flows at this junction by around 10% to 14%. Mitigation is demonstrated for the Bexley Road arms (east and west). The tables below provide an overview of RFC values for this junction.

AM peak hour	No LTC			With LTC		
	Ref	Core	Sens	Ref	Core	Sens
1 - Bronze Age Way	0.64	0.74	0.72	0.63	0.75	0.72
3 - Bexley Road (E)	0.72	1.07	0.97	0.71	1.19	1.04
4 - Queens Road	0.73	0.83	0.81	0.76	0.86	0.85
5 - Bexley Road (W)	1.20	1.67	1.58	1.37	1.78	1.75
Average	0.82	1.08	1.02	0.87	1.15	1.09

PM peak hour	No LTC			With LTC		
	Ref	Core	Sens	Ref	Core	Sens
1 - Bronze Age Way	0.76	0.79	0.79	0.75	0.80	0.79
3 - Bexley Road (E)	1.01	1.52	1.48	1.01	1.53	1.49
4 - Queens Road	0.59	0.64	0.63	0.59	0.64	0.63
5 - Bexley Road (W)	0.70	1.04	0.95	0.70	0.97	0.93
Average	0.77	1.00	0.96	0.76	0.99	0.96

12.1.12 Thames Road / Perry Street - The proposed Local Plan quanta is predicted to increase traffic flows at this junction by around 4% to 7%. The junction is predicted to work within maximum theoretical capacity for all scenarios (ie all arms within 100% DoS). The tables below provide an overview of RFC values for this junction.

AM peak hour	No LTC			With LTC		
	Ref	Core	Sens	Ref	Core	Sens
Junction PRC	0.6	-0.4	2.6	-0.5	-2.6	-1.6

PM peak hour	No LTC			With LTC		
	Ref	Core	Sens	Ref	Core	Sens
Junction PRC	10.4	1.2	-1.9	9.6	0.7	2.2

12.1.13 Gravel Hill / Albion Road - The proposed Local Plan quanta is predicted to increase traffic flows at this junction by around 1% to 6%. It is noted that the junction is predicted to work within theoretical capacity for all scenarios. The tables below provide an overview of RFC values for this junction.

AM peak hour	No LTC			With LTC		
	Ref	Core	Sens	Ref	Core	Sens
1 - A220 Gravel Hill (N)	0.85	0.90	0.89	0.84	0.90	0.89
2 - A220 Gravel Hill (S)	0.92	0.96	0.95	0.93	0.97	0.95
3 - Albion Road	0.36	0.40	0.39	0.35	0.39	0.39
Average	0.71	0.75	0.74	0.71	0.75	0.74

PM peak hour	No LTC			With LTC		
	Ref	Core	Sens	Ref	Core	Sens
1 - A220 Gravel Hill (N)	0.75	0.77	0.76	0.74	0.74	0.73
2 - A220 Gravel Hill (S)	0.78	0.79	0.79	0.77	0.76	0.76
3 - Albion Road	0.48	0.55	0.53	0.48	0.55	0.54
Average	0.67	0.70	0.69	0.66	0.68	0.68

12.1.14 London Road / Crayford High Street / Crayford Way / Roman Way - The proposed Local Plan quanta is predicted to increase traffic flows at this junction by around 6% to 18%. The junction is predicted to work within maximum theoretical capacity for all scenarios (ie all arms within 100% DoS). The tables below provide an overview of RFC values for this junction.

AM peak hour	No LTC			With LTC		
	Ref	Core	Sens	Ref	Core	Sens
Junction PRC	19.8	1.3	3.4	4.1	-6.6	-6.4

PM peak hour	No LTC			With LTC		
	Ref	Core	Sens	Ref	Core	Sens
Junction PRC	8.8	8.9	8.9	4.2	2.9	5.6

12.1.15 Thames Road / Crayford Way - The proposed Local Plan quanta is predicted to increase traffic flows at this junction by around 5% to 8%. It is noted that the junction is predicted to exceed theoretical capacity for all scenarios, including Reference Case. It is further noted that queues predicted are significant and would block back to the downstream roundabouts on the east, west and south arms. Nil detriment mitigation is demonstrated for this roundabout. The tables below provide an overview of RFC values for this junction.

AM peak hour	No LTC			With LTC		
	Ref	Core	Sens	Ref	Core	Sens
A – London Loop	1.09	1.19	1.18	1.07	1.15	1.13
B – Thames Road (E)	1.13	1.16	1.15	1.15	1.19	1.19
C – Crayford Way	1.28	1.34	1.33	1.32	1.42	1.40
D – Thames Road (W)	1.32	1.42	1.41	1.29	1.40	1.39
Average	1.21	1.28	1.27	1.21	1.29	1.28

PM peak hour	No LTC			With LTC		
	Ref	Core	Sens	Ref	Core	Sens
A – London Loop	1.87	1.87	1.92	1.85	1.79	1.86
B – Thames Road (E)	1.00	1.06	1.05	1.00	1.05	1.05
C – Crayford Way	1.76	2.00	2.01	1.81	2.05	2.06
D – Thames Road (W)	0.99	1.11	1.09	0.98	1.13	1.11
Average	1.41	1.51	1.52	1.41	1.51	1.52

12.1.16 Thames Road / Bob Dunn Way - The proposed Local Plan quanta is predicted to increase traffic flows at this junction by around 3% to 5%. It is noted that the junction is predicted to exceed capacity for all scenarios due to the Cray Mill Rail Bridge constraint. A demonstration of the capacity release required to achieve nil detriment is provided. The tables below provide an overview of RFC values for this junction.

AM peak hour	No LTC			With LTC		
	Ref	Core	Sens	Ref	Core	Sens
A – Bob Dunn Way	1.31	1.33	1.33	1.39	1.41	1.41
B – Burnham Road	1.41	1.47	1.46	1.36	1.50	1.50
C – Thames Road	0.63	0.69	0.68	0.61	0.68	0.68
Average	1.12	1.16	1.16	1.12	1.20	1.20

PM peak hour	No LTC			With LTC		
	Ref	Core	Sens	Ref	Core	Sens
A – Bob Dunn Way	1.18	1.22	1.21	1.17	1.21	1.22
B – Burnham Road	1.11	1.15	1.15	1.15	1.18	1.18
C – Thames Road	0.95	0.98	0.97	0.89	0.93	0.93
Average	1.08	1.12	1.11	1.07	1.11	1.11

Appendix A AM Traffic Growth Data

MCC Junction Information

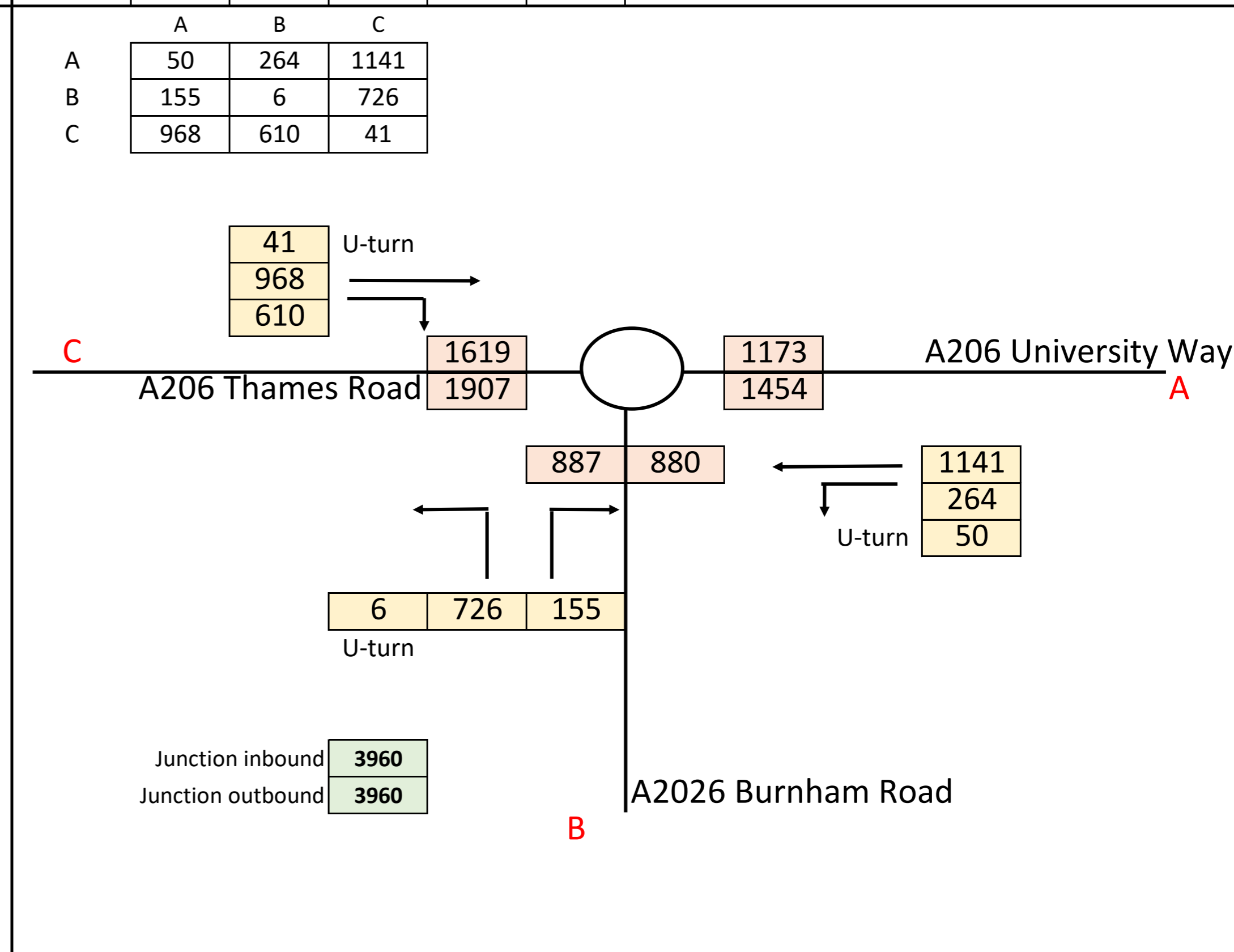
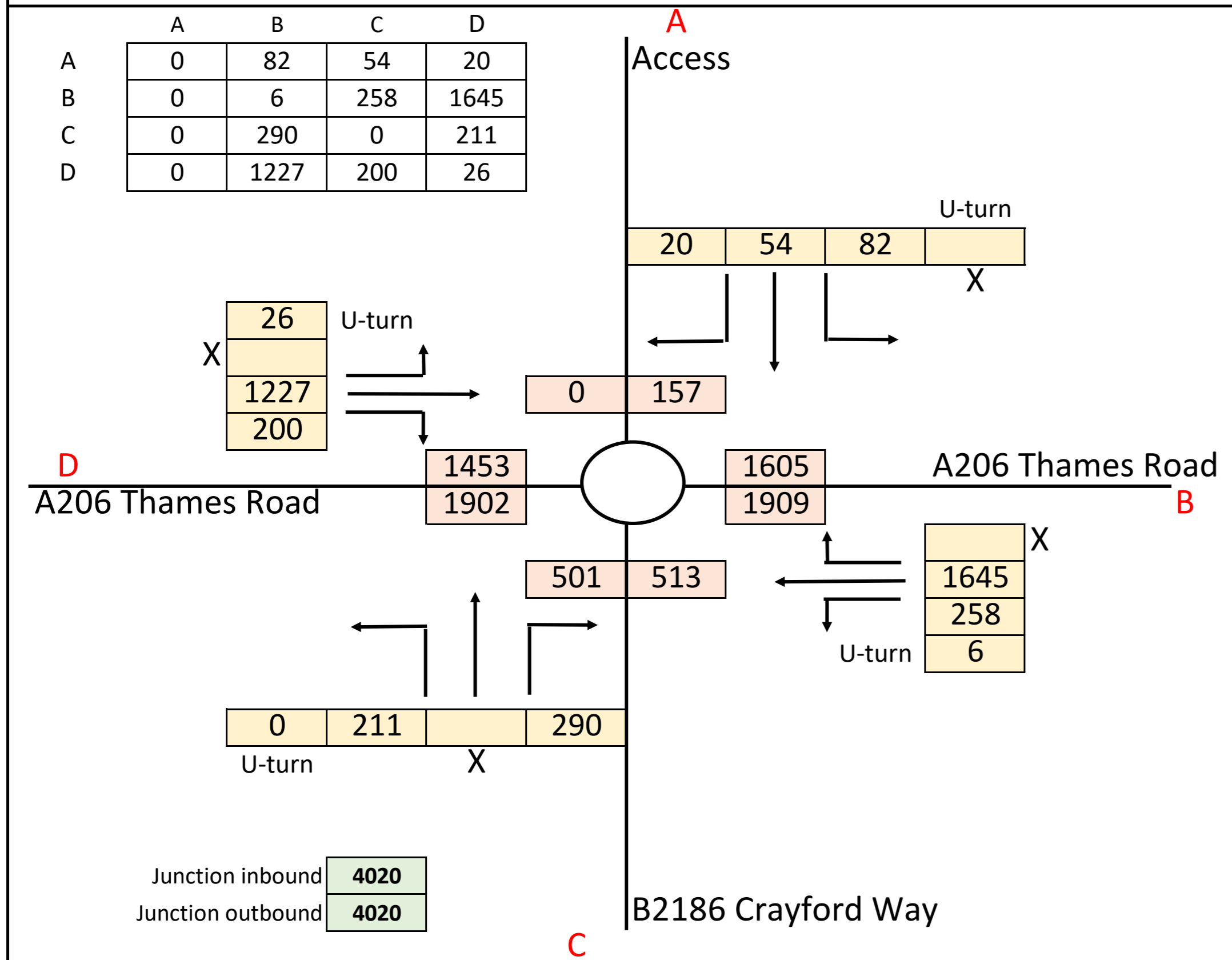
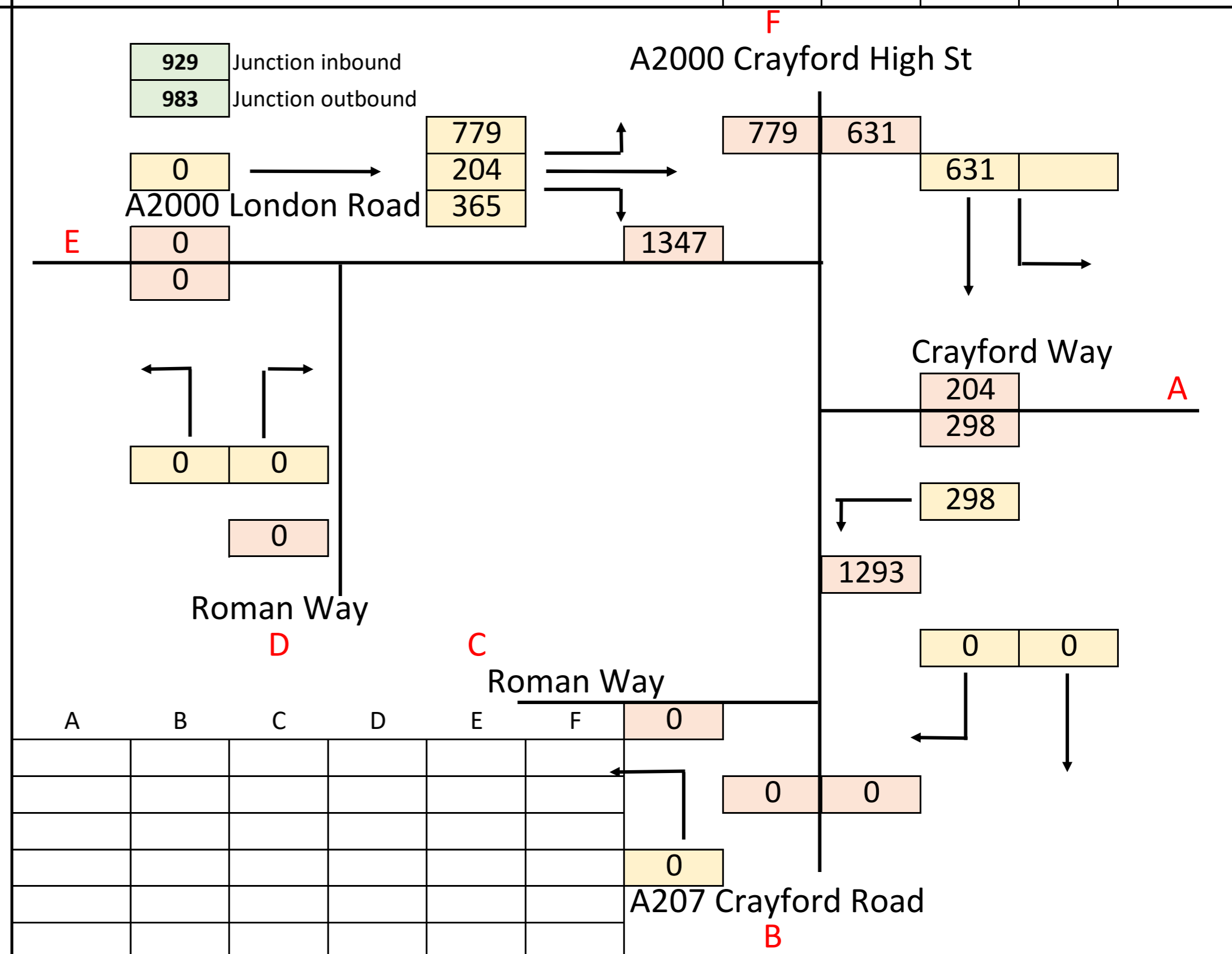
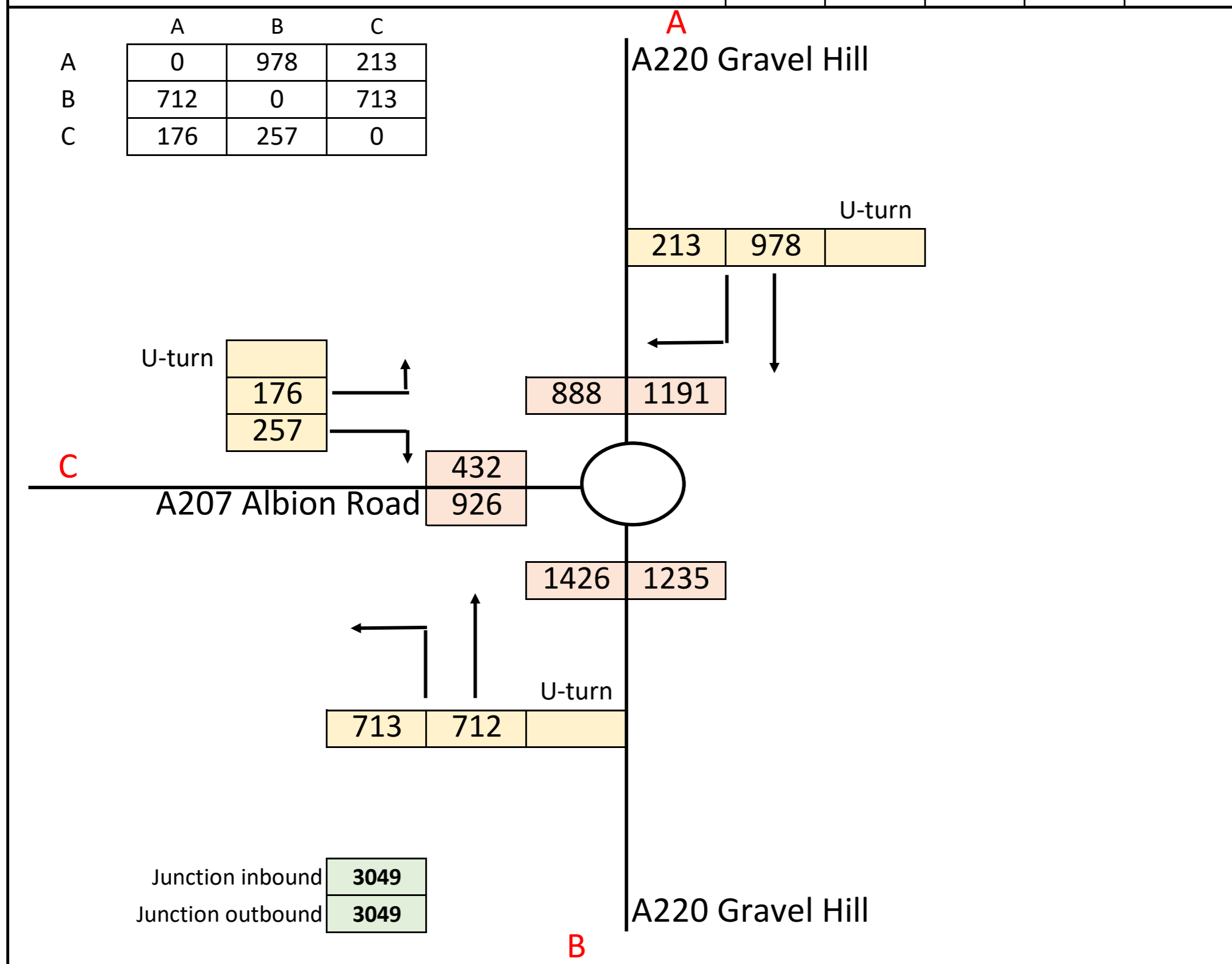
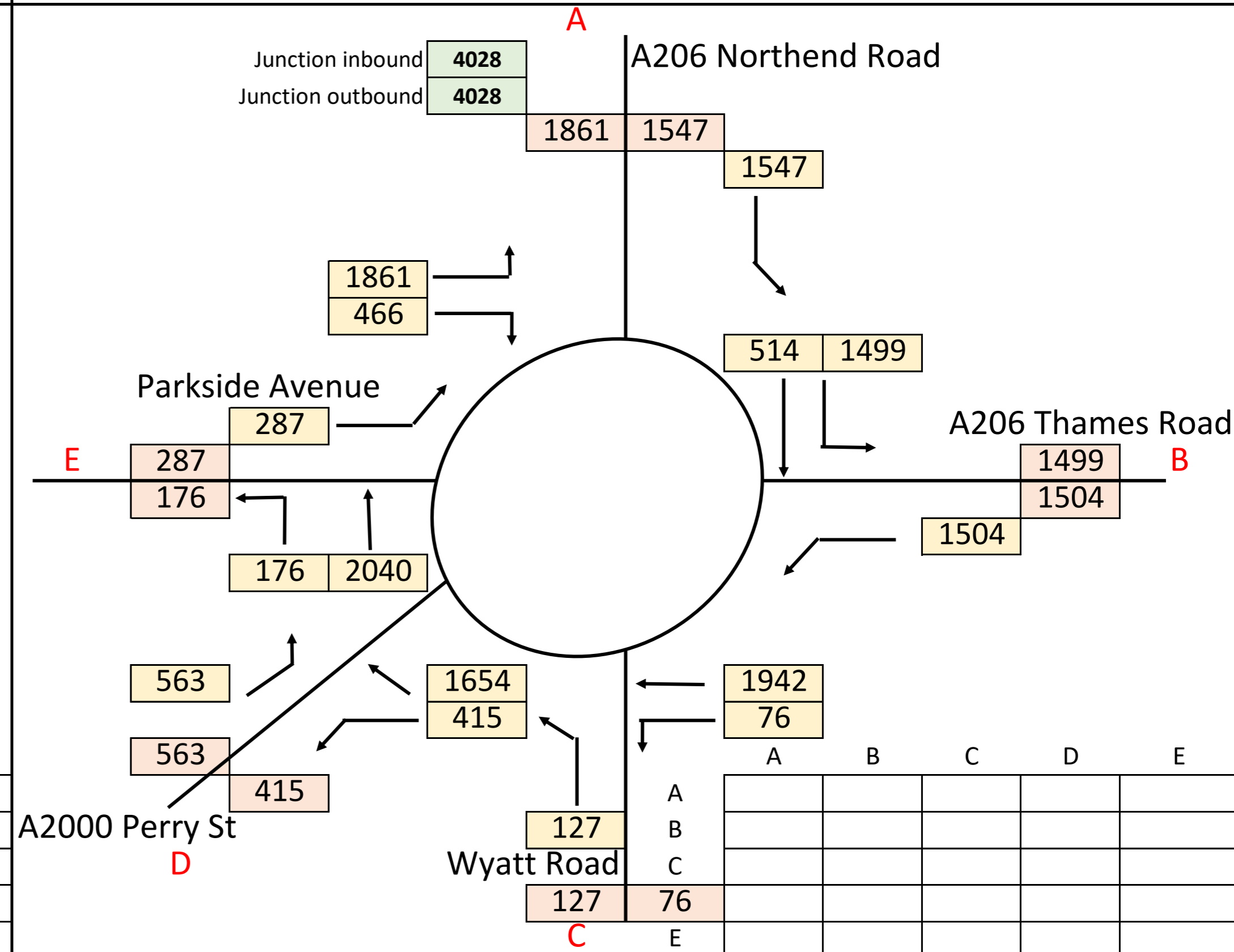
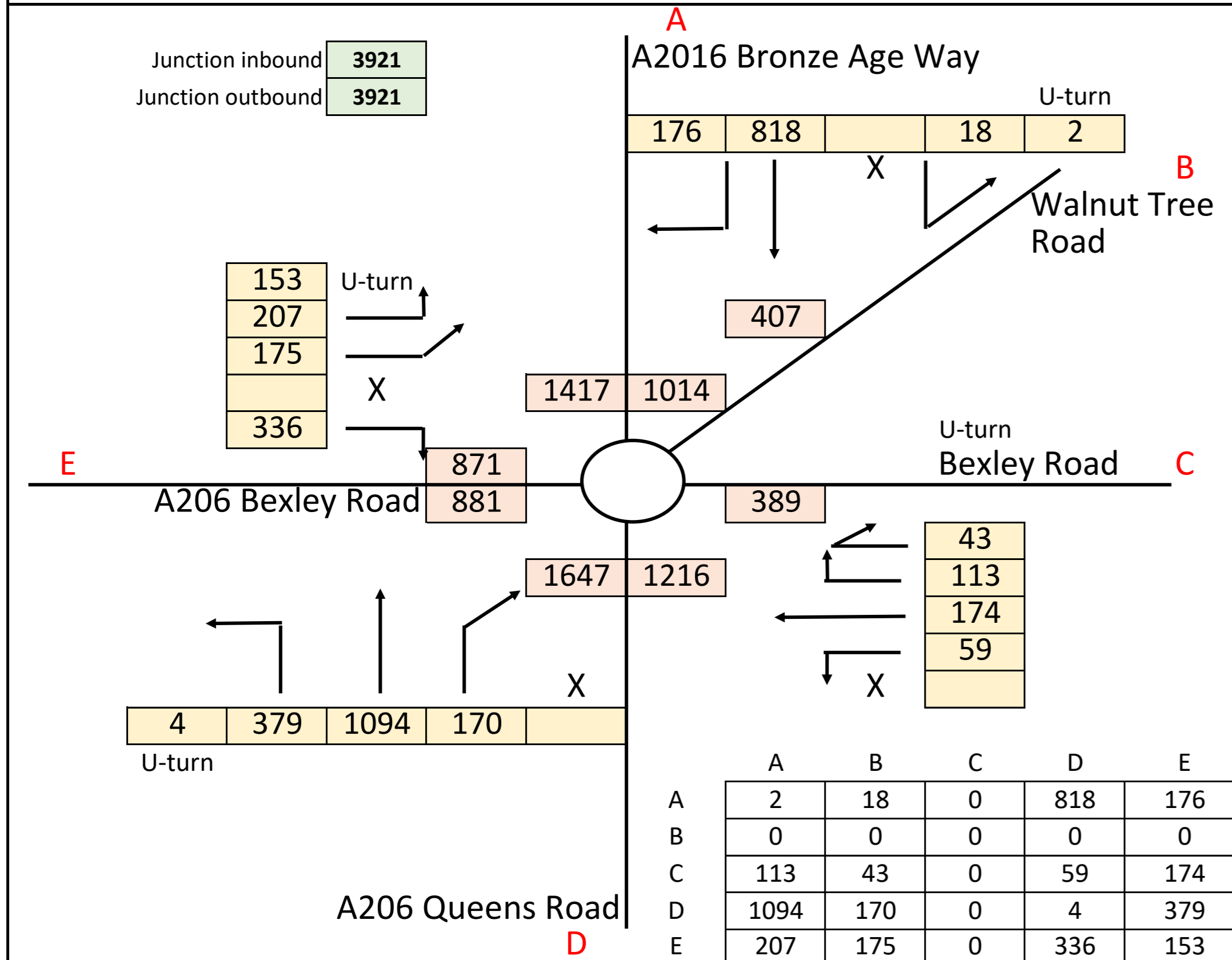
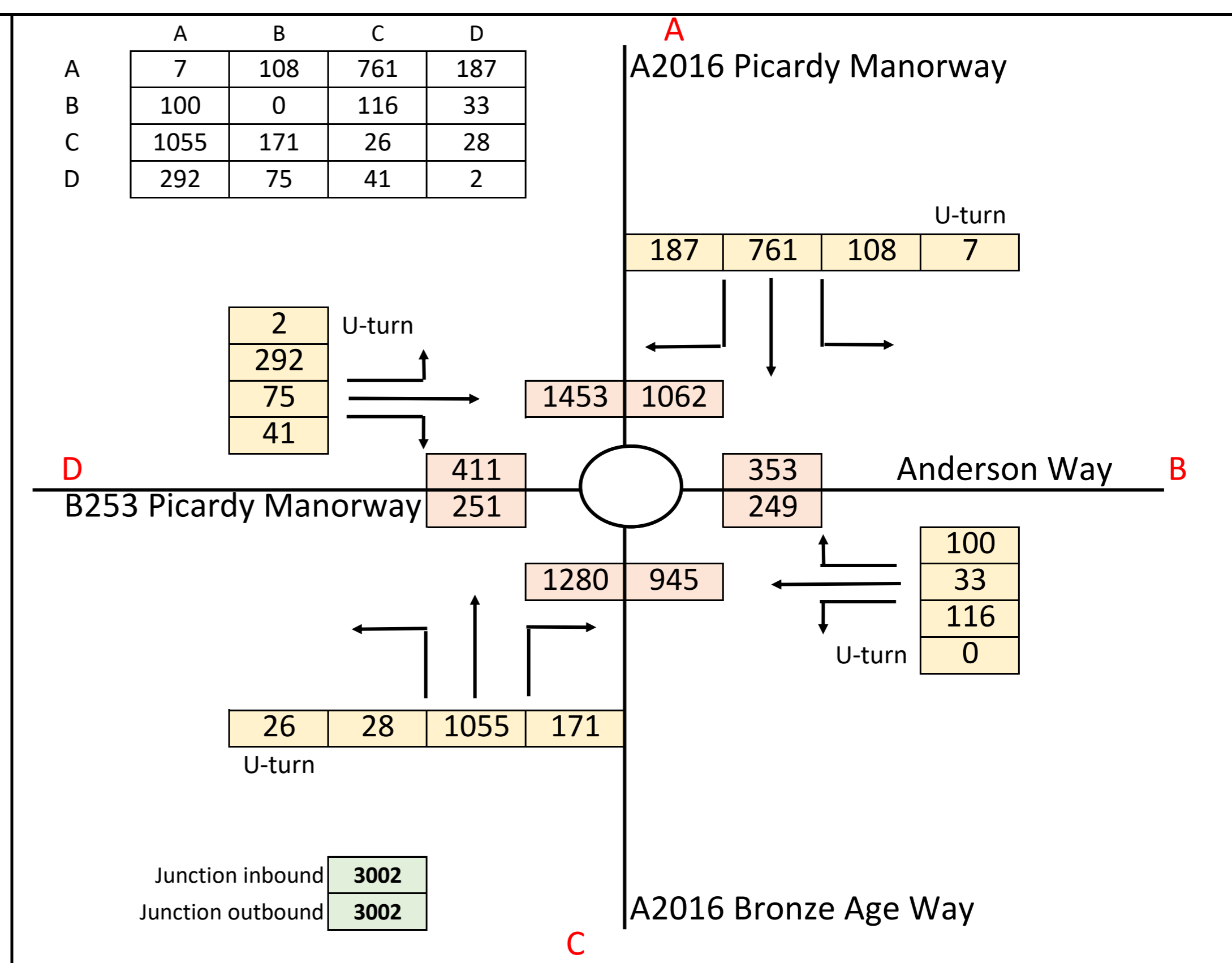
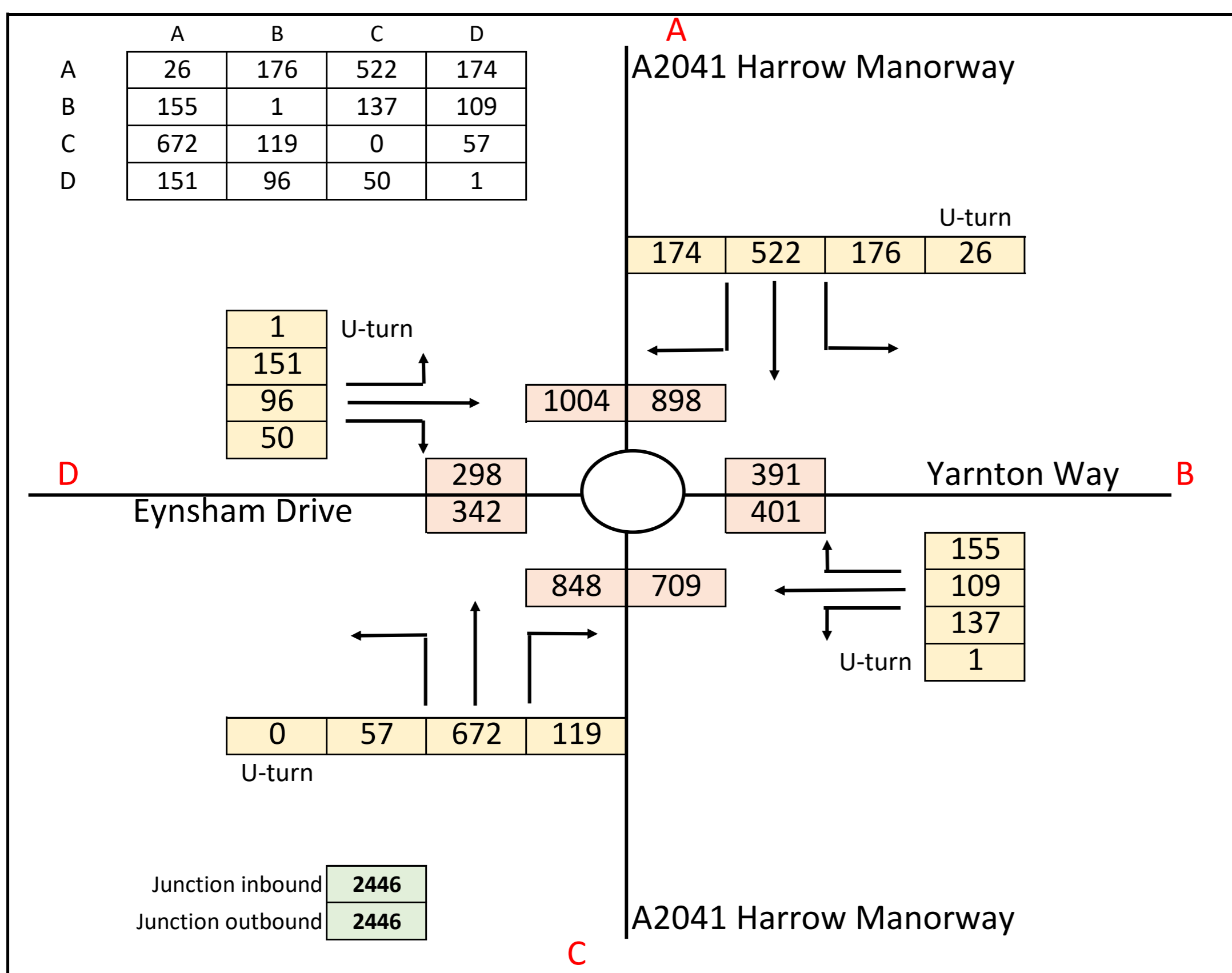
Survey ID	Junction	Junction Throughput			Junction Throughput (Car)			Junction Throughput (HGV)		
		PCU Flow (7-8)	PCU Flow (8-9)	Factor	PCU Flow (7-8)	PCU Flow (8-9)	Factor	PCU Flow (7-8)	PCU Flow (8-9)	Factor
20728 Bexley Junction A Junction Count Friday 17th May 2019	Thames Road/Crayford Way	3623.6	3708.7	1.02348	2747	2859	1.04077	861.4	840.7	0.97597
20728 Bexley Junction A Junction Count Thursday 16th May 2019	Thames Road/Crayford Way	3672.9	3832.8	1.04354	2780	2942	1.05827	874.5	882.2	1.00881
20728 Bexley Junction F Junction Count Friday 17th May 2019	Crayford Road/Station Road	2289.8	2486.6	1.08595	2096	2280	1.08779	187	201.2	1.07594
20728 Bexley Junction F Junction Count Thursday 16th May 2019	Crayford Road/Station Road	2368.1	2487.1	1.05025	2195	2252	1.02597	164.9	224.9	1.36386
20728 Bexley Junction H Junction Count Friday 17th May 2019	Crayford Road/Roman Way	2246.2	2635.9	1.17349	2006	2378	1.18544	232	251.5	1.08405
20728 Bexley Junction H Junction Count Thursday 16th May 2019	Crayford Road/Roman Way	2337	2657.6	1.13718	2118	2402	1.13409	209.4	243.6	1.16332
20728 Bexley Junction K Junction Count Friday 17th May 2019	Crayford Road/London Road	2122.9	2453.5	1.15573	1902	2186	1.14932	212.9	262.5	1.23297
20728 Bexley Junction K Junction Count Thursday 16th May 2019	Crayford Road/London Road	2175.7	2422	1.11320	1967	2158	1.09710	199.3	252.6	1.26744
20728 Bexley Junction L Junction Count Friday 17th May 2019	London Road/Roman Way	1998.6	2288.5	1.14505	1789	2045	1.14310	201.6	235.5	1.16815
20728 Bexley Junction L Junction Count Thursday 16th May 2019	London Road/Roman Way	2181.7	2244.8	1.02892	1983	2004	1.01059	188.5	229.2	1.21592
20728 Bexley Junction M Junction Count Friday 17th May 2019	London Road/Bourne Road	1771.7	2047	1.15539	1619	1857	1.14700	142.5	181.8	1.27579
20728 Bexley Junction M Junction Count Thursday 16th May 2019	London Road/Bourne Road	1917	2030.3	1.05910	1762	1853	1.05165	143	164.9	1.15315

FACTORS	Min	Max	Avg
Total	0.63540	2.60278	1.13406
Car	0.65132	2.81034	1.14997
HGV	0.00000	4.00000	1.07844

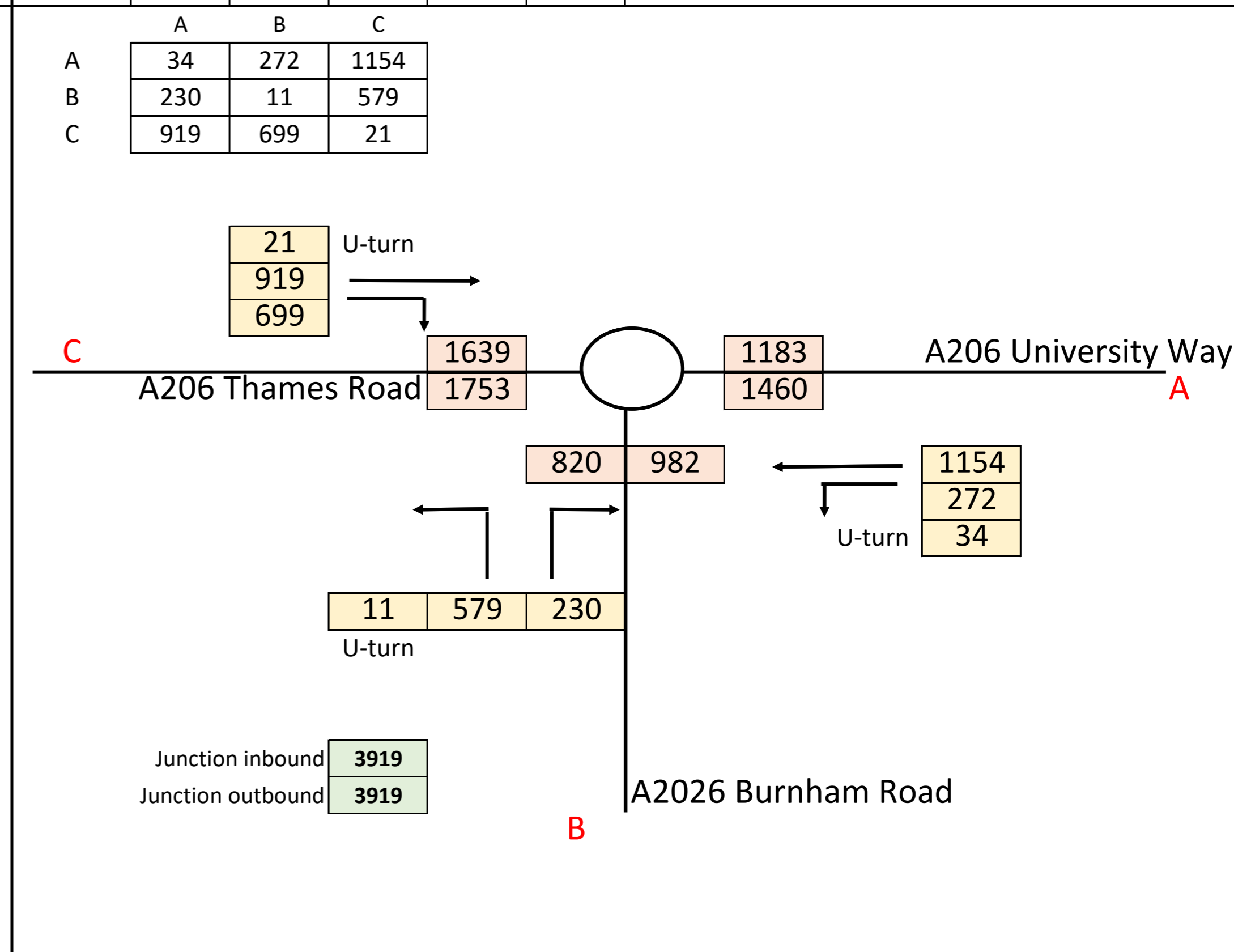
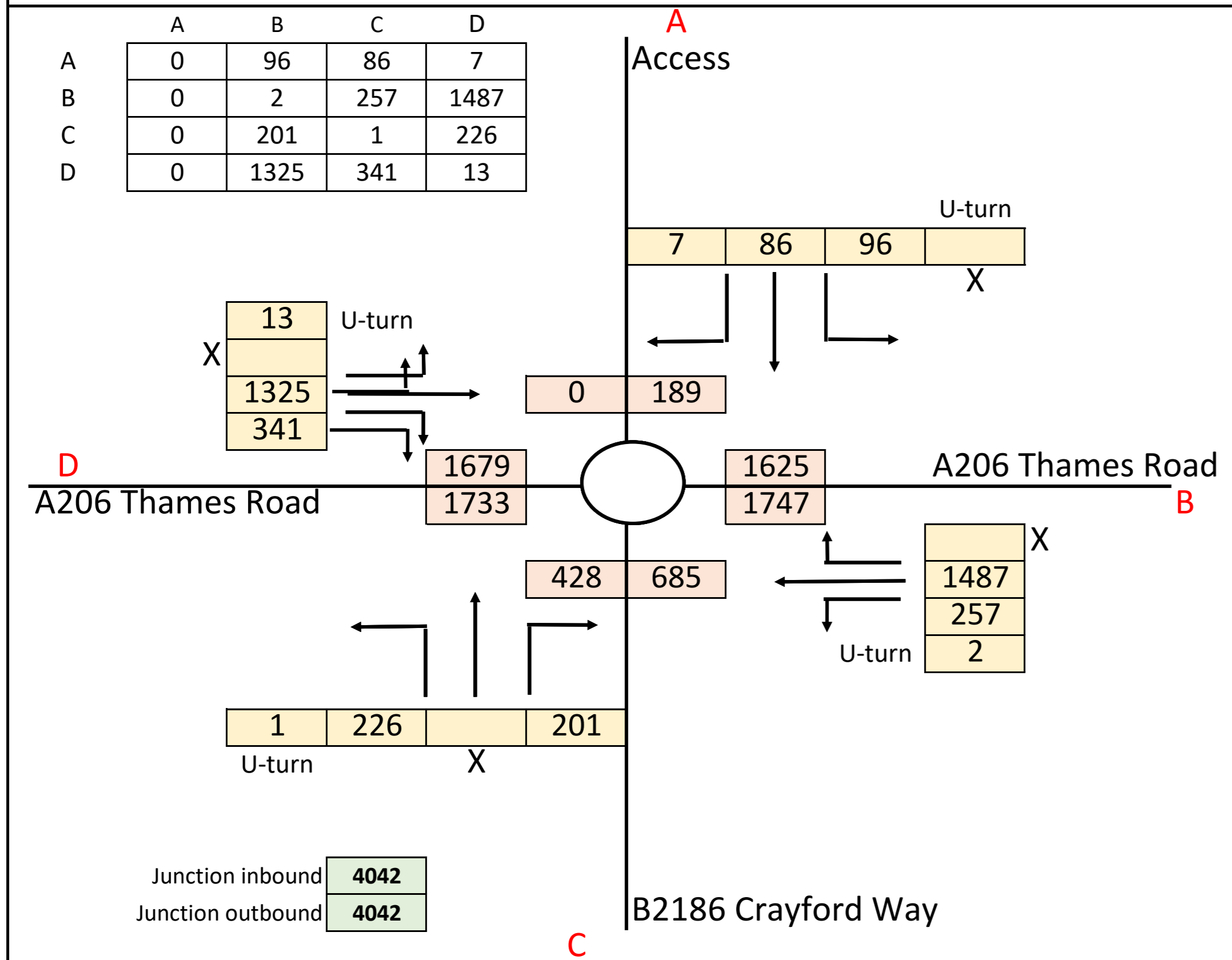
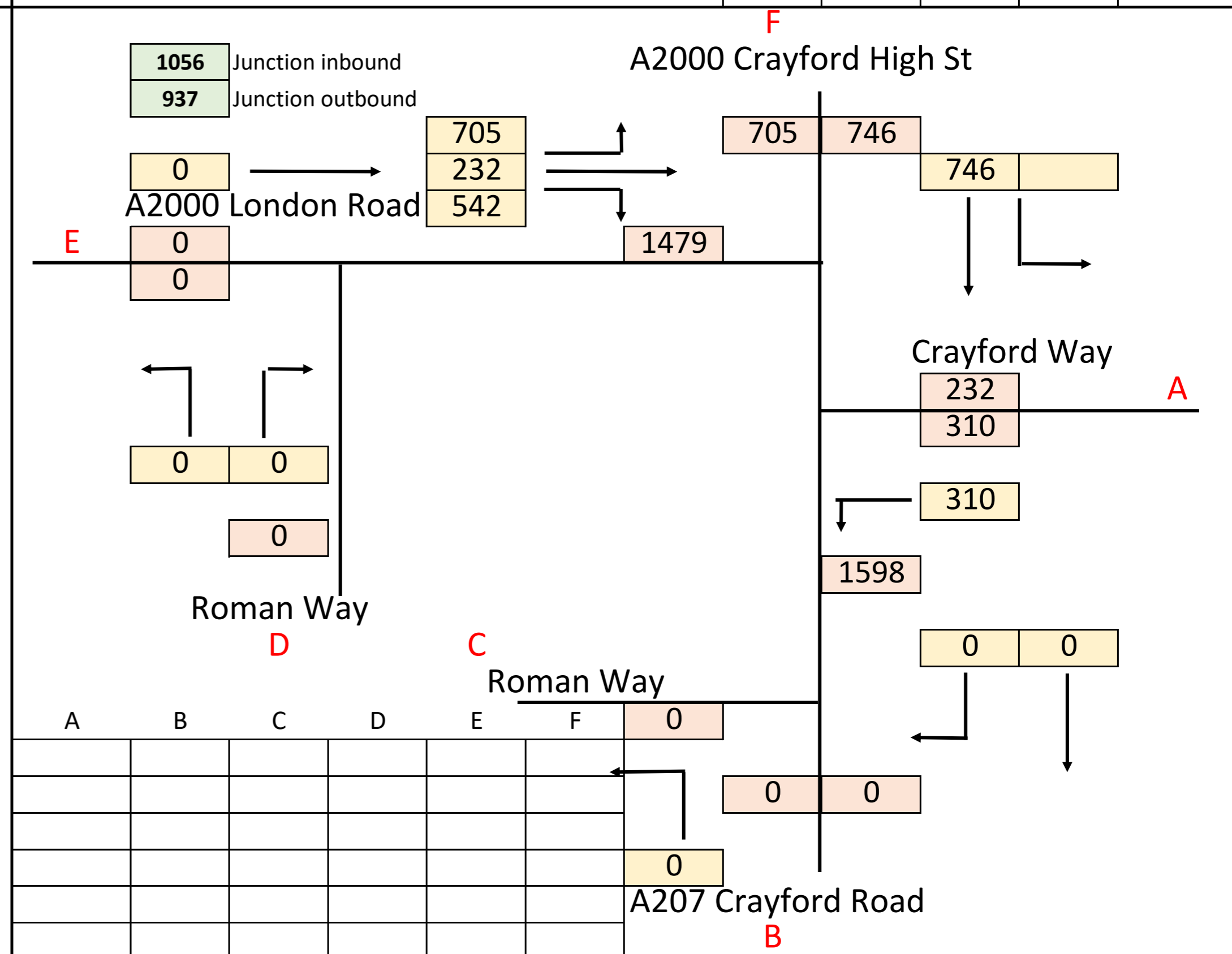
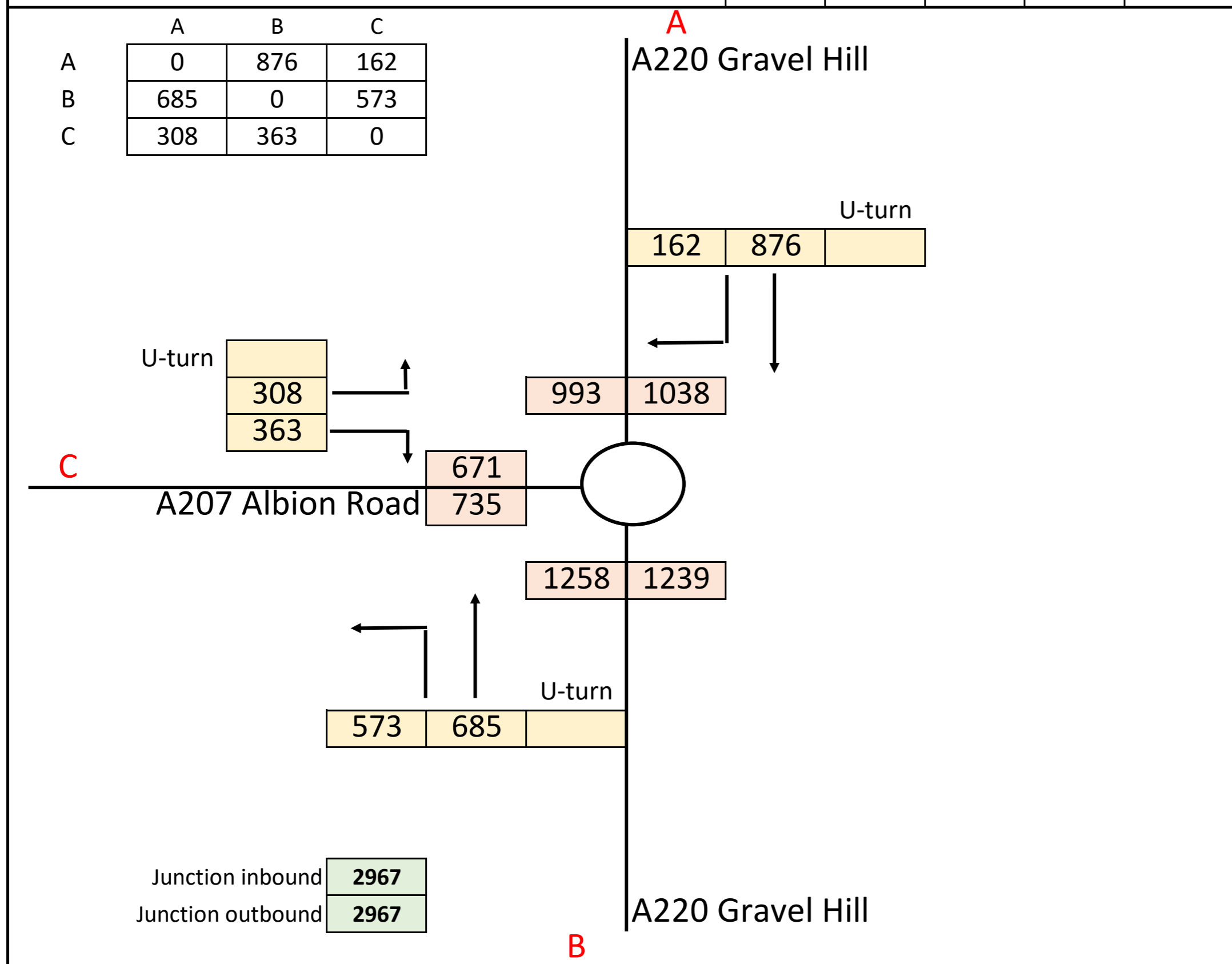
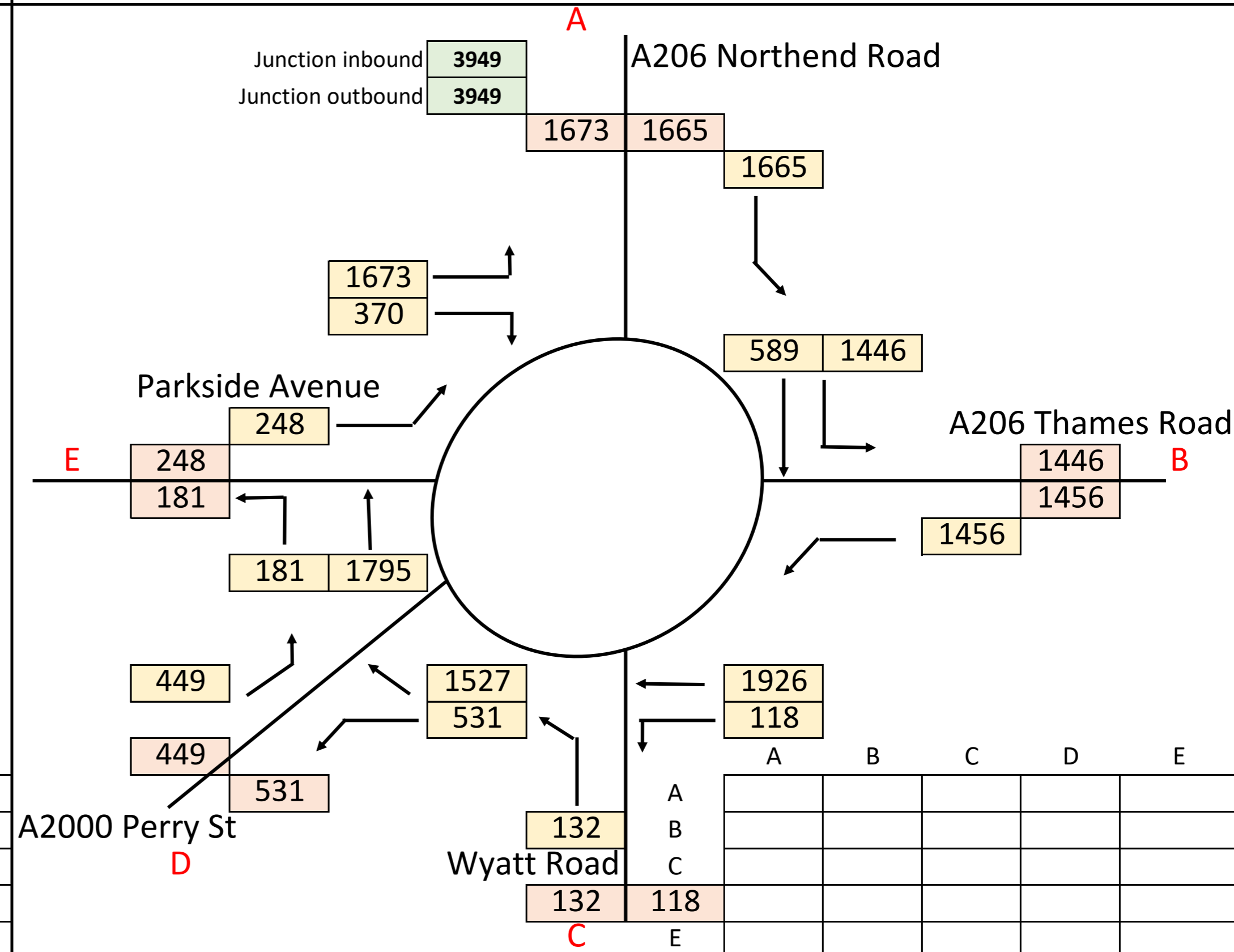
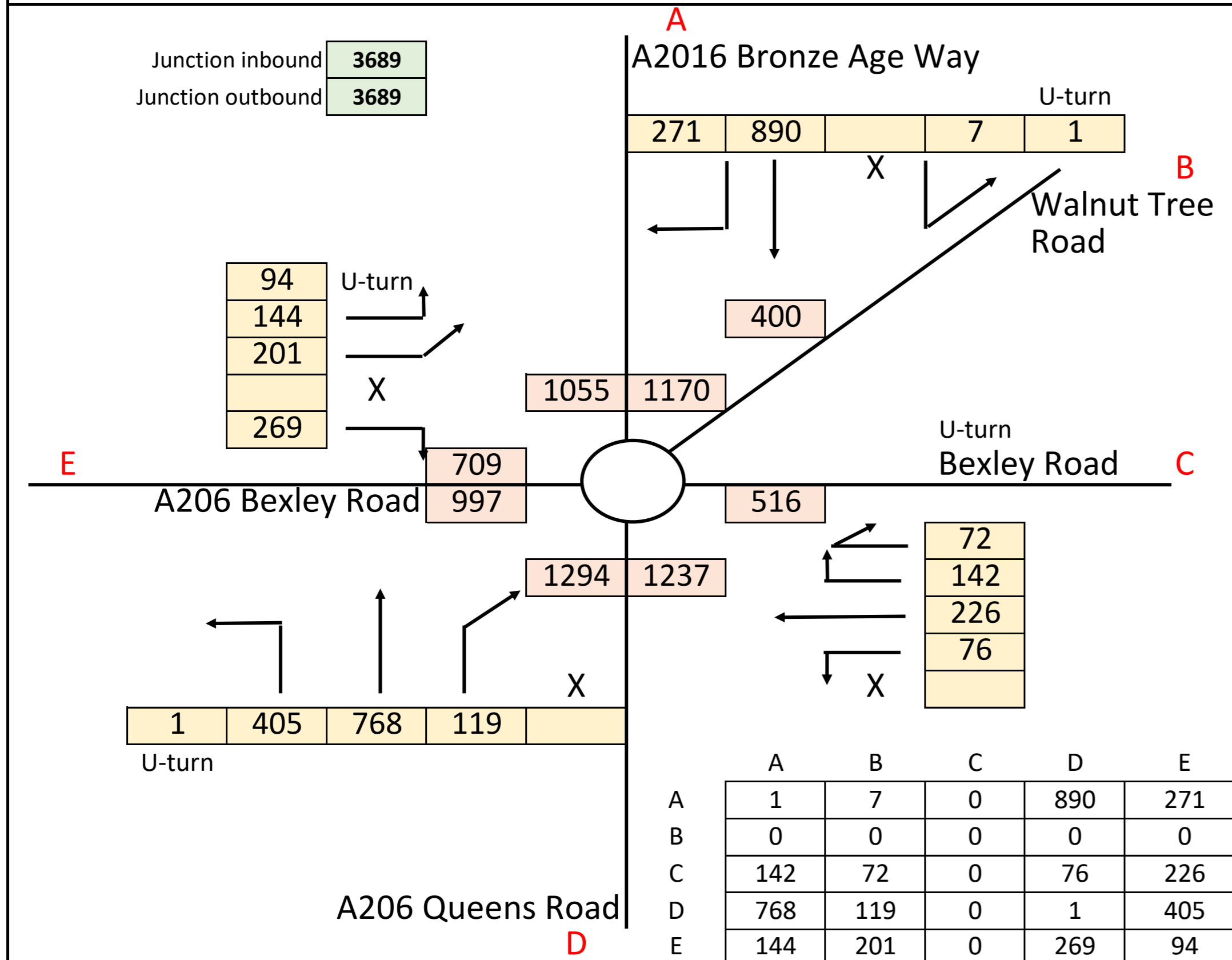
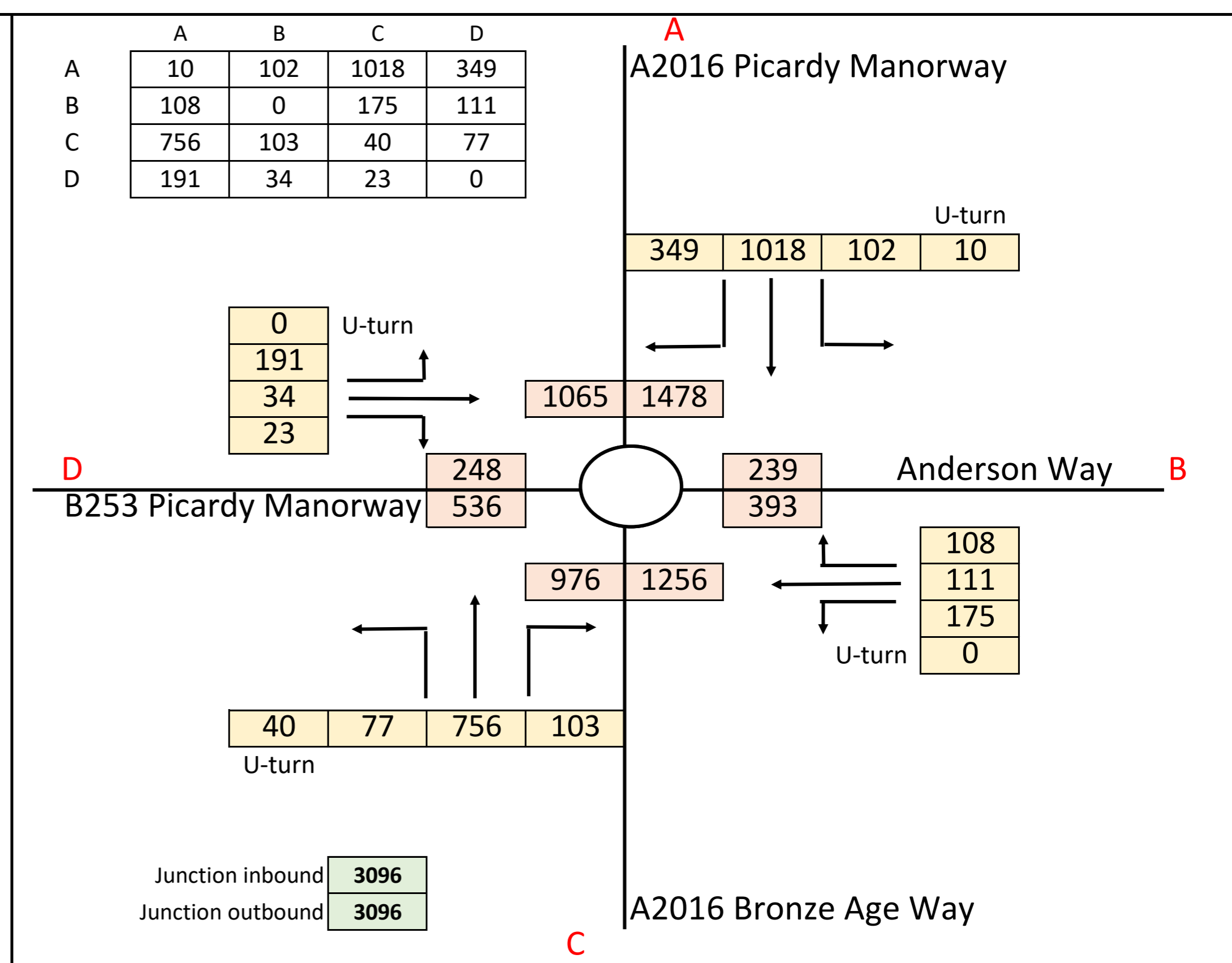
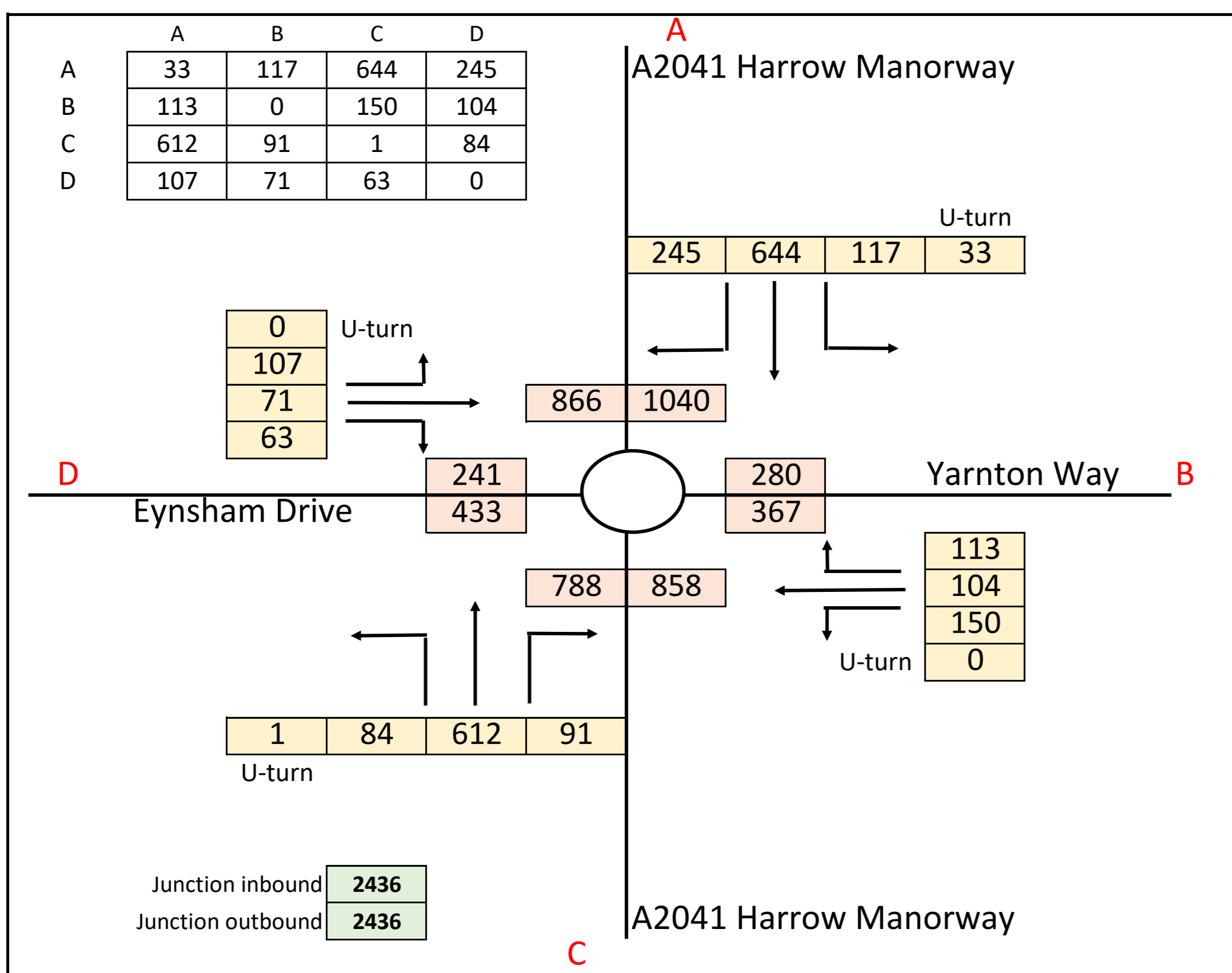
ATC Junction Information

Link Road ID	Direction	Date	Link Throughput			Link Throughput (Car)			Link Throughput (HGV)		
			PCU Flow (7-8)	PCU Flow (8-9)	Factor	PCU Flow (7-8)	PCU Flow (8-9)	Factor	PCU Flow (7-8)	PCU Flow (8-9)	Factor
A207 Crayford Road	Eastbound	Tue 14-May-19	482.6	526.8	1.09159	393	446	1.13486	86	78	0.90698
		Wed 15-May-19	535	633.2	1.18355	417	470	1.12710	114	160	1.40351
		Thurs 16-May-19	555.6	649.6	1.16919	430	492	1.14419	124	154	1.24194
		Fri 17-May-19	568.2	694.8	1.22281	415	556	1.33976	152	138	0.90789
		Mon 20-May-19	482	546	1.13278	388	436	1.12371	92	110	1.19565
A207 Crayford Road	Westbound	Tue 14-May-19	836	736.8	0.88134	658	578	0.87842	174	156	0.89655
		Wed 15-May-19	875.6	735.8	0.84034	688	589	0.85610	184	146	0.79348
		Thurs 16-May-19	852.4	762.6	0.89465	692	609	0.88006	156	152	0.97436
		Fri 17-May-19	777.8	823.4	1.05863	611	655	1.07201	164	168	1.02439
		Mon 20-May-19	796.6	661	0.82978	619	519	0.83845	174	140	0.80460
Station Road	Northbound	Tue 14-May-19	700.4	545	0.77813	616	485	0.78734	82	58	0.70732
		Wed 15-May-19	659.8	620.8	0.94089	571	536	0.93870	86	84	0.97674
		Thurs 16-May-19	684.4	612	0.89421	602	546	0.90698	78	64	0.82051
		Fri 17-May-19	663.6	596	0.89813	588	546	0.92857	74	48	0.64865
		Mon 20-May-19	707.6	575.6	0.81345	574	486	0.84669	132	88	0.66667
Station Road	Southbound	Tue 14-May-19	341.2	216.8	0.63540	304	198	0.65132	36	18	0.50000
		Wed 15-May-19	332.2	316.4	0.95244	295	298	1.01017	36	18	0.50000
		Thurs 16-May-19	356	265.2	0.74494	306	248	0.81046	48	16	0.33333
		Fri 17-May-19	313.8	309.2	0.98534	281	284	1.01068	32	24	0.75000
		Mon 20-May-19	250.4	228.8	0.91374	236	212	0.89831	14	16	1.14286
A207 Crayford Road	Eastbound	Tue 14-May-19	680	834	1.22647	572	744	1.30070	104	88	0.84615
		Wed 15-May-19	727.2	876.6	1.20545	608	763	1.25493	116	112	0.96552
		Thurs 16-May-19	711.8	888.4	1.24810	615	758	1.23252	96	130	1.35417
		Fri 17-May-19	695.8	800	1.14976	593	698	1.17707	100	100	1.00000
		Mon 20-May-19	685	788	1.15036	573	686	1.19721	108	98	0.90741
A207 Crayford Road	Westbound	Tue 14-May-19	1105	1134	1.02624	915	982	1.07322	186	150	0.80645
		Wed 15-May-19	1090.8	1119	1.02585	906	959	1.05850	182	158	0.86813
		Thurs 16-May-19	1121.2	1089.4	0.97164	974	931	0.95585	144	156	1.08333
		Fri 17-May-19	1025	1067.8	1.04176	843	887	1.05219	178	178	1.00000
		Mon 20-May-19	1178.4	1151.2	0.97692	942	952	1.01062	234	198	0.84615
Roman Way	Westbound	Tue 14-May-19	1468.8	1440	0.98039	1028	1056	1.02724	436	382	0.87615
		Wed 15-May-19	1405.6	1382.6	0.98364	966	977	1.01139	434	402	0.92627
		Thurs 16-May-19	1416.6	1464.2	1.03360	1035	1027	0.99227	378	432	1.14286
		Fri 17-May-19	1264.4	1421.6	1.12433	884	986	1.11538	376	432	1.14894
		Mon 20-May-19	1544.4	1379.2	0.89303	1080	1012	0.93704	460	364	0.79130
London Road	Eastbound	Tue 14-May-19	645.6	636.6	0.98606	510	547	1.07255	132	86	0.65152
		Wed 15-May-19	663.4	644.4	0.97136	513	534	1.04094	146	108	0.73973
		Thurs 16-May-19	674.8	652.2	0.96651	538	537	0.99814	132	110	0.83333
		Fri 17-May-19	657	665.6	1.01309	517	550	1.06383	136	112	0.82353
		Mon 20-May-19	620.4	659.4	1.06286	508	549	1.08071	110	108	0.98182
London Road	Westbound	Tue 14-May-19	899.4	1015	1.12853	699	793	1.13448	196	218	1.11224
		Wed 15-May-19	853.4	857.4	1.00469	659	647	0.98179	190	208	1.09474
		Thurs 16-May-19	861.4	854.6	0.99211	681	659	0.96769	178	192	1.07865
		Fri 17-May-19	787.2	921	1.16997	572	725	1.26748	212	194	0.91509
		Mon 20-May-19	1085.2	937.4	0.86380	800	755	0.94375	280	180	0.64286
Perry Street	Northbound	Tue 14-May-19	704.4	509.8	0.72374	616	457	0.74188	88	52	0.59091
		Wed 15-May-19	633.8	571	0.90092	549	513	0.93443	84	56	0.66667
		Thurs 16-May-19	659.2	511.8	0.77640	594	481	0.80976	64	30	0.46875
		Fri 17-May-19	597.8	545.4	0.91235	519	497	0.95761	78	46	0.58974
		Mon 20-May-19	582.4	443.8	0.76202	494	413	0.83603	88	30	0.34091
Perry Street	Southbound	Tue 14-May-19	712.8	850.4	1.19304	622	704	1.13183	88	142	1.61364
		Wed 15-May-19	703.4	814.8	1.15837	563	656	1.16519	138	156	1.13043
		Thurs 16-May-19	720	829.8	1.15250	582	663	1.13918	136	162	1.19118
		Fri 17-May-19	694.6	826.6	1.19004	563	673	1.19538	130	150	1.15385
		Mon 20-May-19	675.6	816.2	1.20811	528	651	1.23295	142	156	1.09859
Crayford High Street	Northbound	Tue 14-May-19	927	847	0.91370	729	703	0.96433	196	142	0.72449
		Wed 15-May-19	834	833.2	0.99904	716	698	0.97486	114	132	1.15789
		Thurs 16-May-19	871	838.2	0.96234	749	701	0.93591	120	134	1.11667
		Fri 17-May-19	798.2	851.2	1.06640	647	746	1.15301	148	102	0.68919
		Mon 20-May-19	812	841.8	1.03670	650	725	1.11538	160	114	0.71250
Crayford High Street	Southbound	Tue 14-May-19	639	731	1.14397	509	591	1.16110	128	138	1.07813
		Wed 15-May-19	631.4	744.4	1.17897	495	576	1.16364	134	164	1.22388
		Thurs 16-May-19	634.4	732	1.15385	500	590	1.18000	134	136	1.01493
		Fri 17-May-19	611.4	775.4	1.26824	475	645	1.35789	134	126	0.94030
		Mon 20-May-19	653.8	761.2	1.16427	477	622	1.30398	176	136	0.77273
Iron Mill Lane	Eastbound	Tue 14-May-19	20.4	33.4	1.63725	18	25	1.38889	2	8	4.00000
		Wed 15-May-19	16.4	28	1.70732	14	24	1.71429	2	4	2.00000
		Thurs 16-May-19	19	24.8	1.30526	15	24	1.60000	4	0	0.00000
		Fri 17-May-19	16	31.8	1.98750	16	29	1.81250	0	2	1.00000
		Mon 20-May-19	15.4	29.4	1.90909	13	23	1.76923	2	6	3.00000
Iron Mill Lane	Westbound	Tue 14-May-19	84	169.8	2.02143	72	151	2.09722	12	18	1.50000
		Wed 15-May-19	72	187.4	2.60278	58	163	2.81034	14	24	1.71429
		Thurs 16-May-19	79.8	160.2	2.00752	67	139	2.07463	12	20	1.66667
		Fri 17-May-19	75.4	137.4	1.82228	65	125	1.92308	10	12	1.20000
		Mon 20-May-19	78.8	159.2	2.02030	66	140	2.12121	12	18	1.50000
Crayford Way	Eastbound	Tue 14-May-19	184.2	227	1.23236	157	193	1.22930	26	34	1.30769
		Wed 15-May-19	174.6	200	1.14548	145	176	1.21379	28	24	0.85714
		Thurs 16-May-19	176.2	187.8	1.06583	149	161	1.08054	26	26	1.00000
		Fri 17-May-19	170.4	197.8	1.16080	146	167	1.14384	22	30	1.36364
		Mon 20-May-19	188.2	208	1.10521	165	172	1.04242	22	36	1.63636
Crayford Way	Westbound	Tue 14-May-19	269.4	342.8	1.27246						

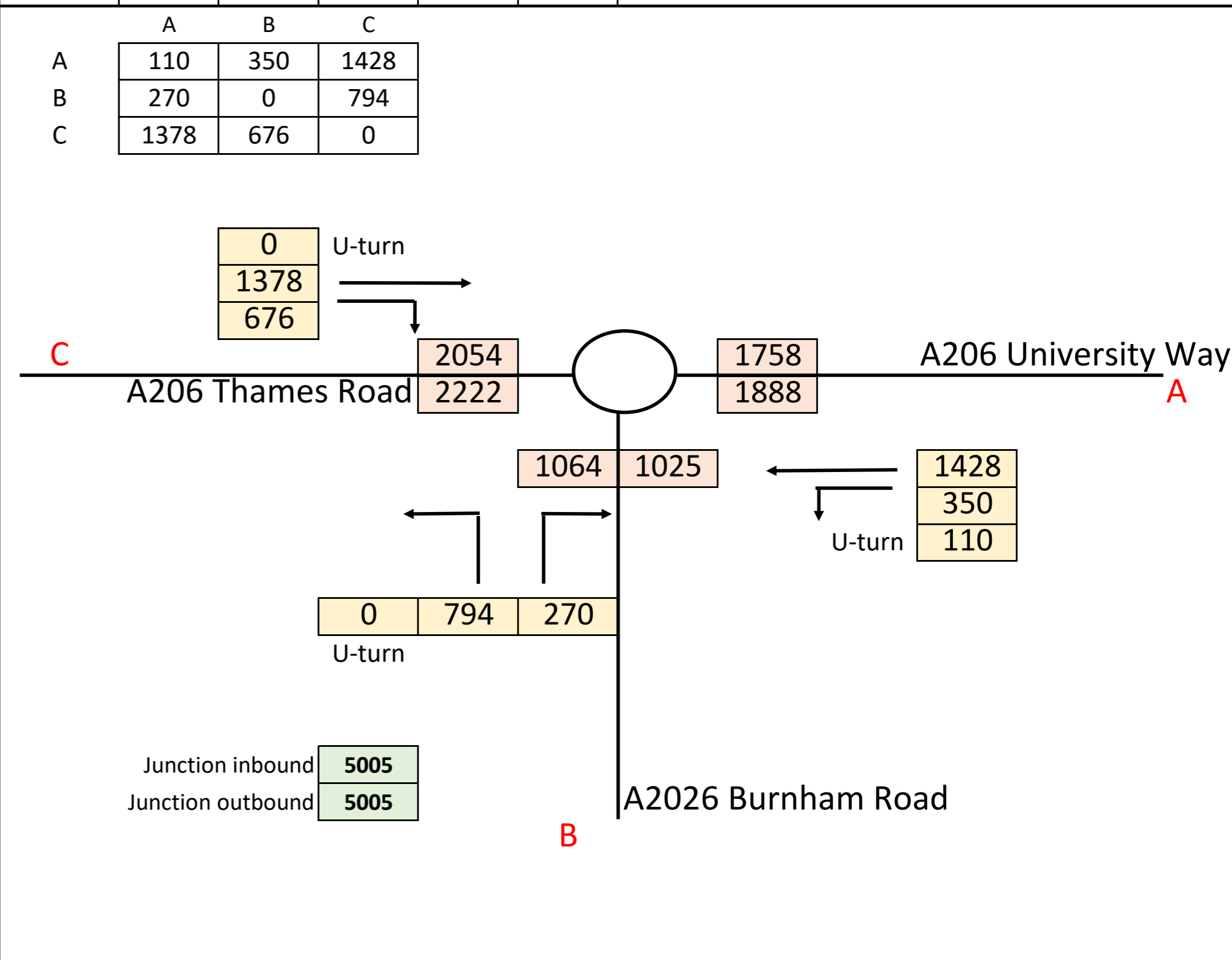
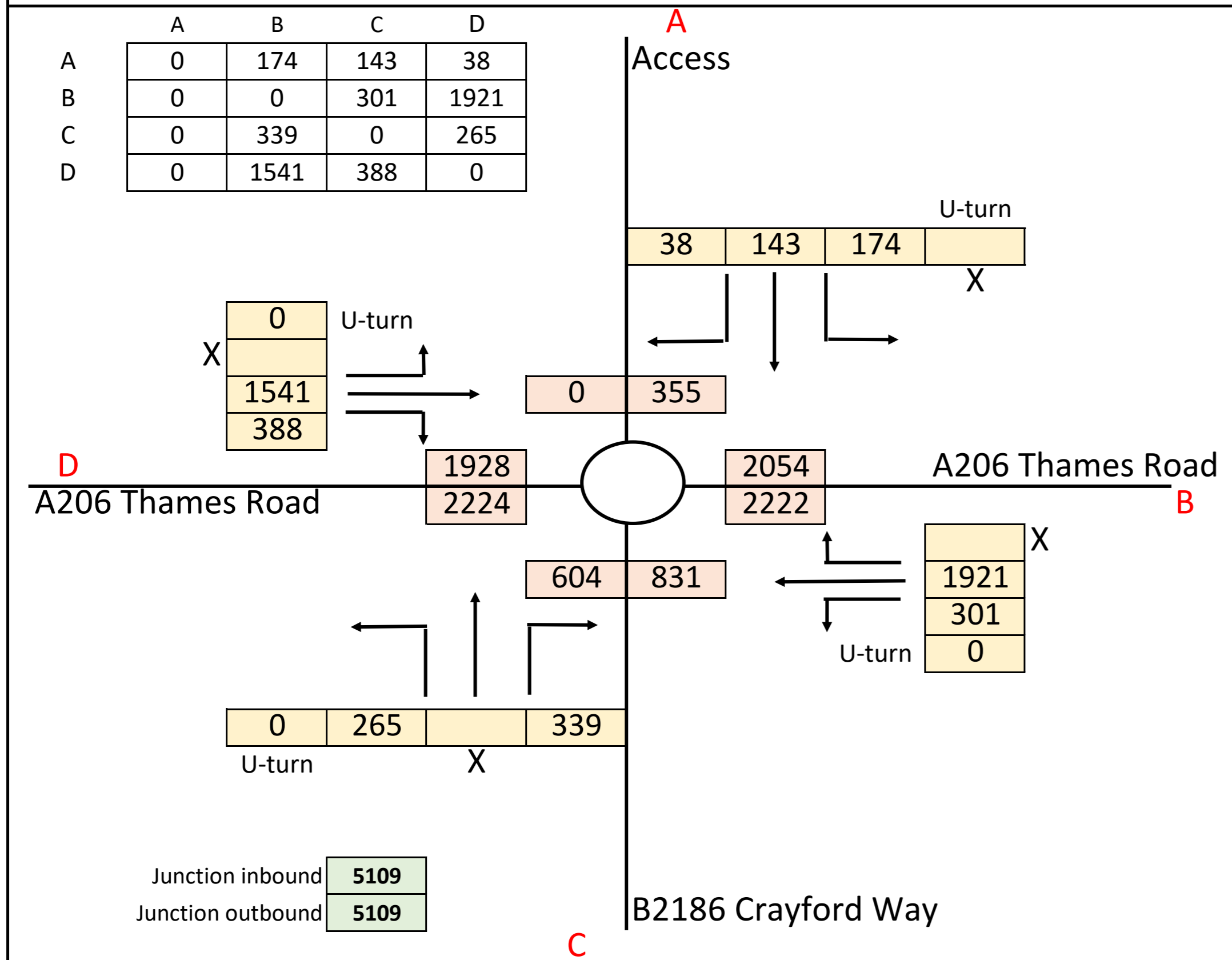
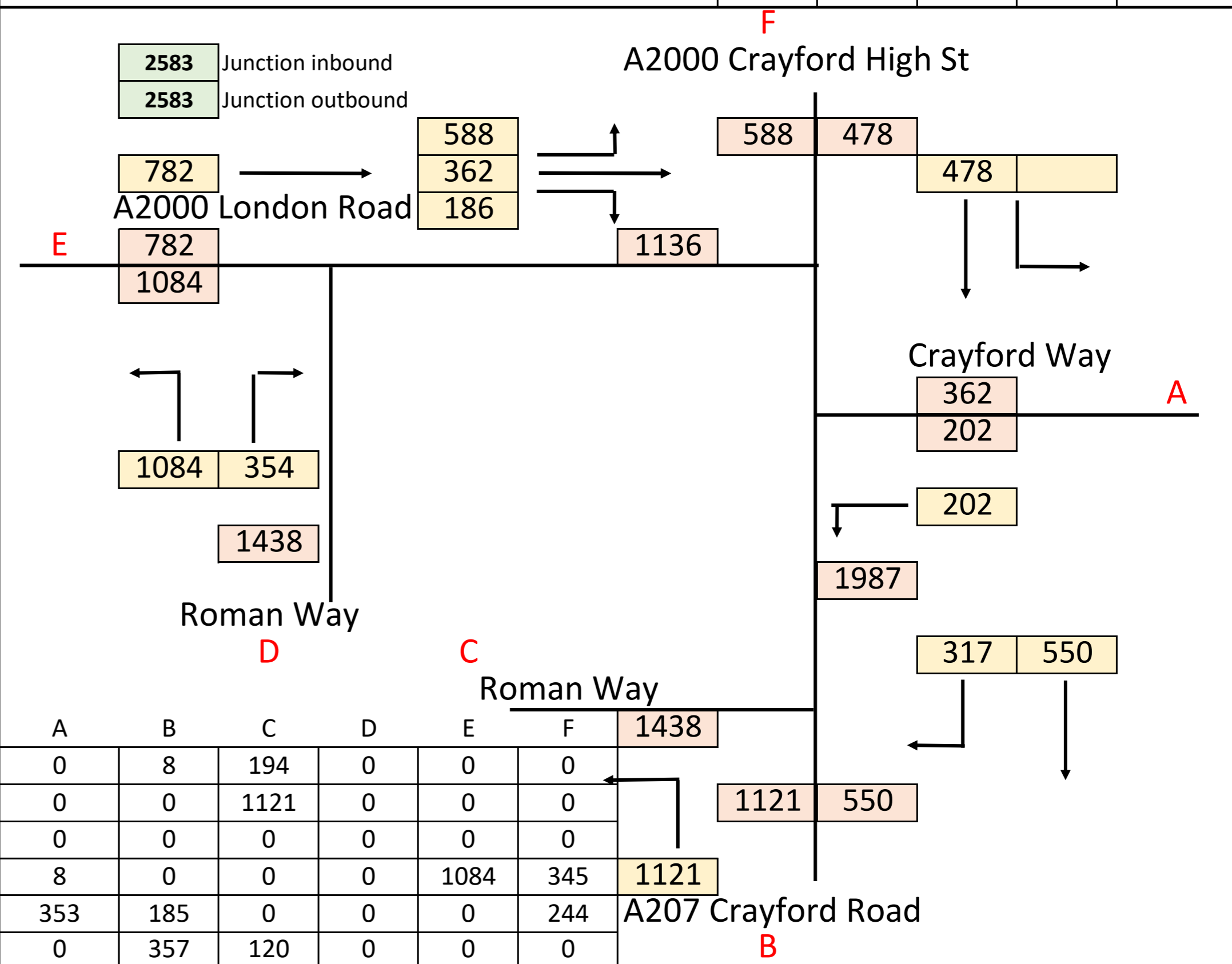
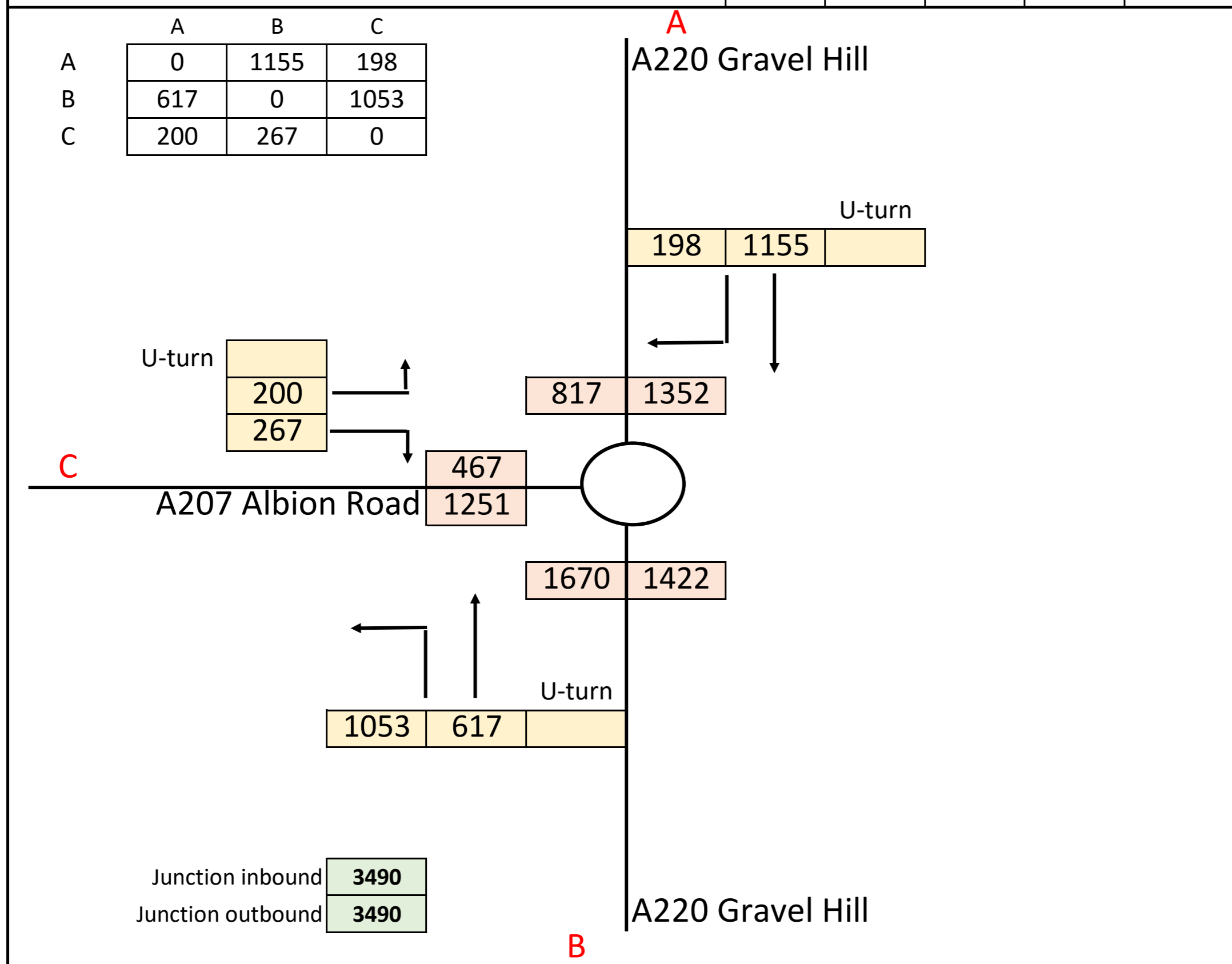
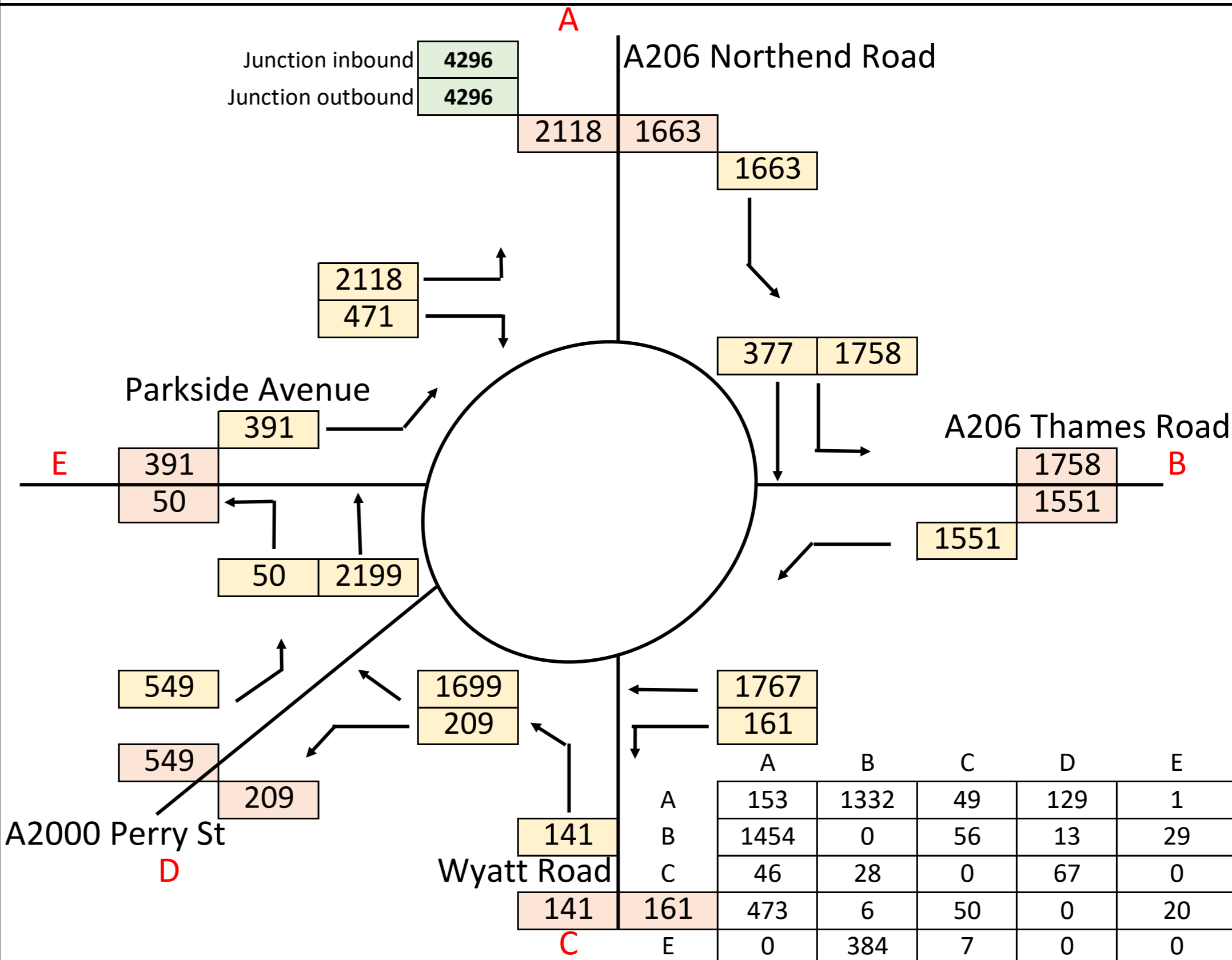
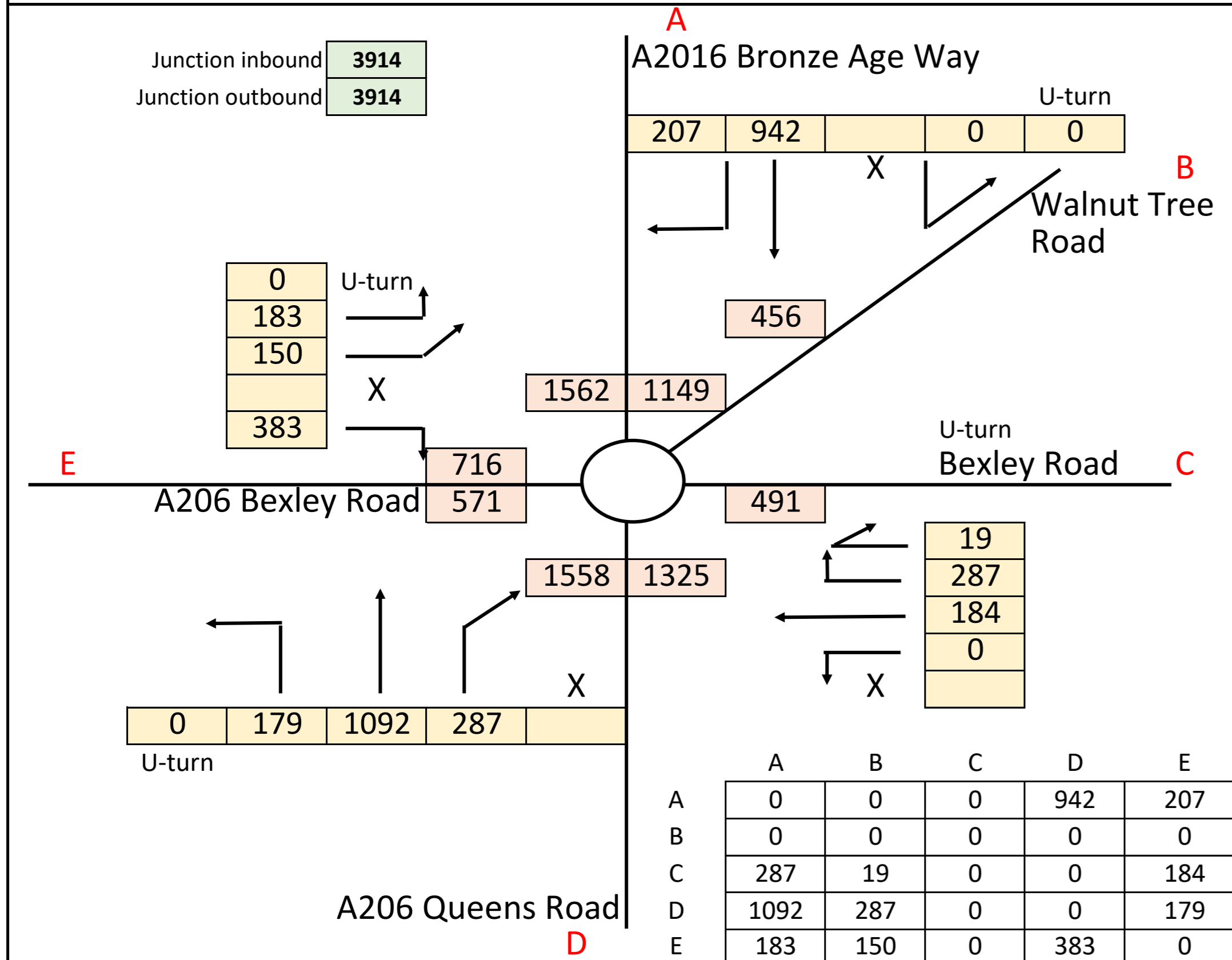
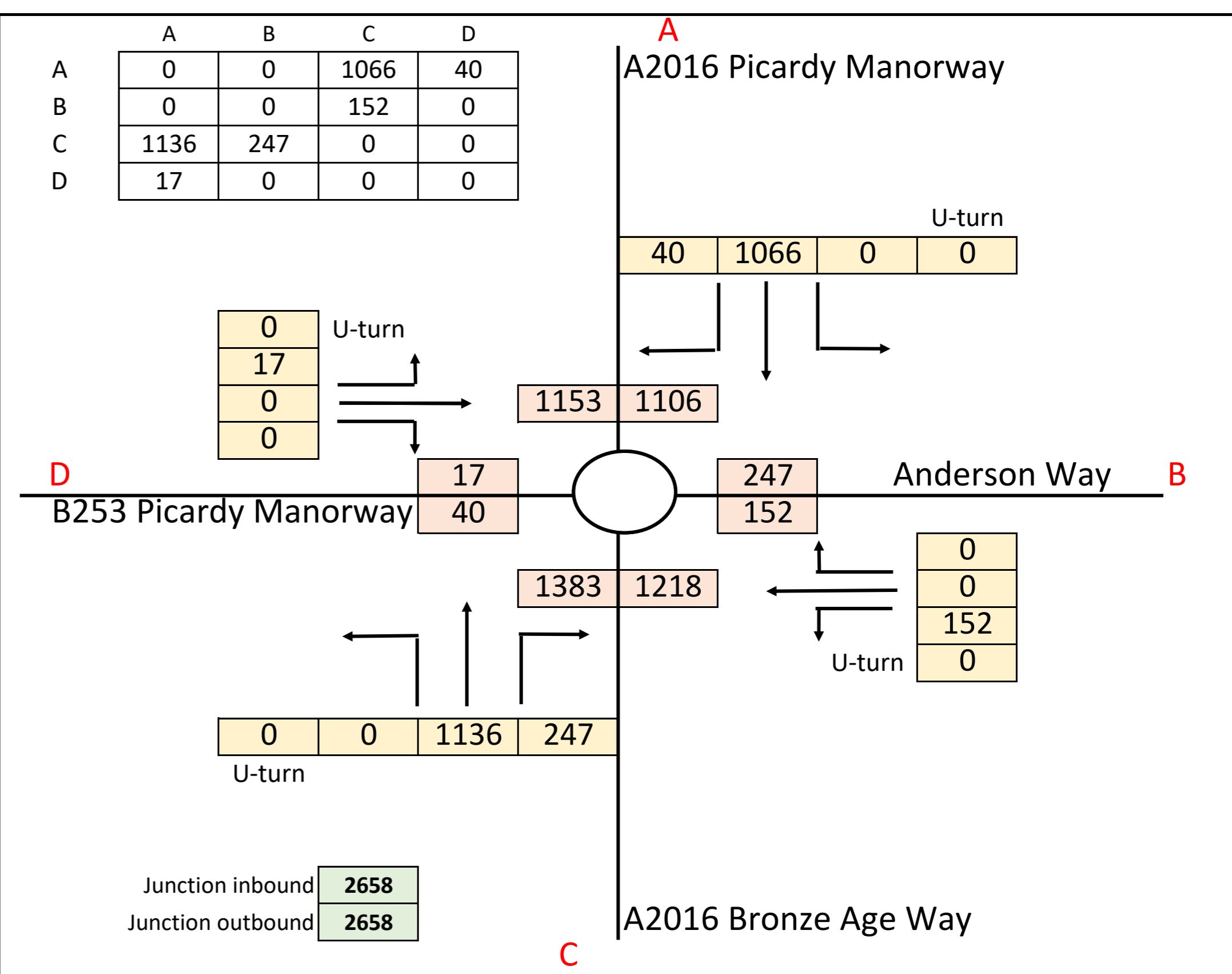
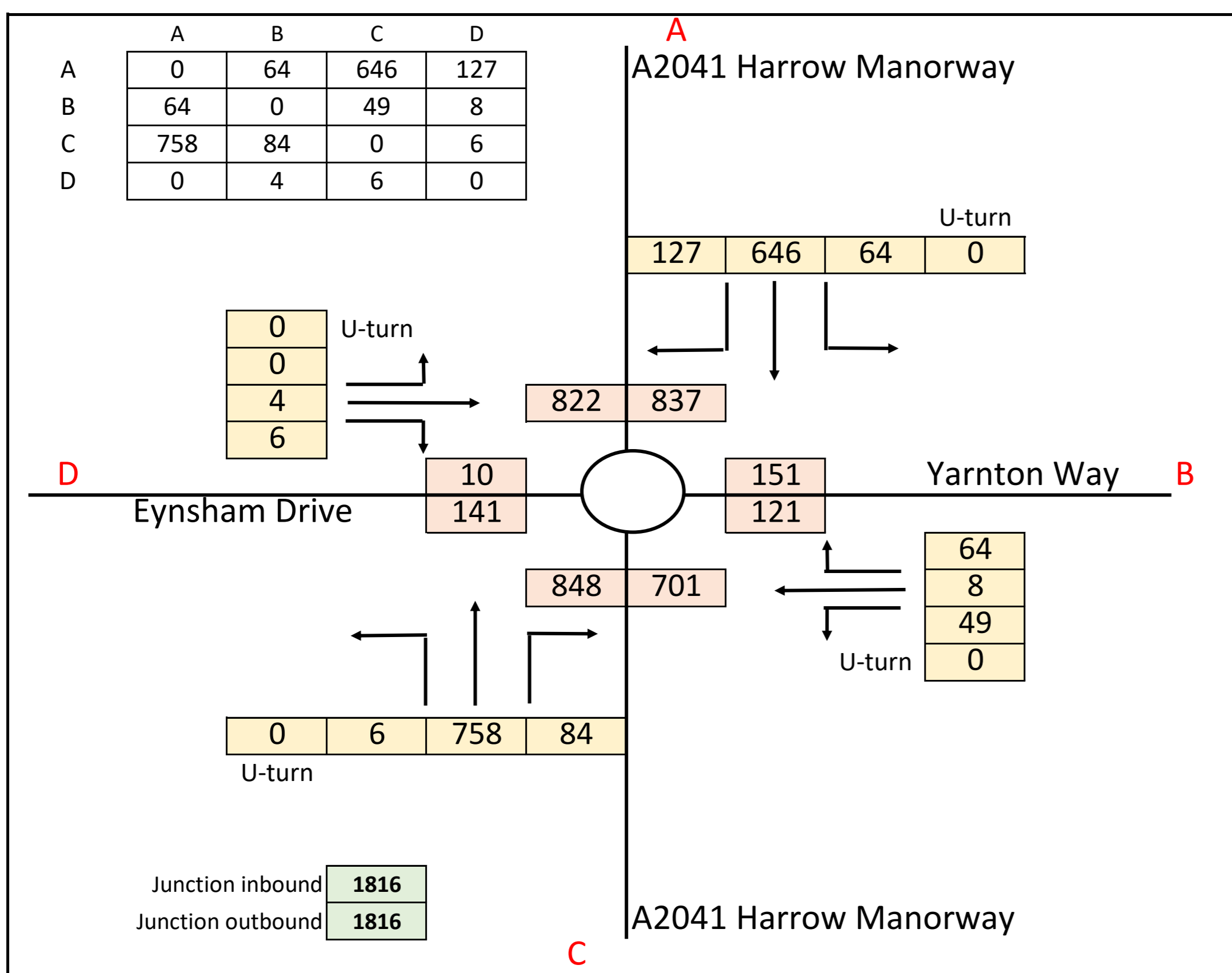
Appendix B Modelling Turning Flow Diagrams



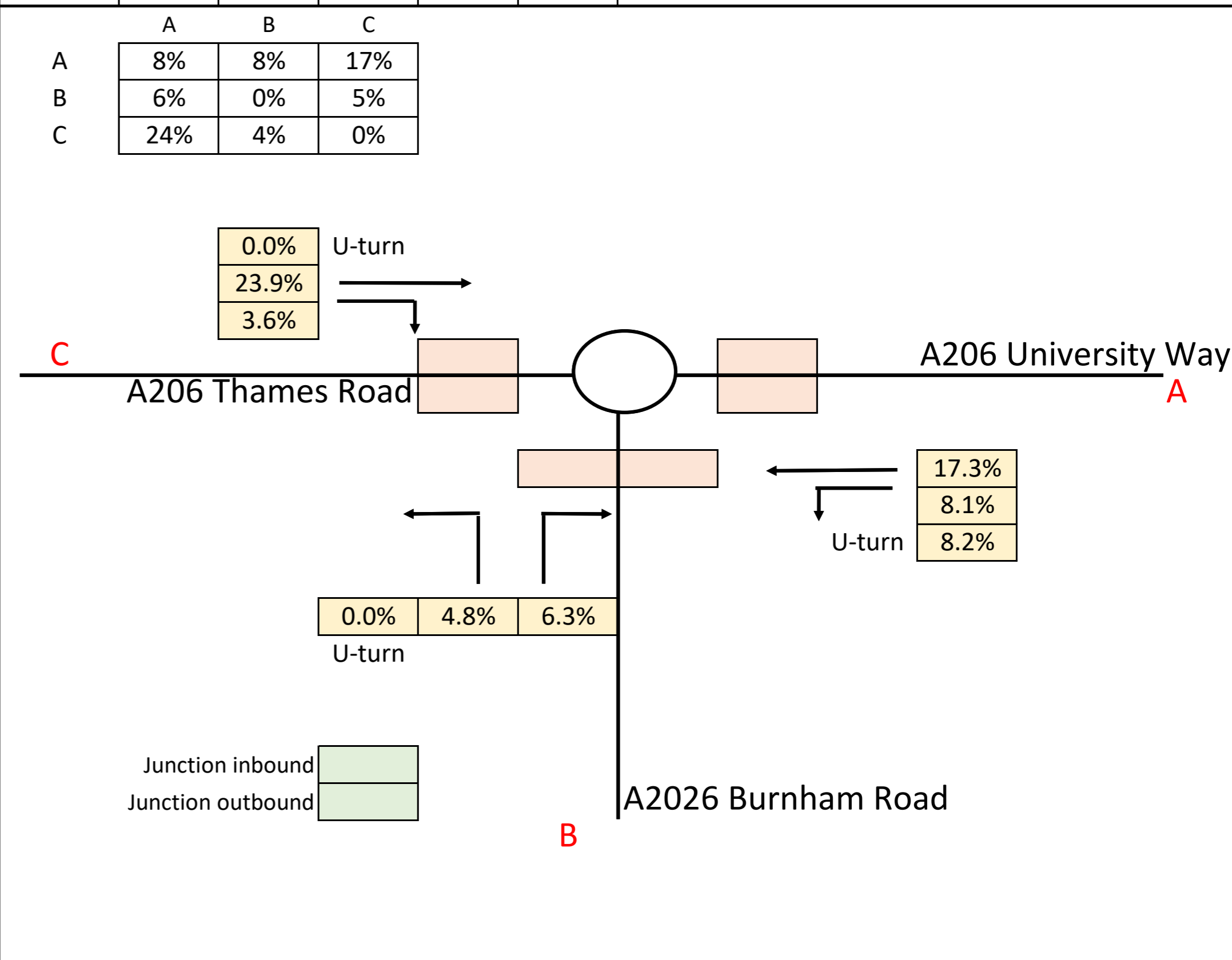
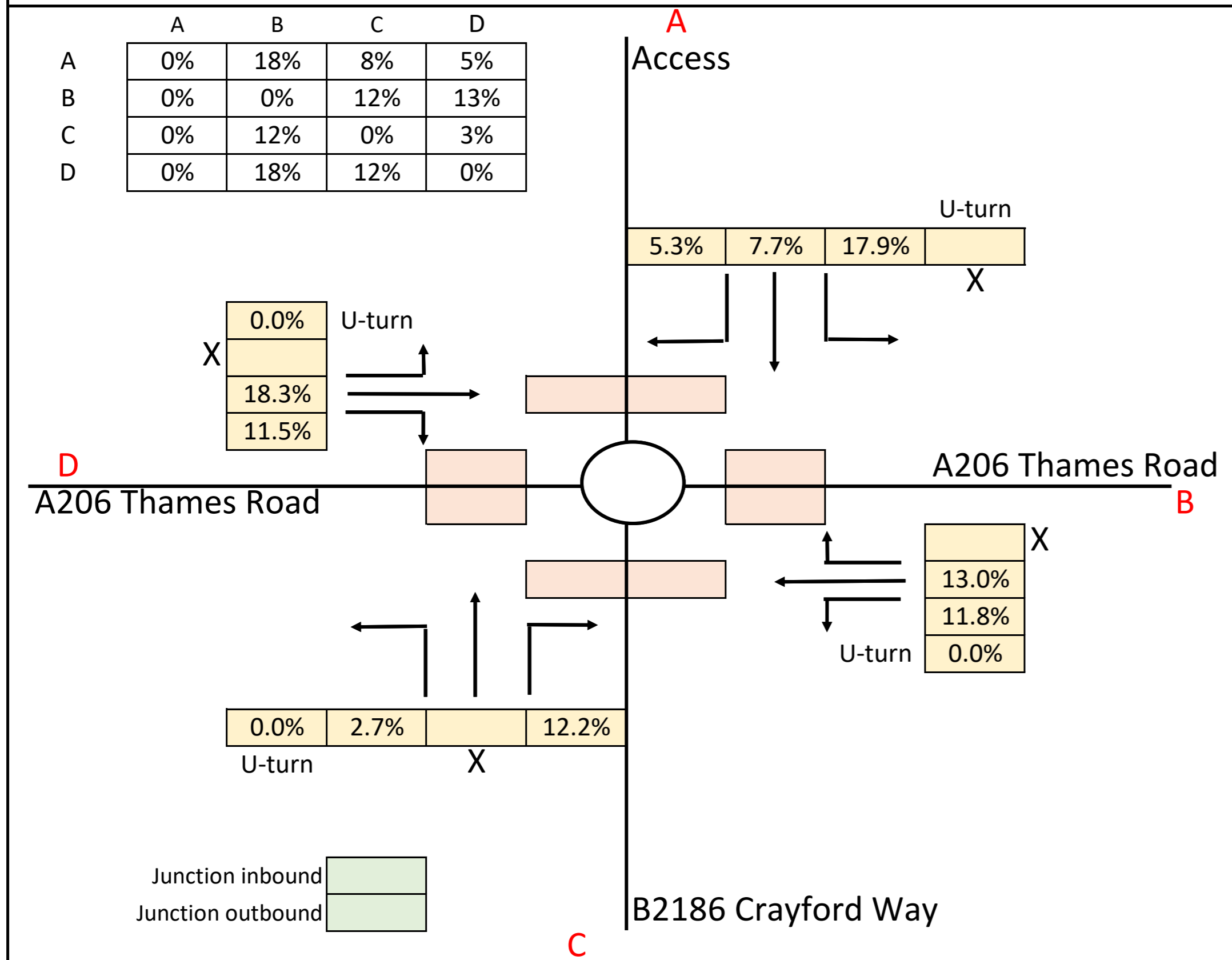
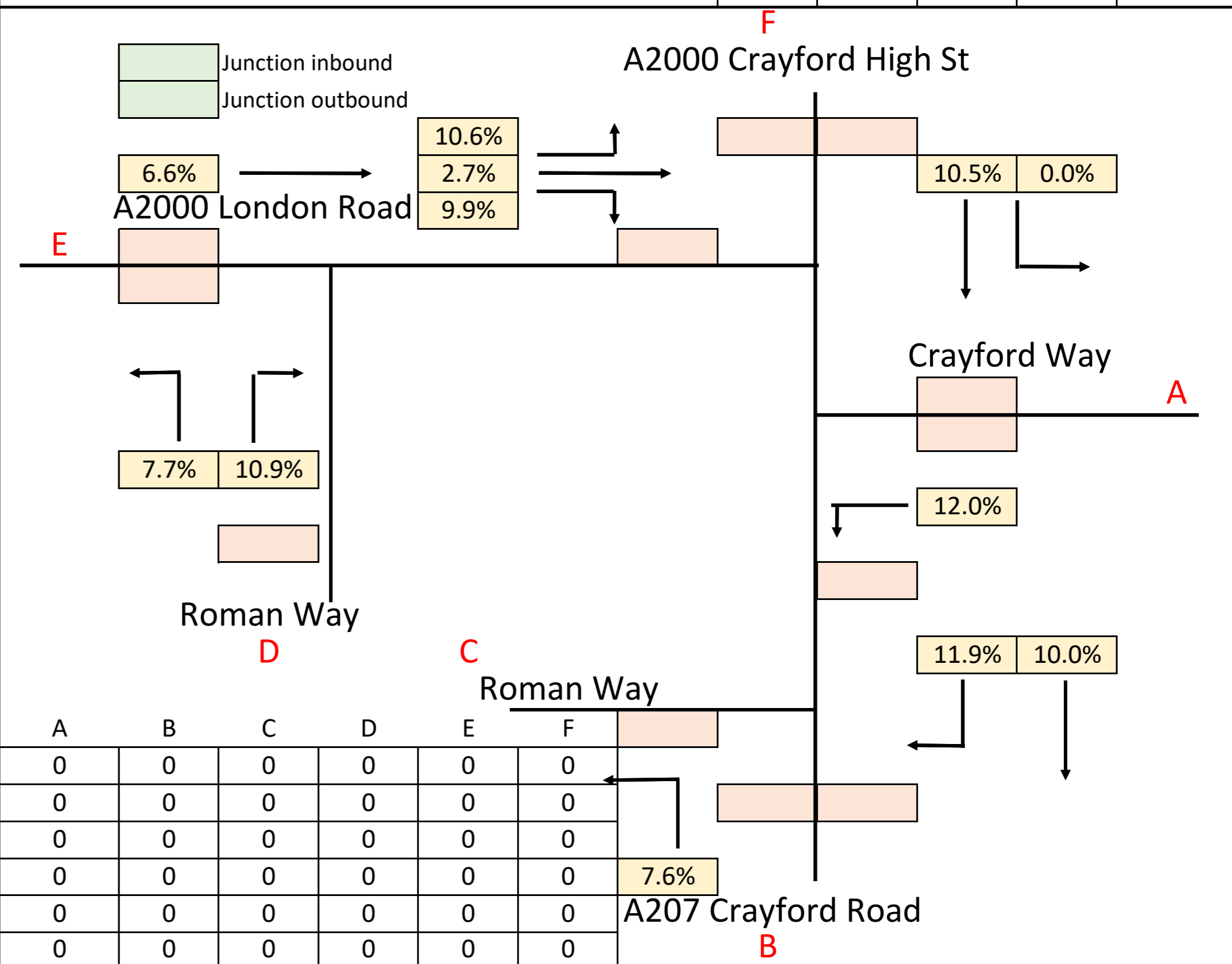
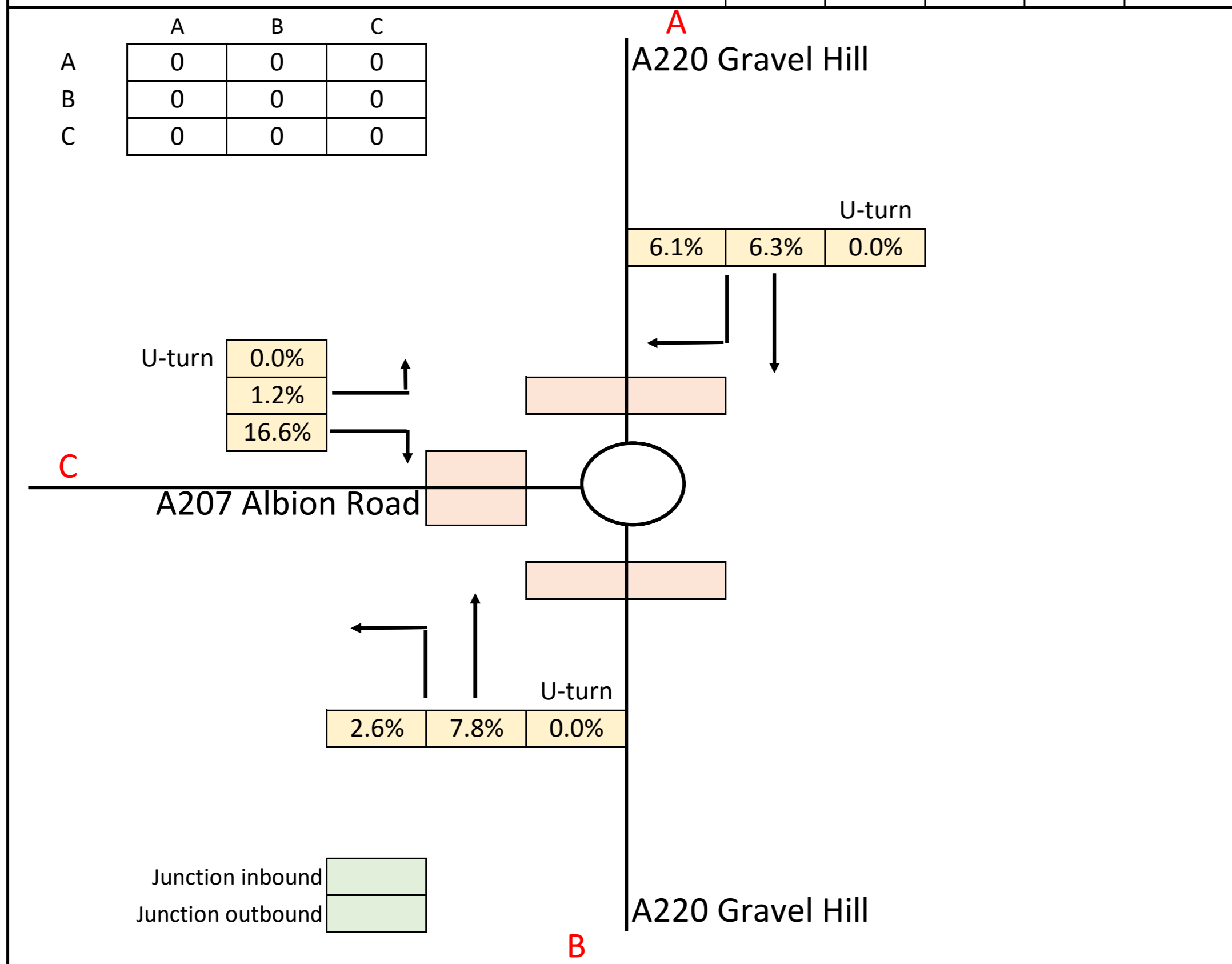
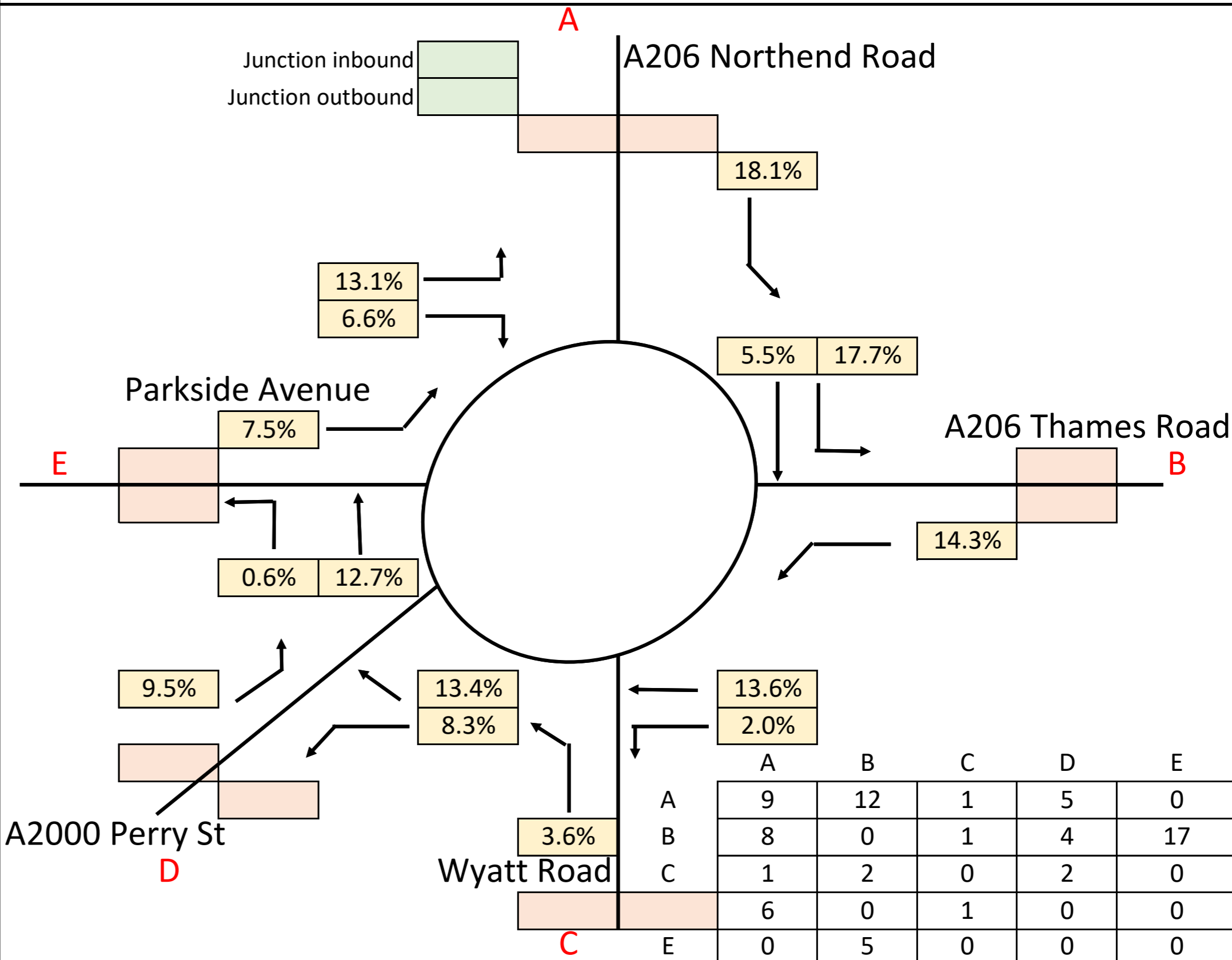
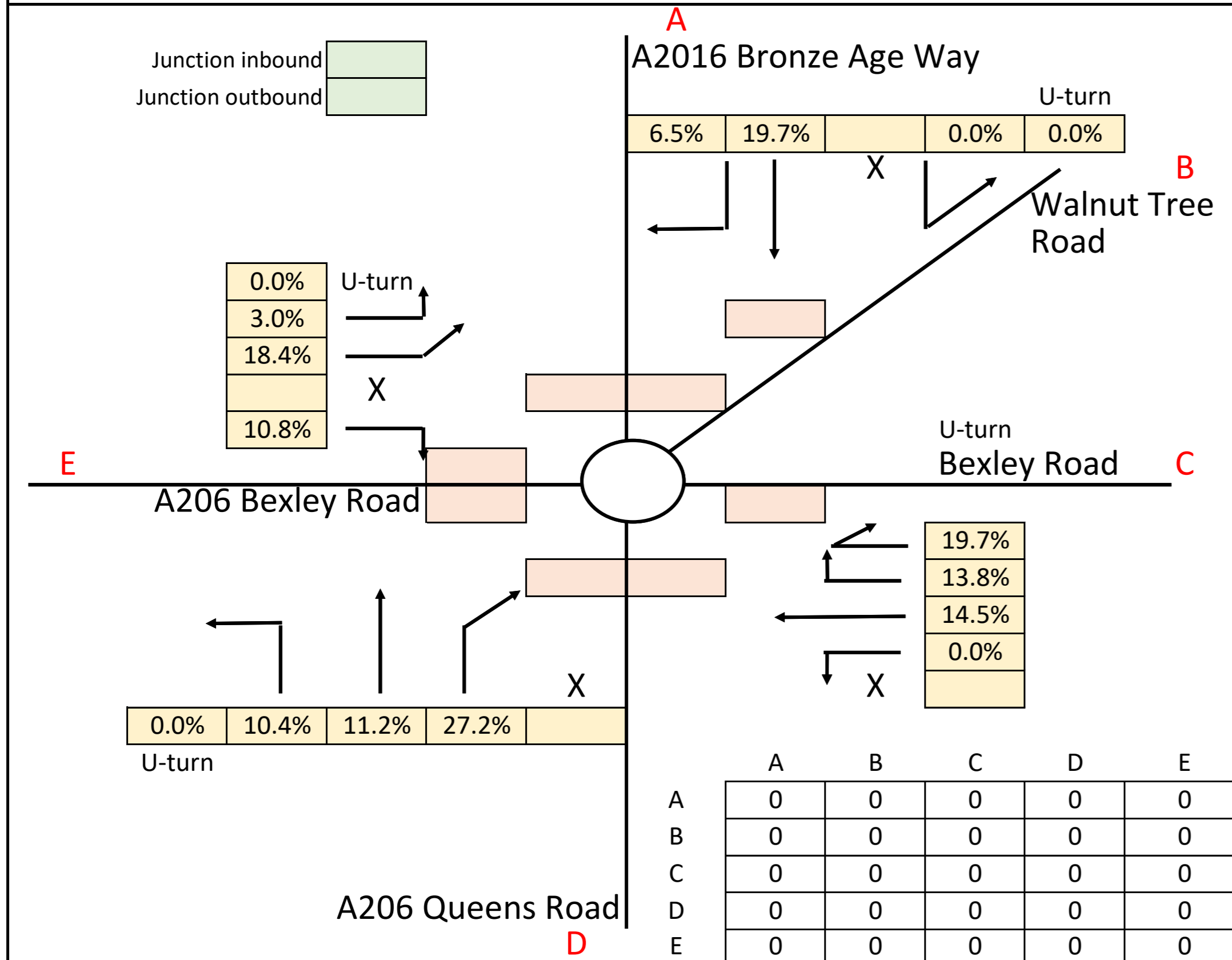
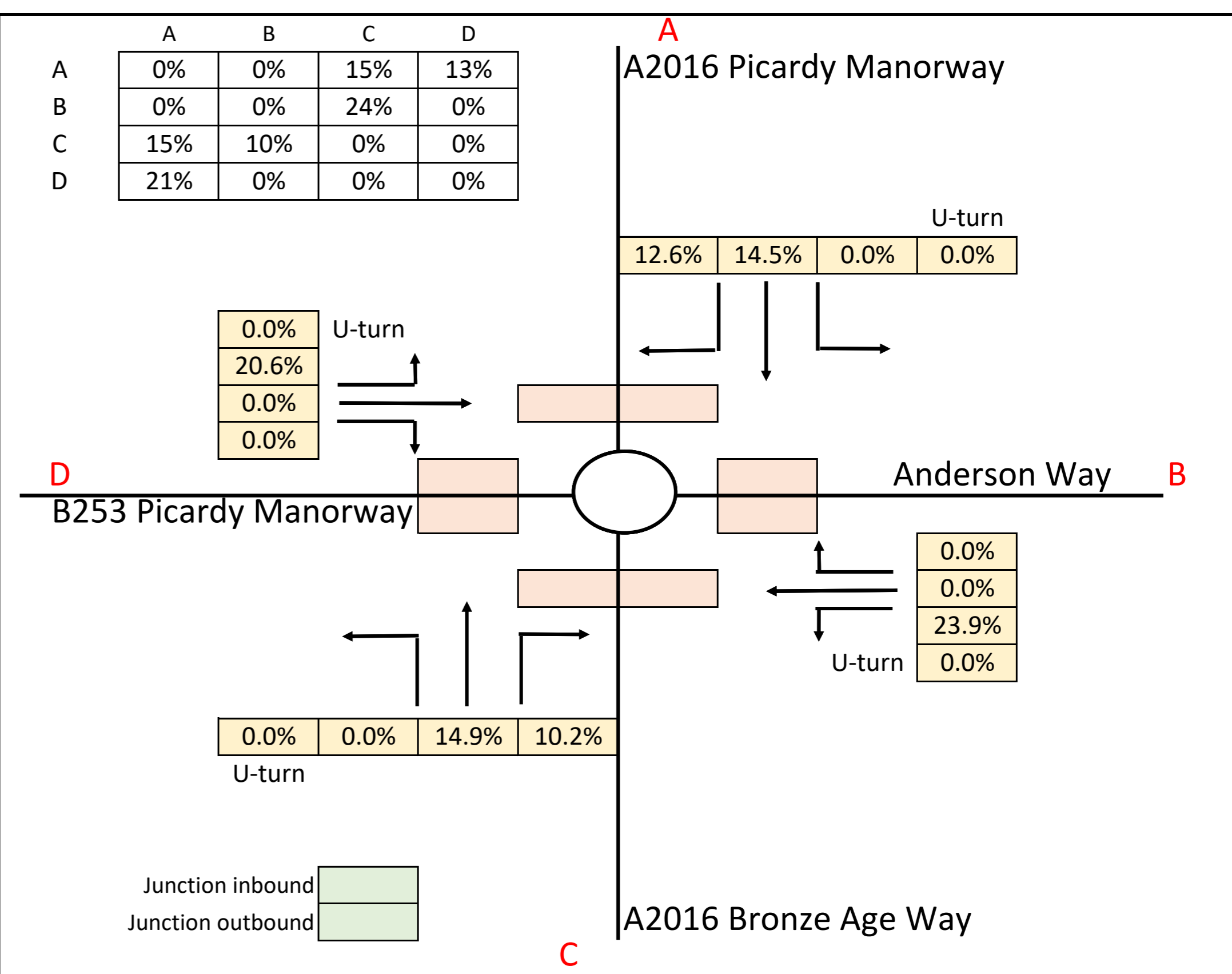
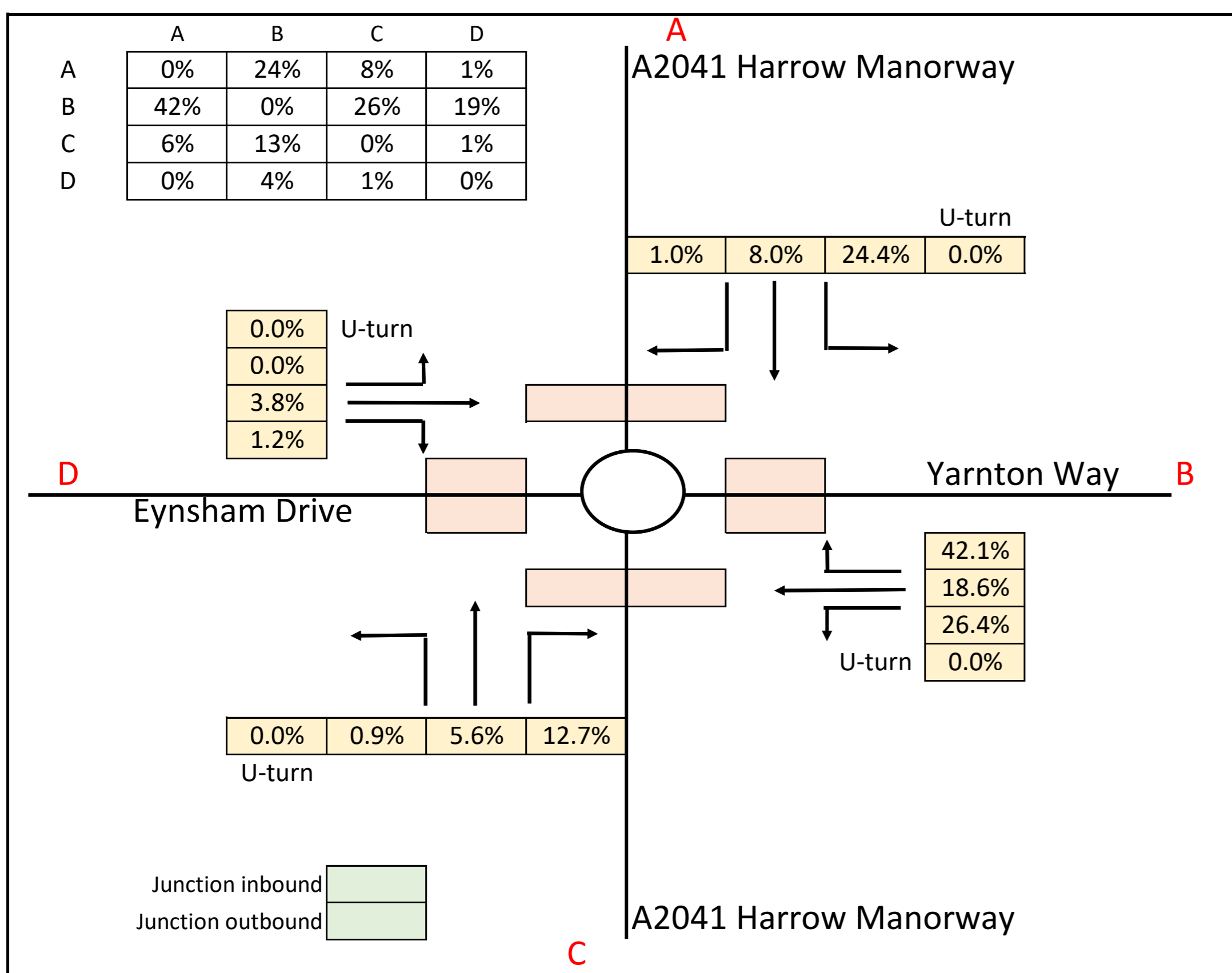
2021 Baseline Case without LTC (0800-0900)
Demand Flow (PCUs)



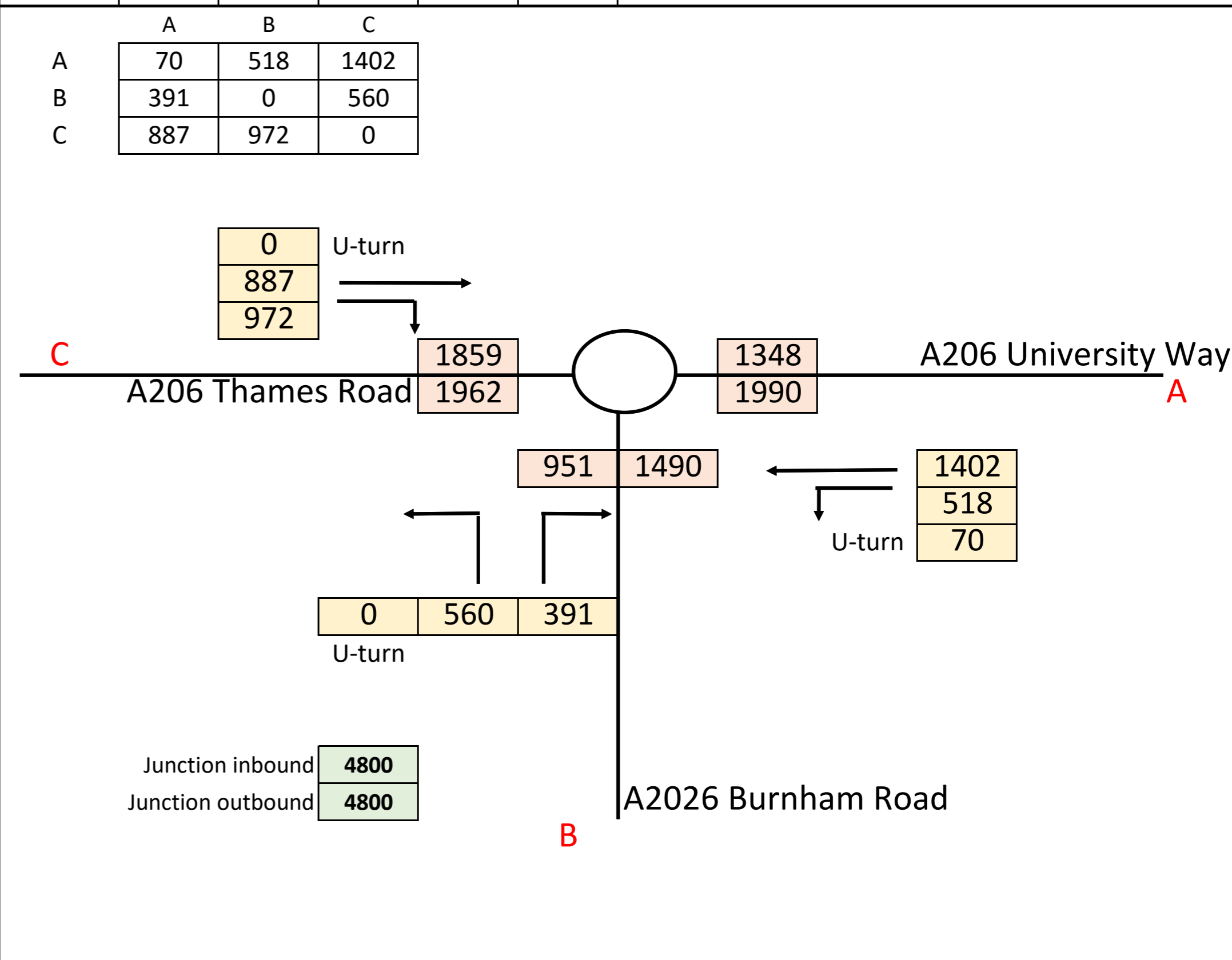
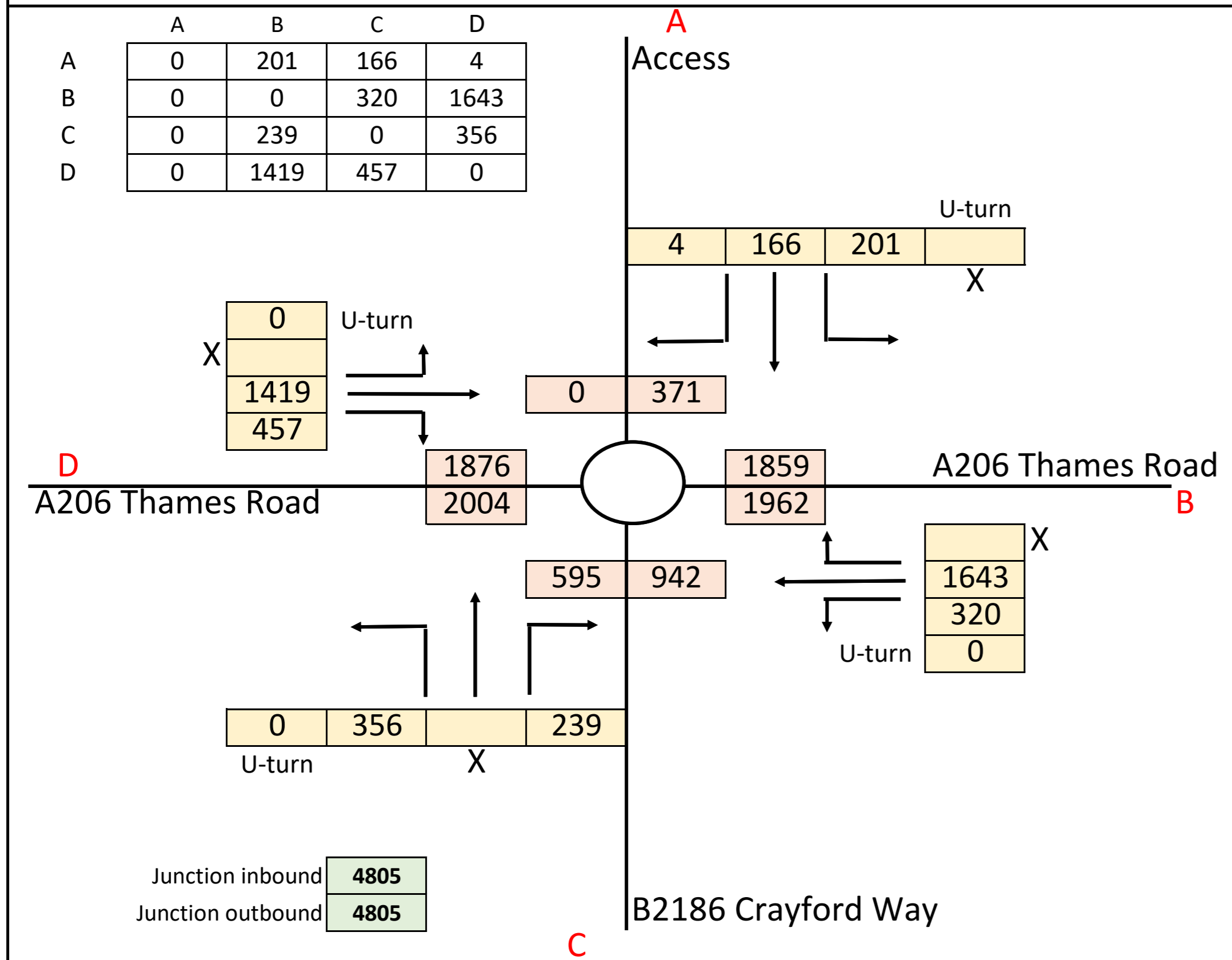
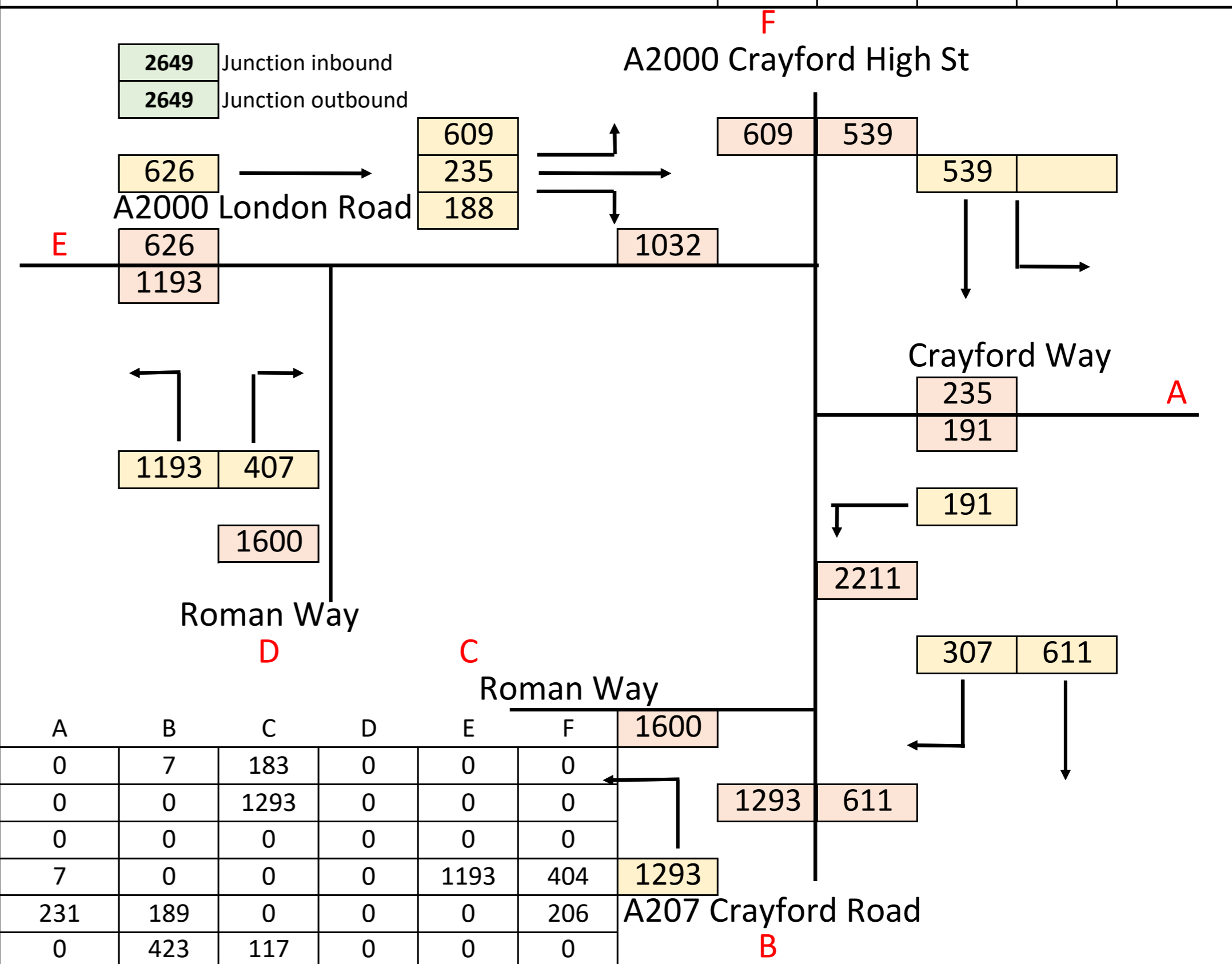
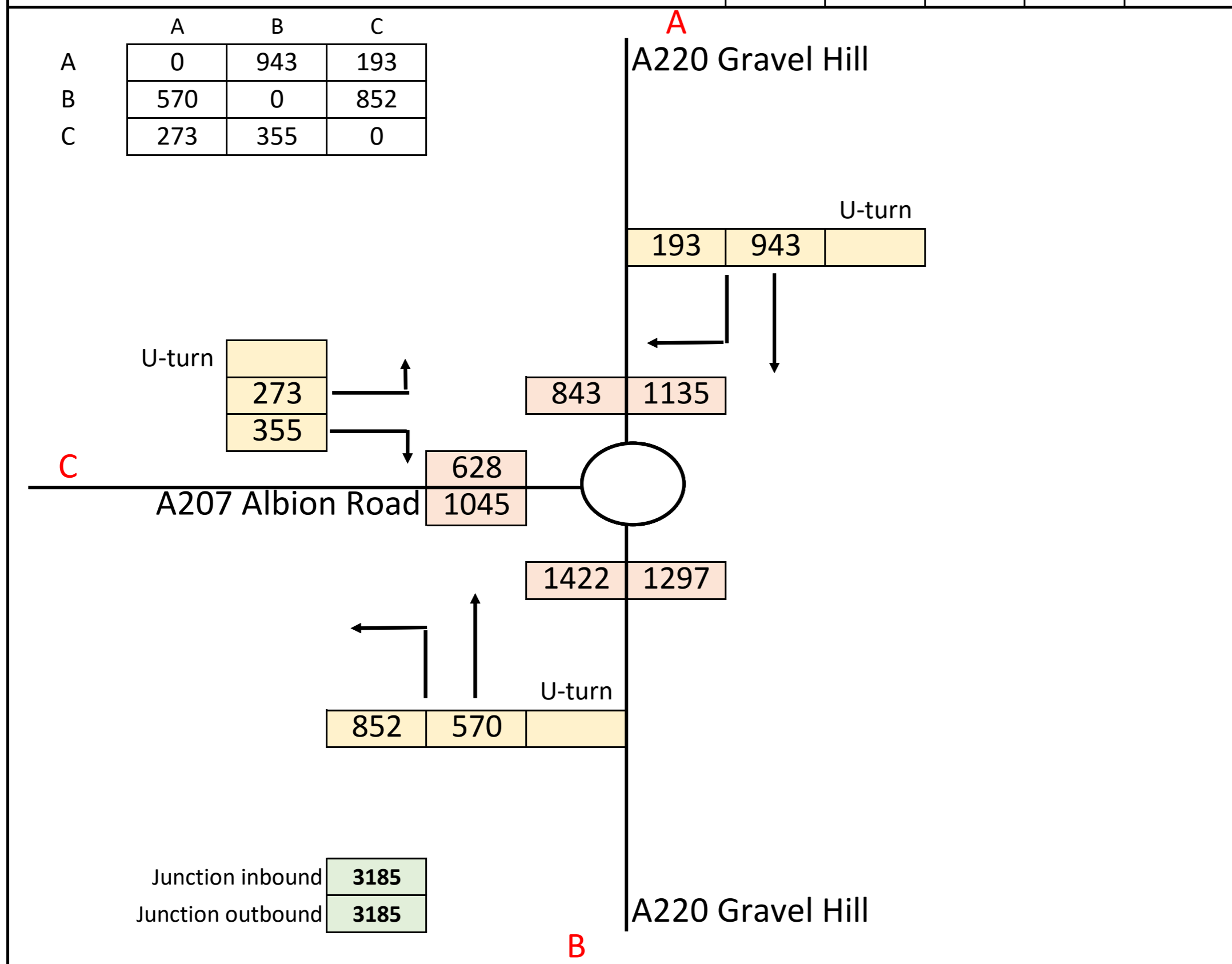
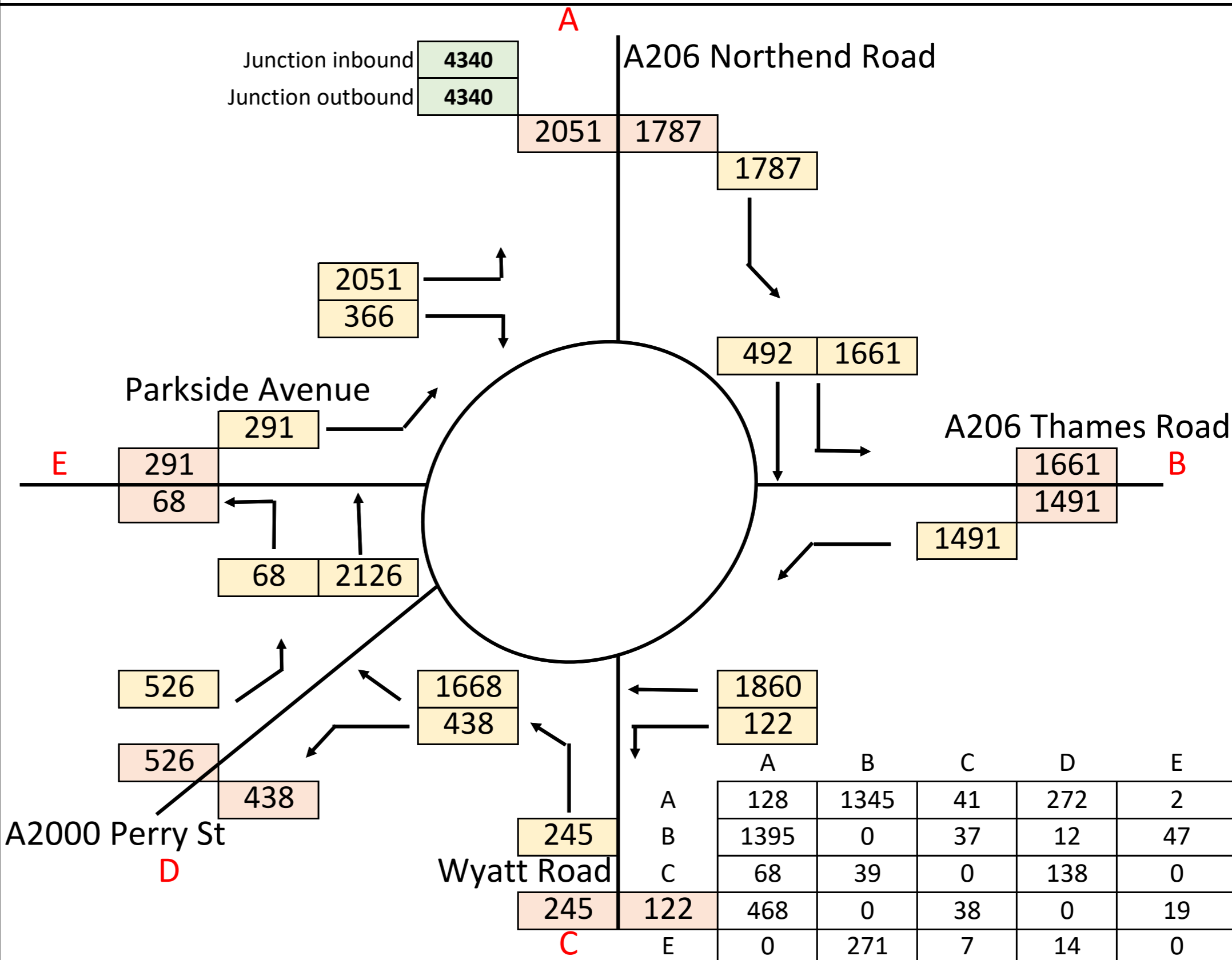
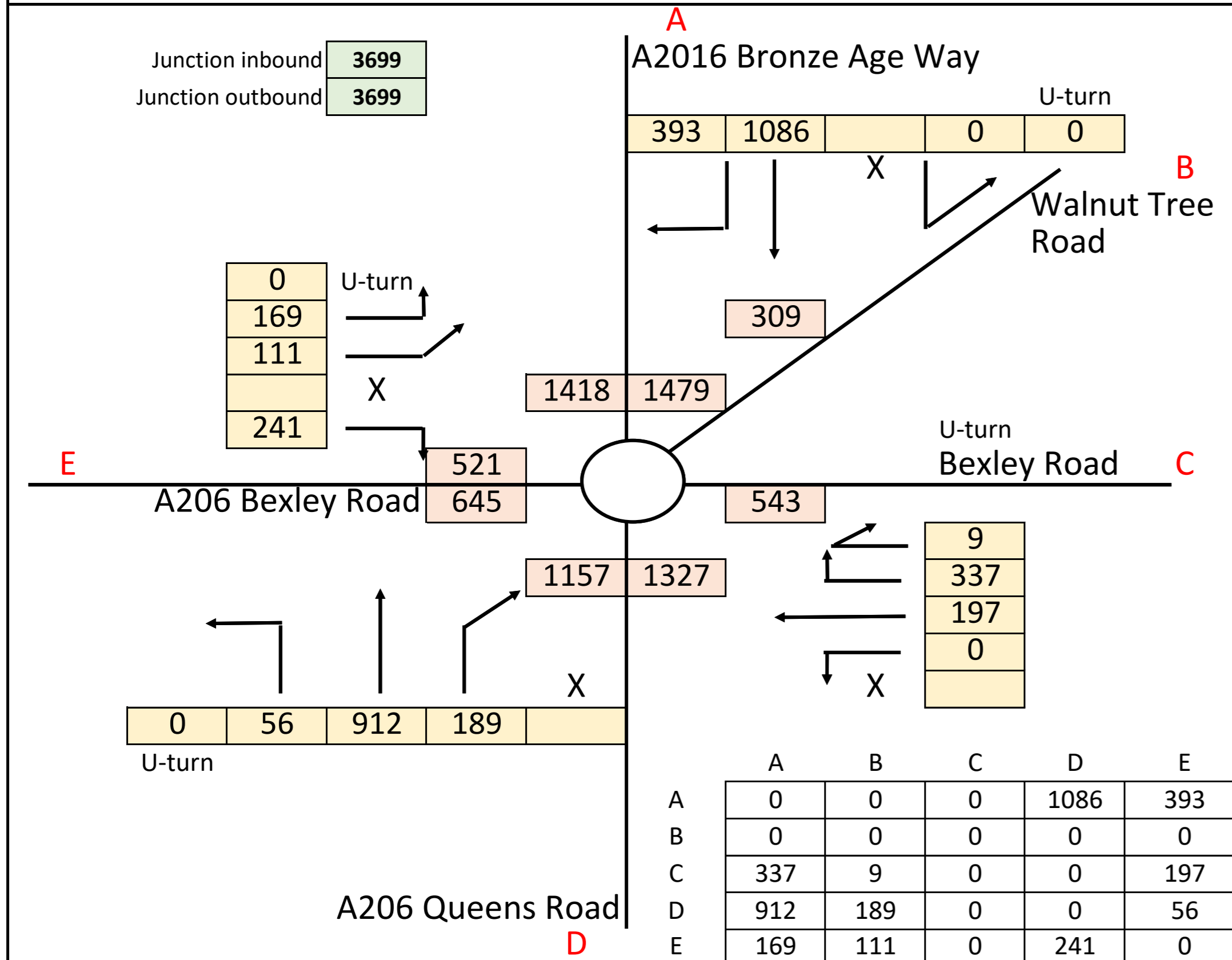
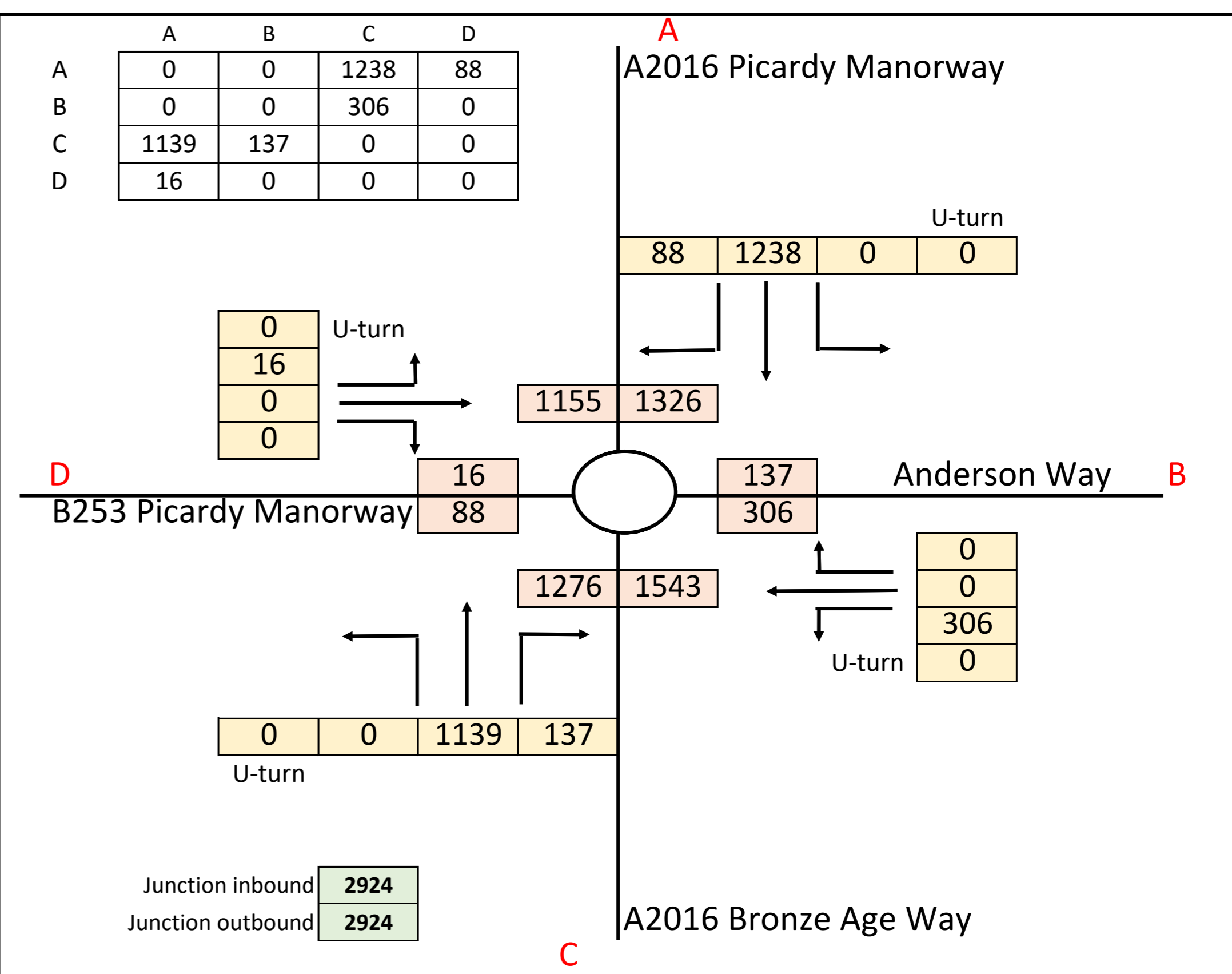
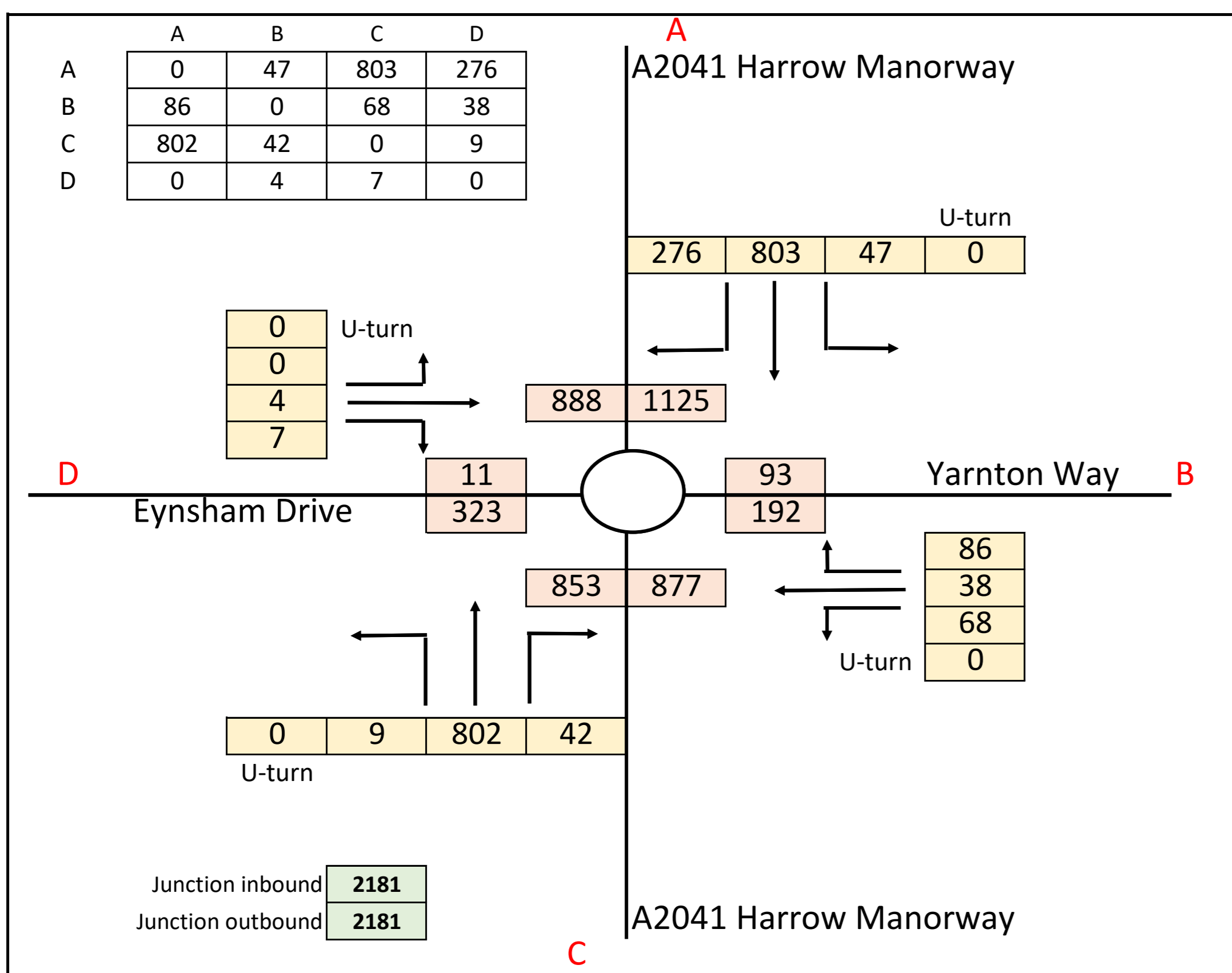
2021 Baseline Case without LTC (1700-1800)
Demand Flow (PCUs)



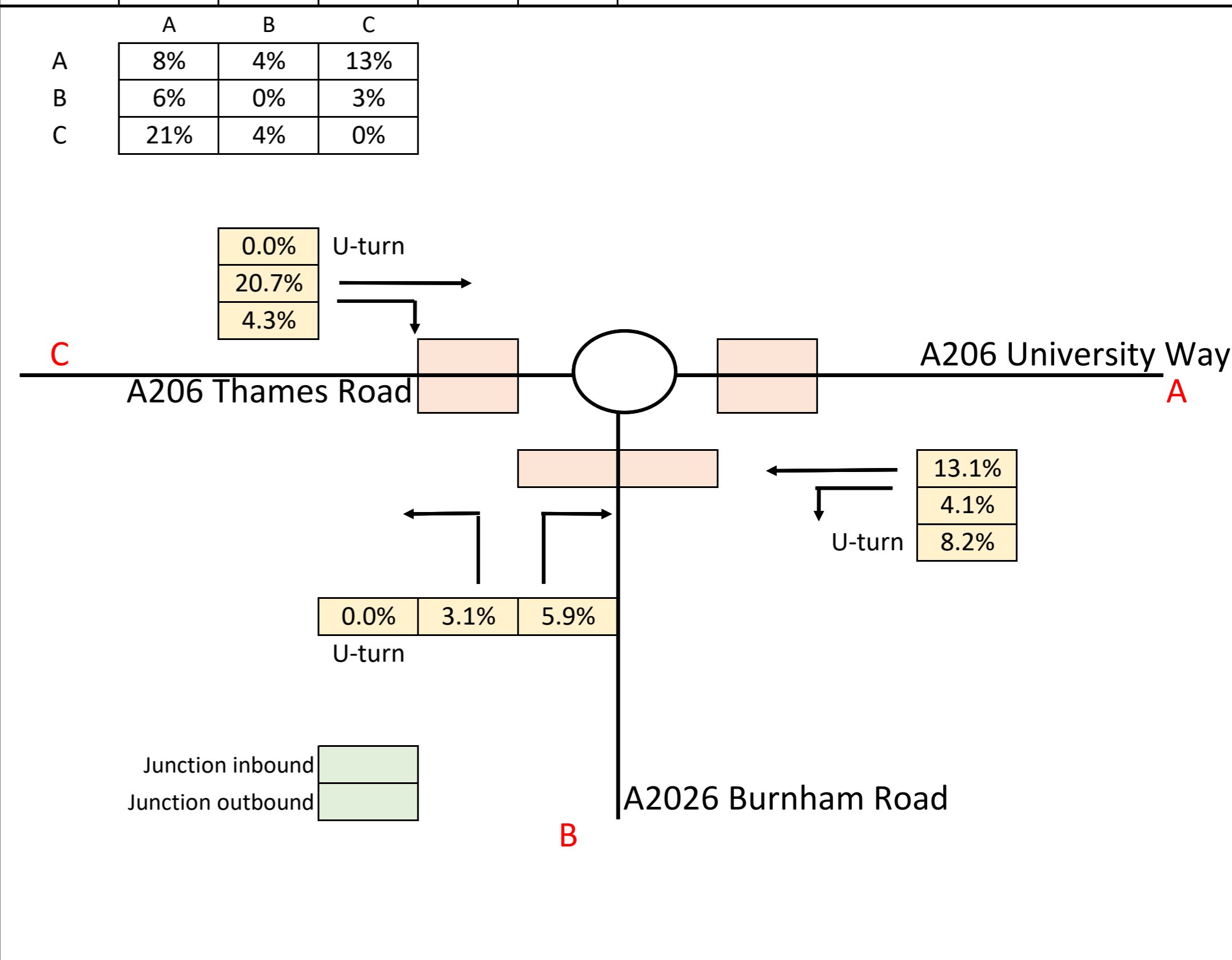
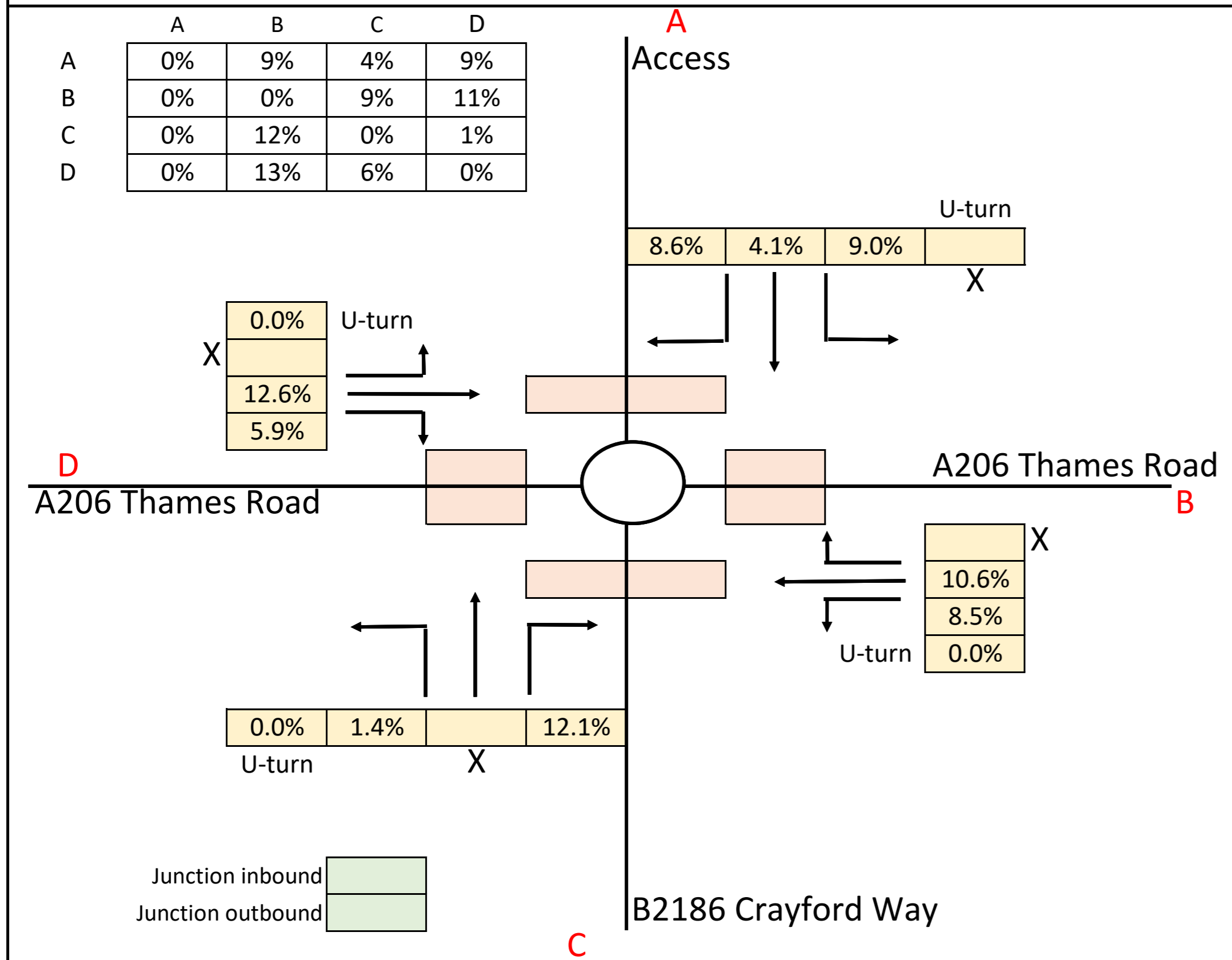
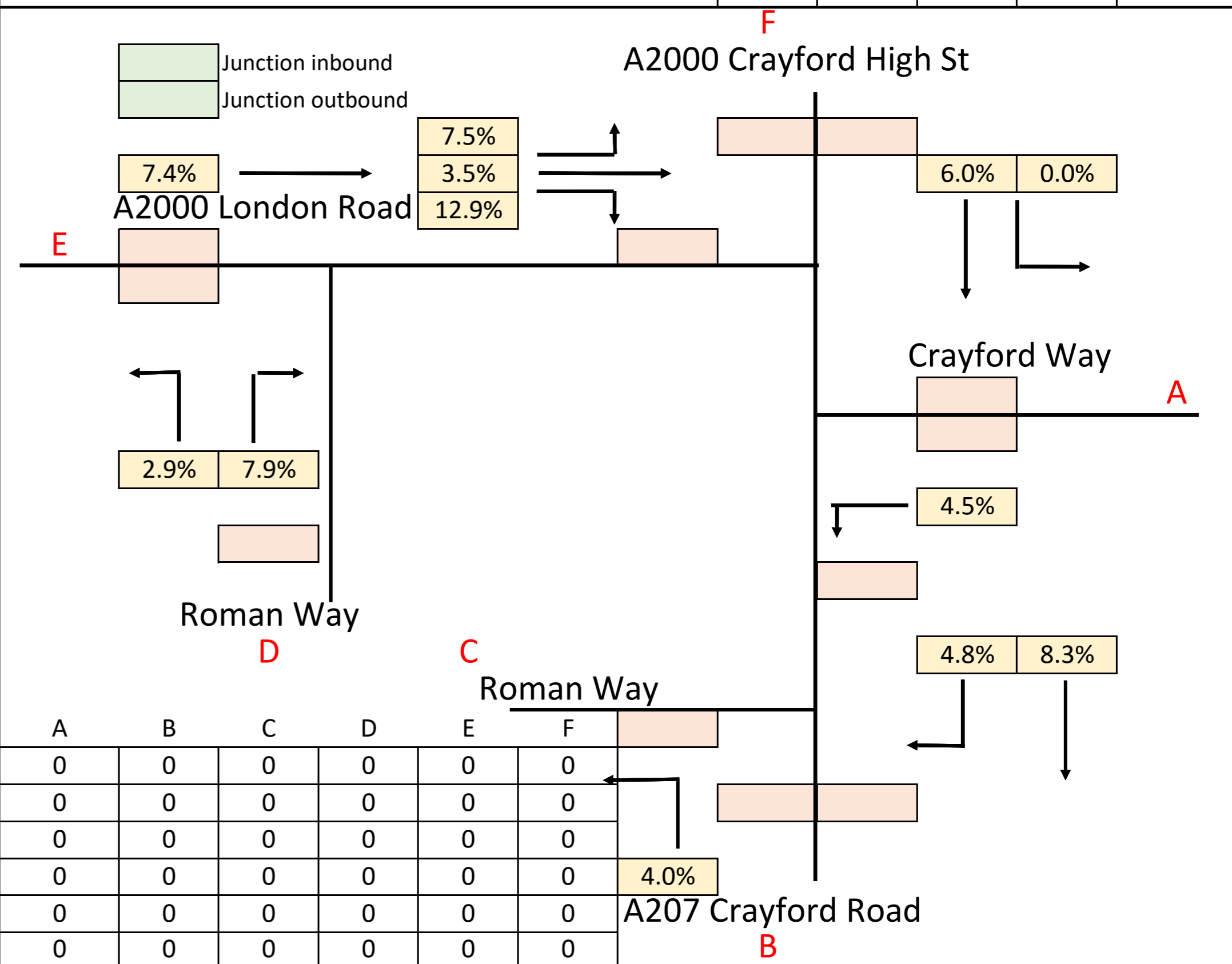
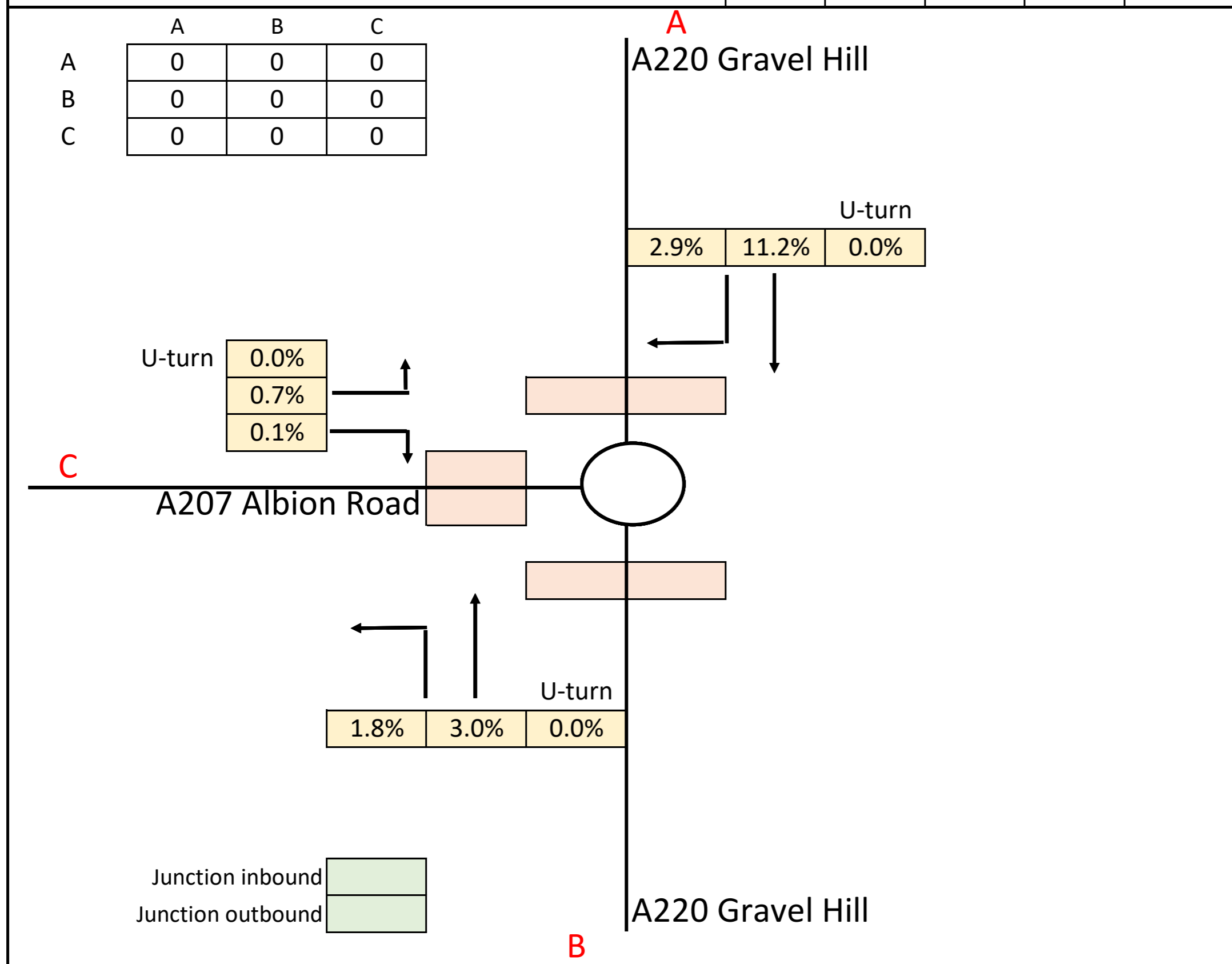
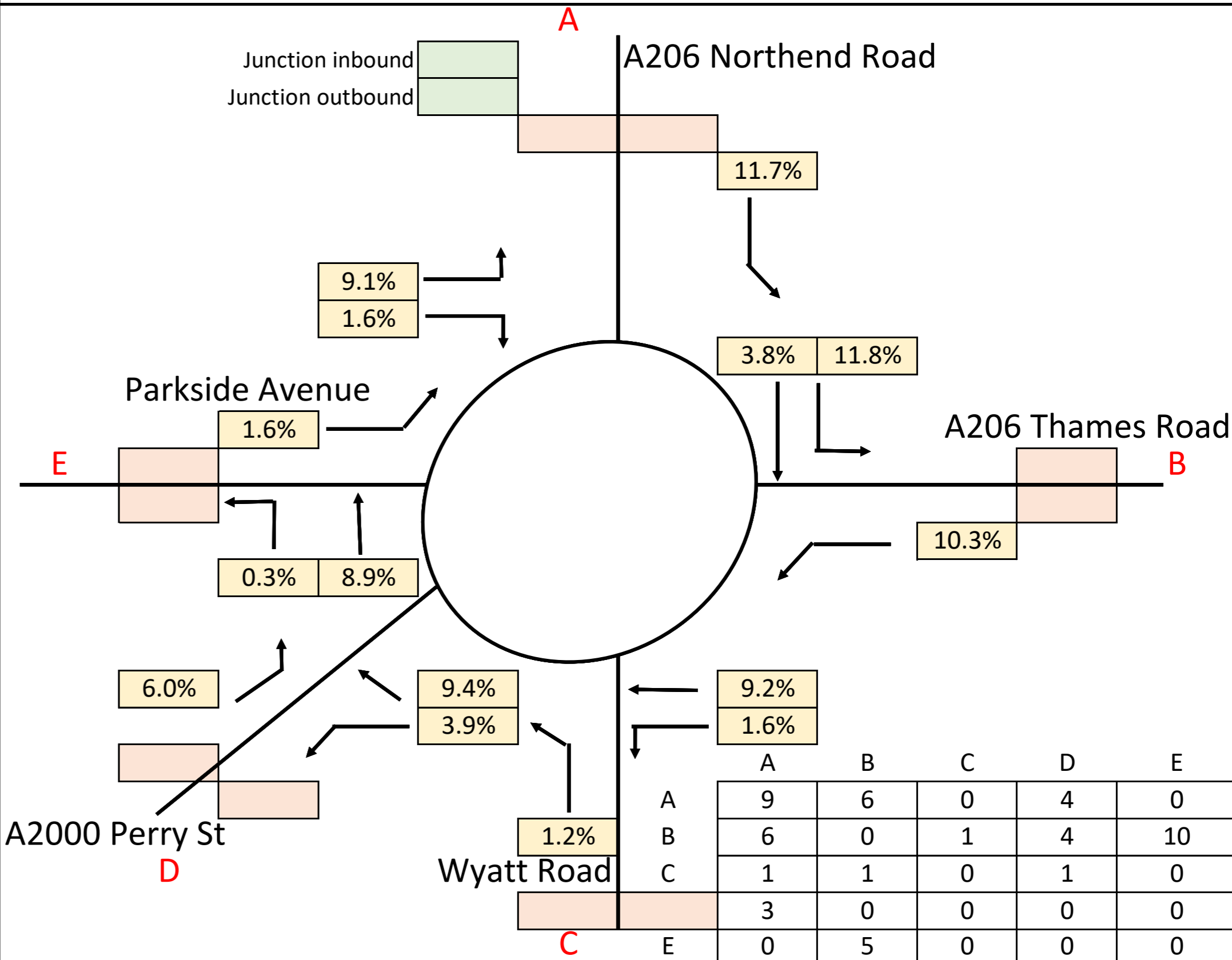
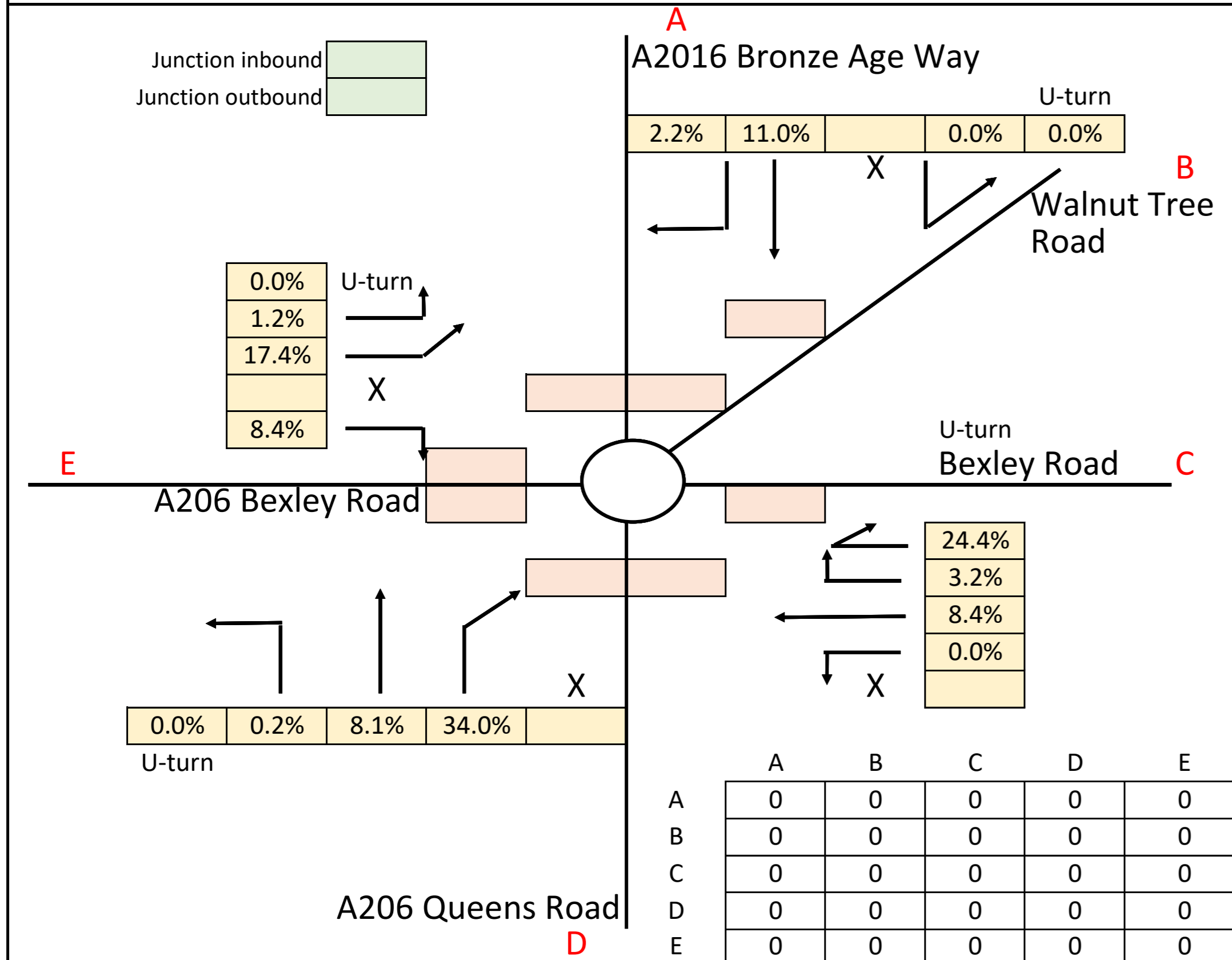
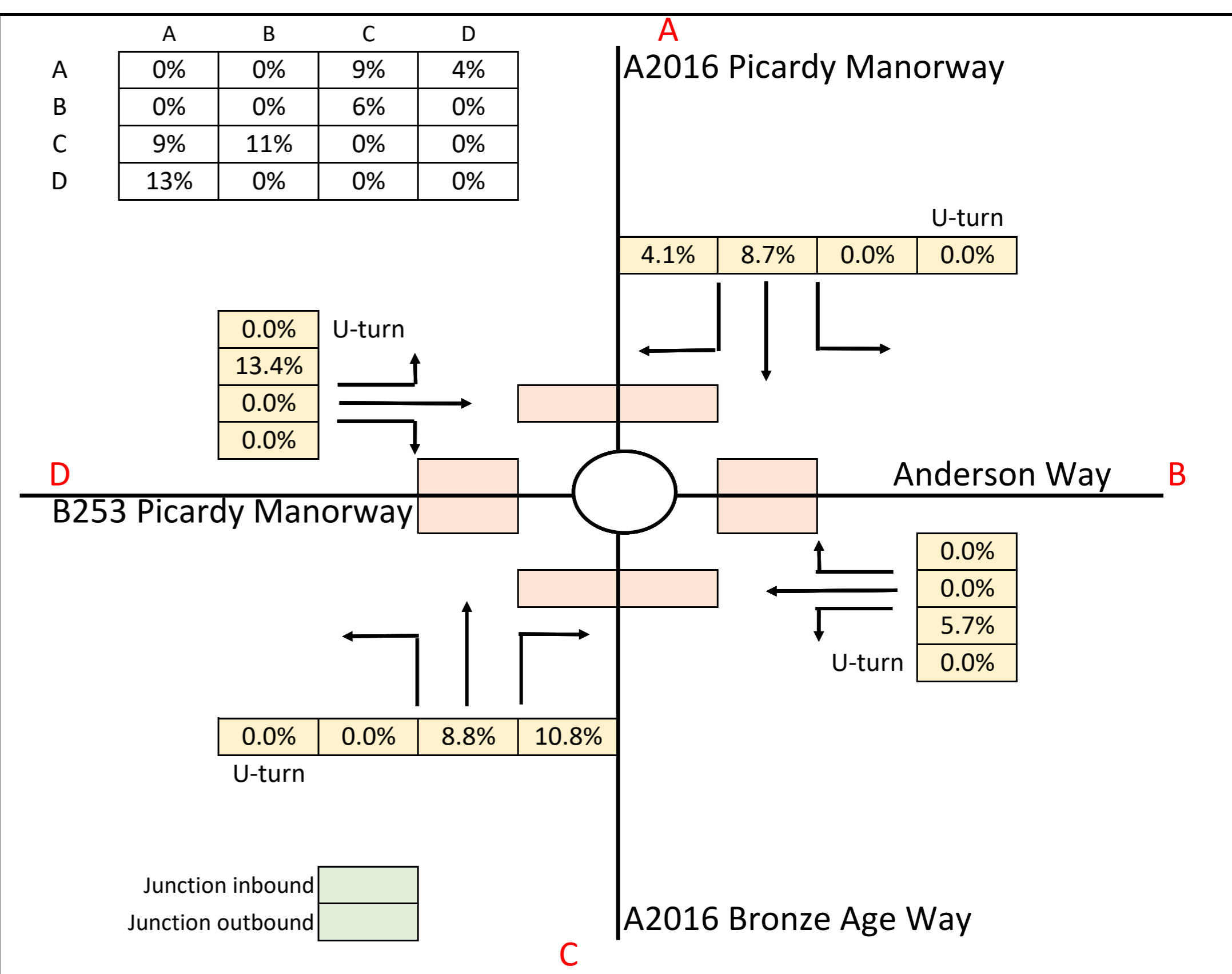
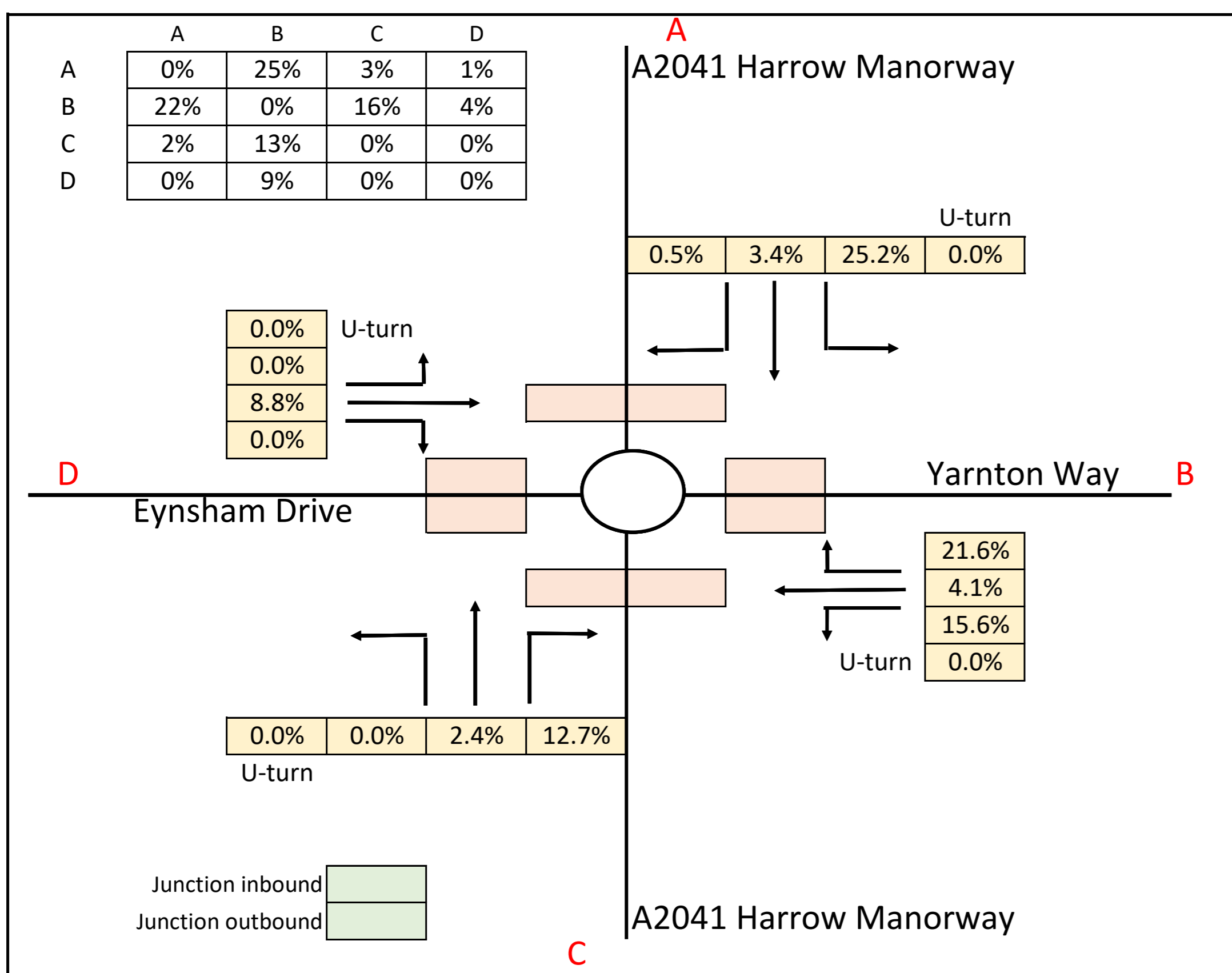
**2038 Reference Case without LTC (0800-0900)
Demand Flow (PCUs)**



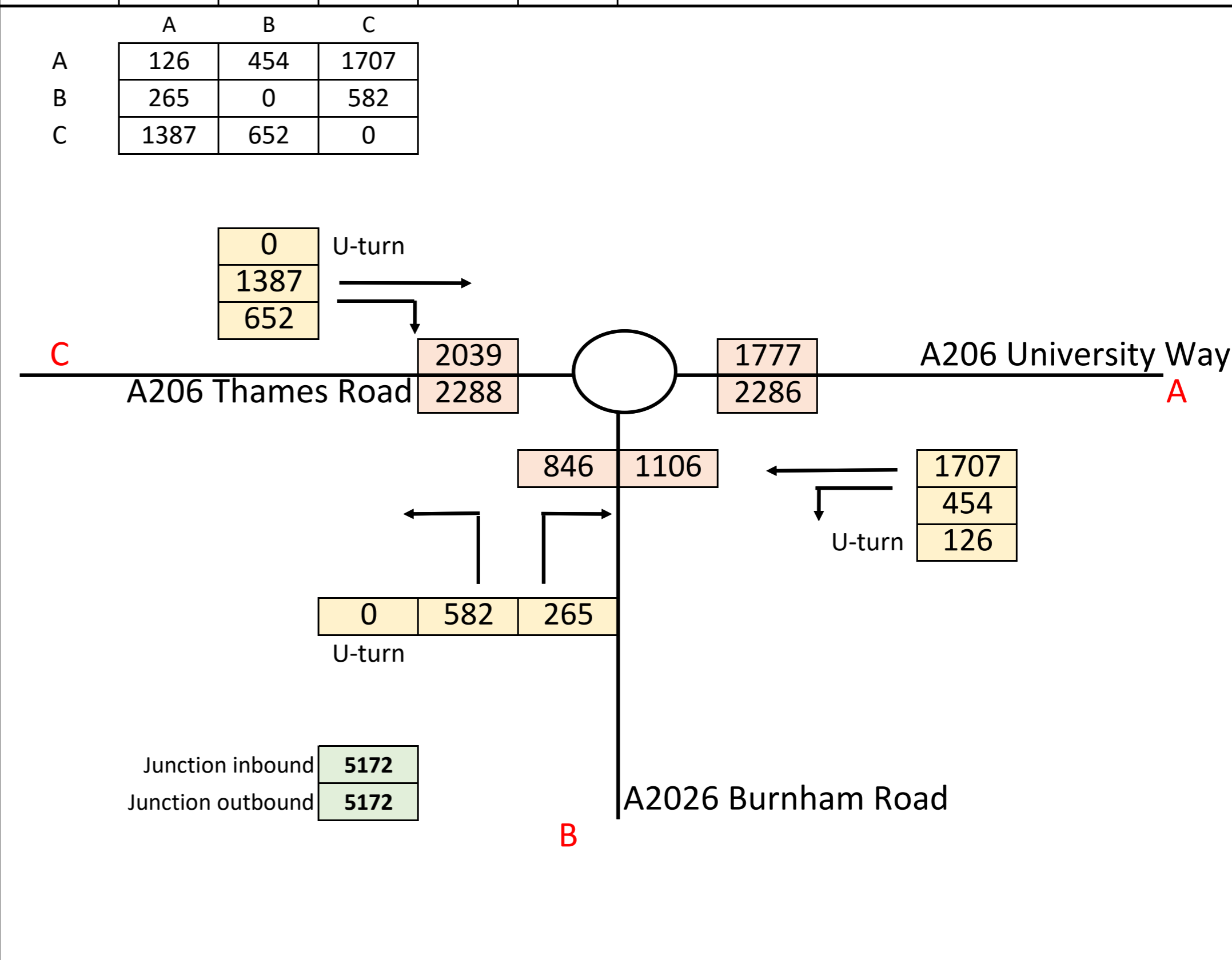
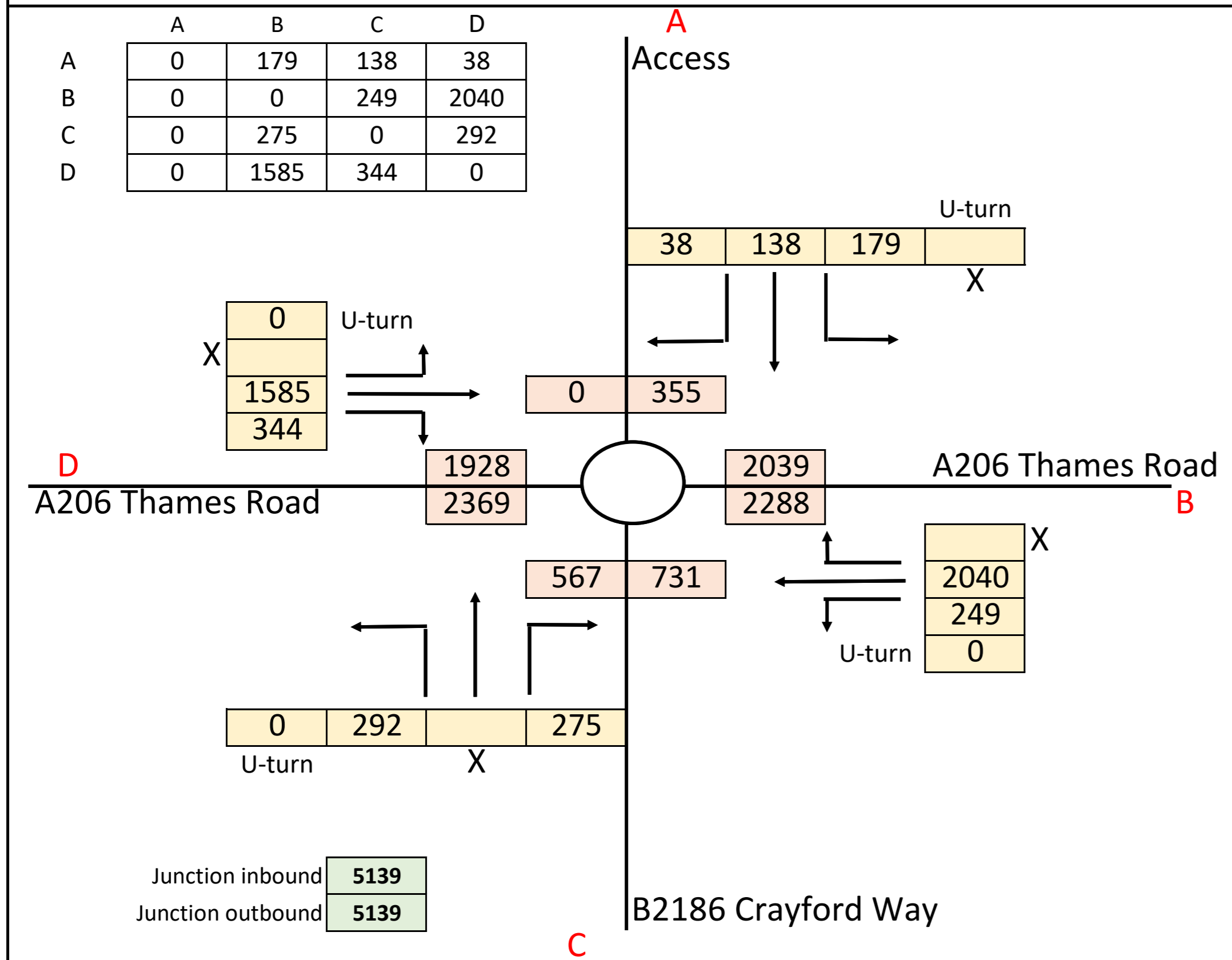
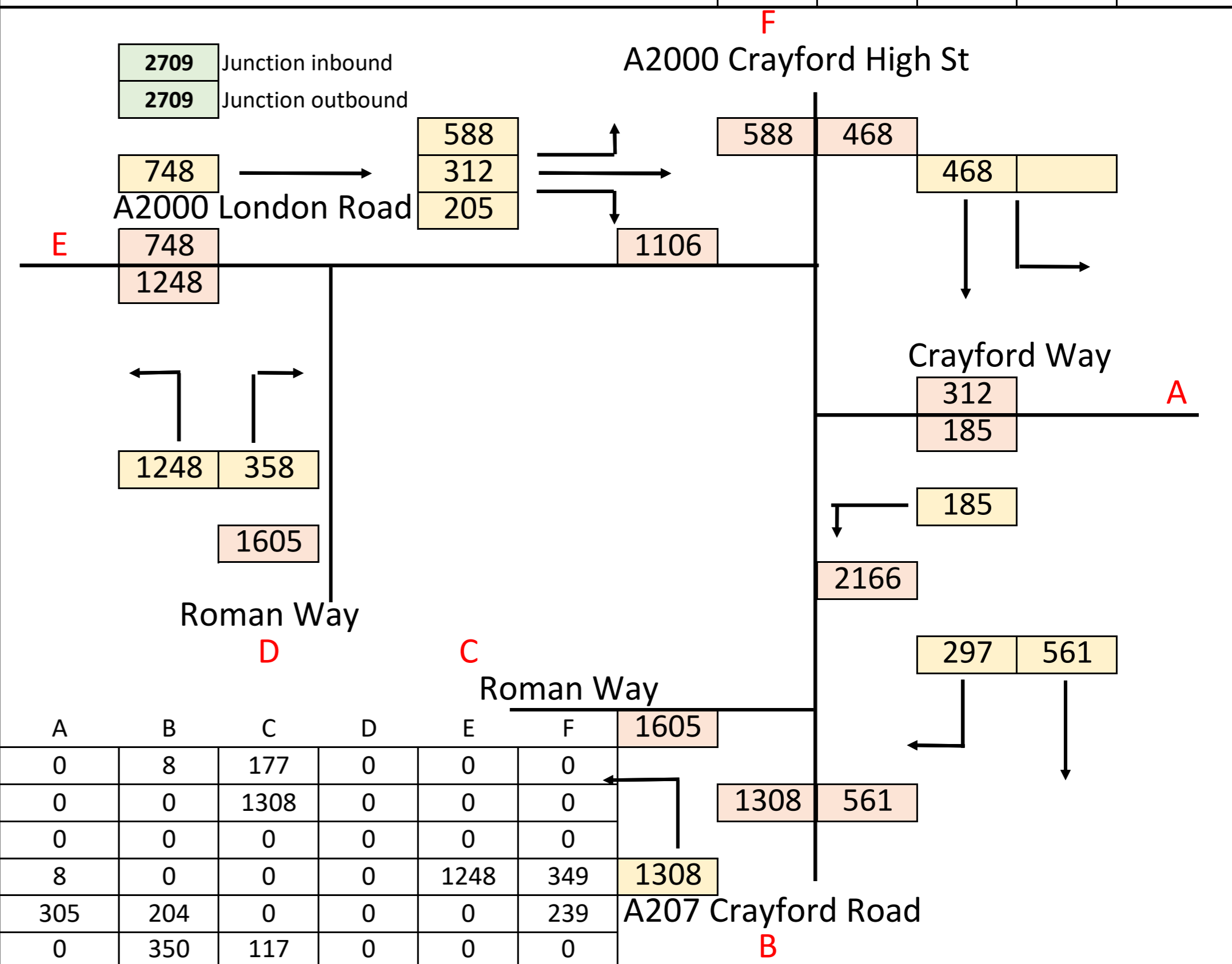
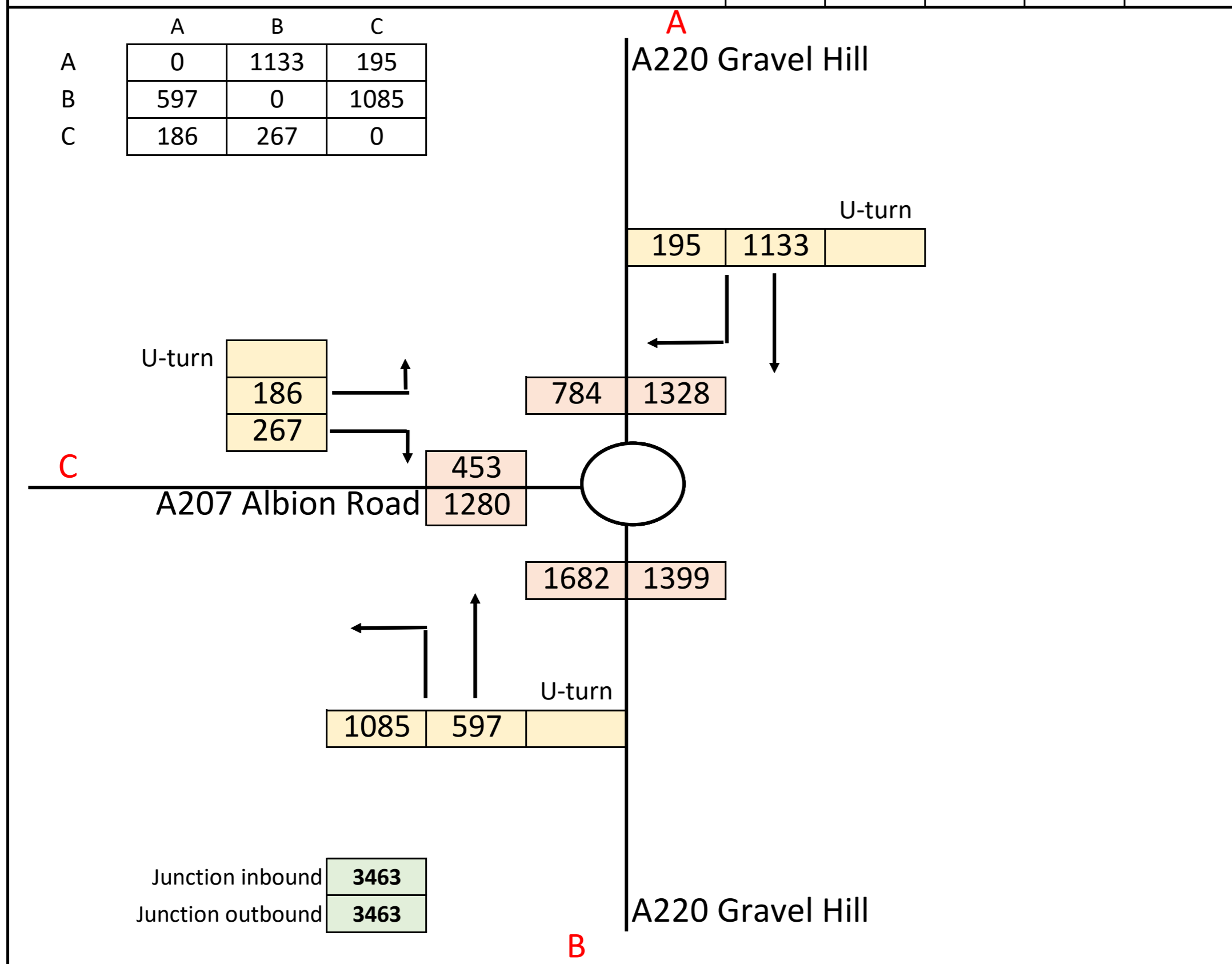
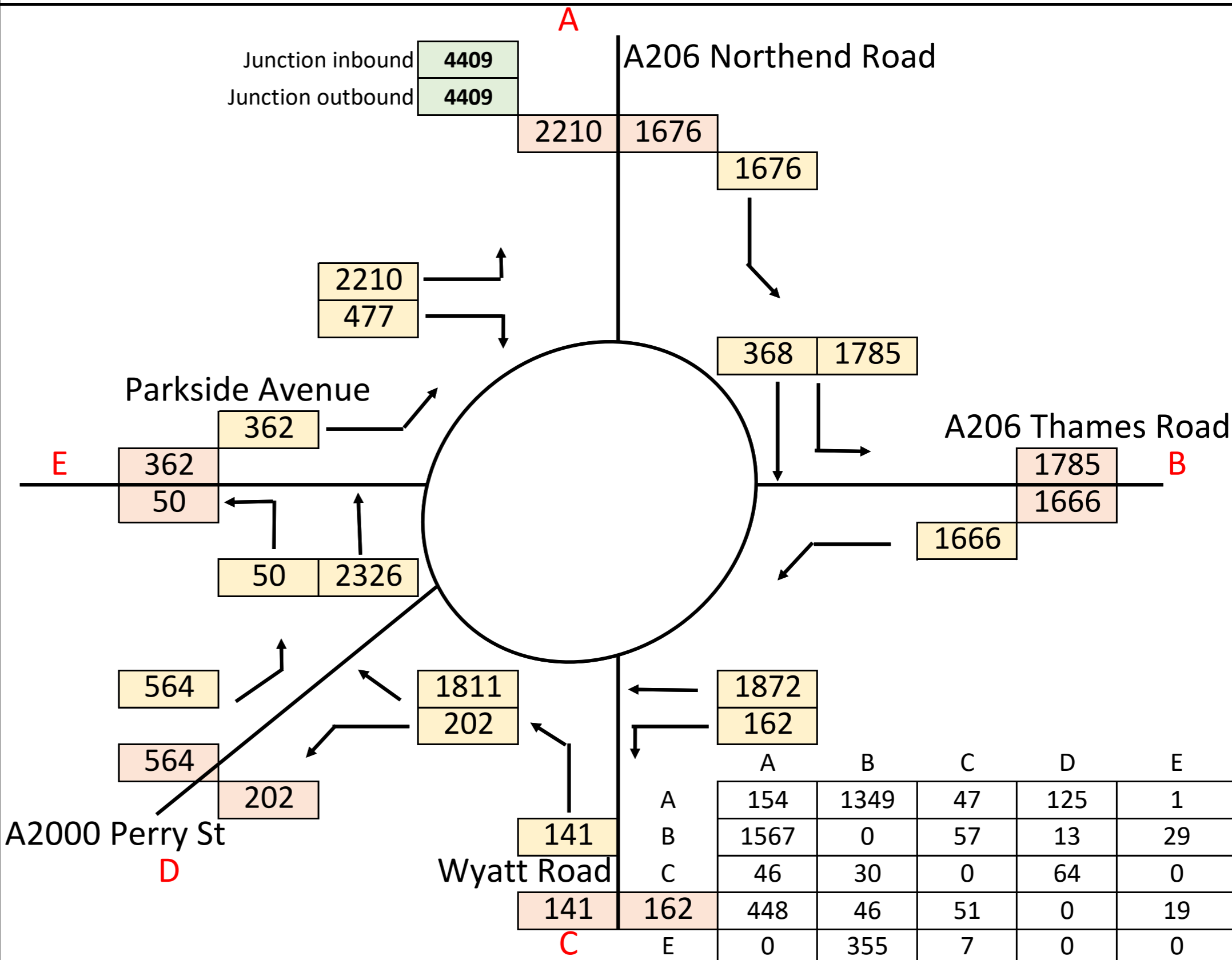
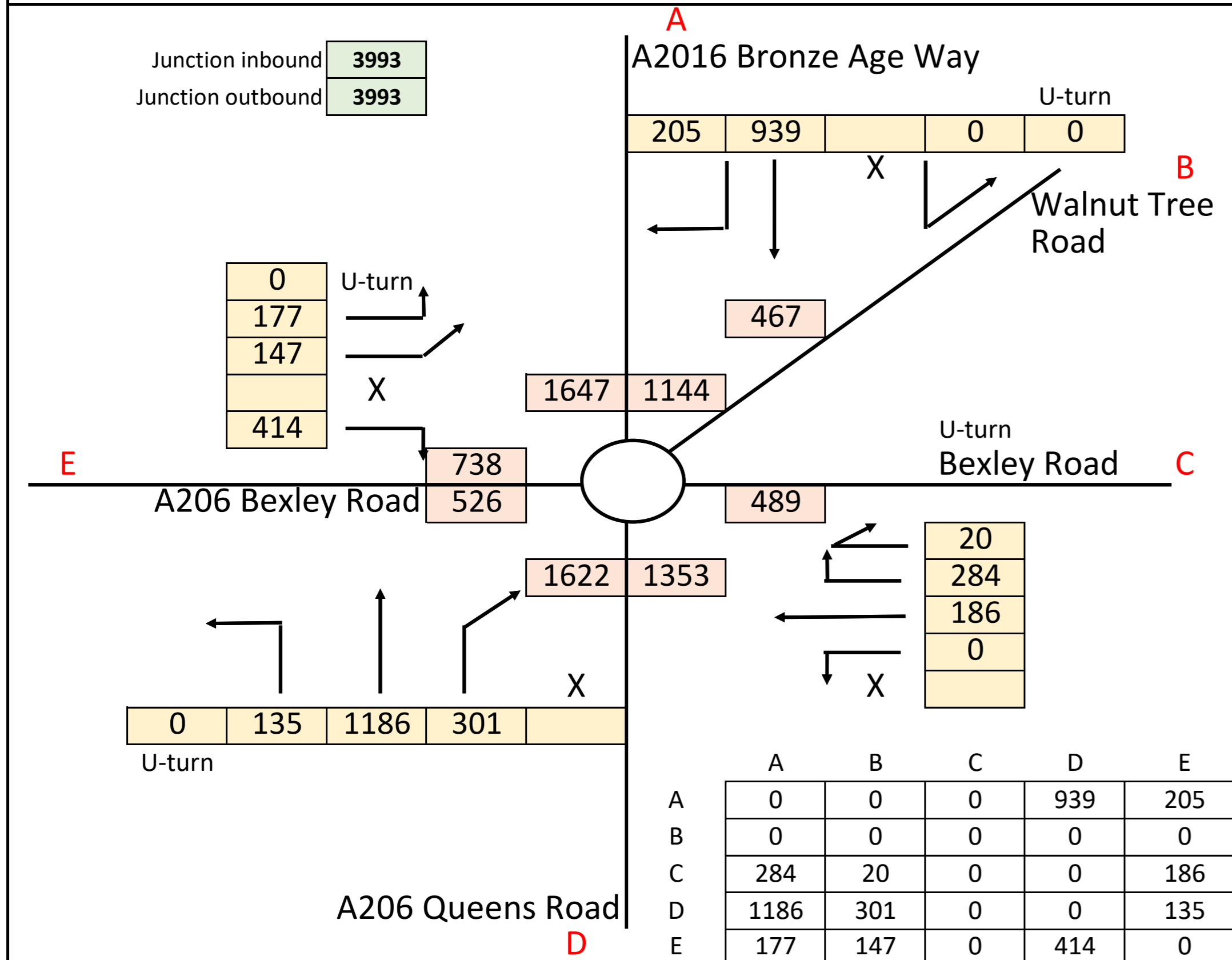
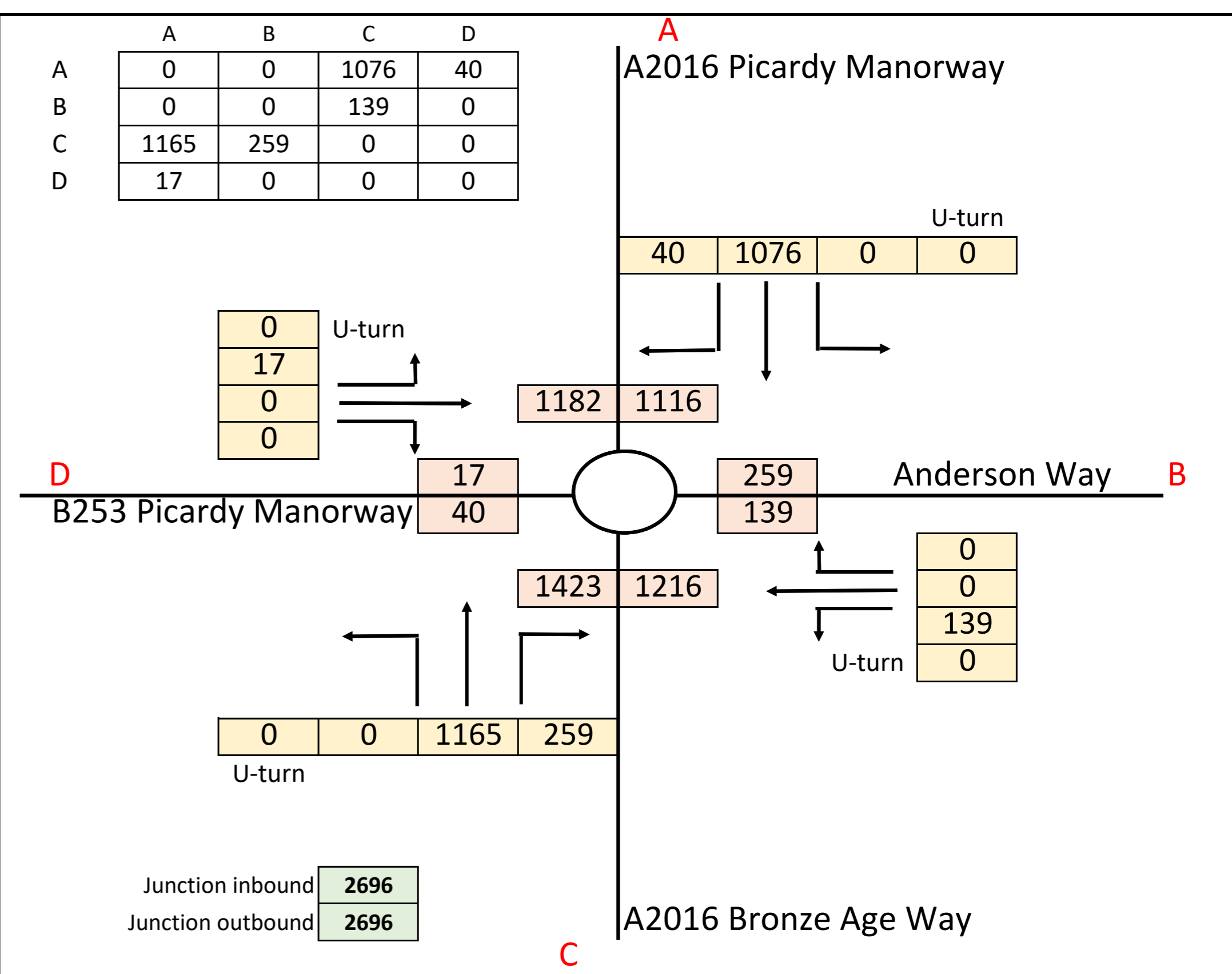
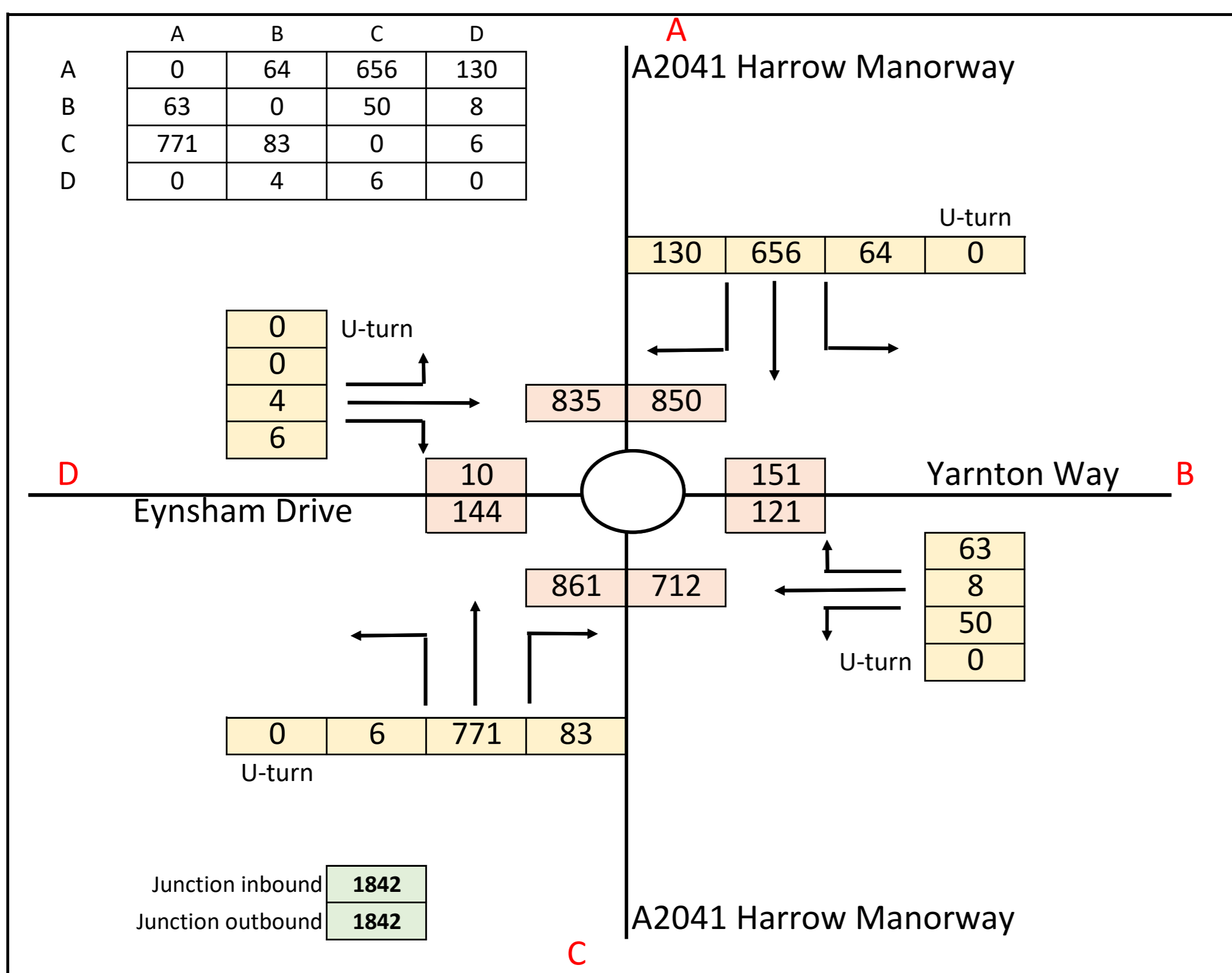
2038 Reference Case without LTC (0800-0900)
Demand Flow (% HGVs based upon PCUs)



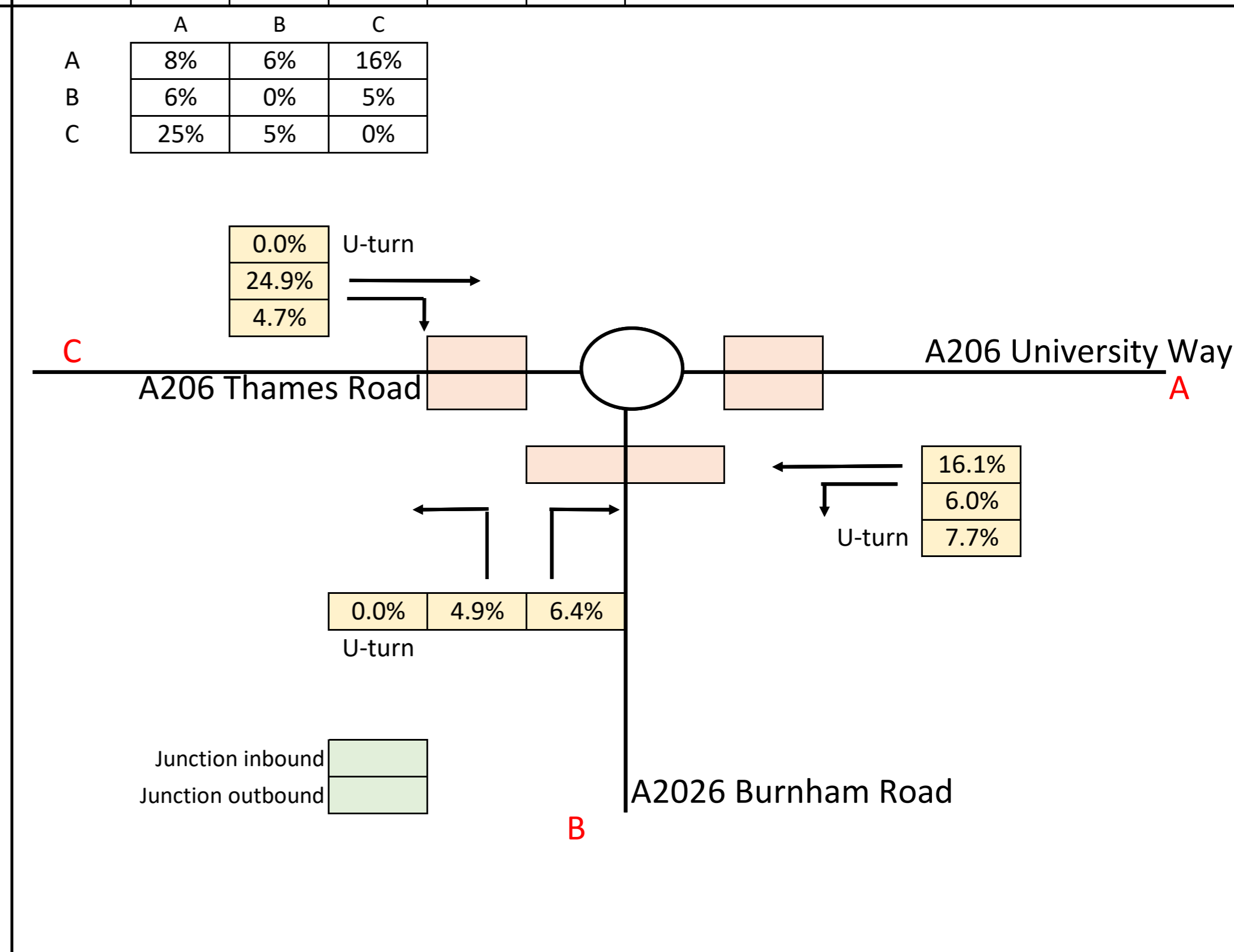
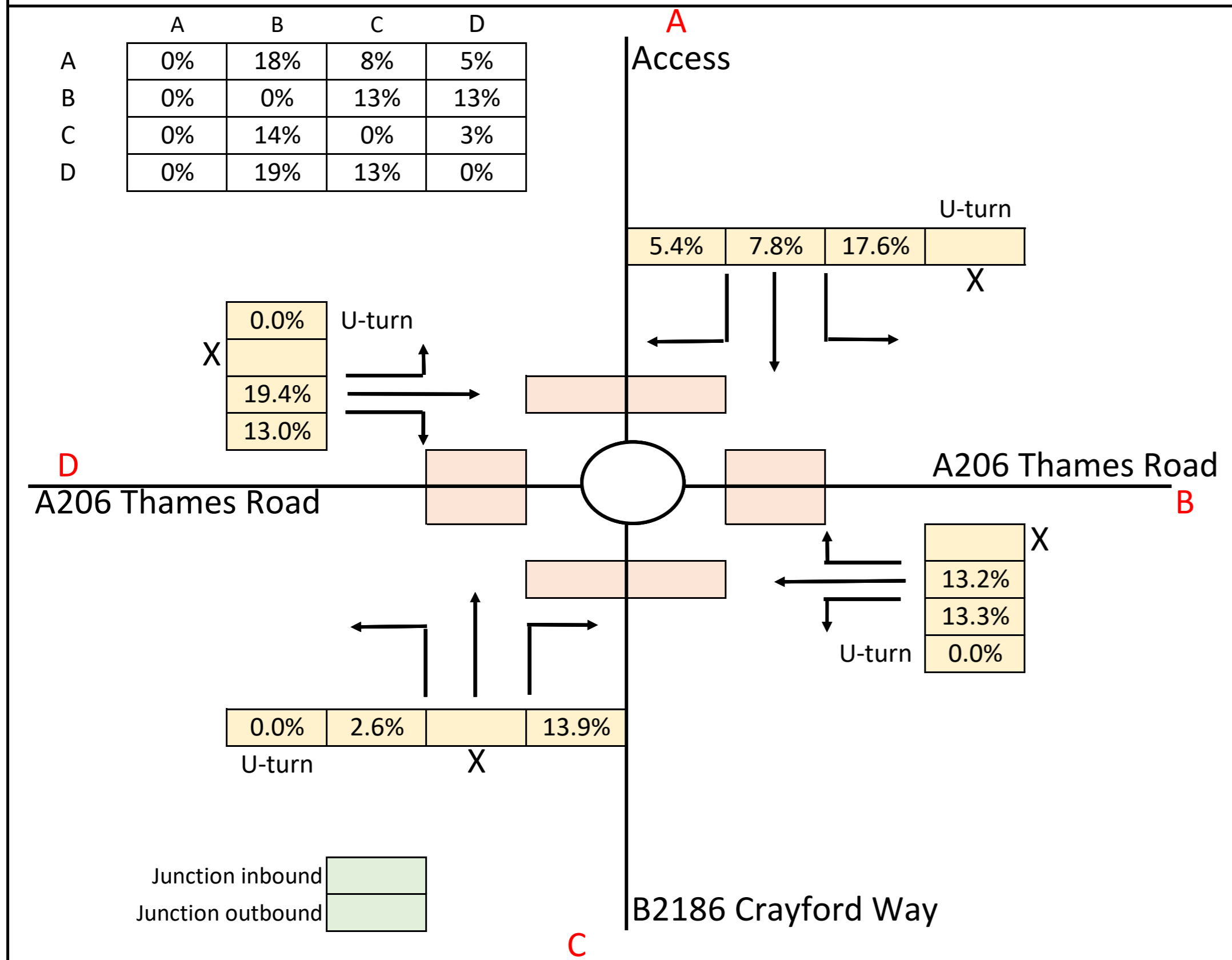
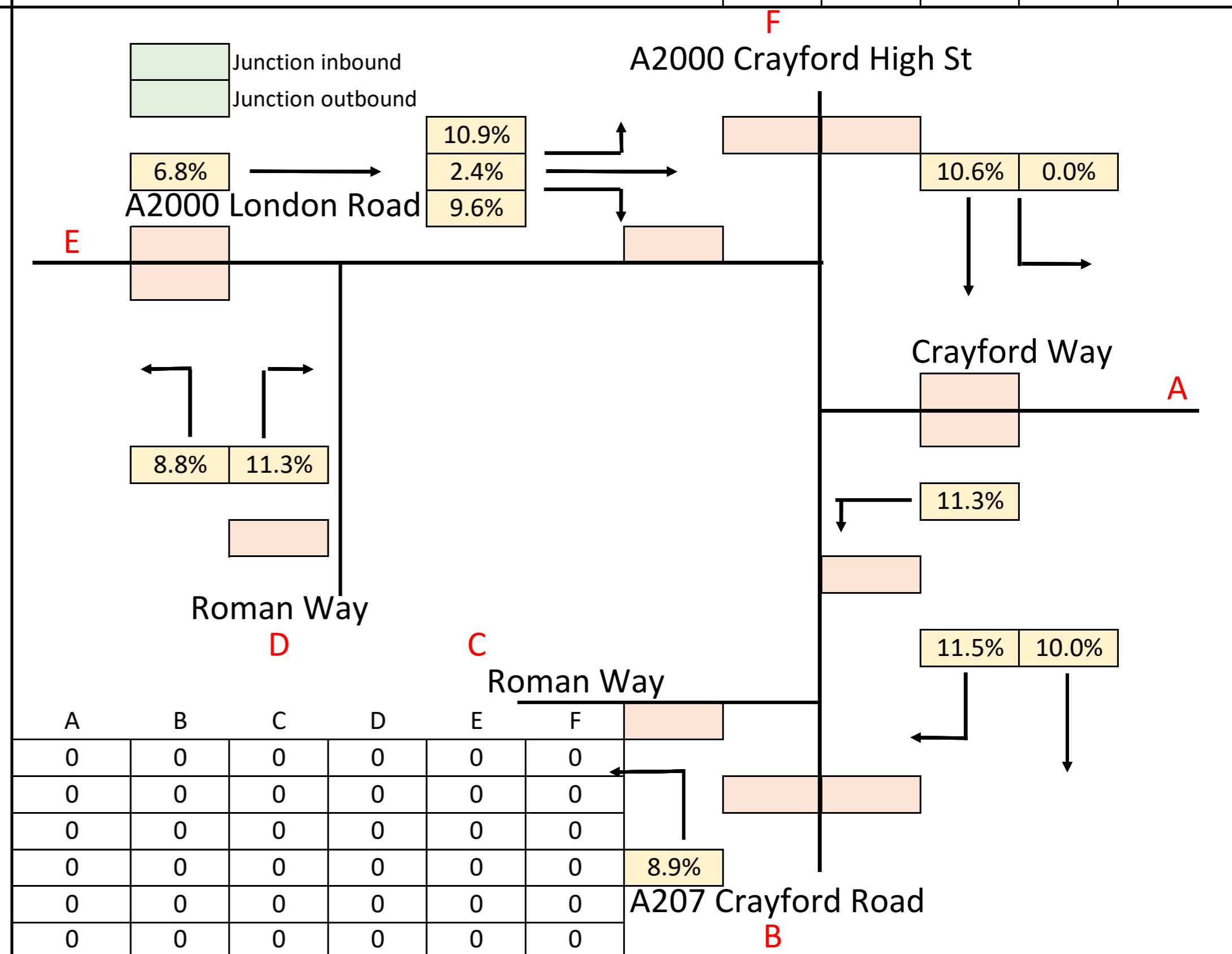
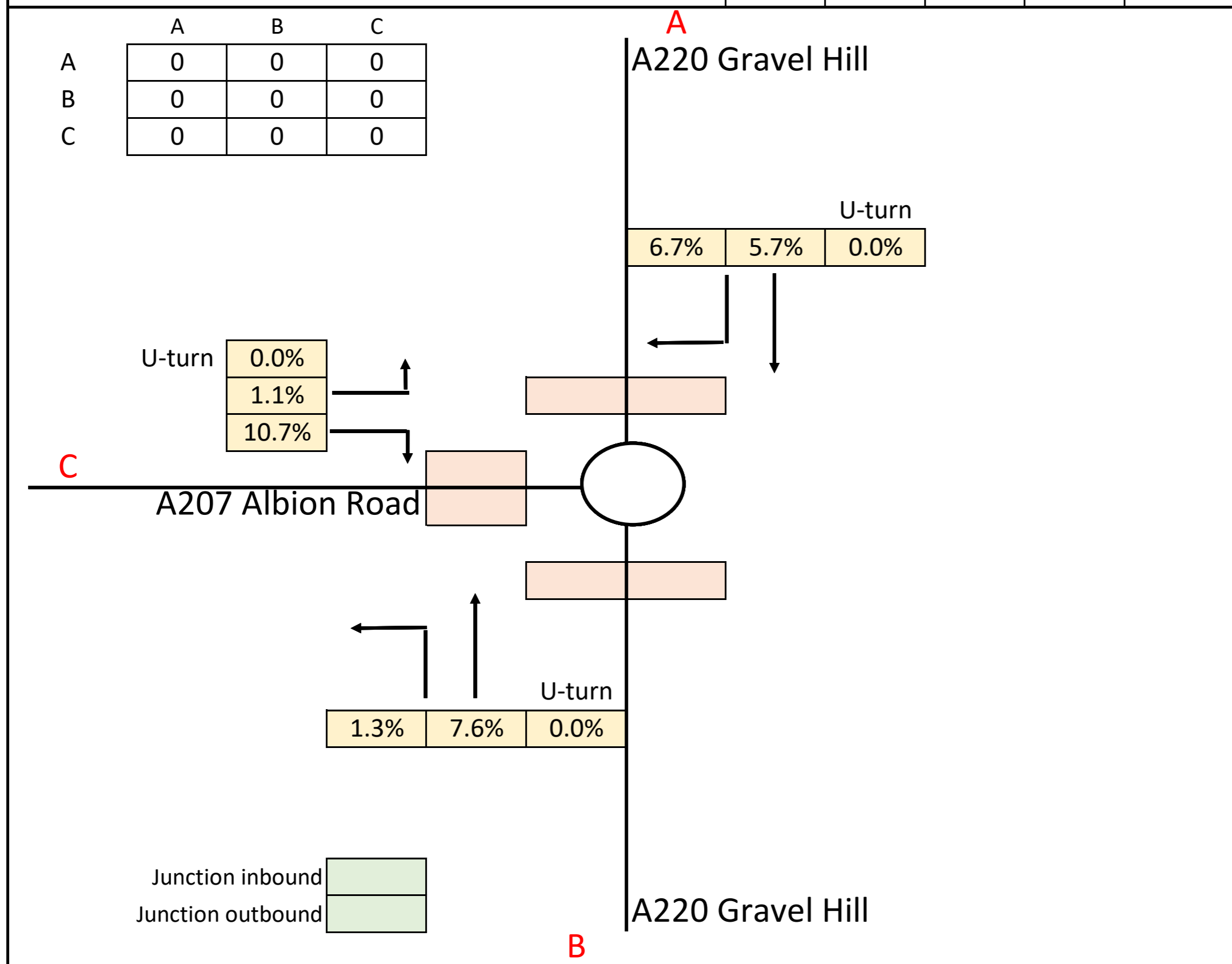
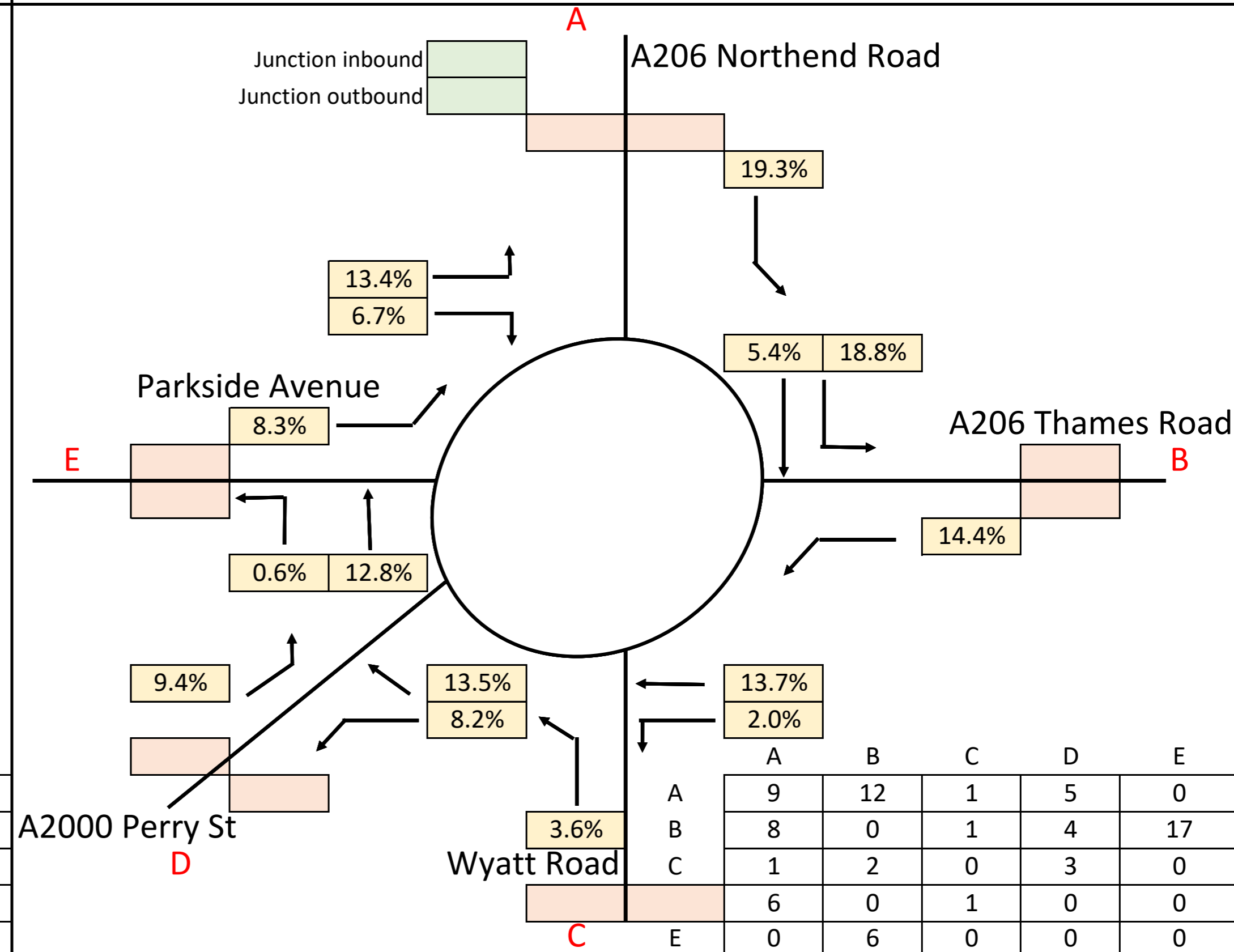
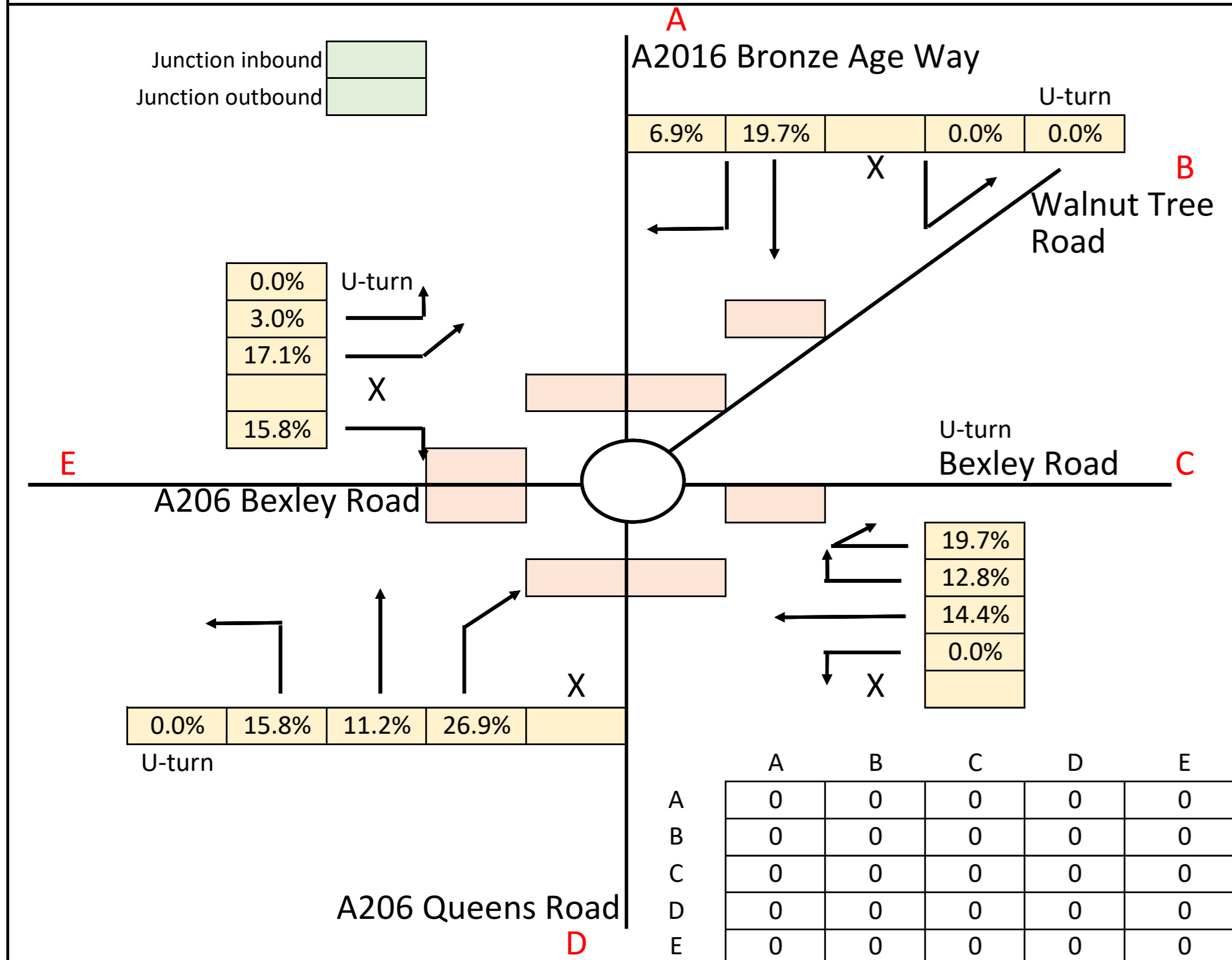
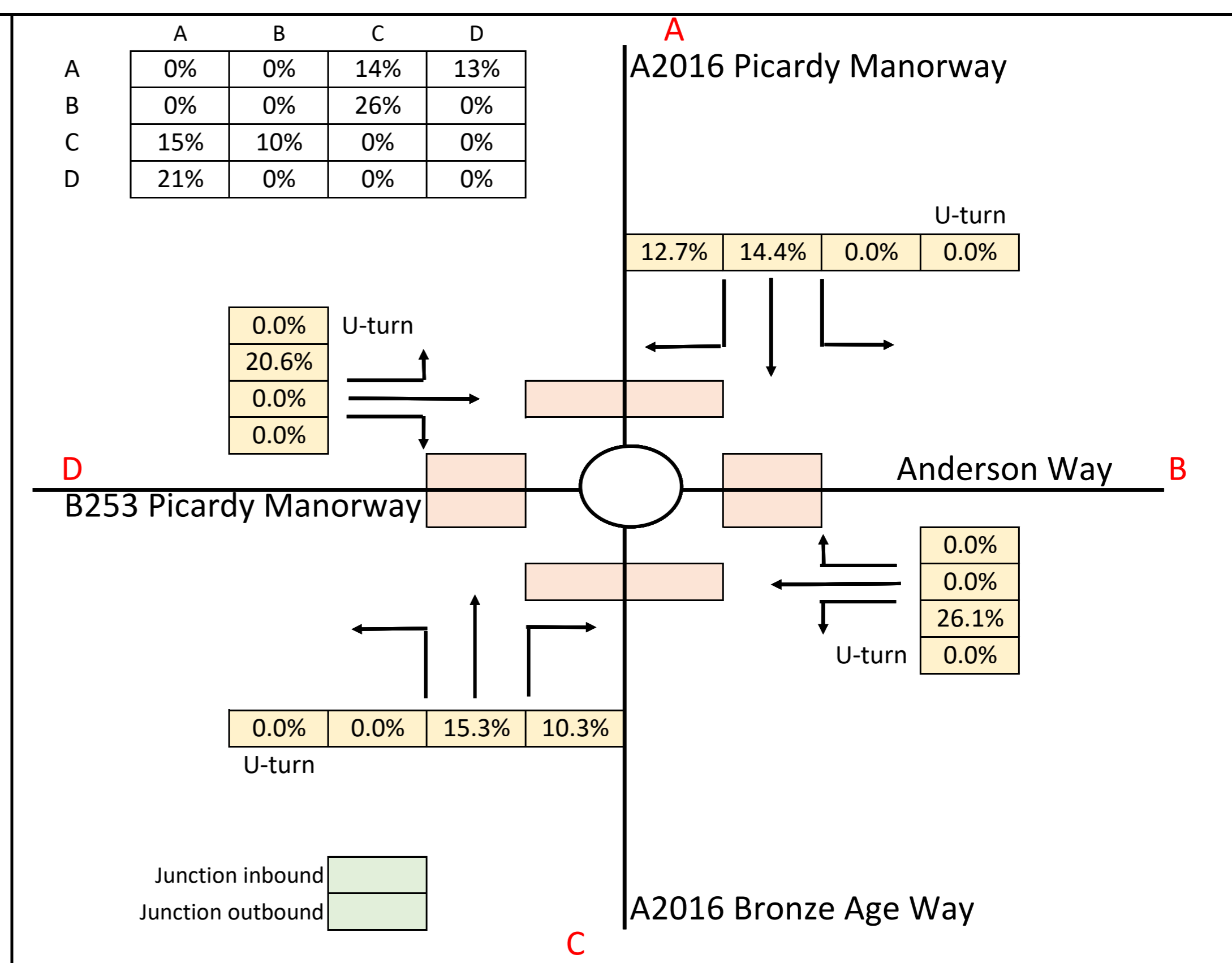
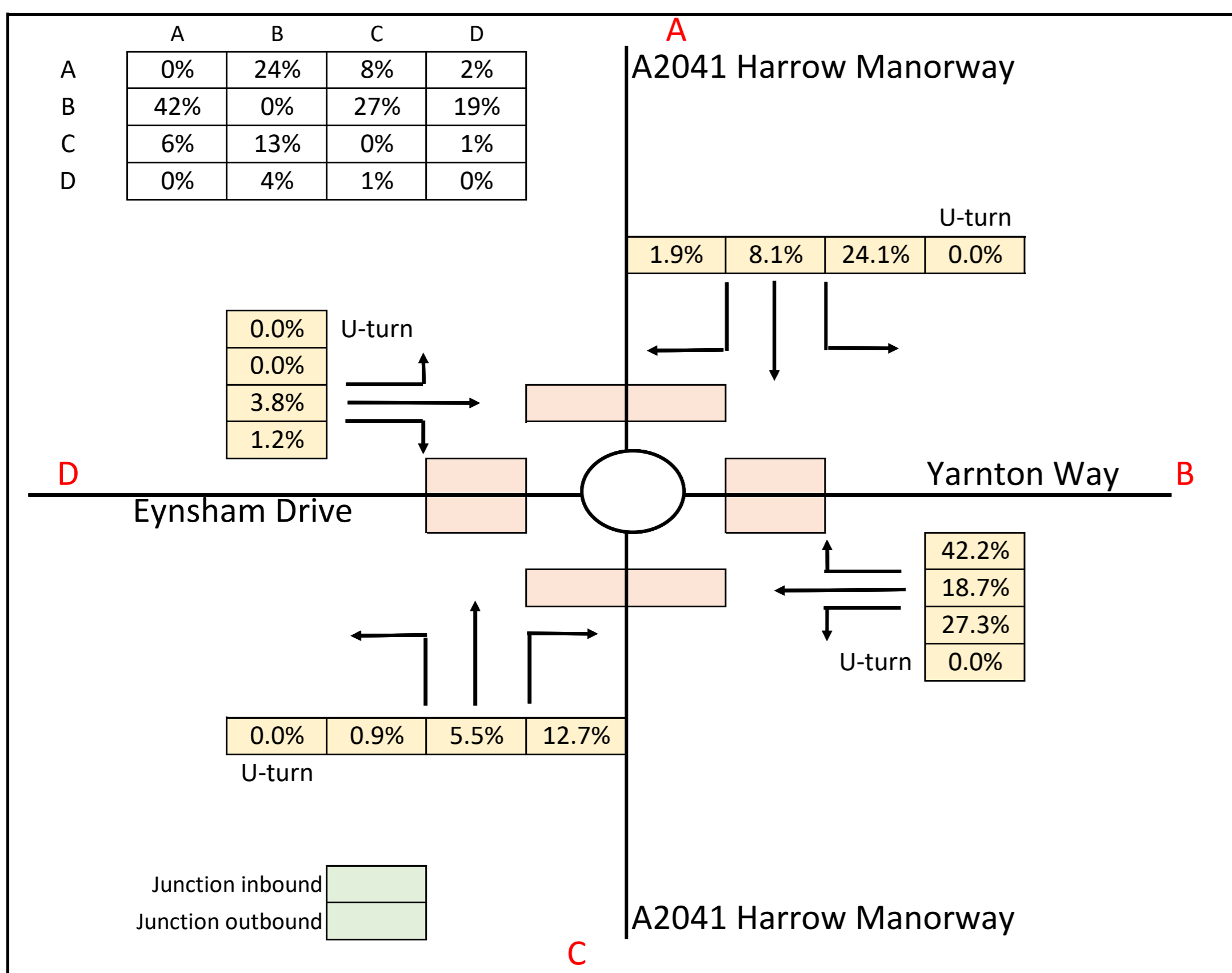
2038 Reference Case without LTC (1700-1800)
Demand Flow (PCUs)



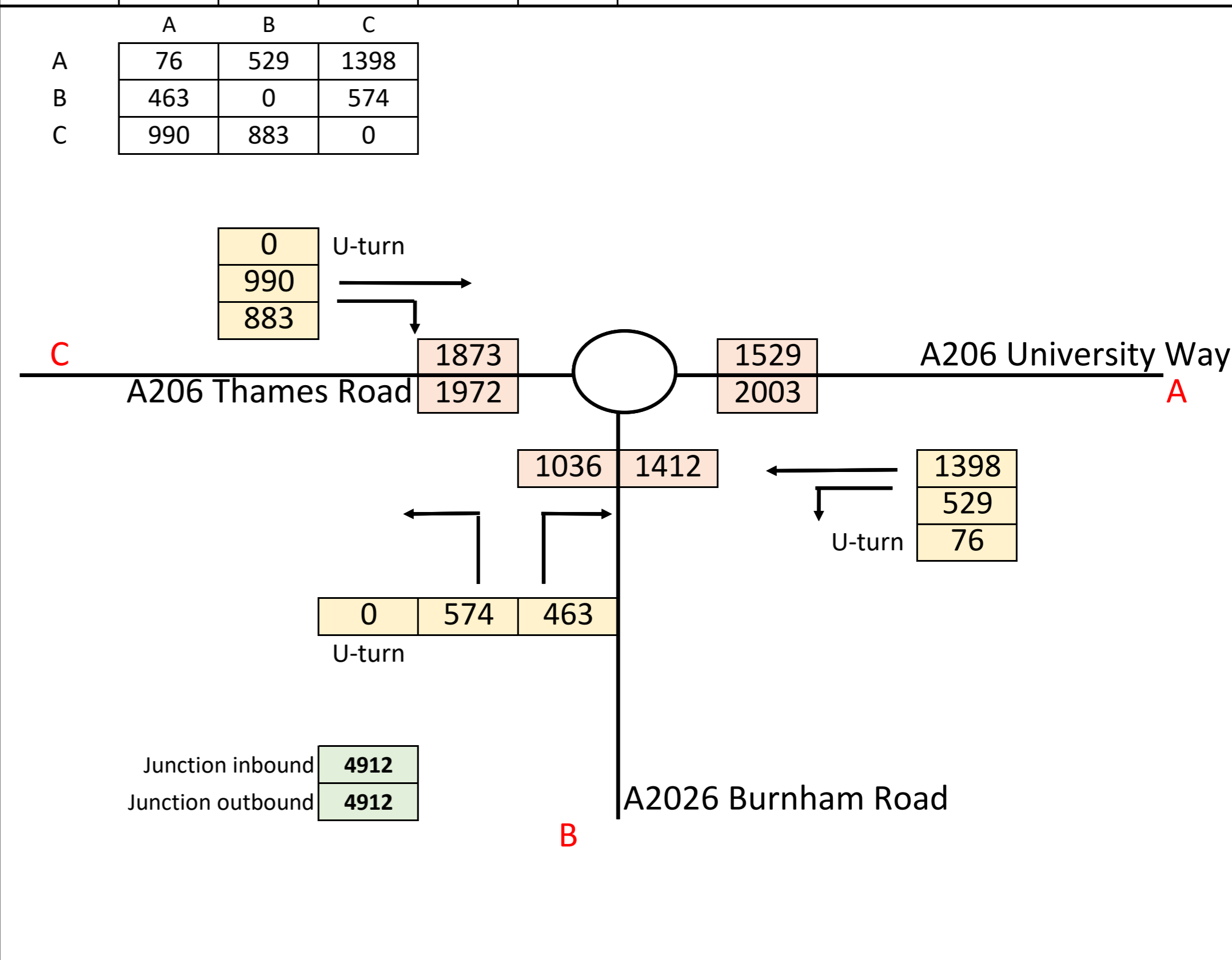
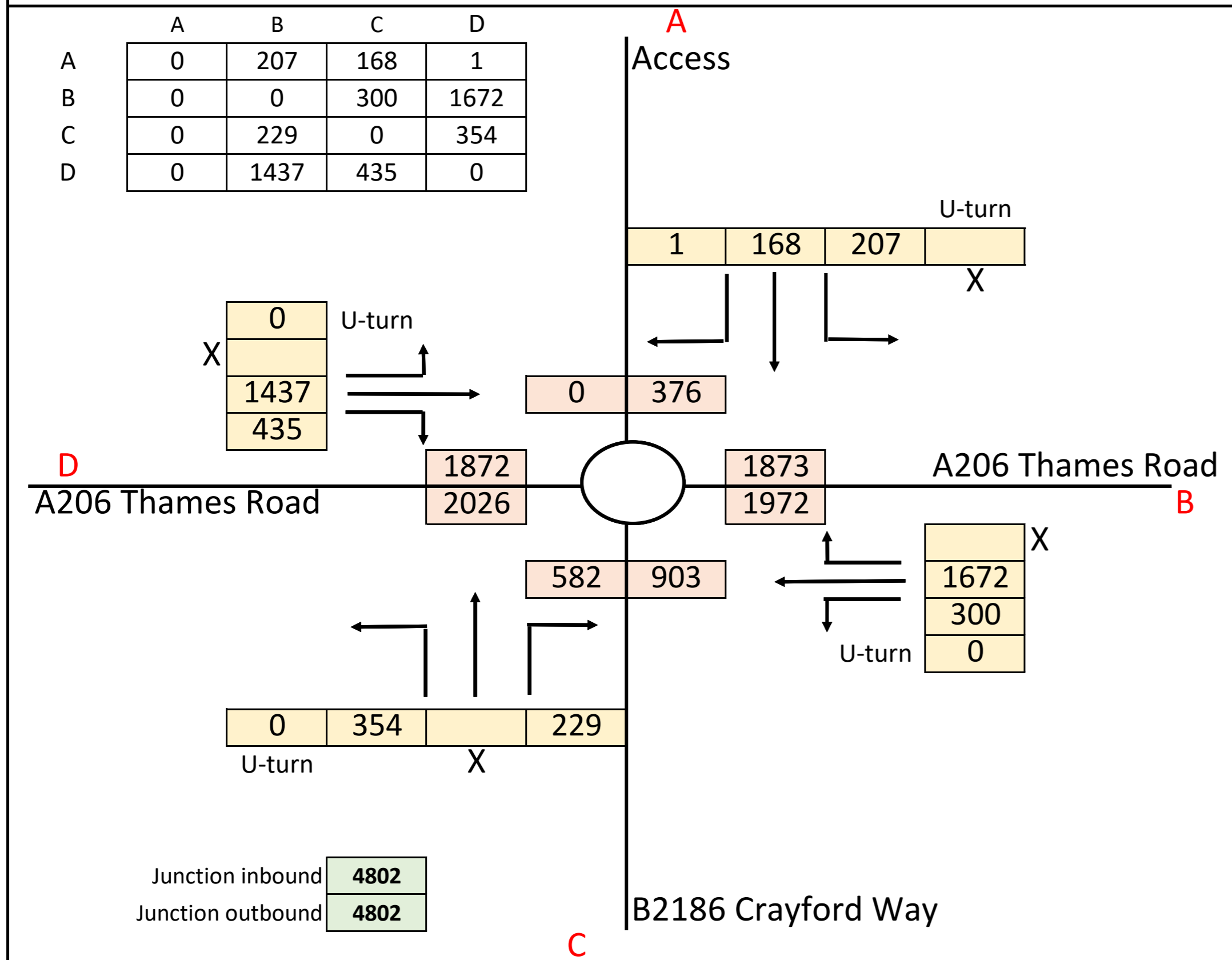
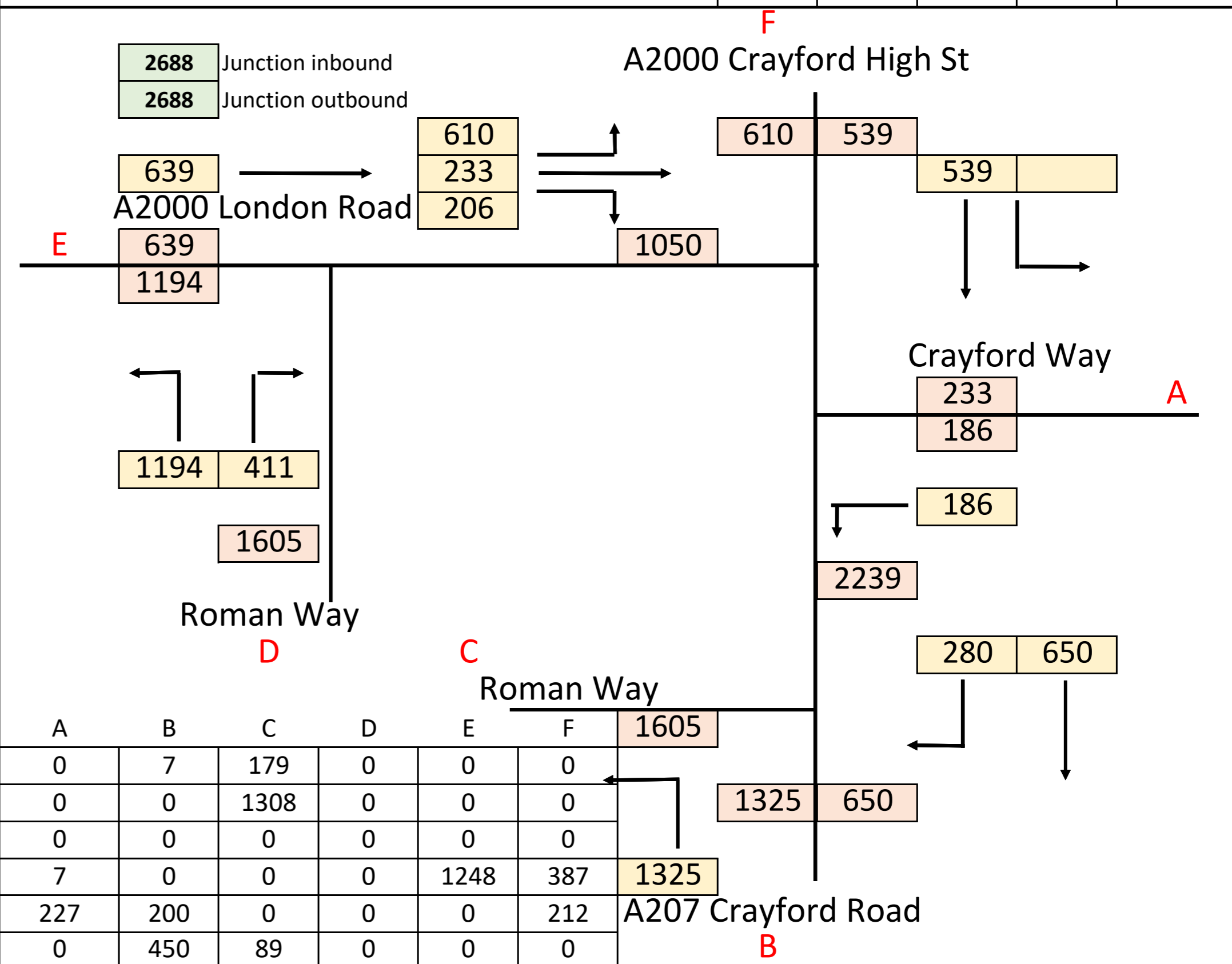
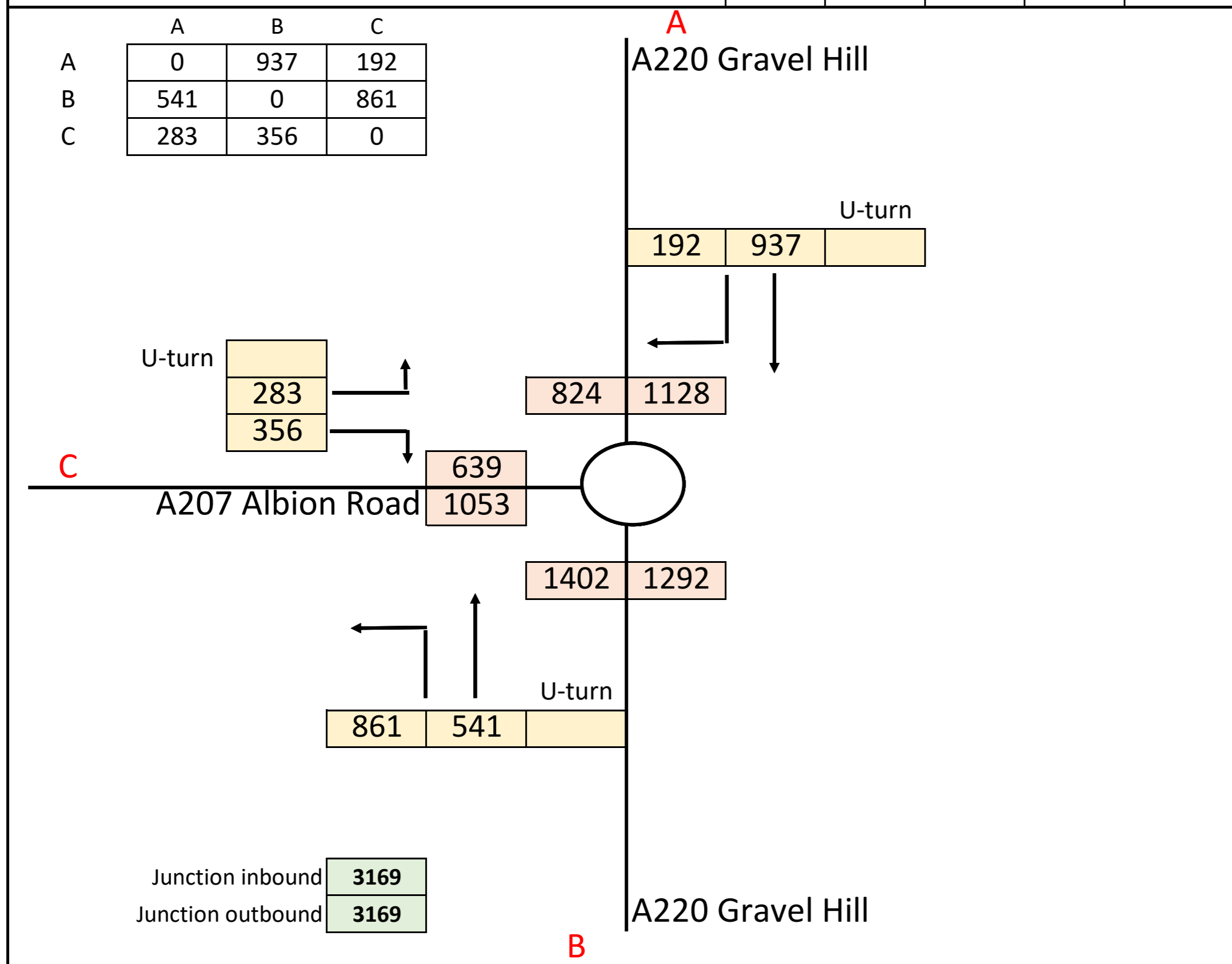
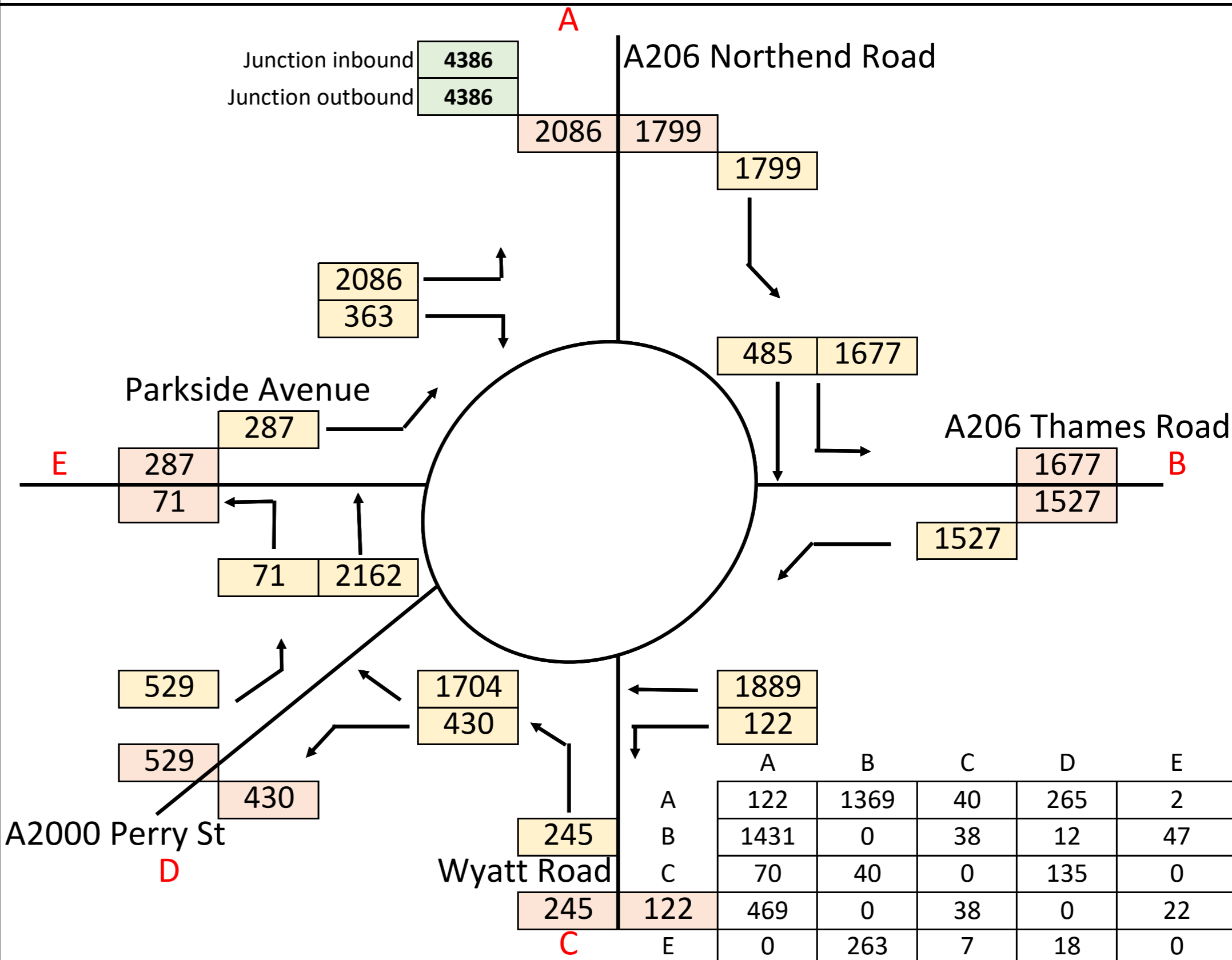
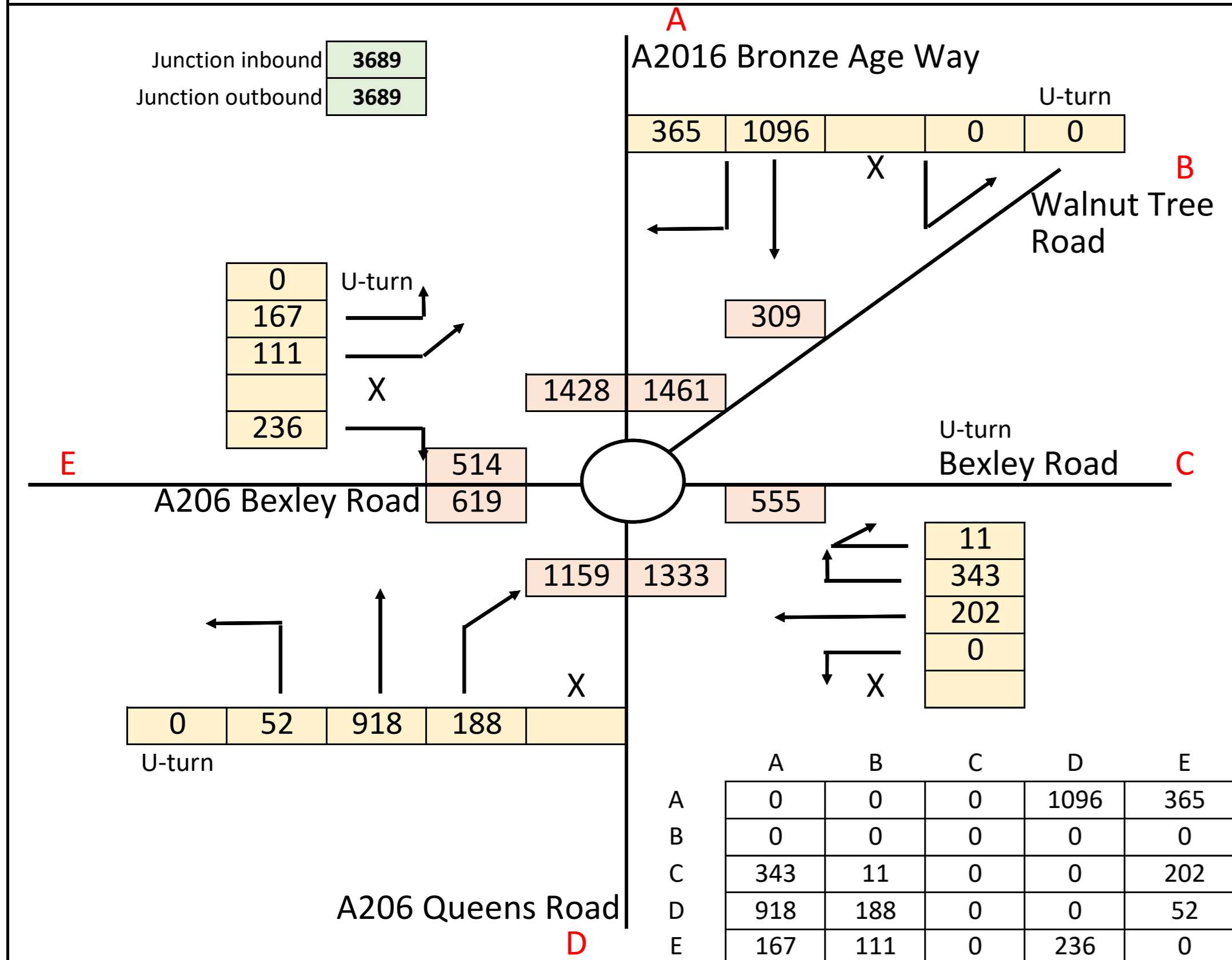
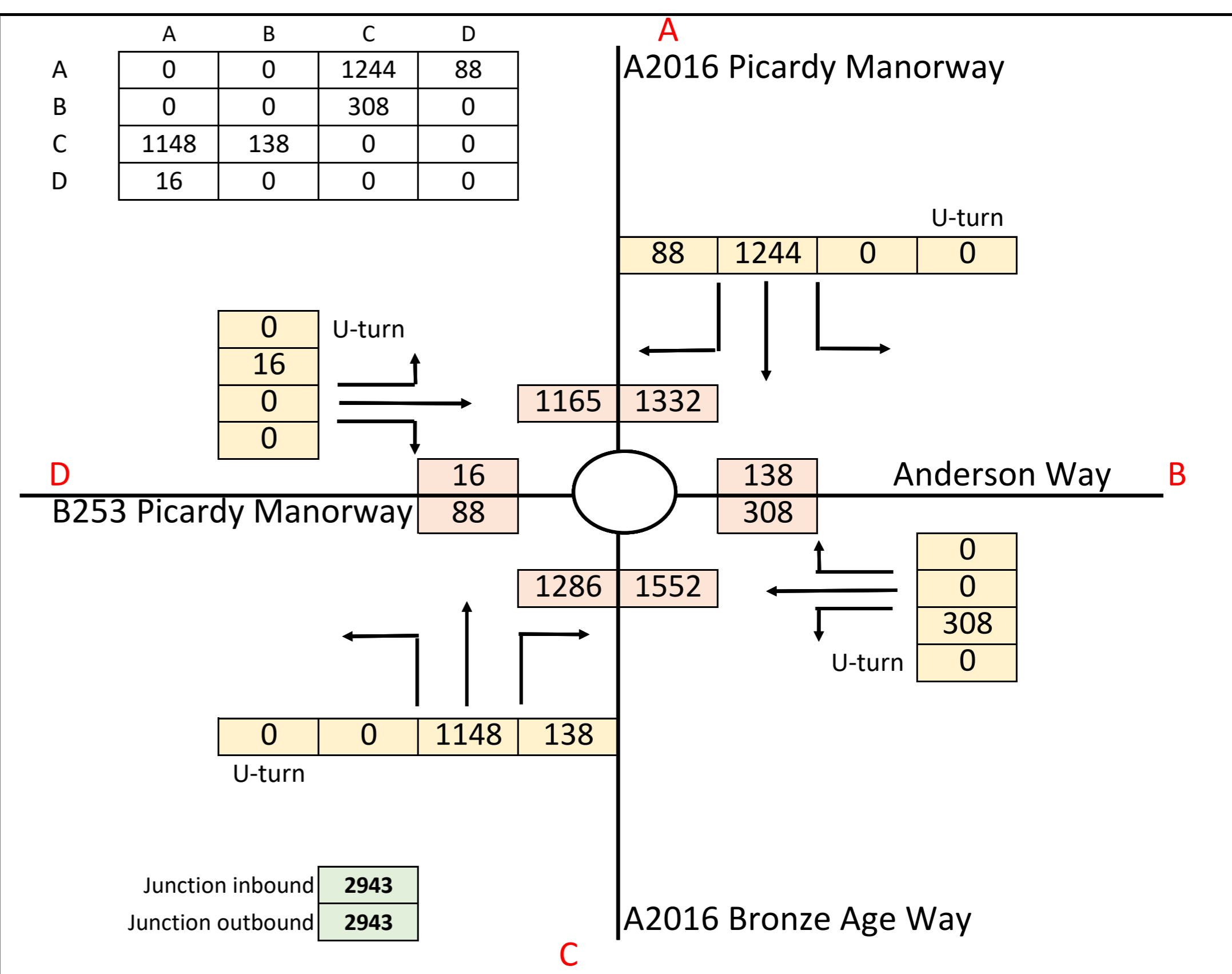
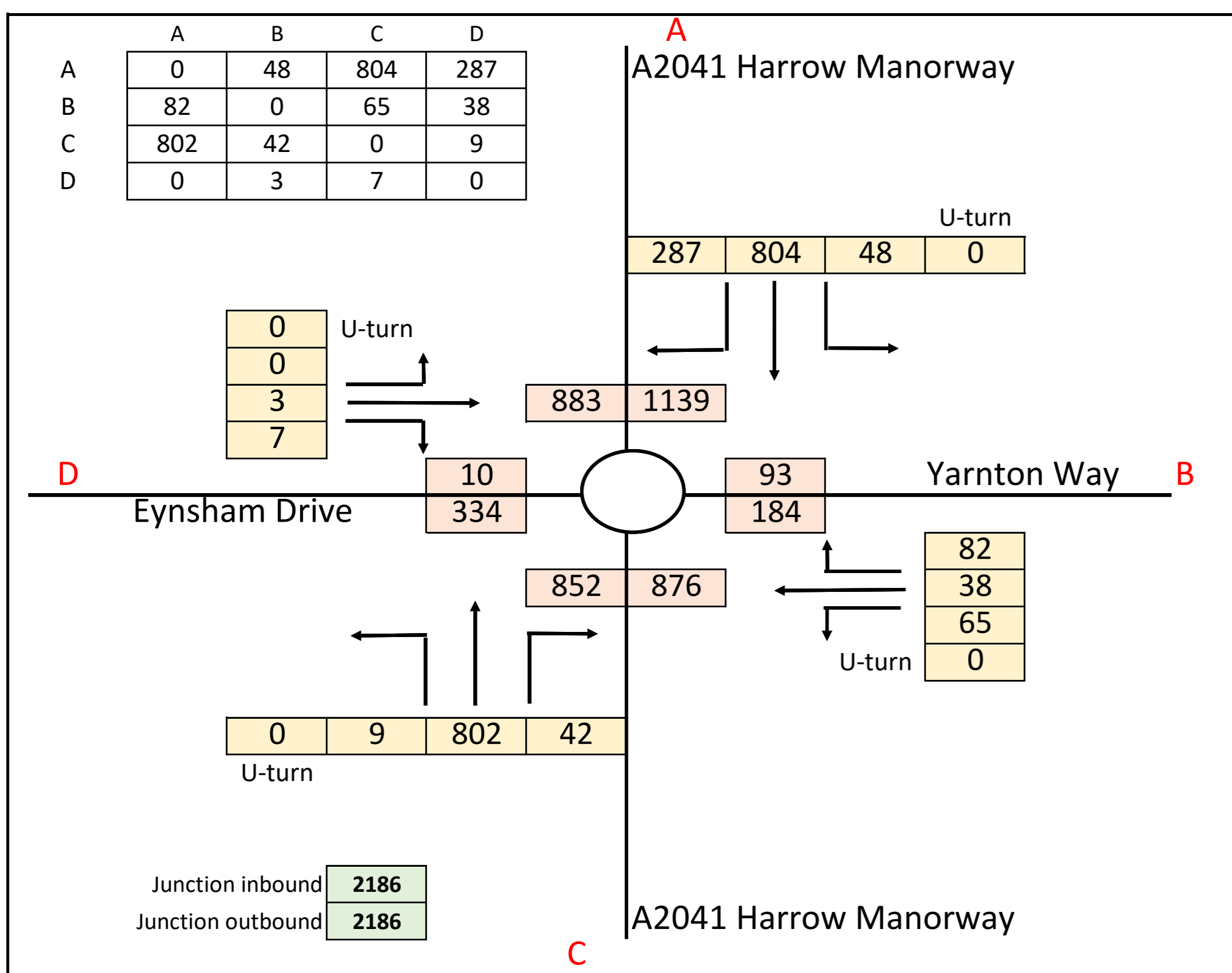
2038 Reference Case without LTC (1700-1800)
Demand Flow (% HGVs based upon PCUs)



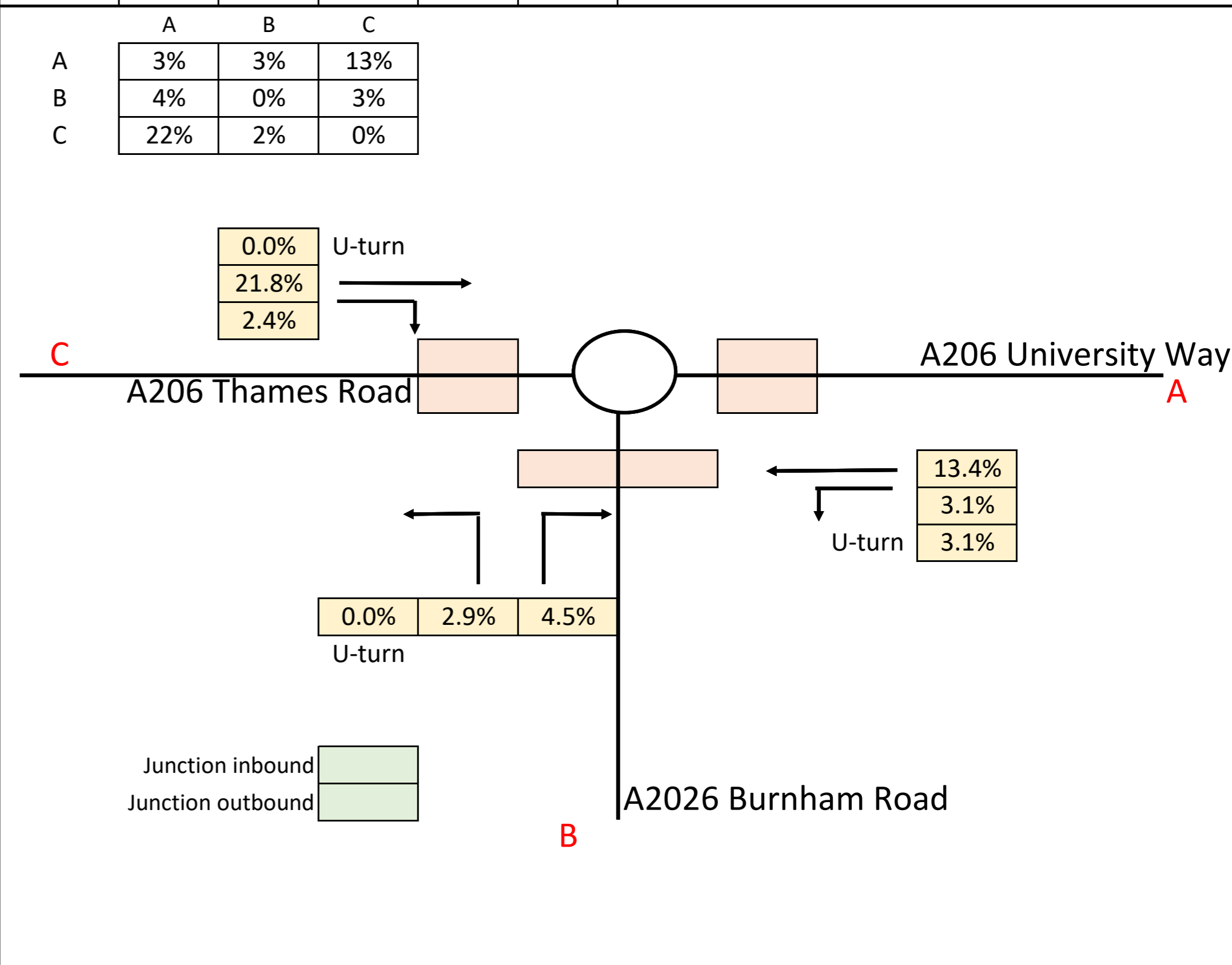
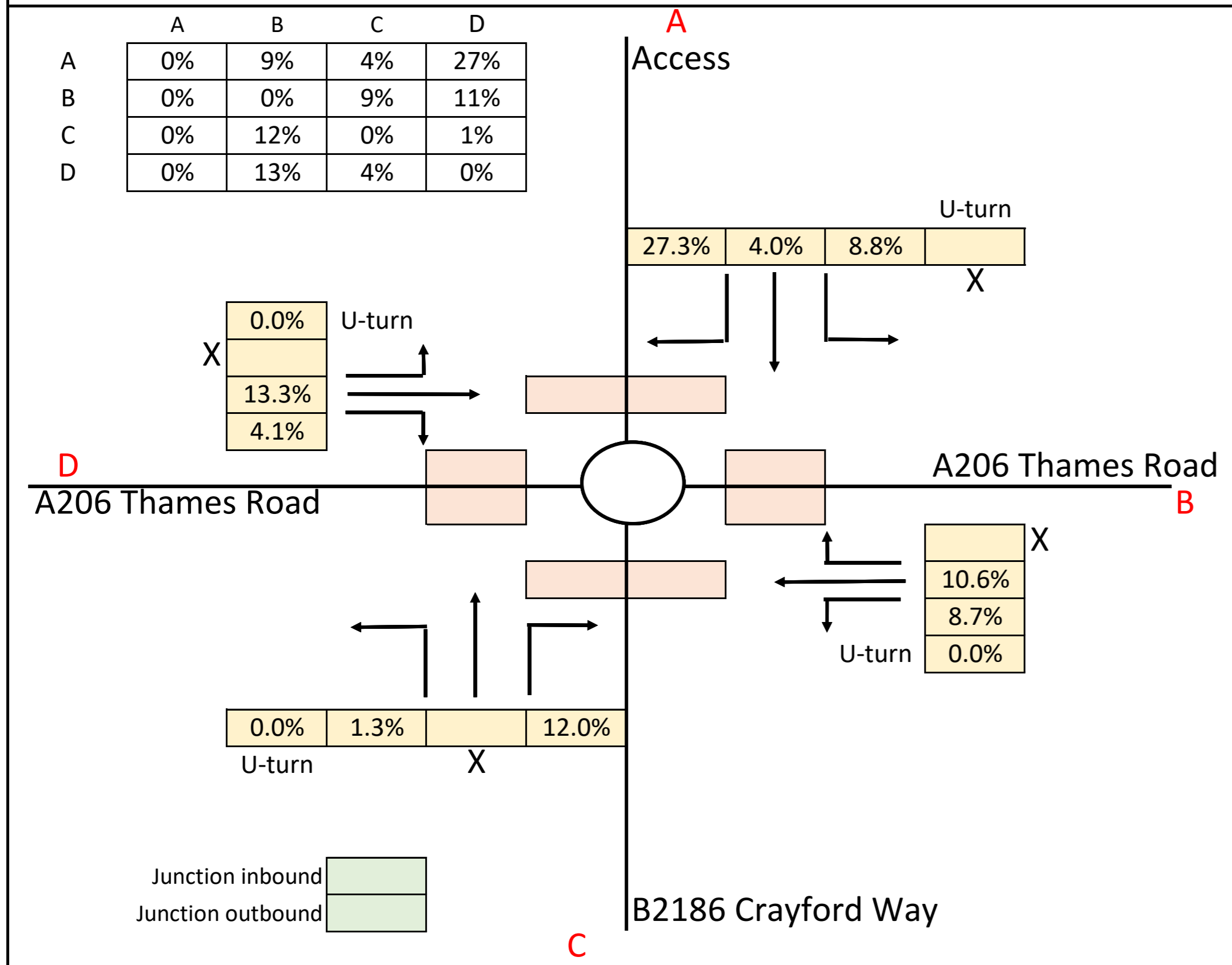
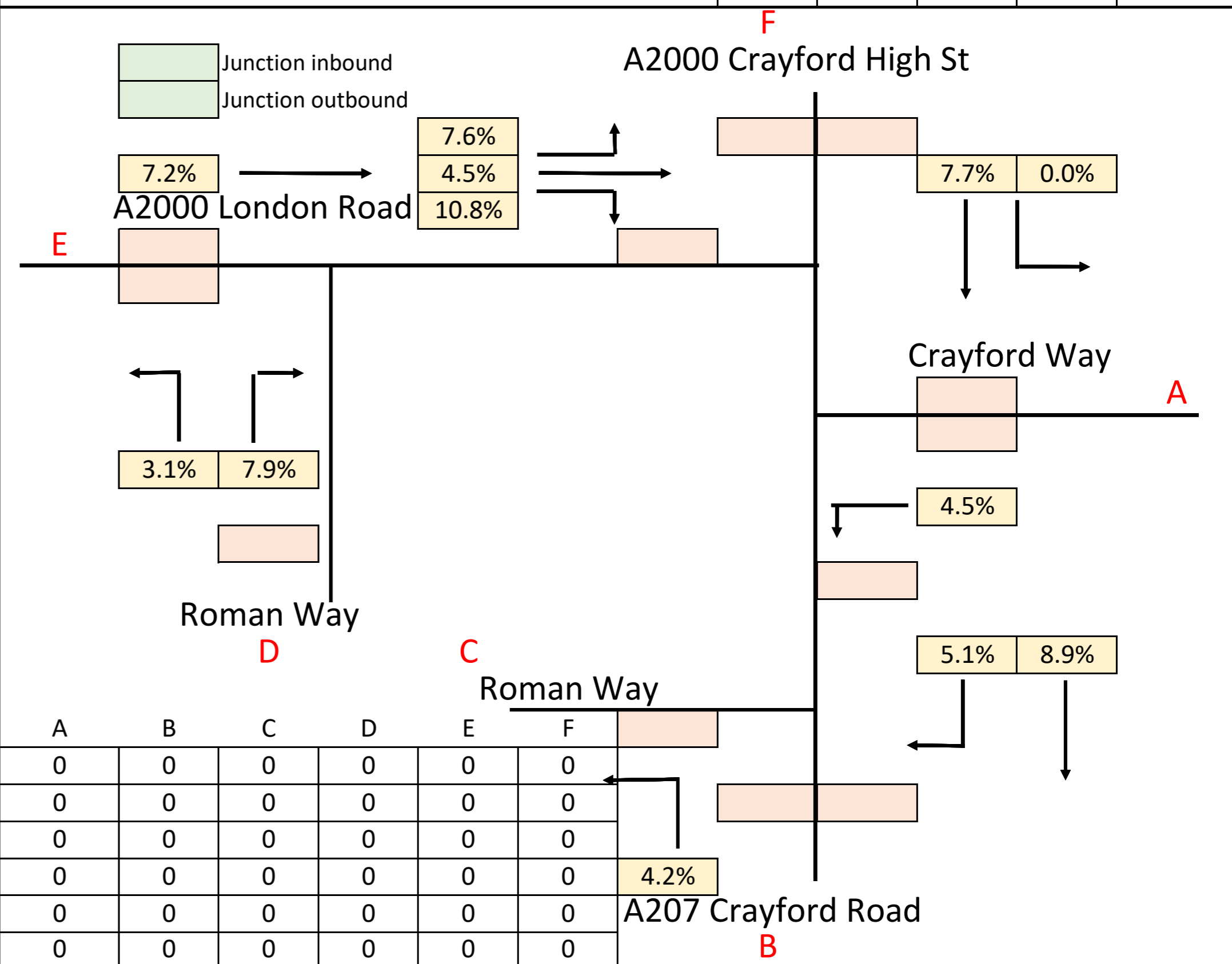
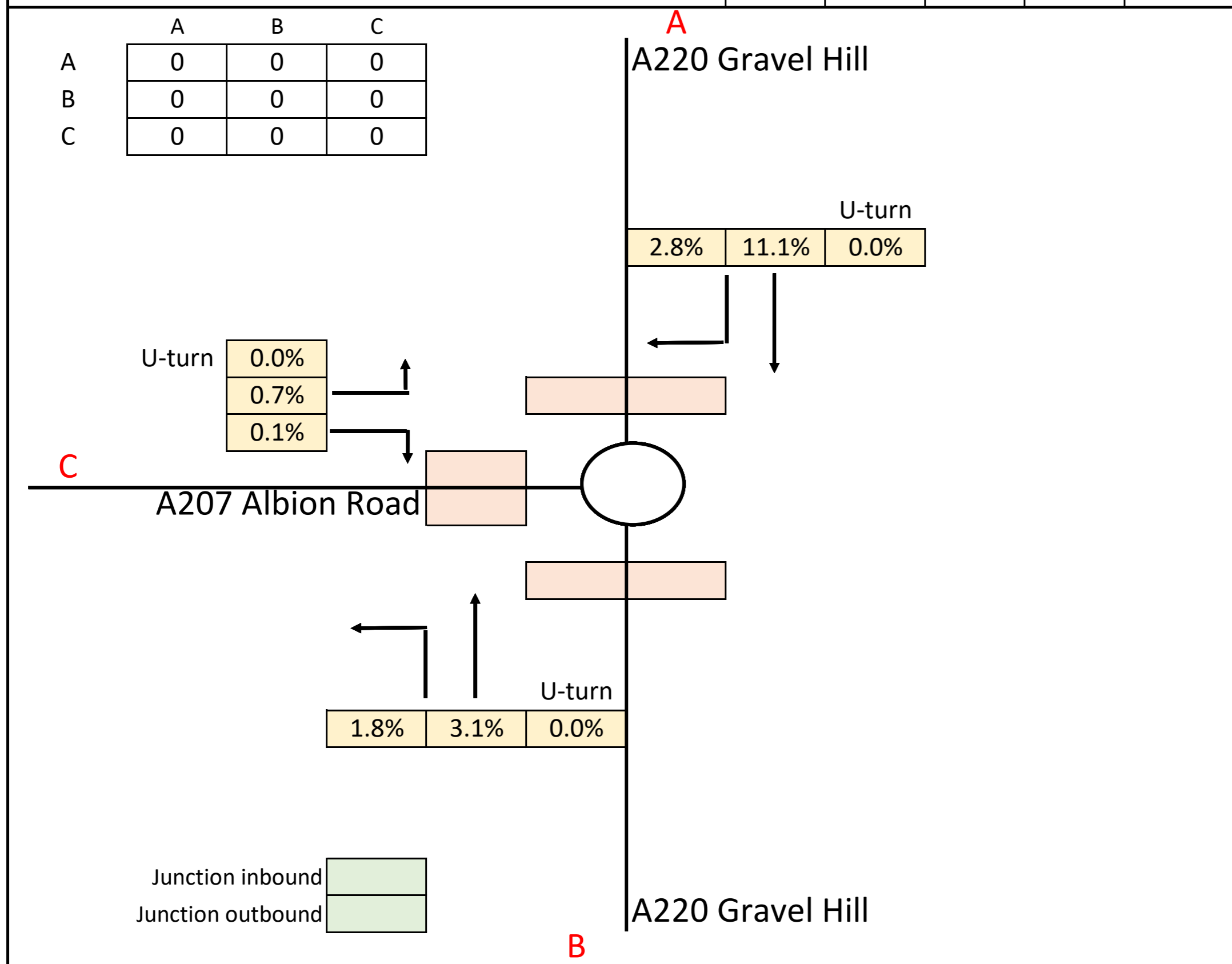
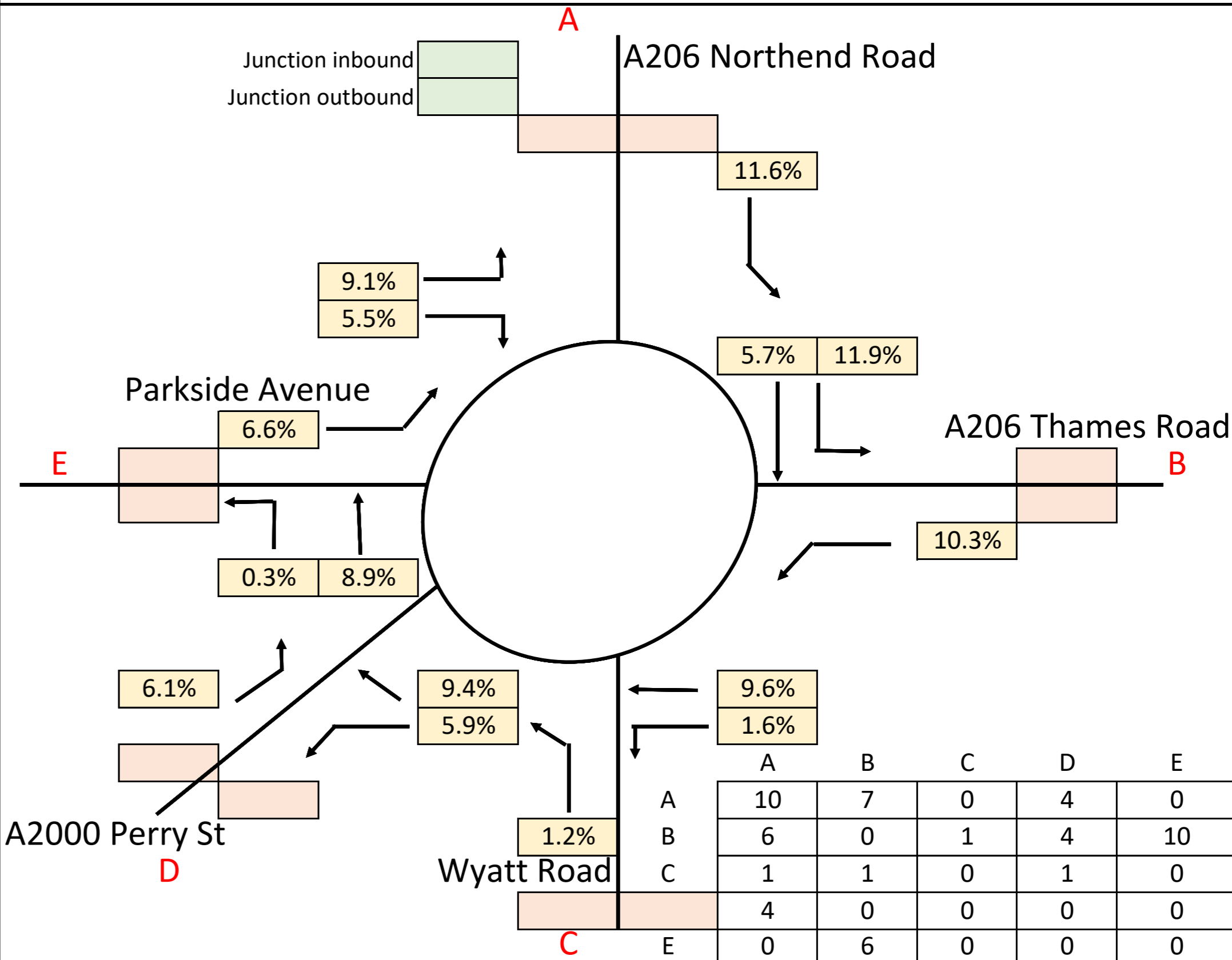
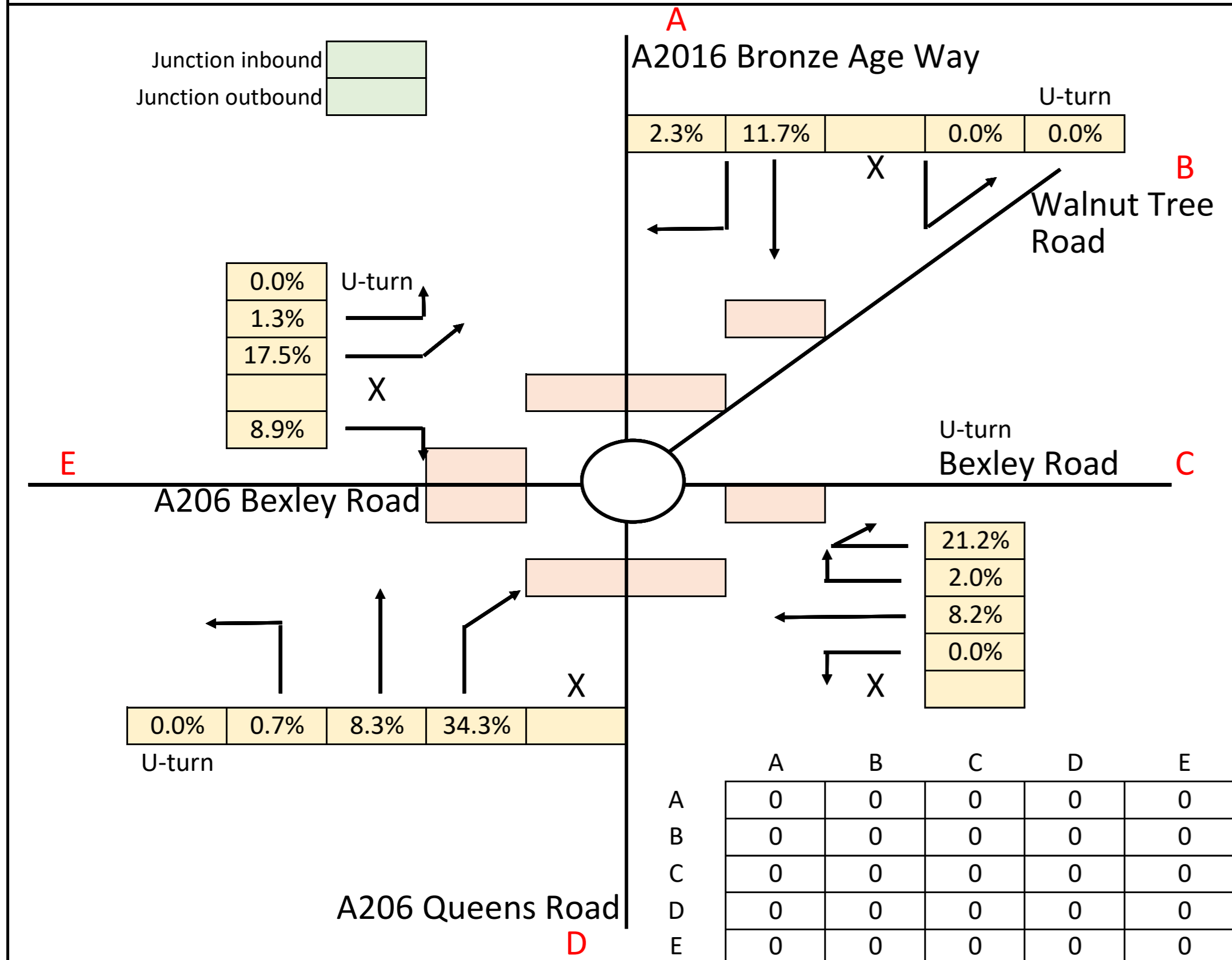
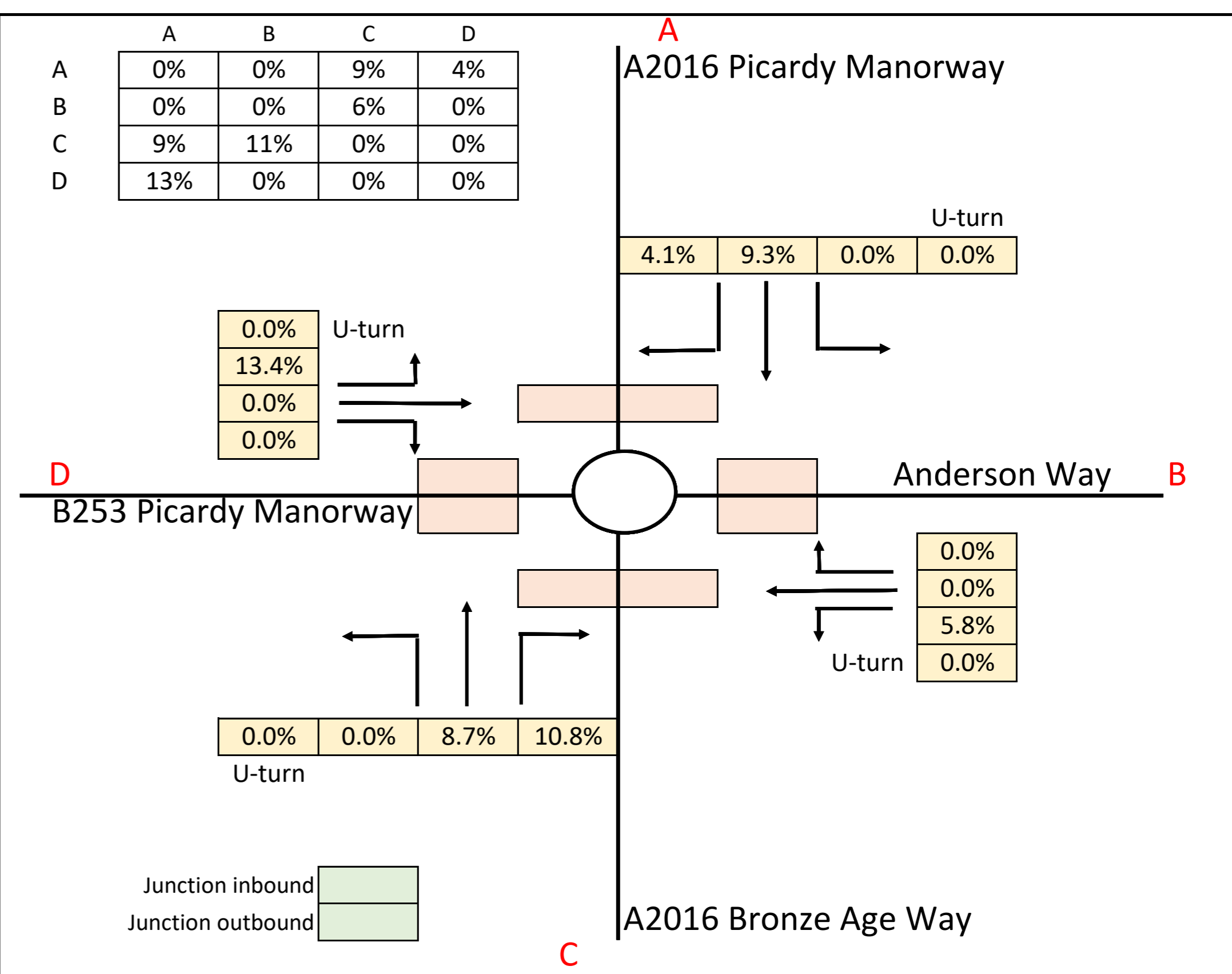
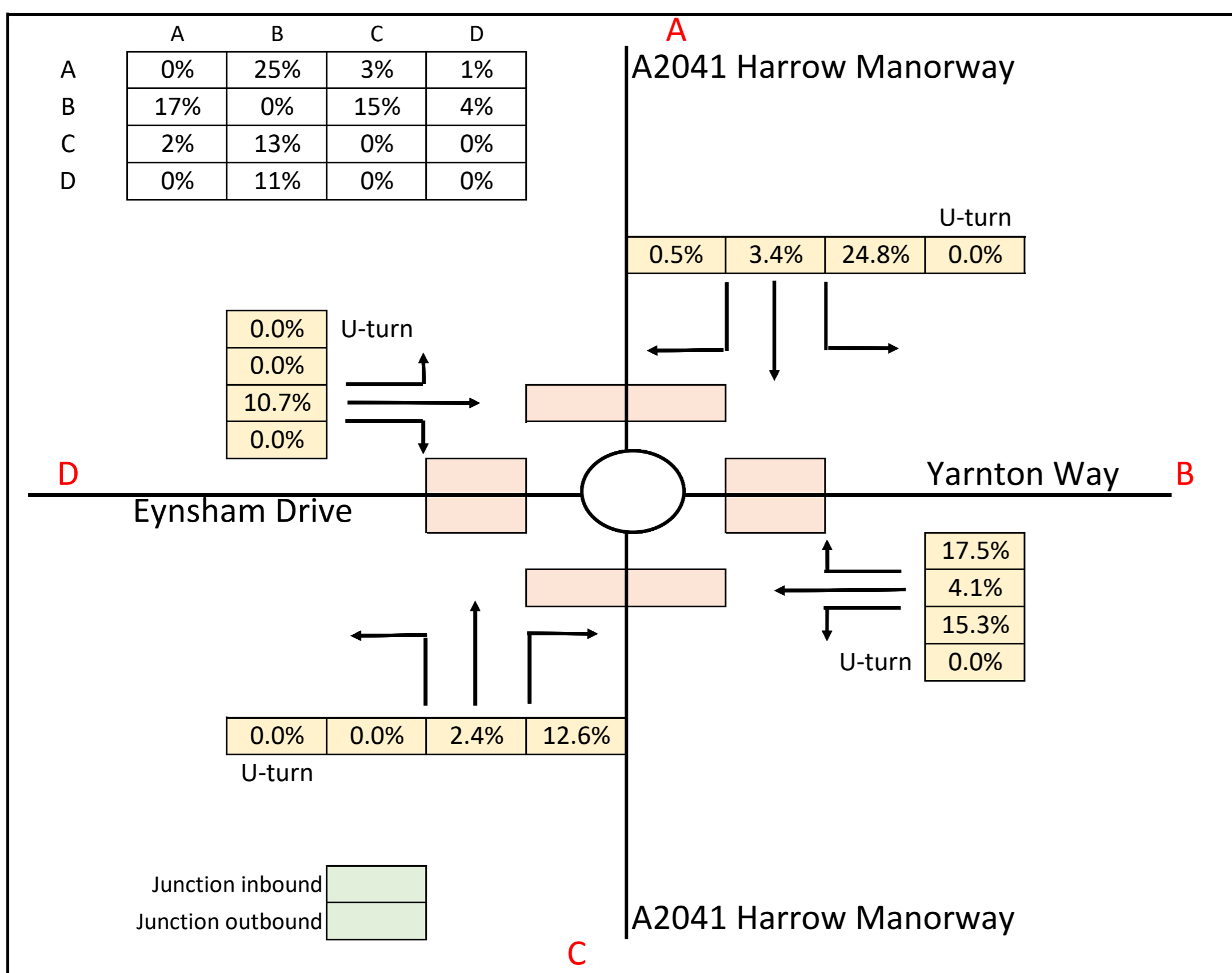
2038 Reference Case with LTC (0800-0900)
Demand Flow (PCUs)



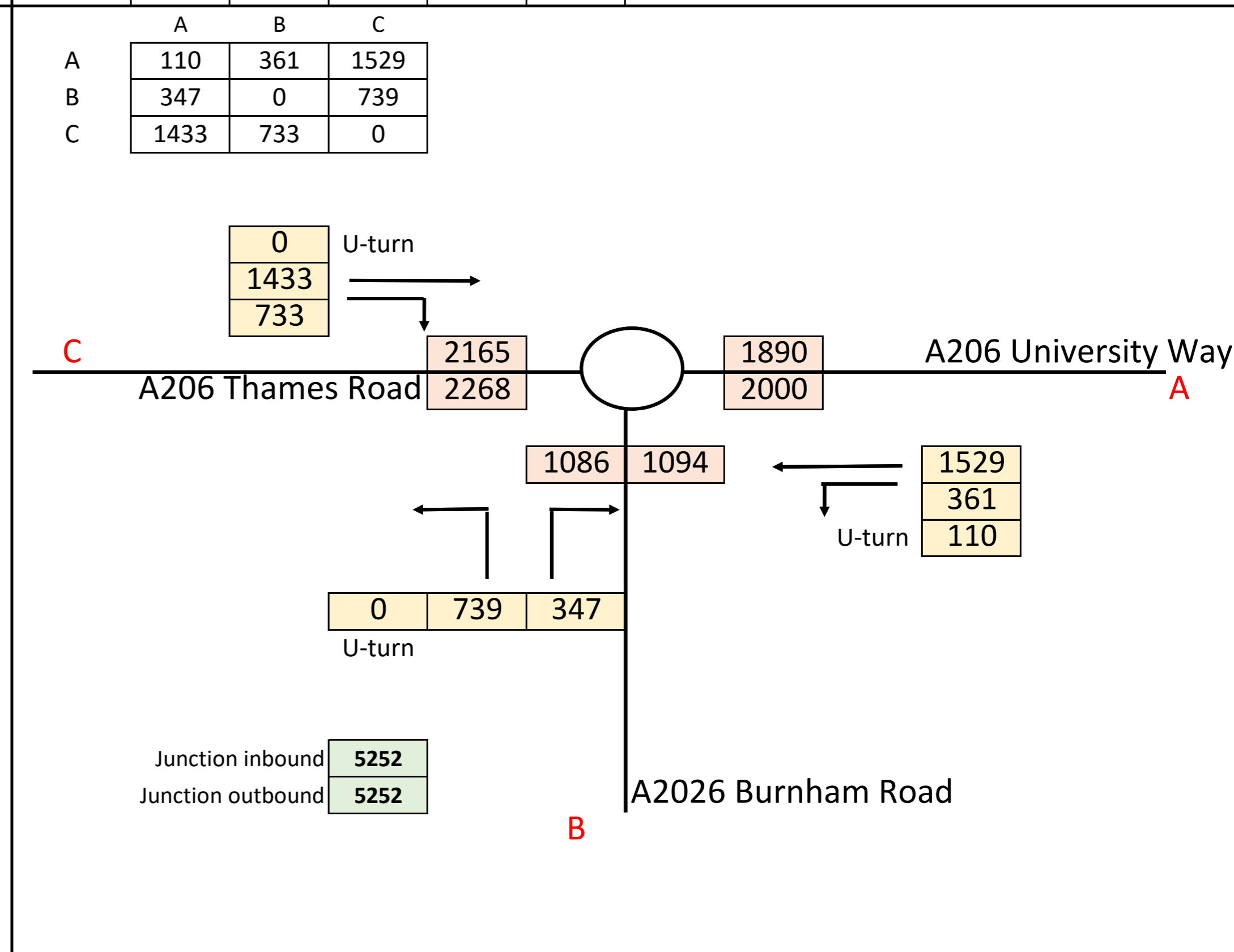
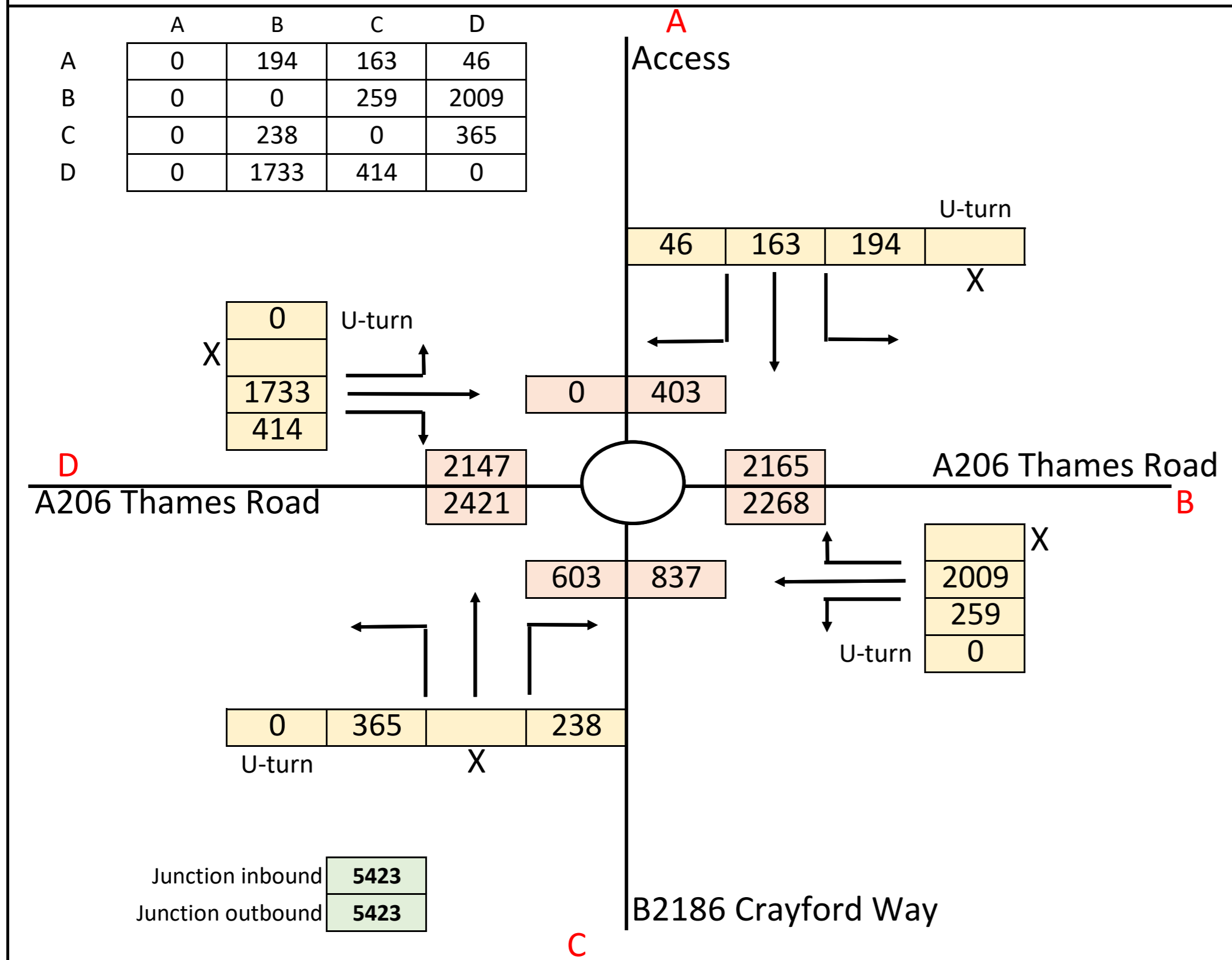
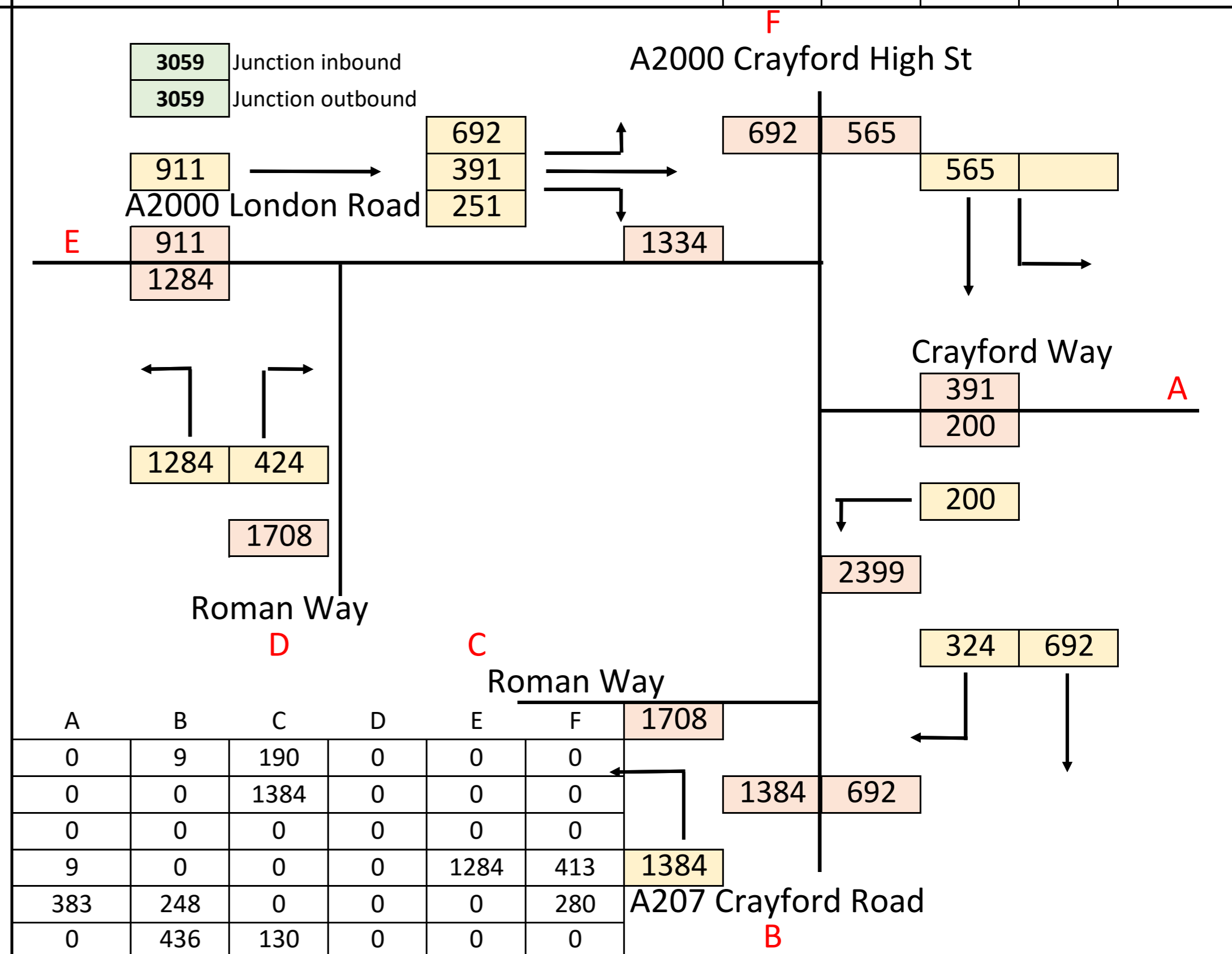
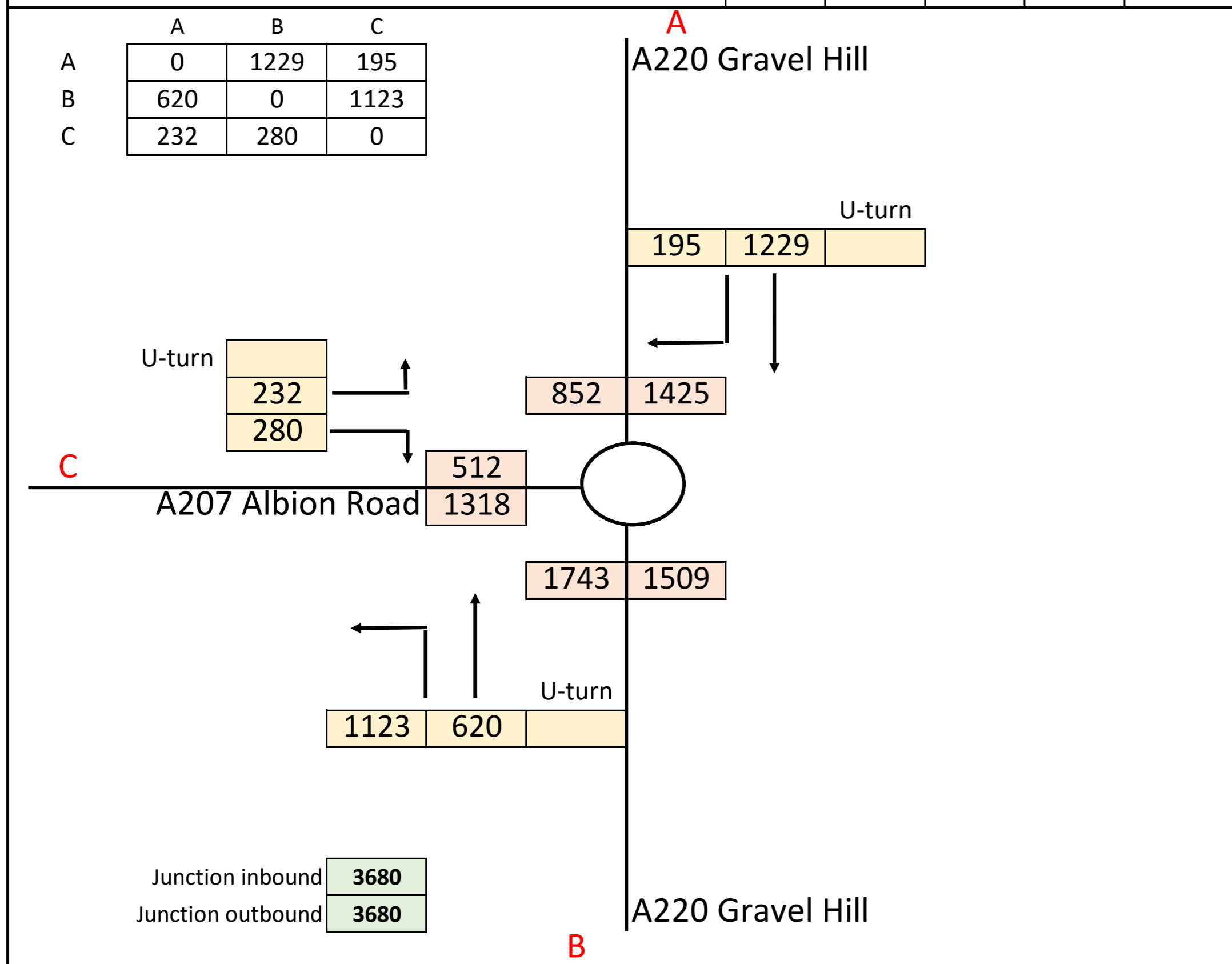
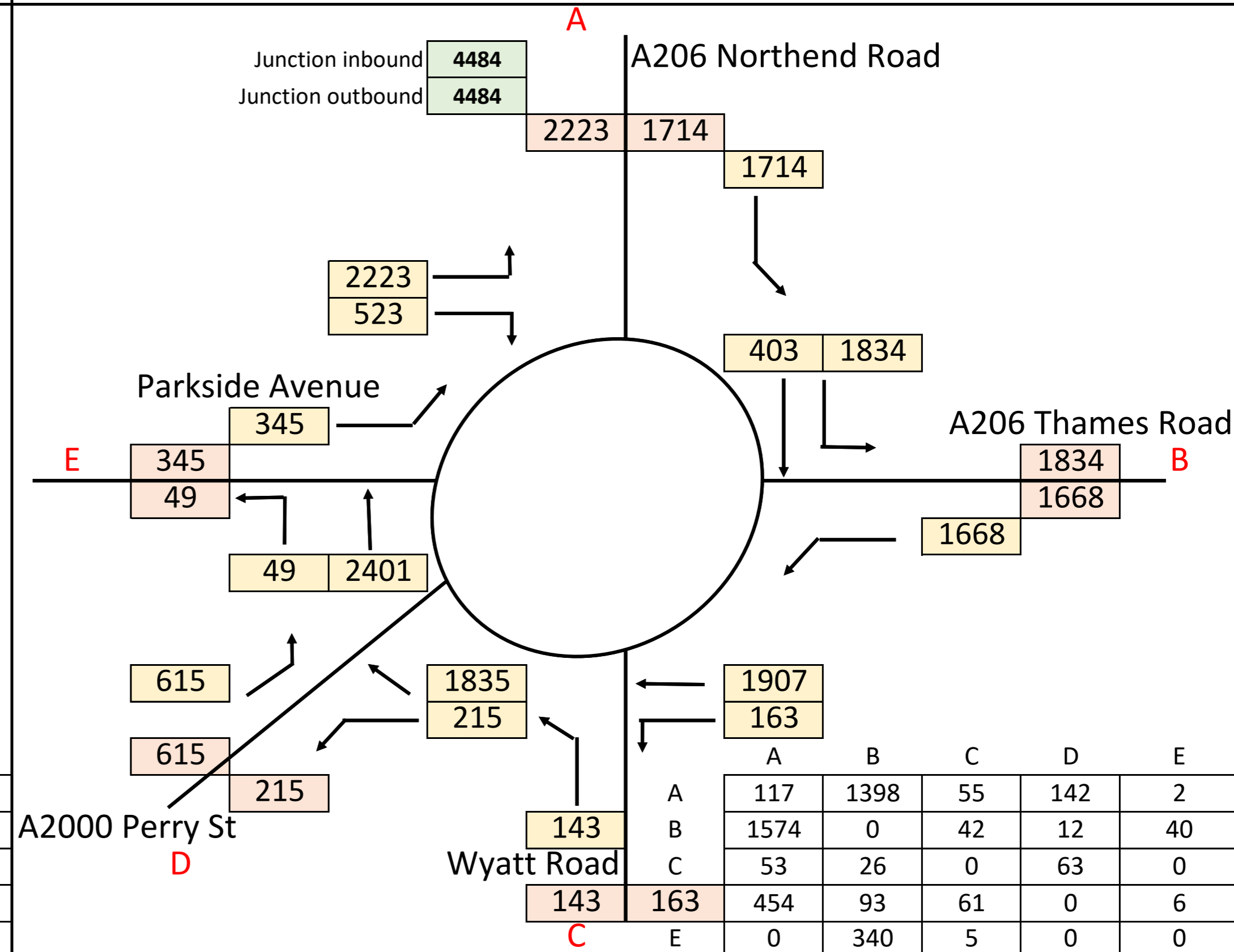
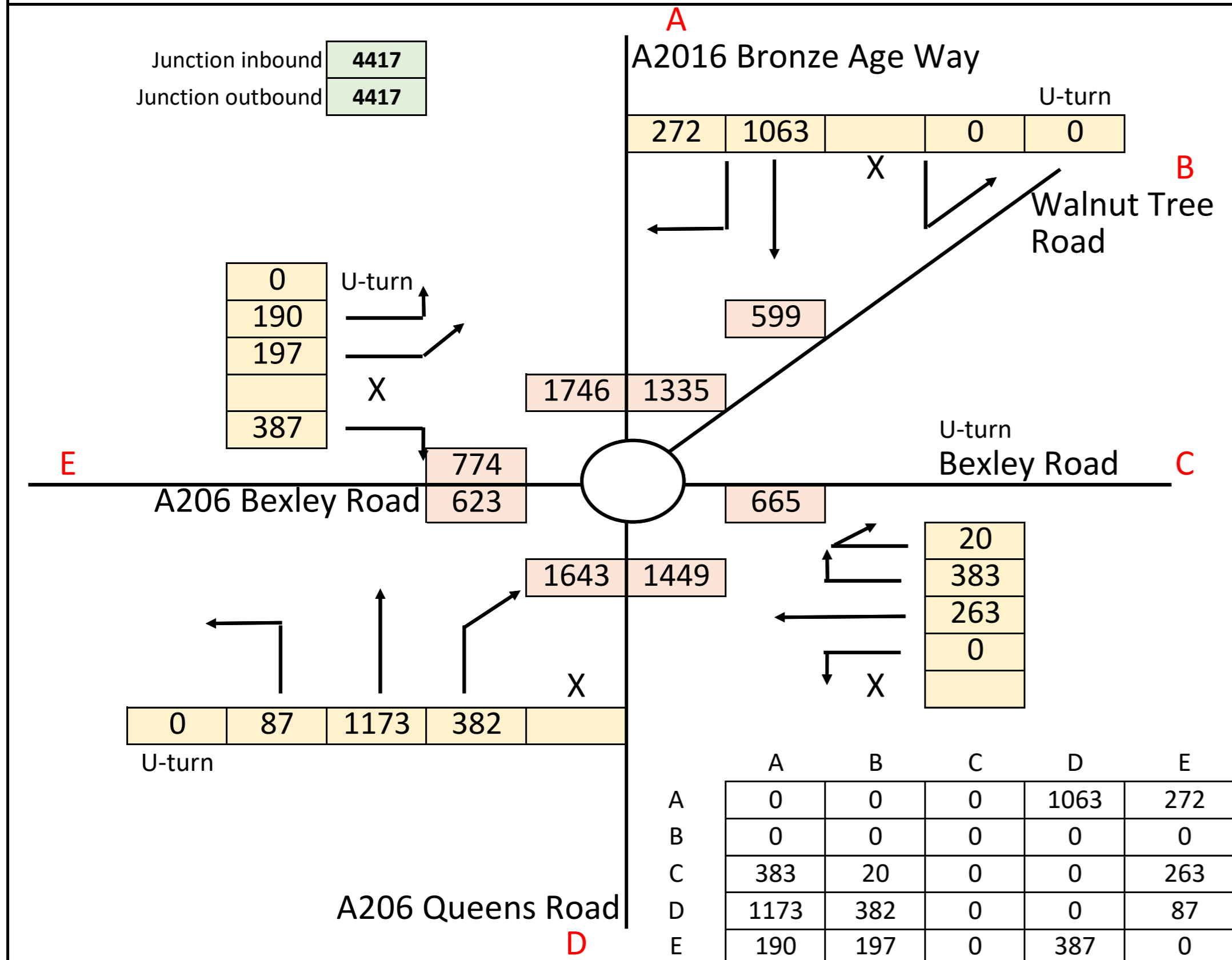
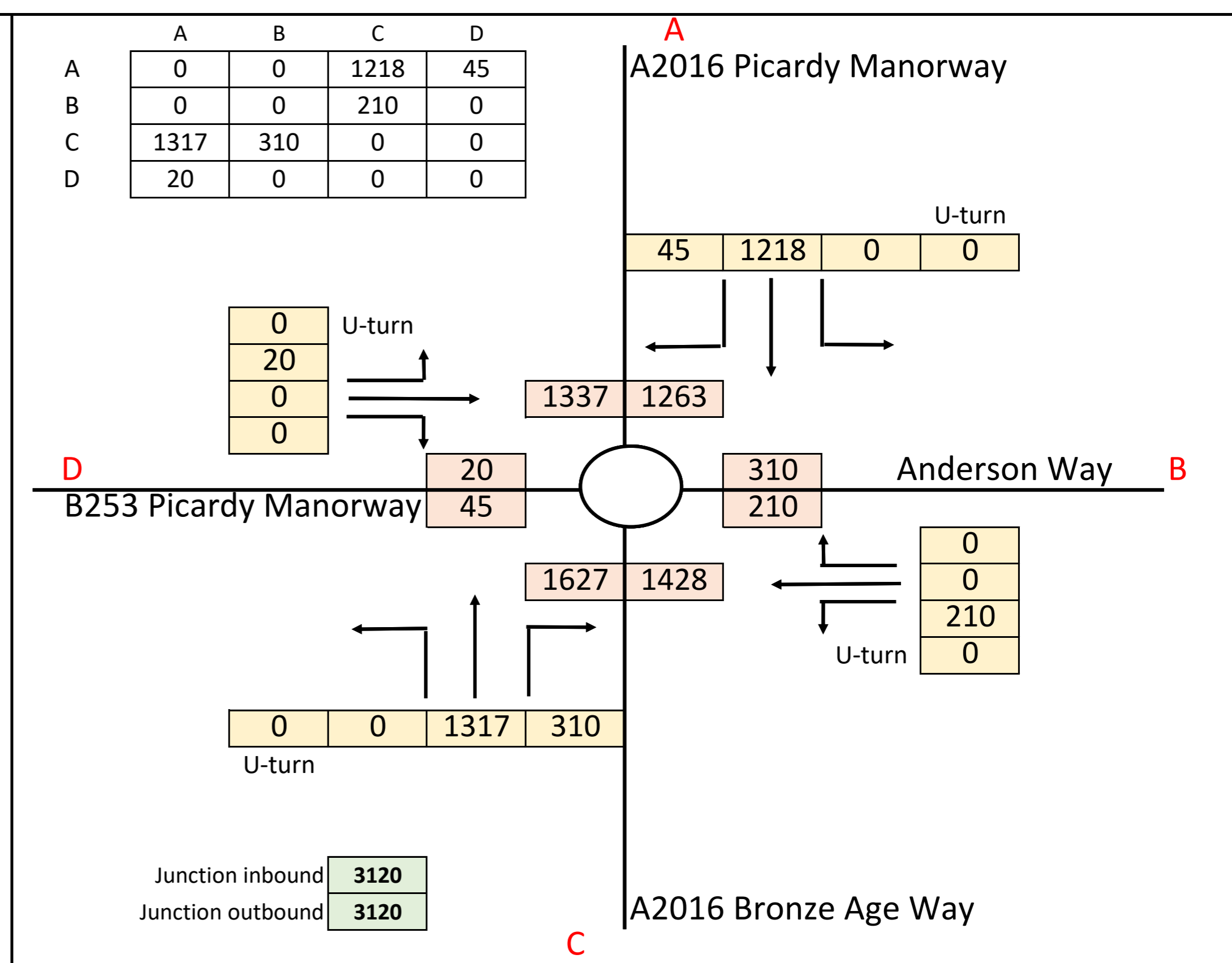
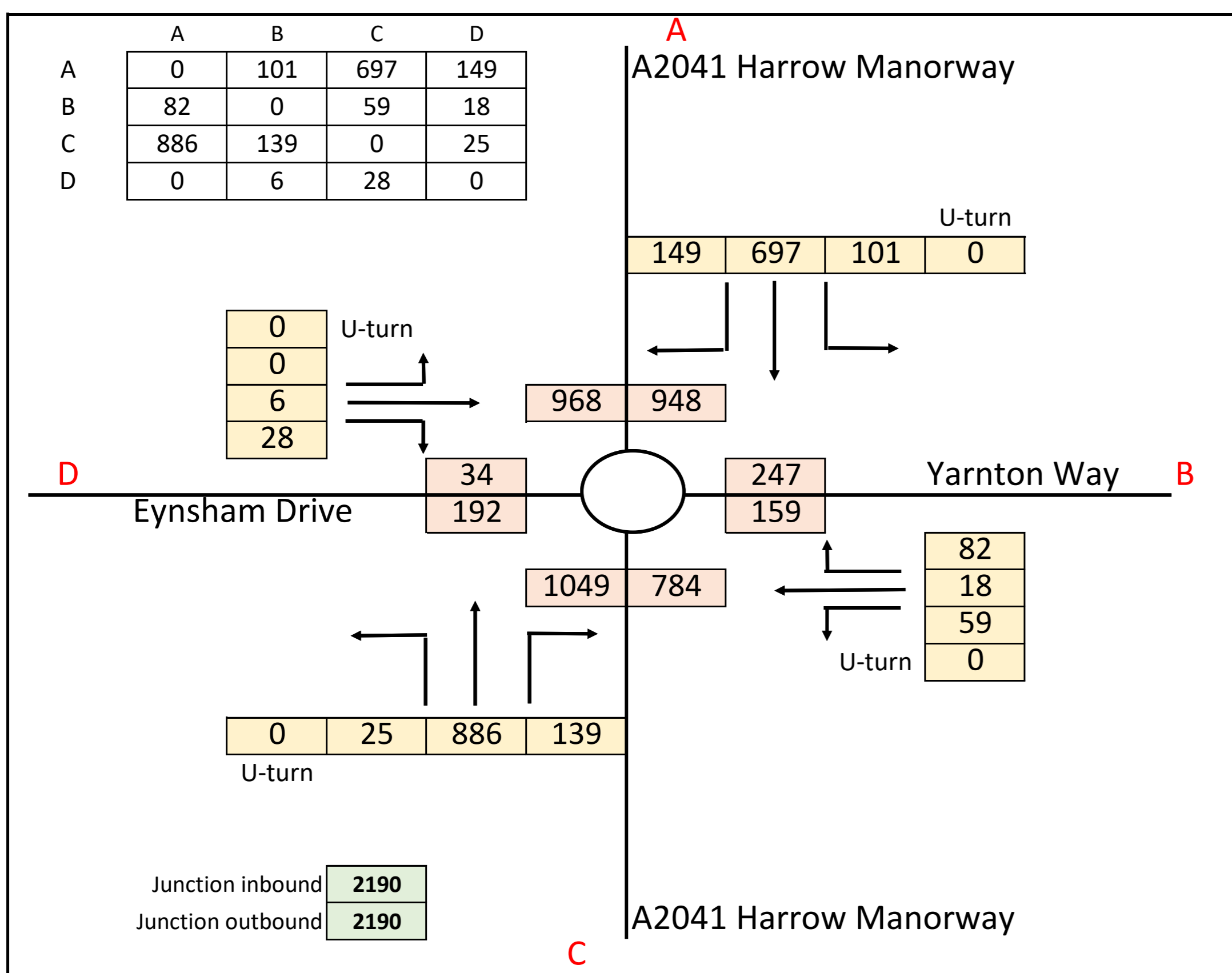
2038 Reference Case with LTC (0800-0900)
Demand Flow (% HGVs based upon PCUs)



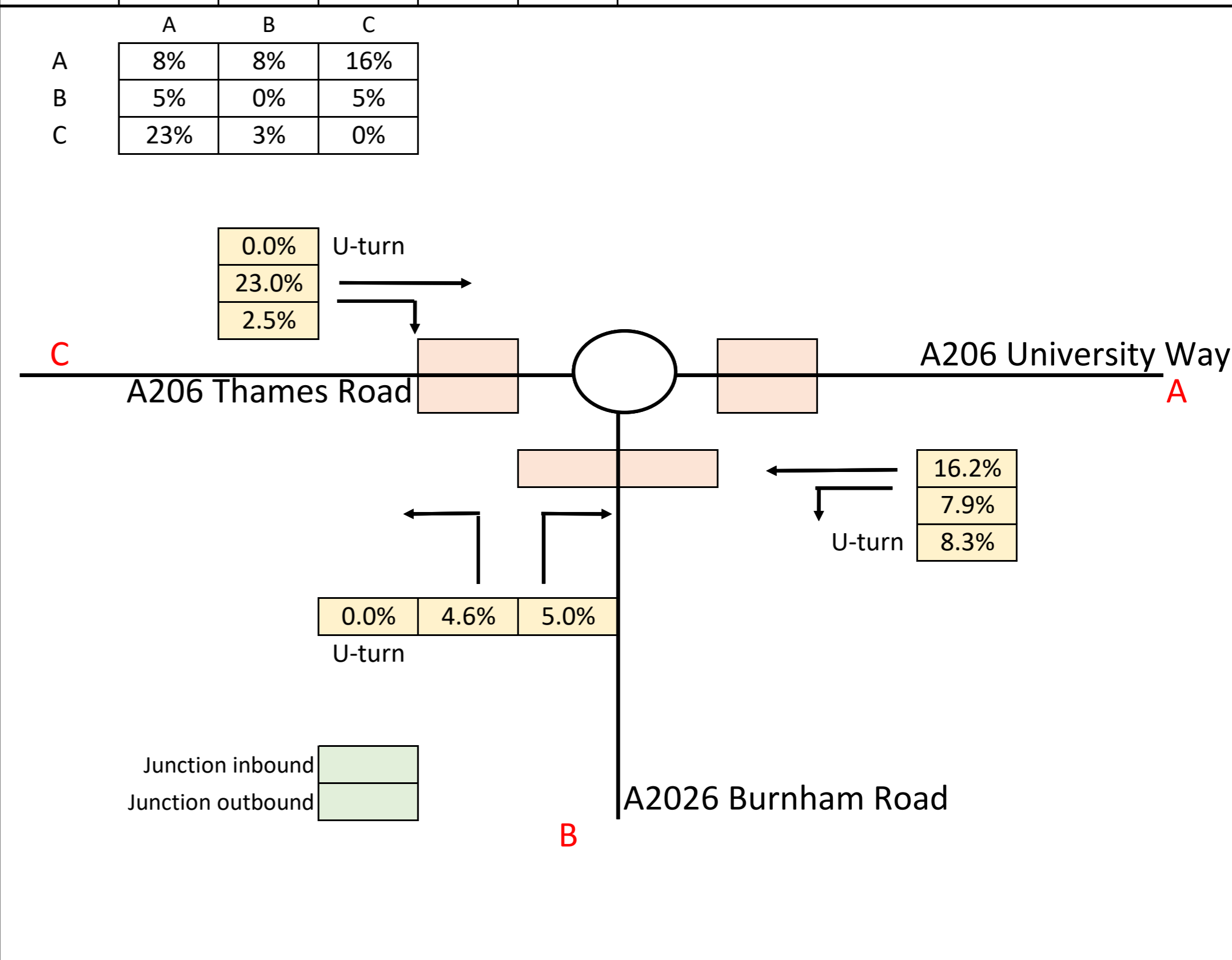
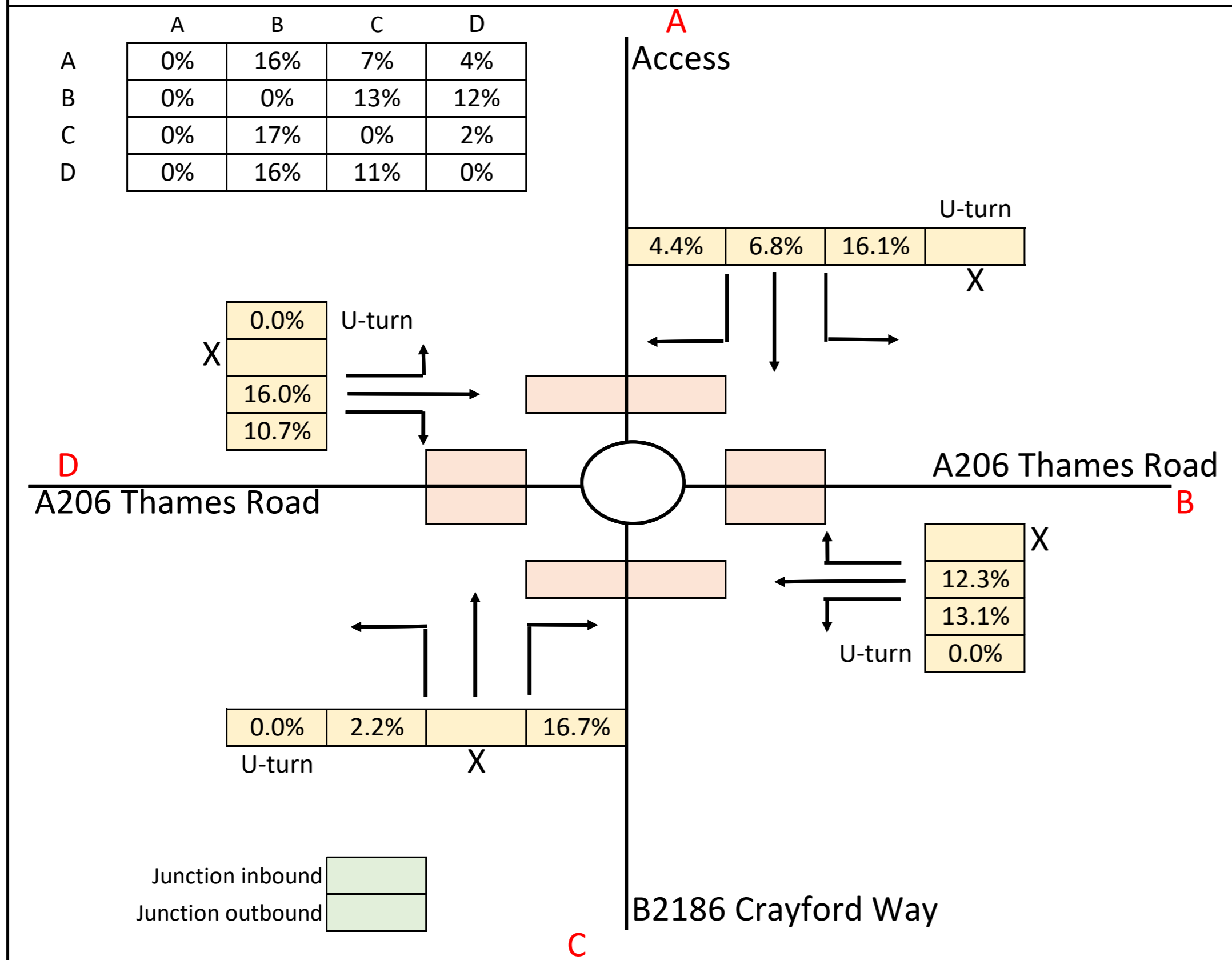
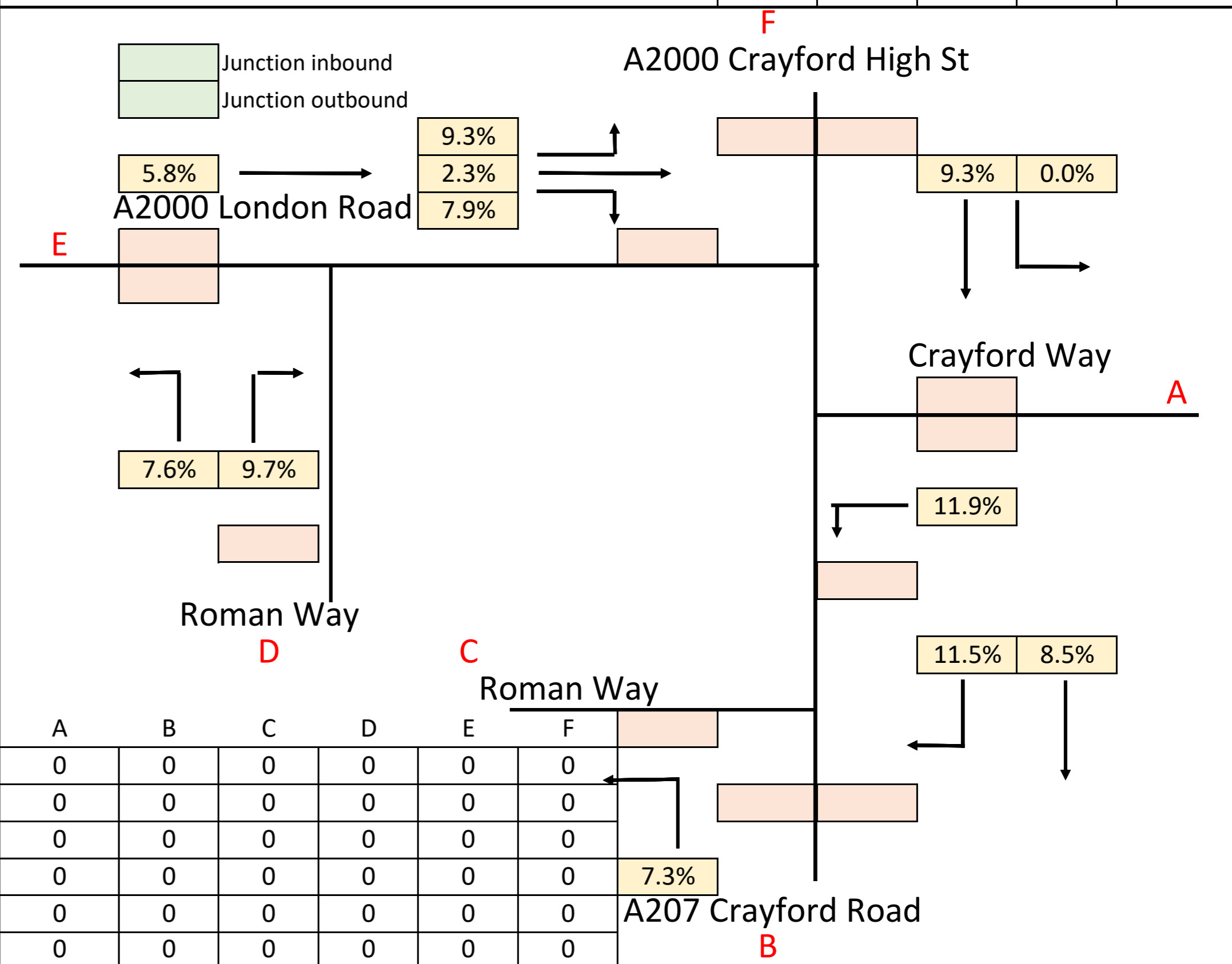
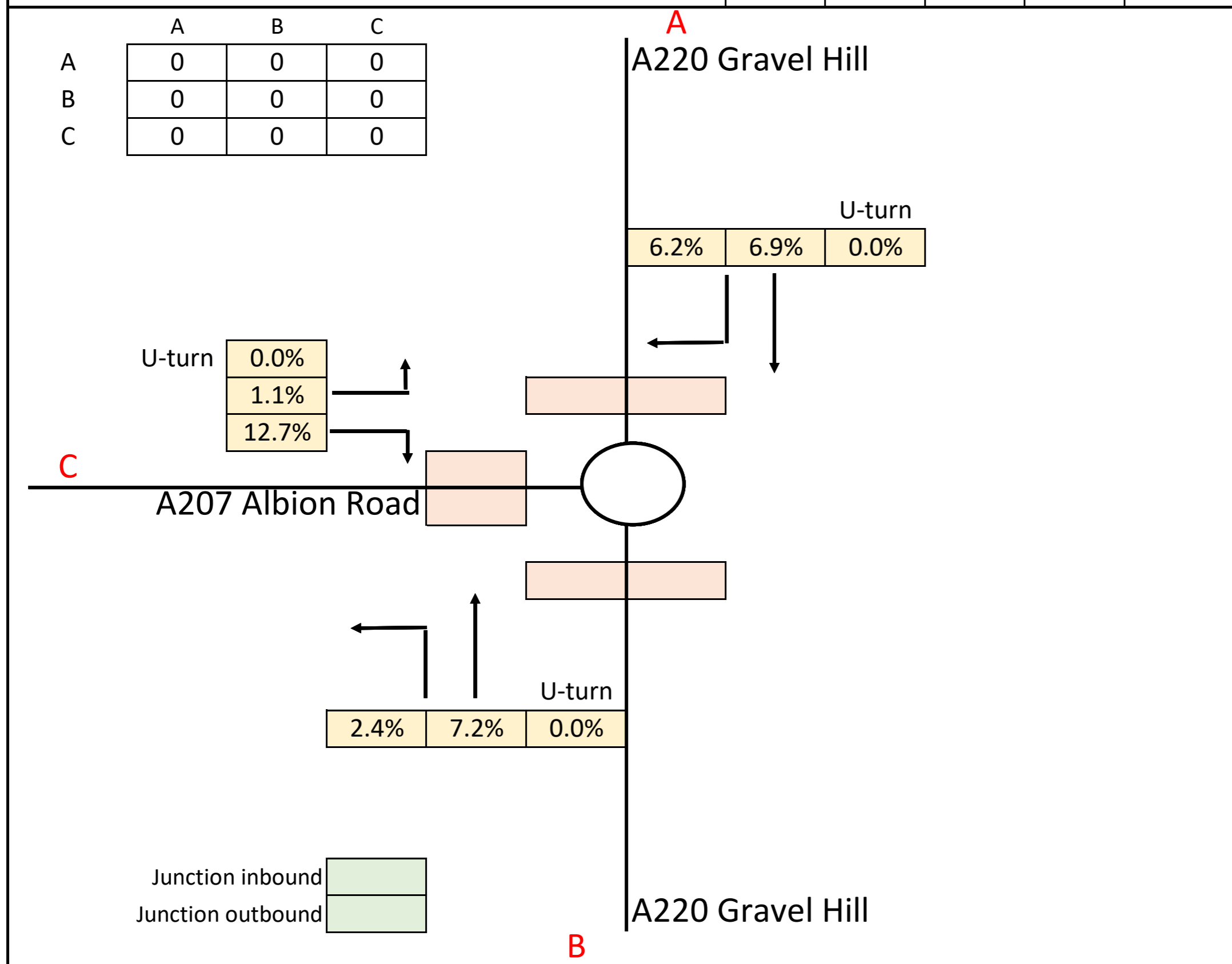
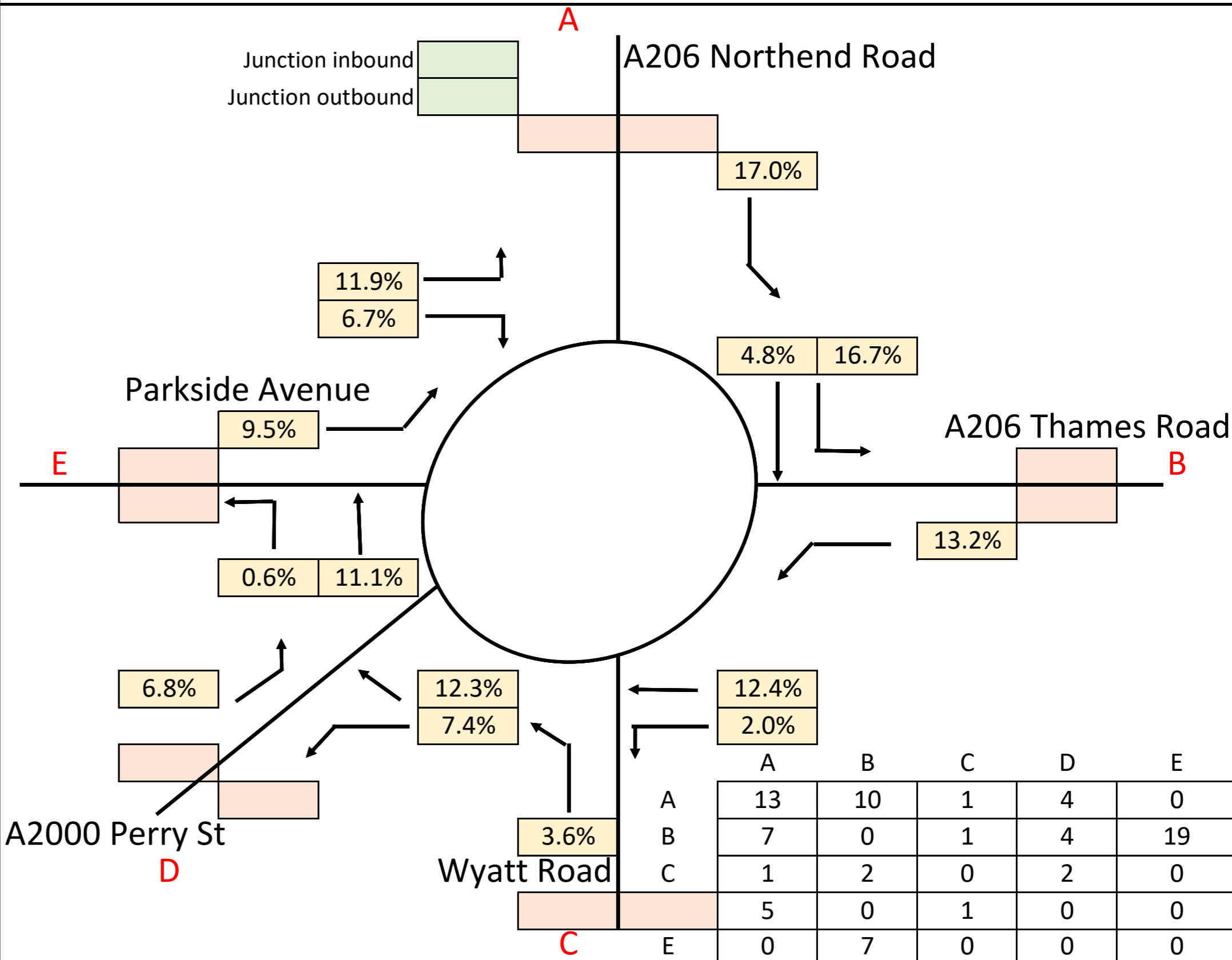
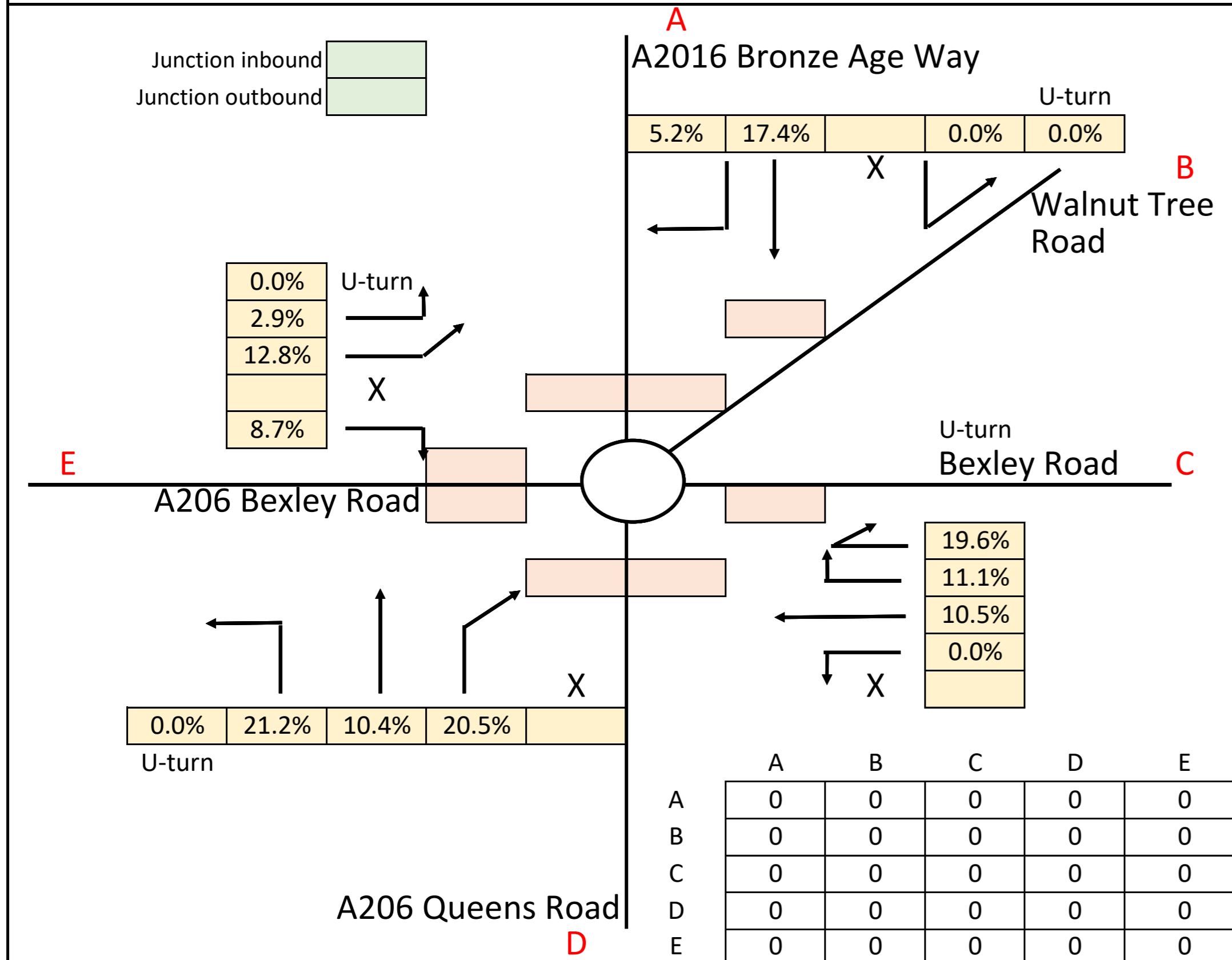
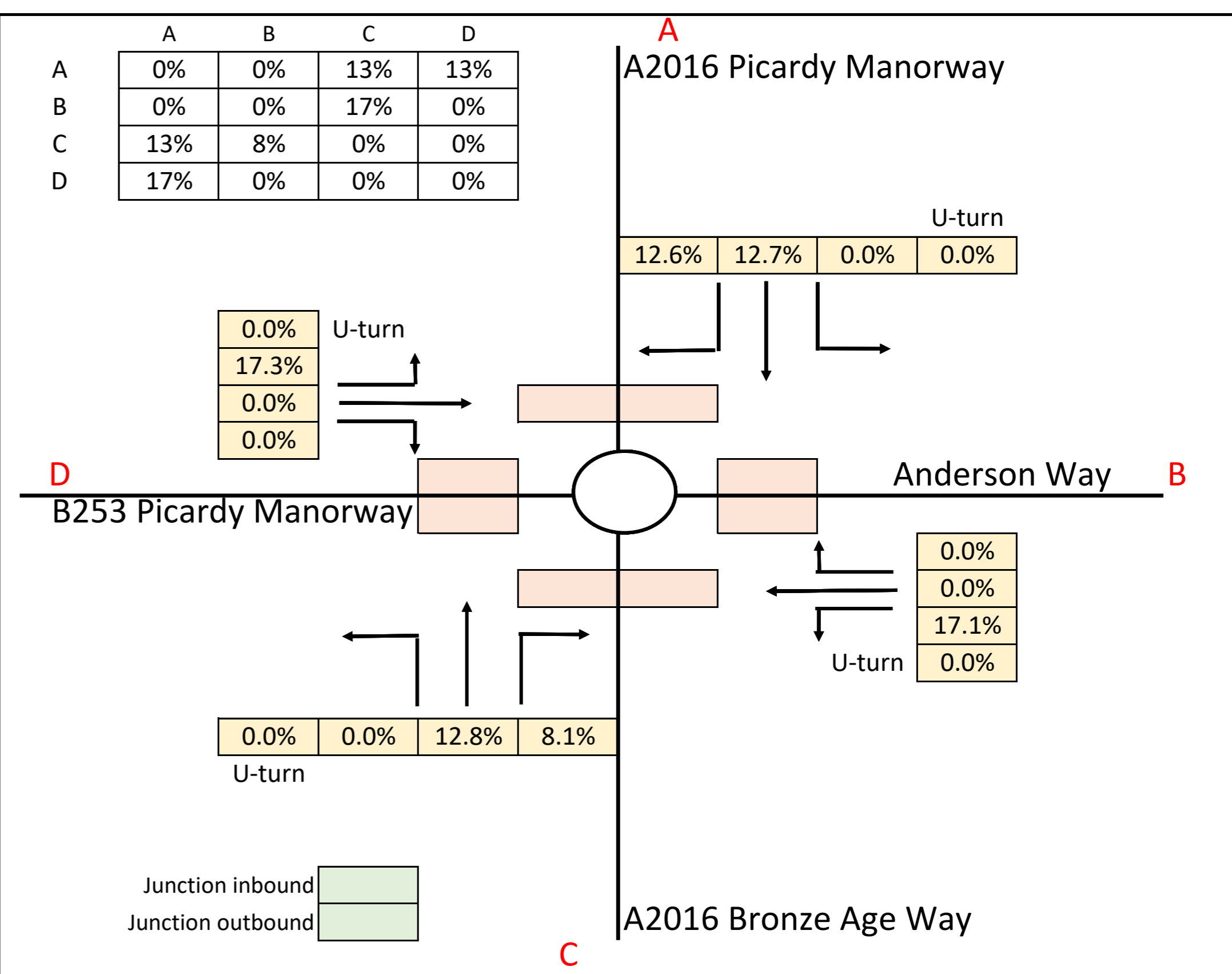
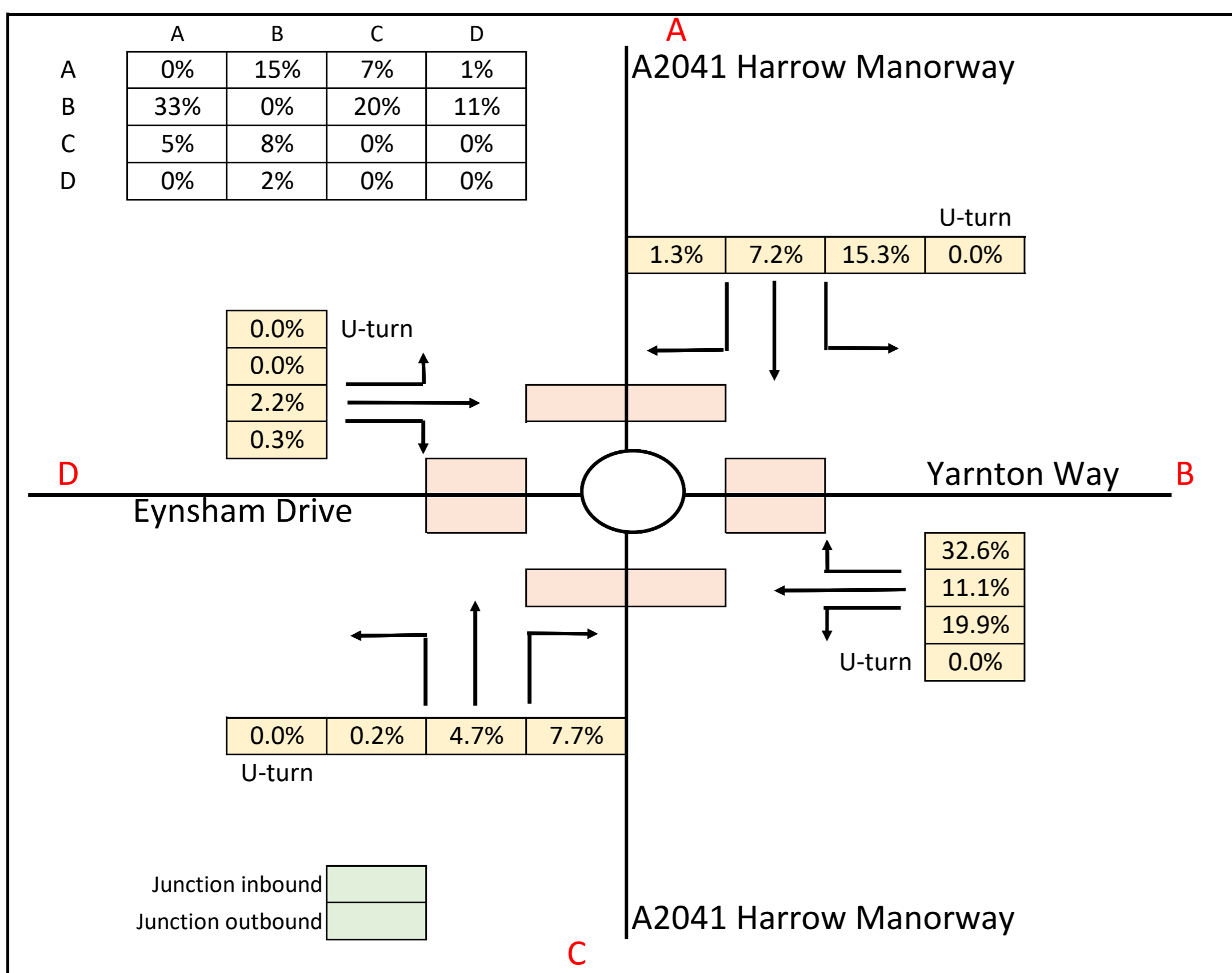
2038 Reference Case with LTC (1700-1800)
Demand Flow (PCUs)



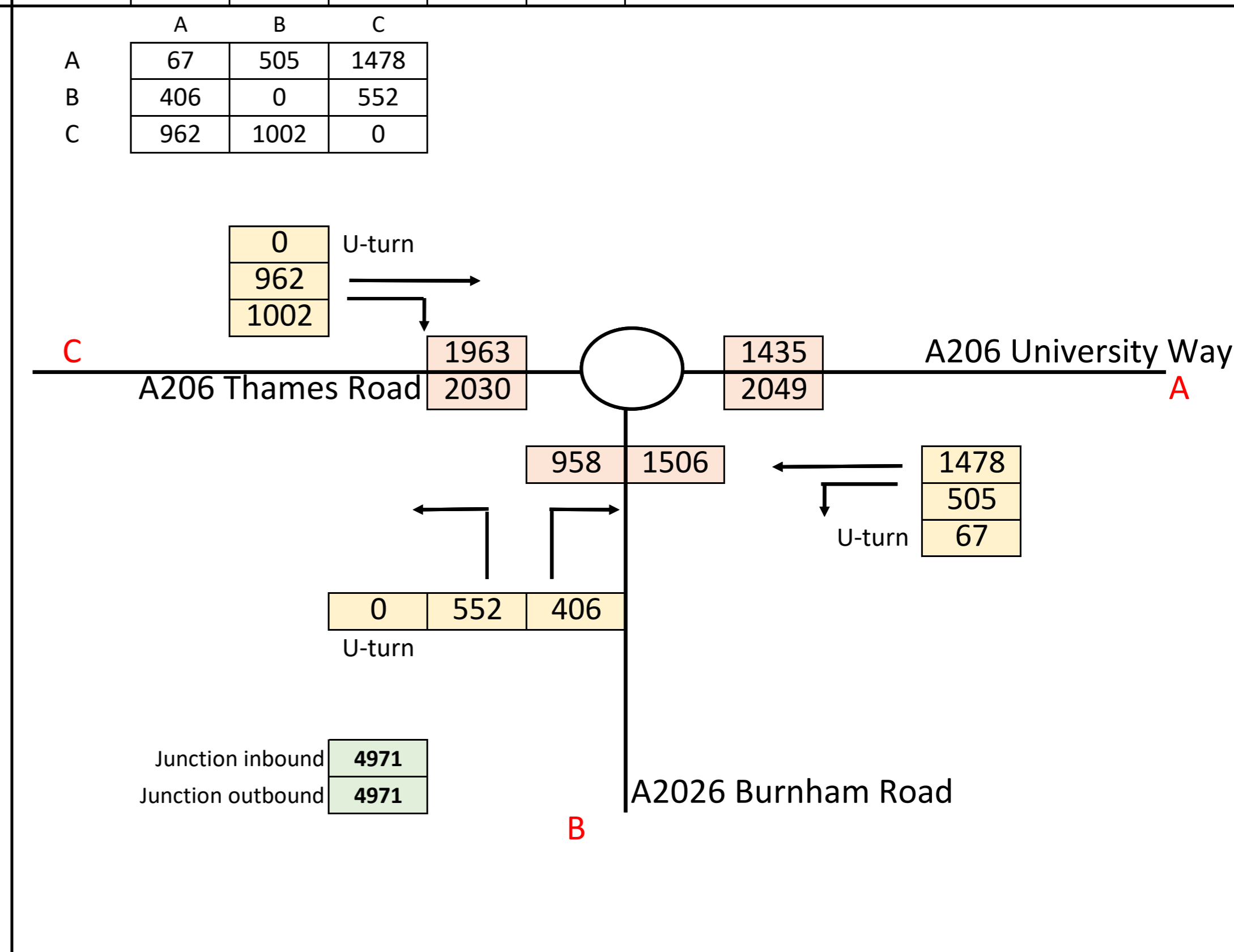
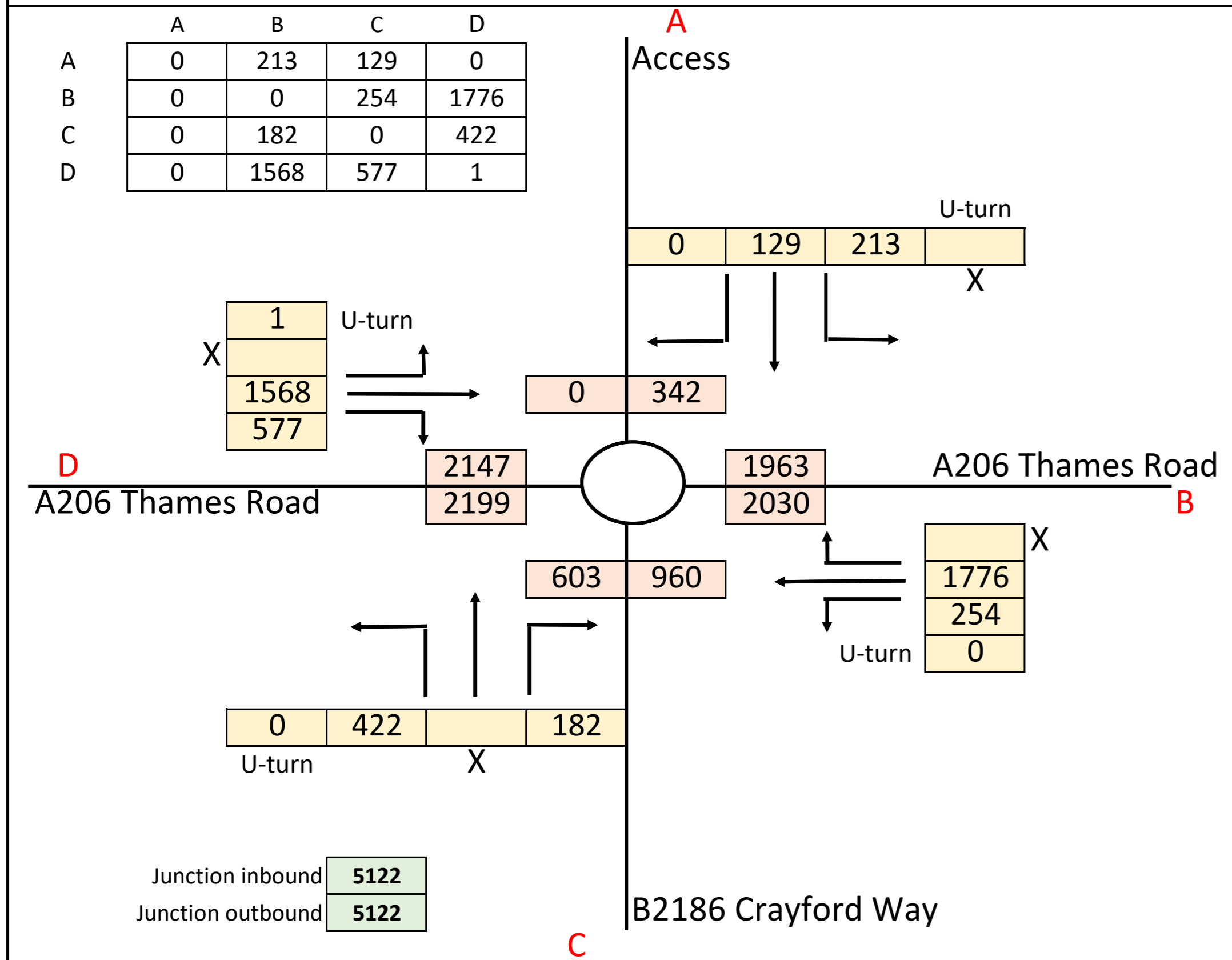
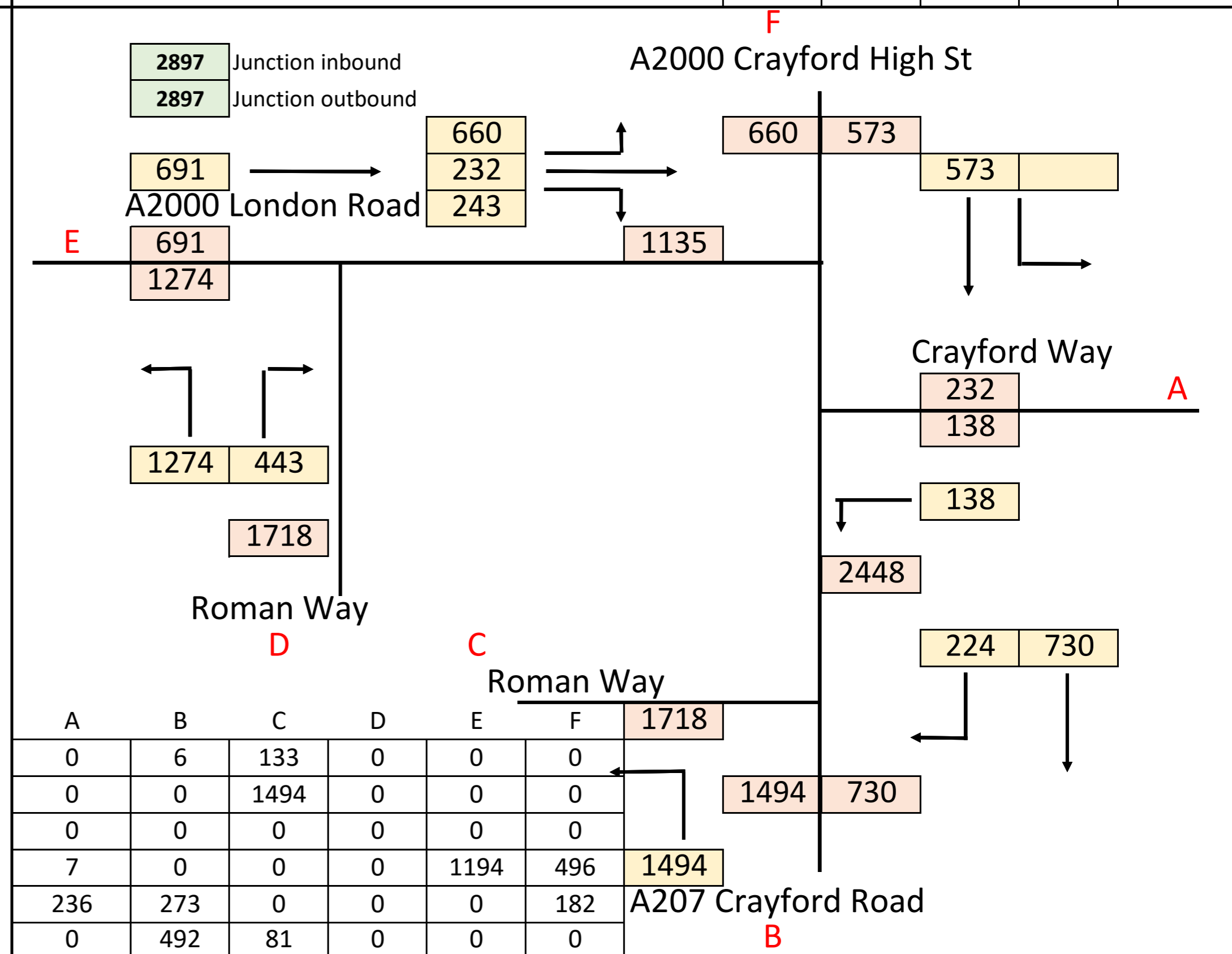
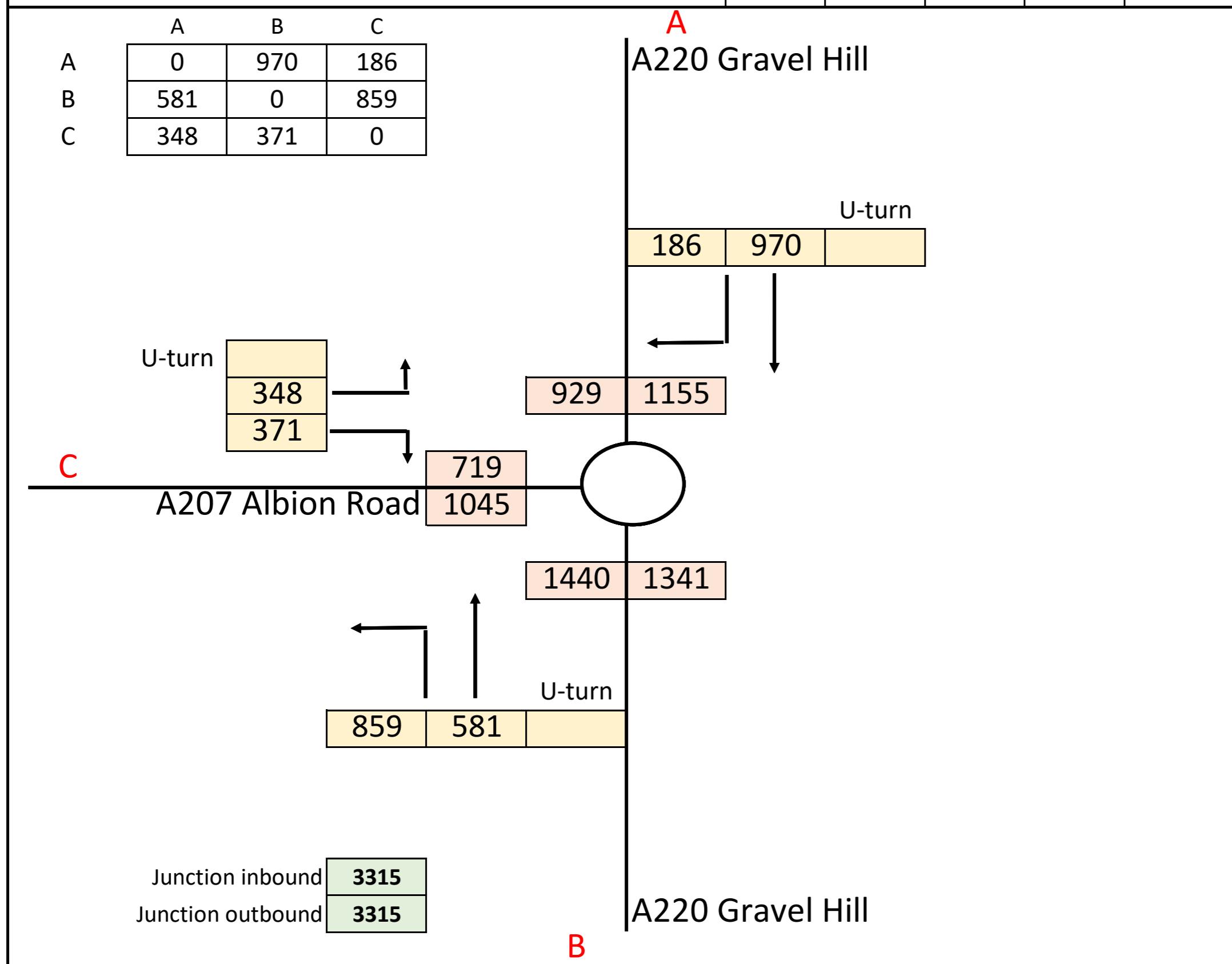
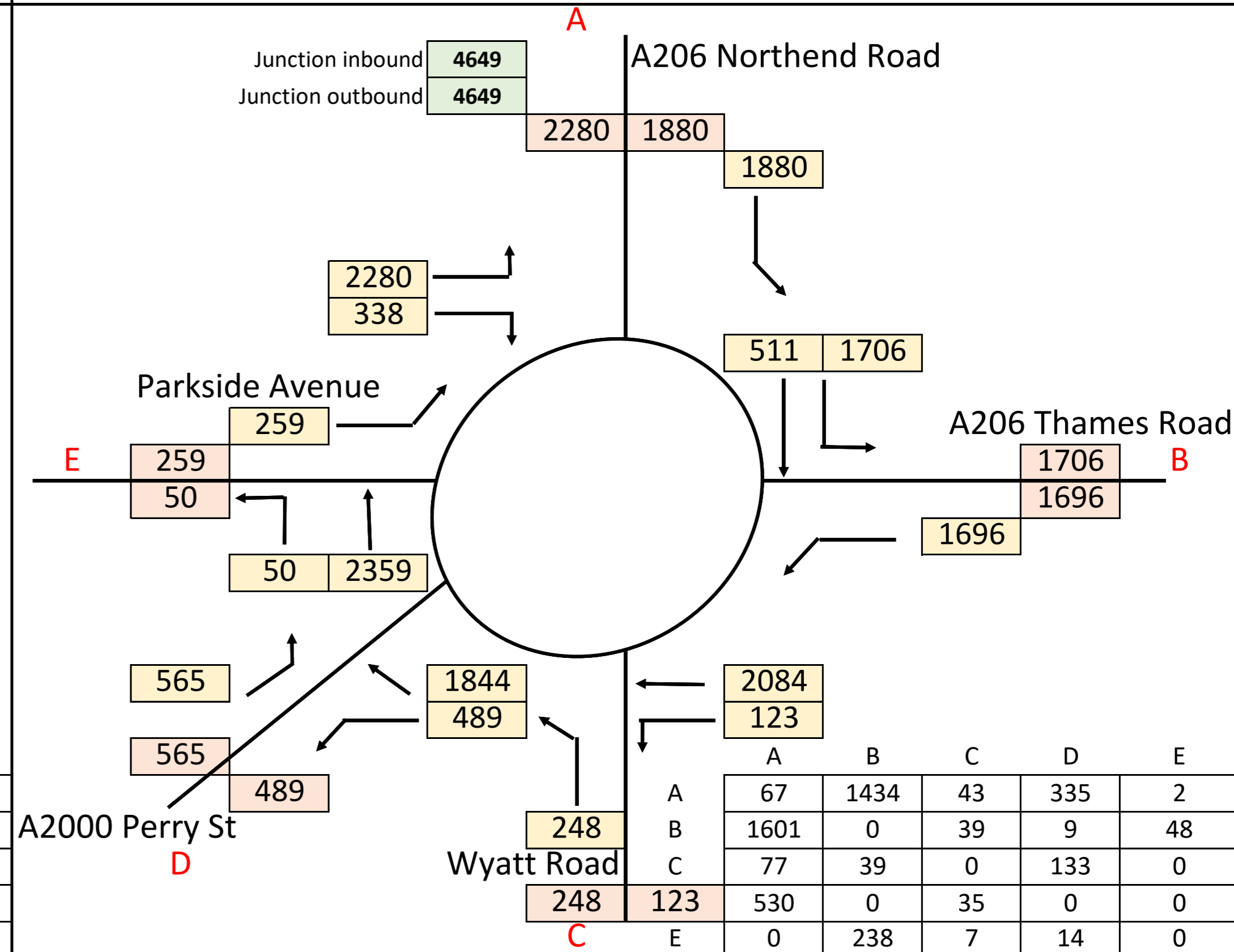
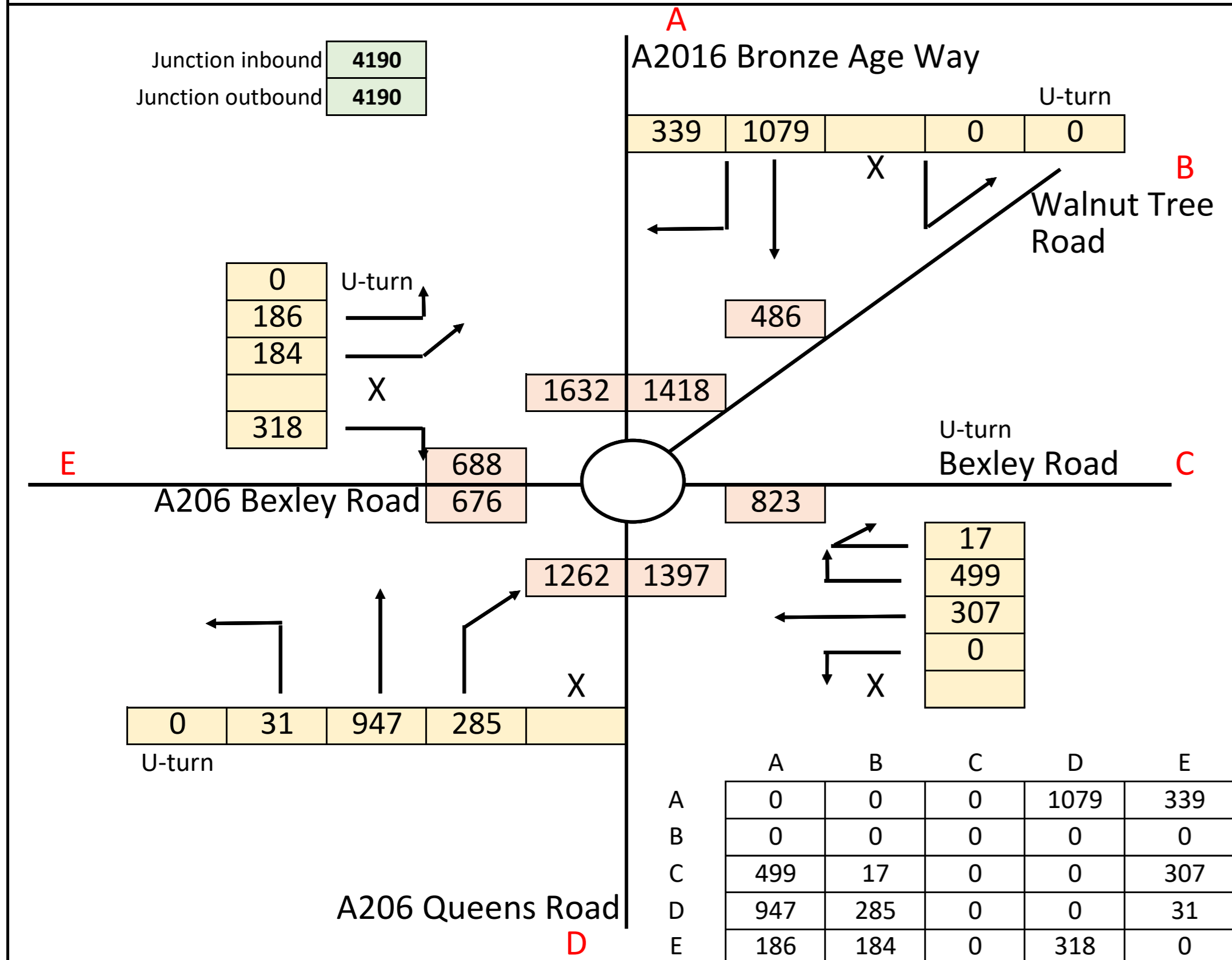
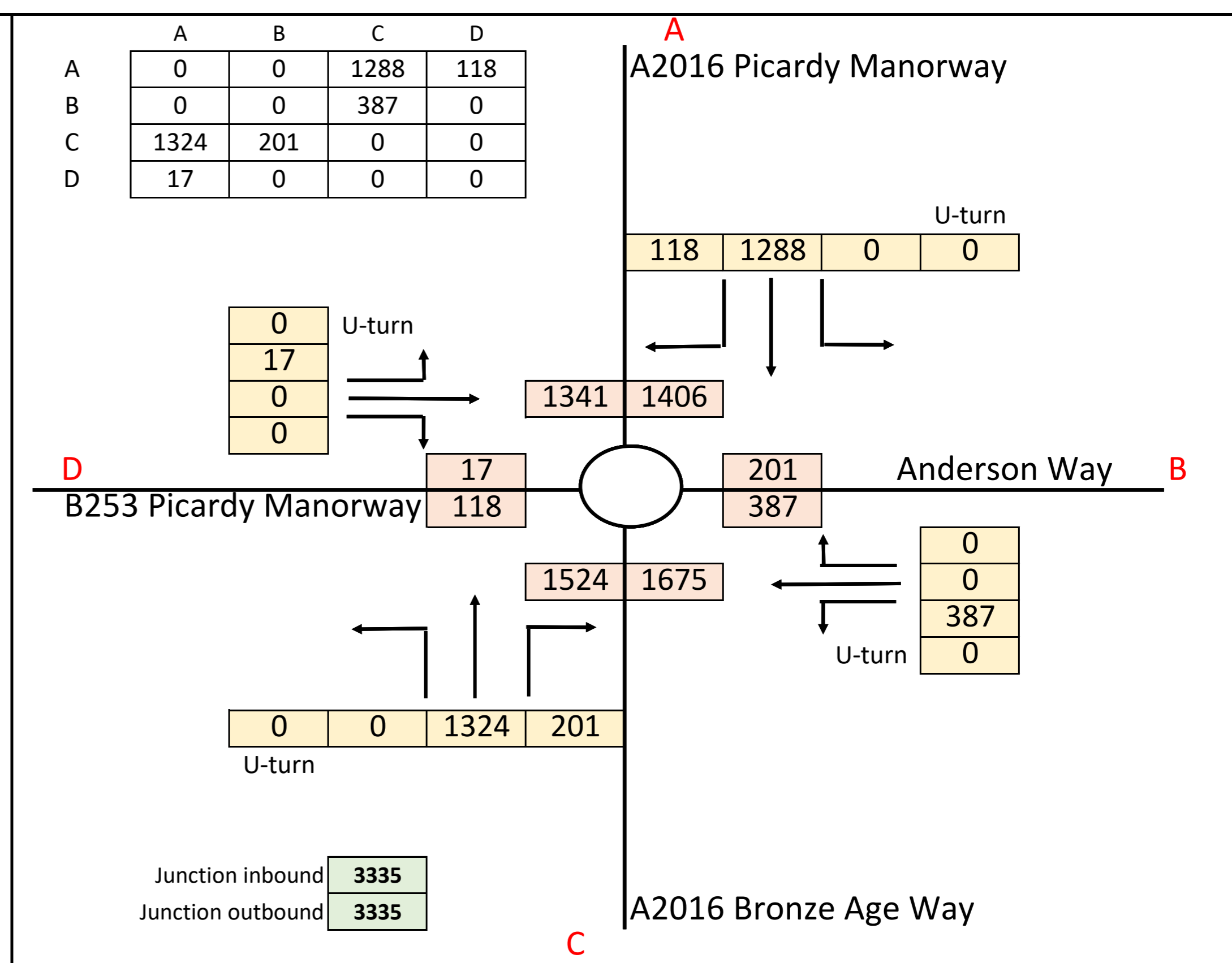
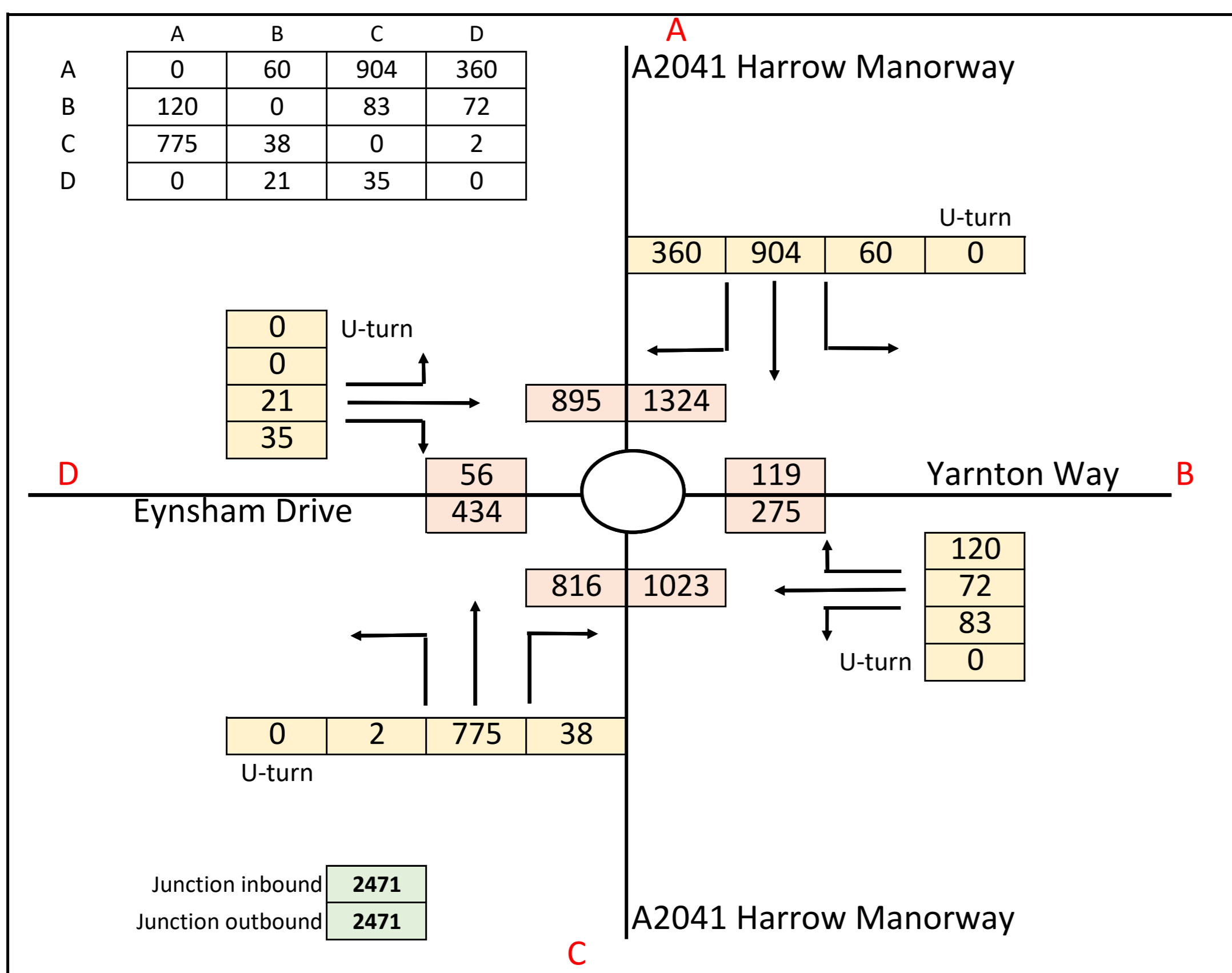
2038 Reference Case with LTC (1700-1800)
Demand Flow (% HGVs based upon PCUs)



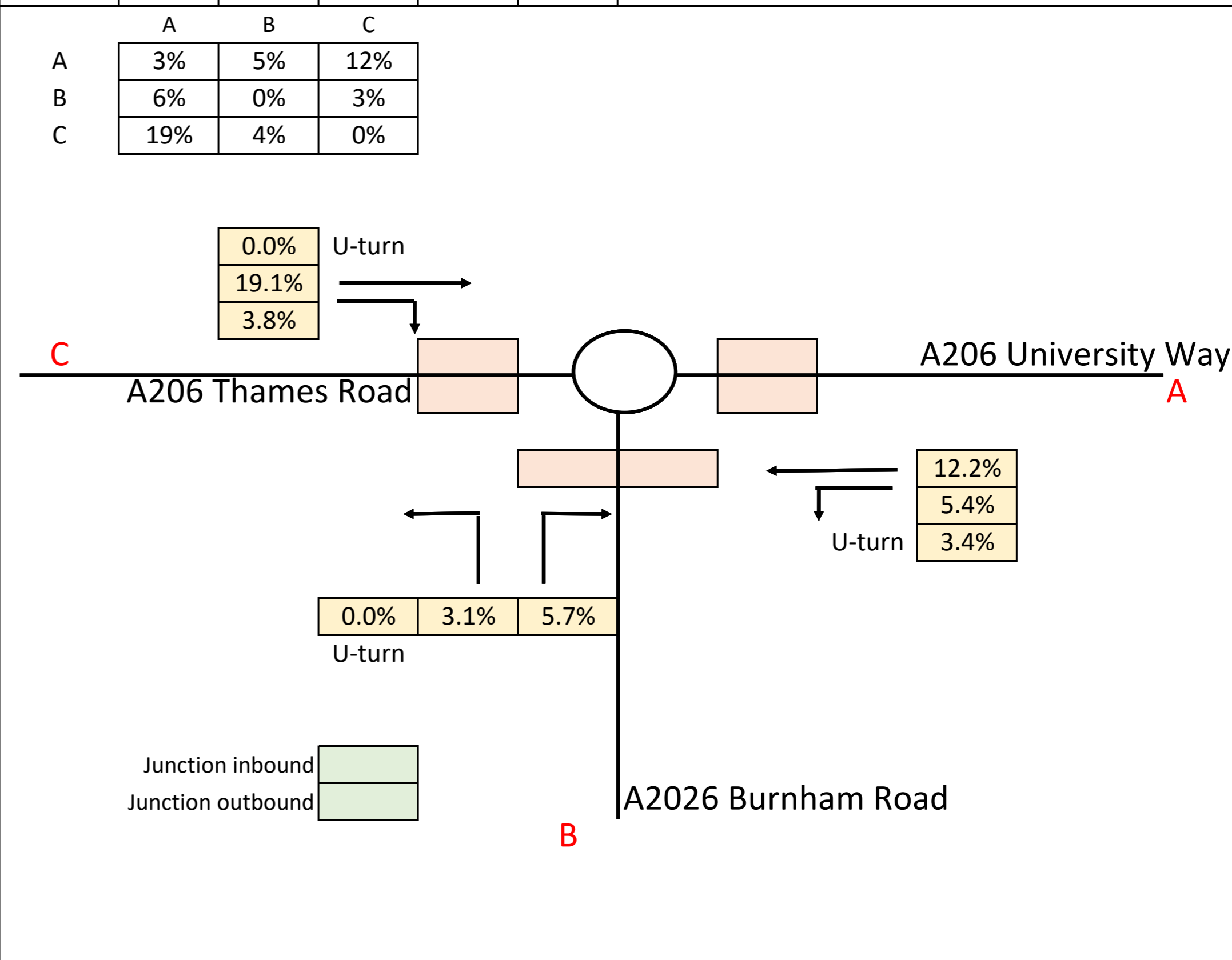
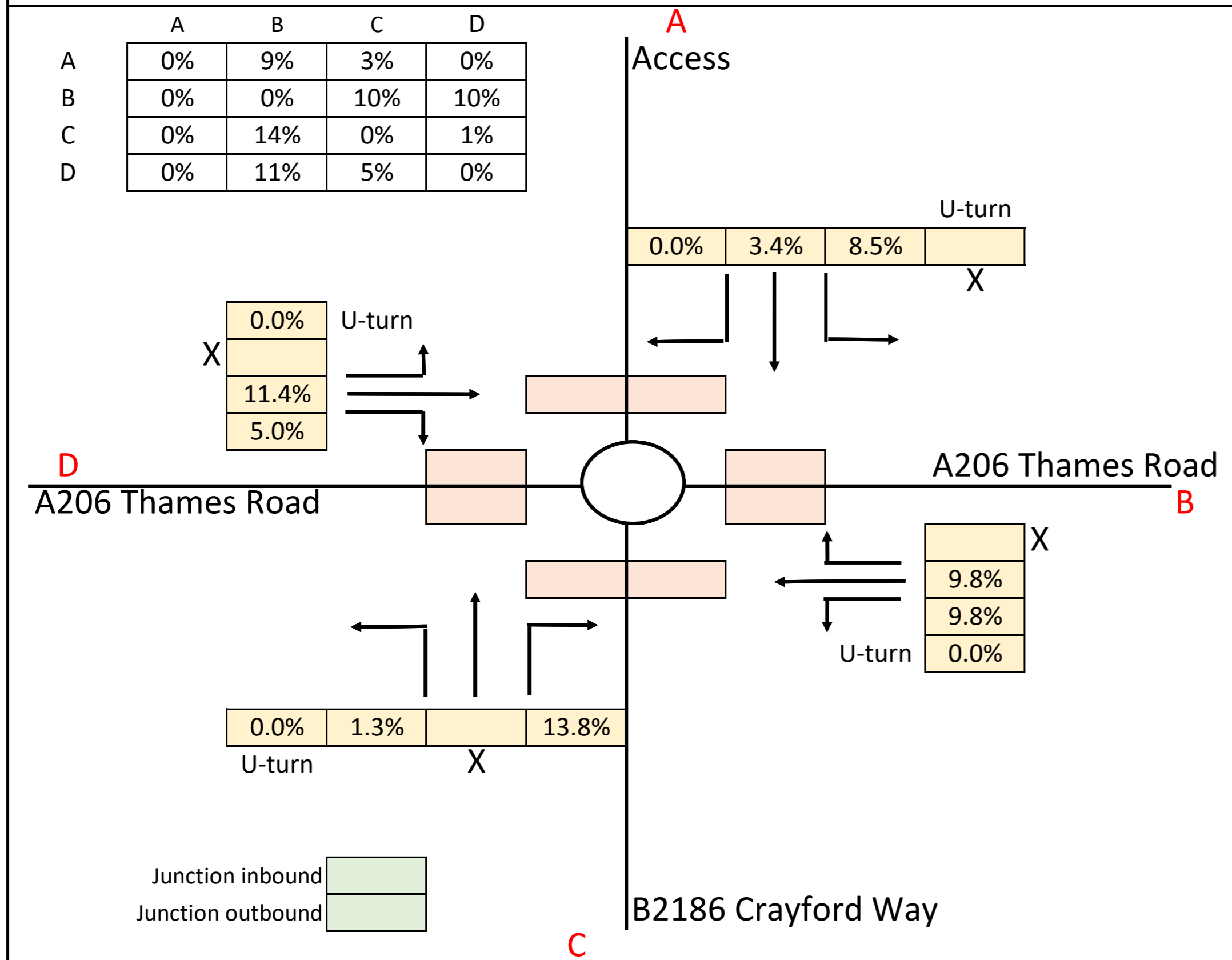
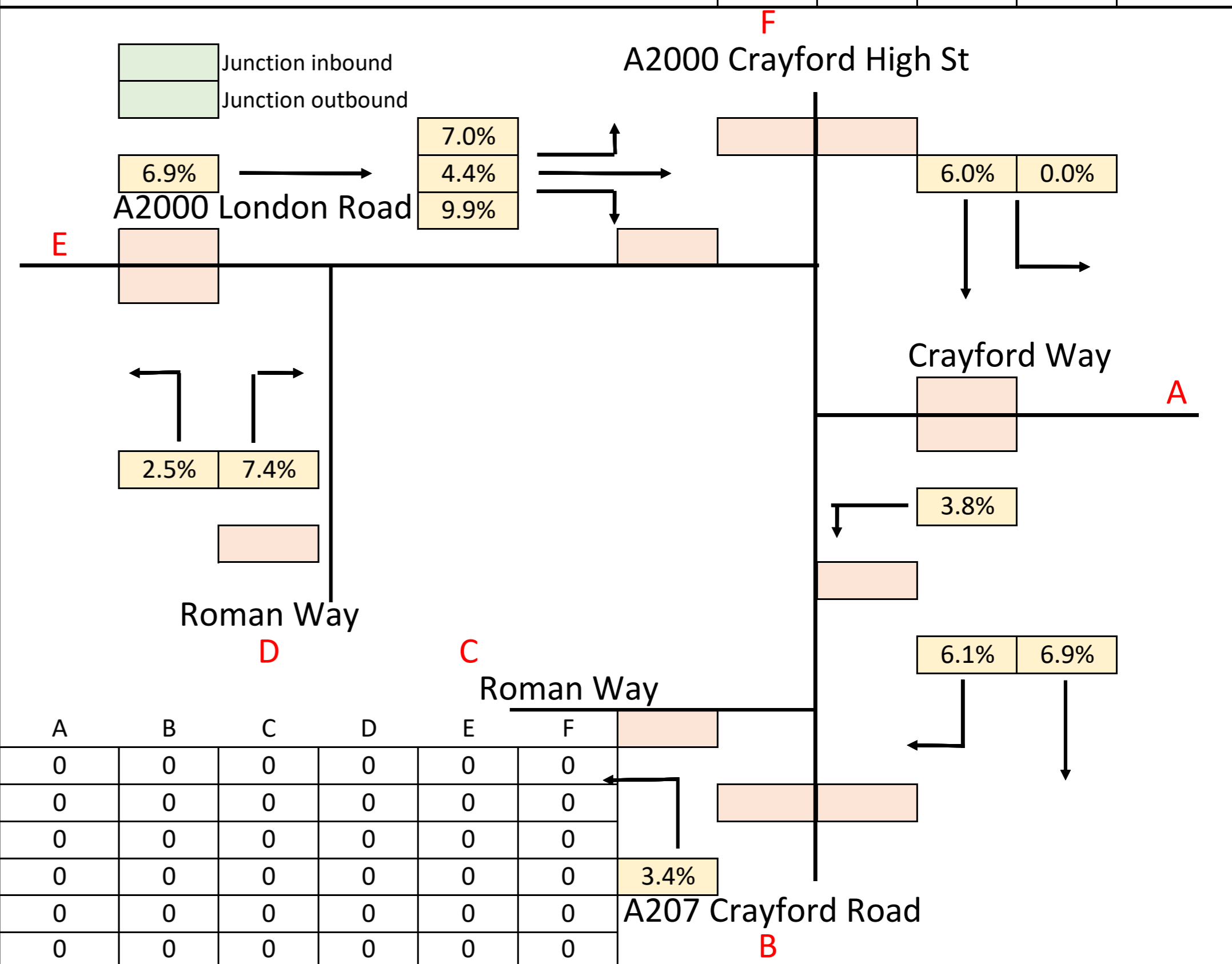
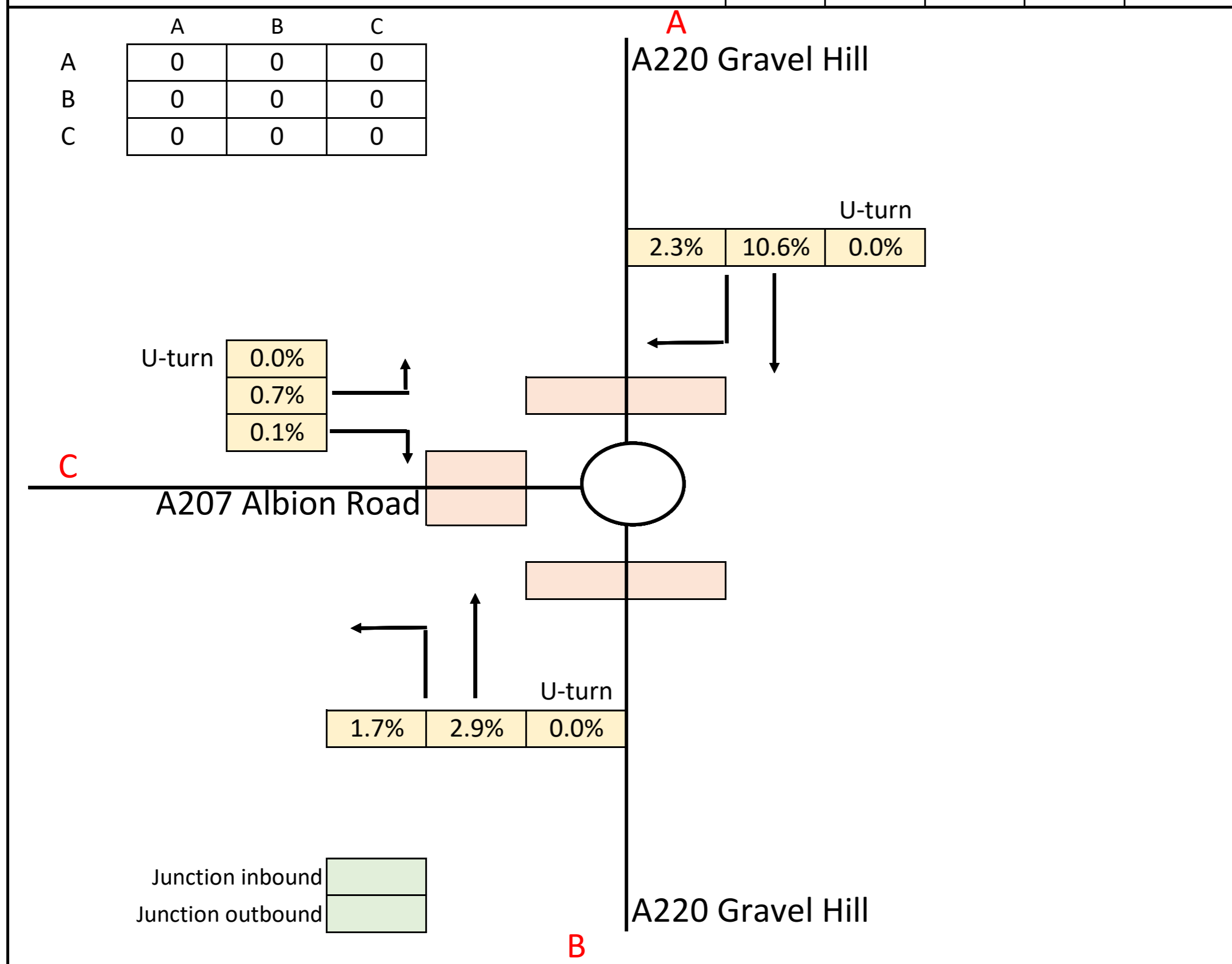
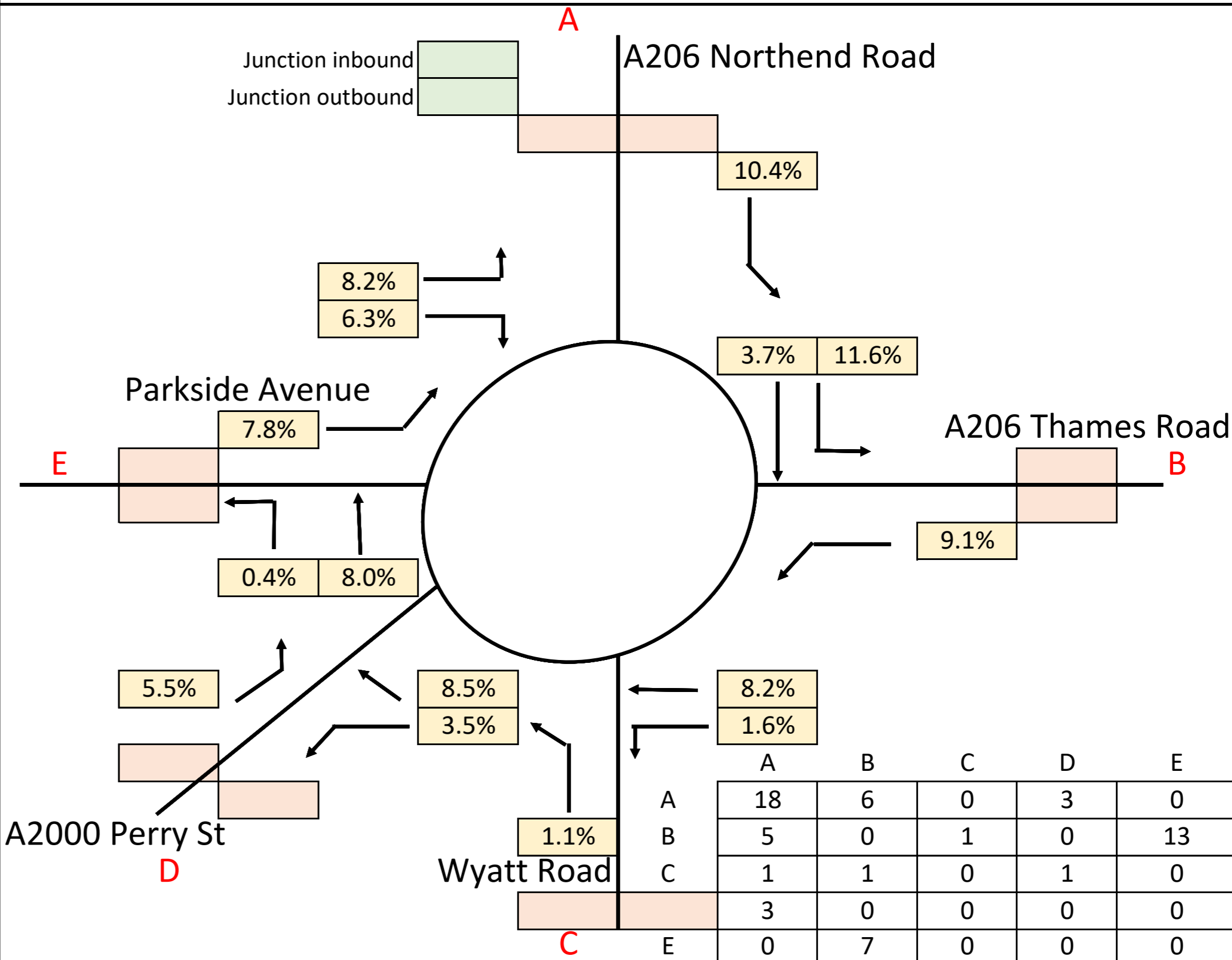
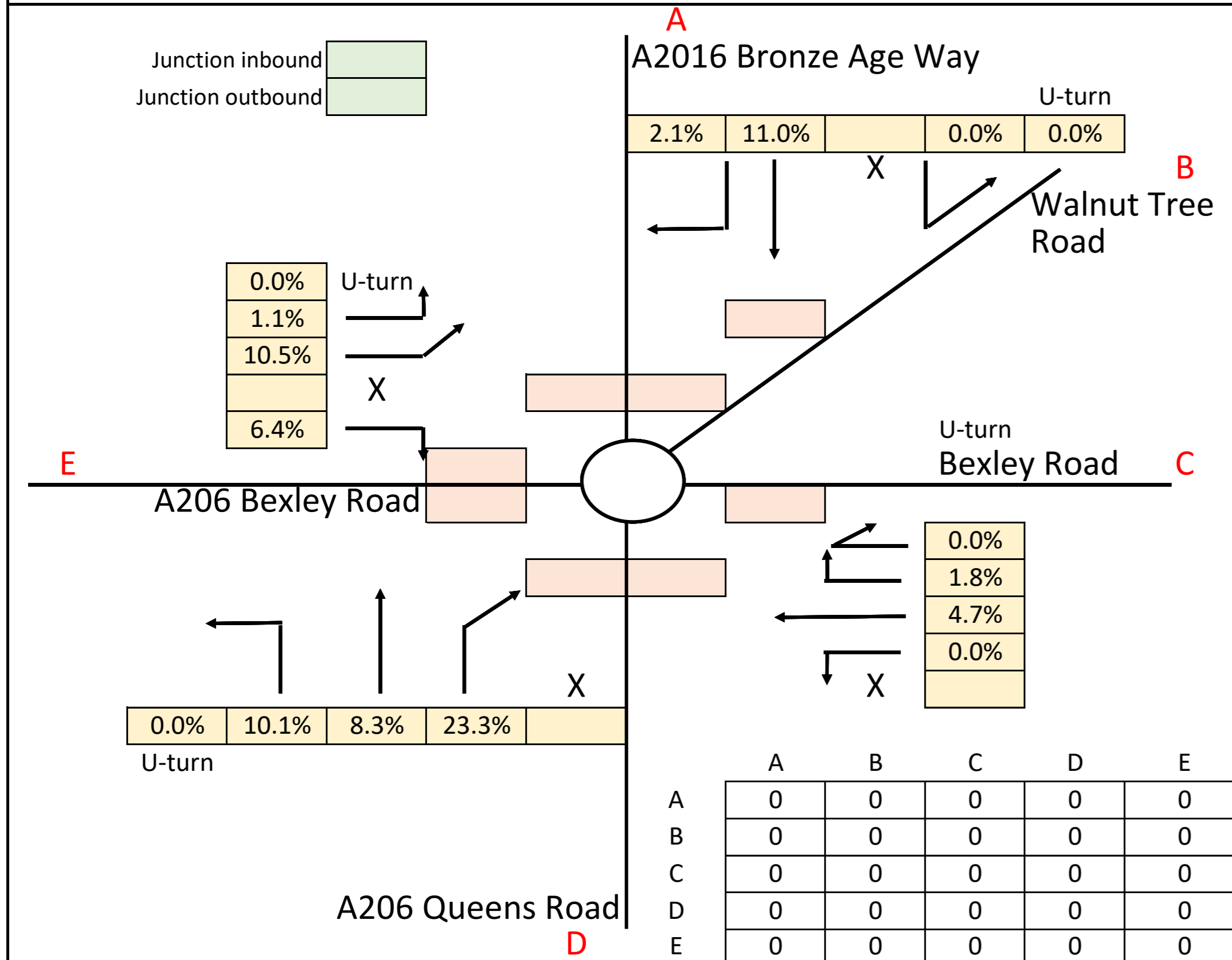
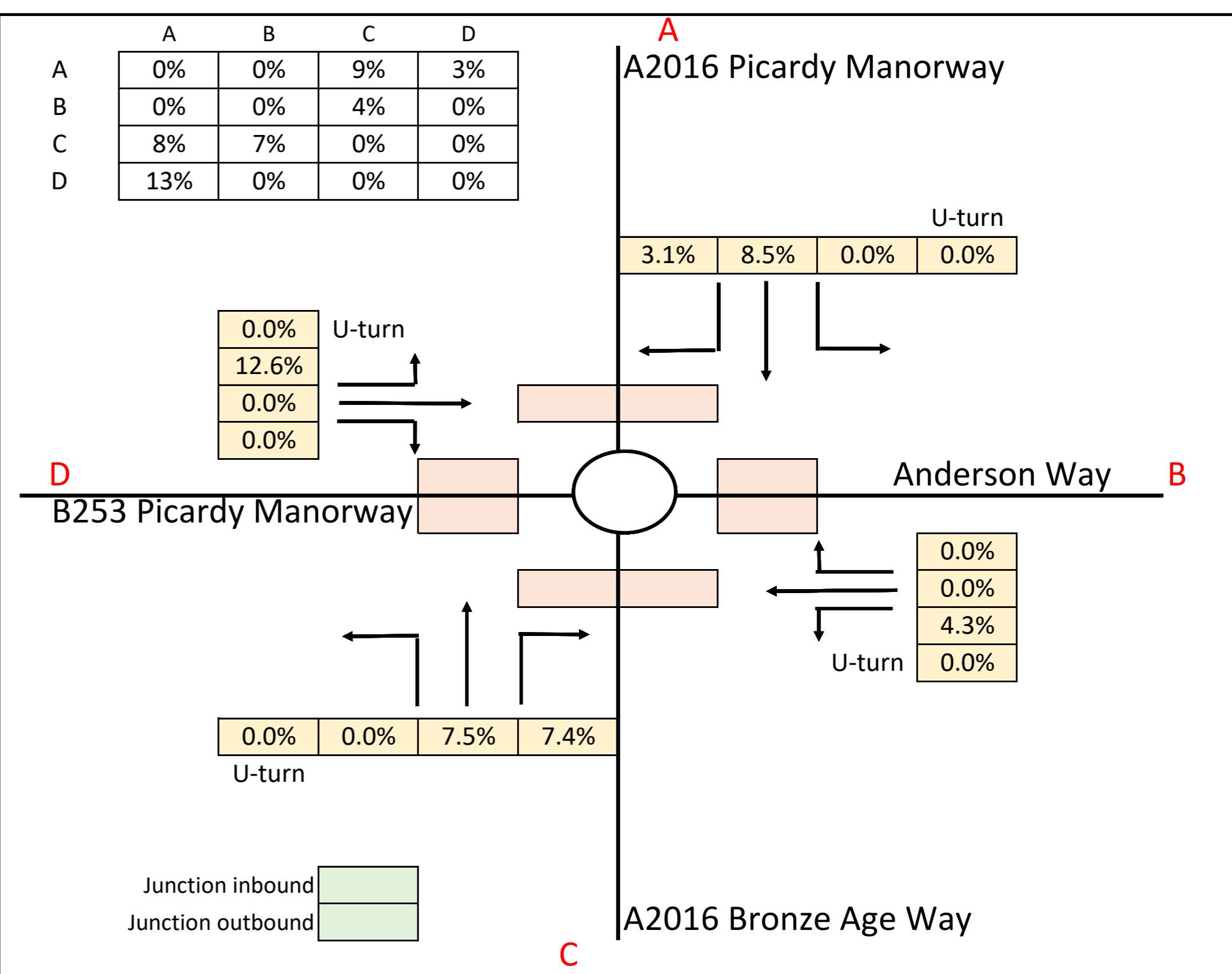
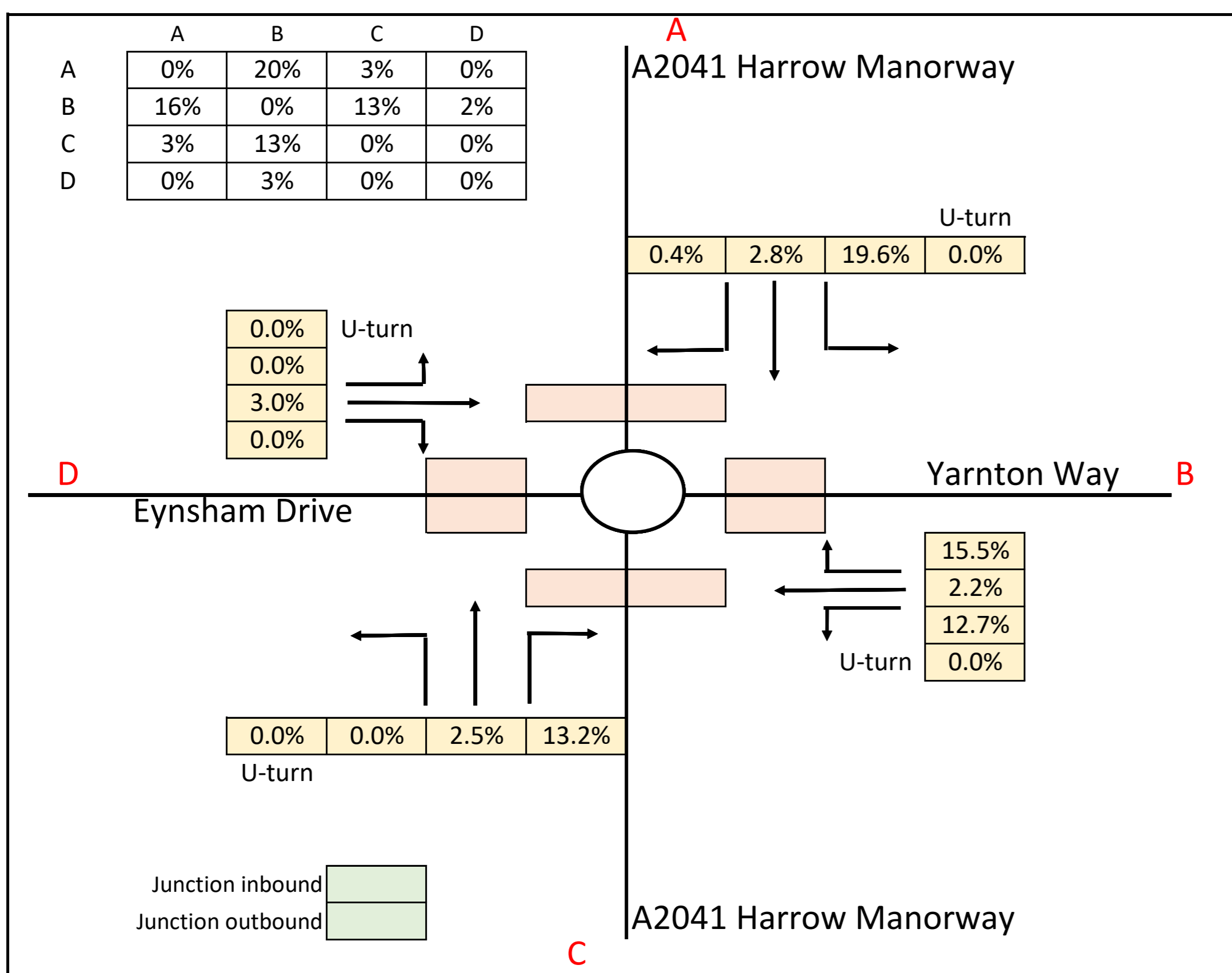
2038 Local Plan without LTC (0800-0900)
Demand Flow (PCUs)



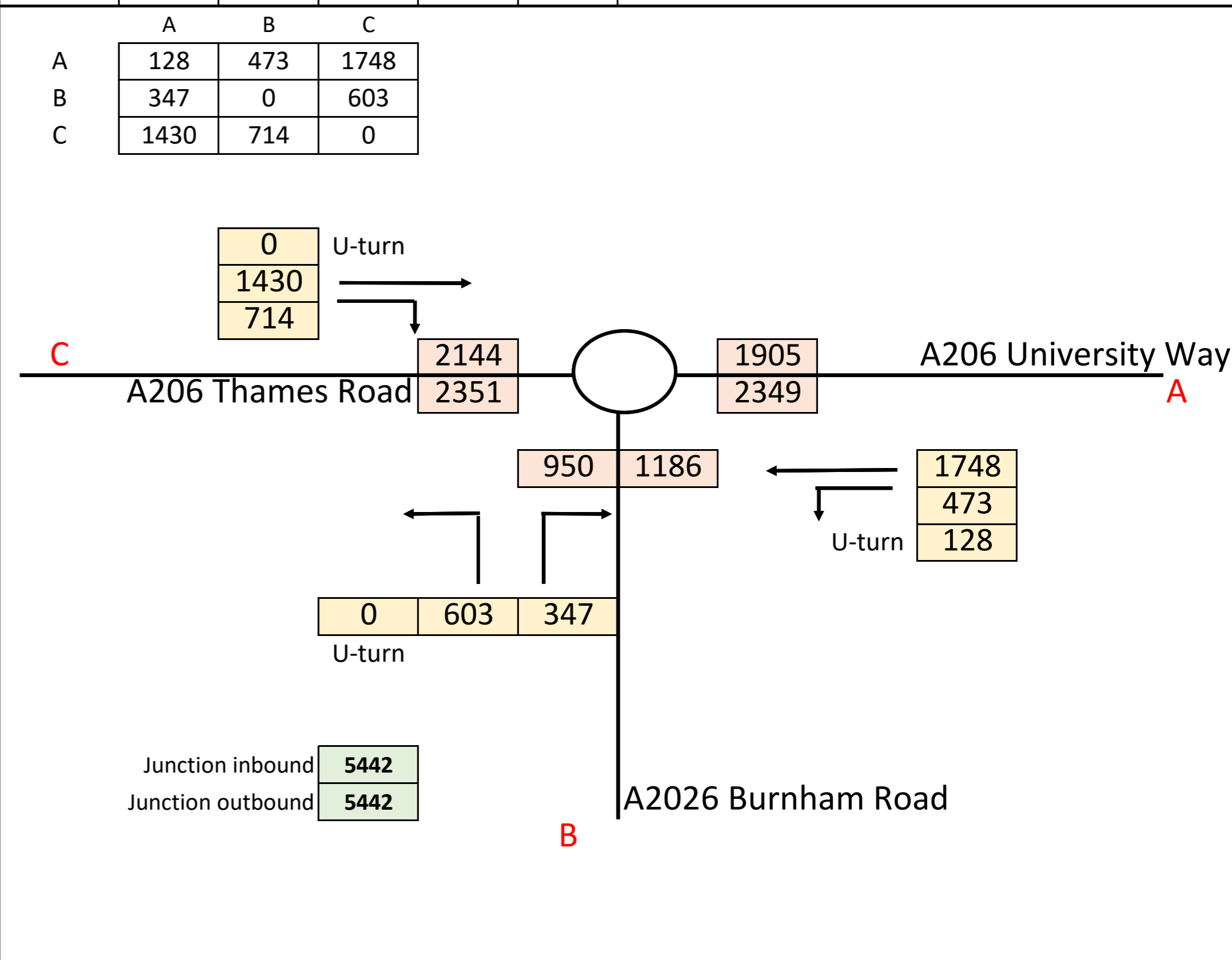
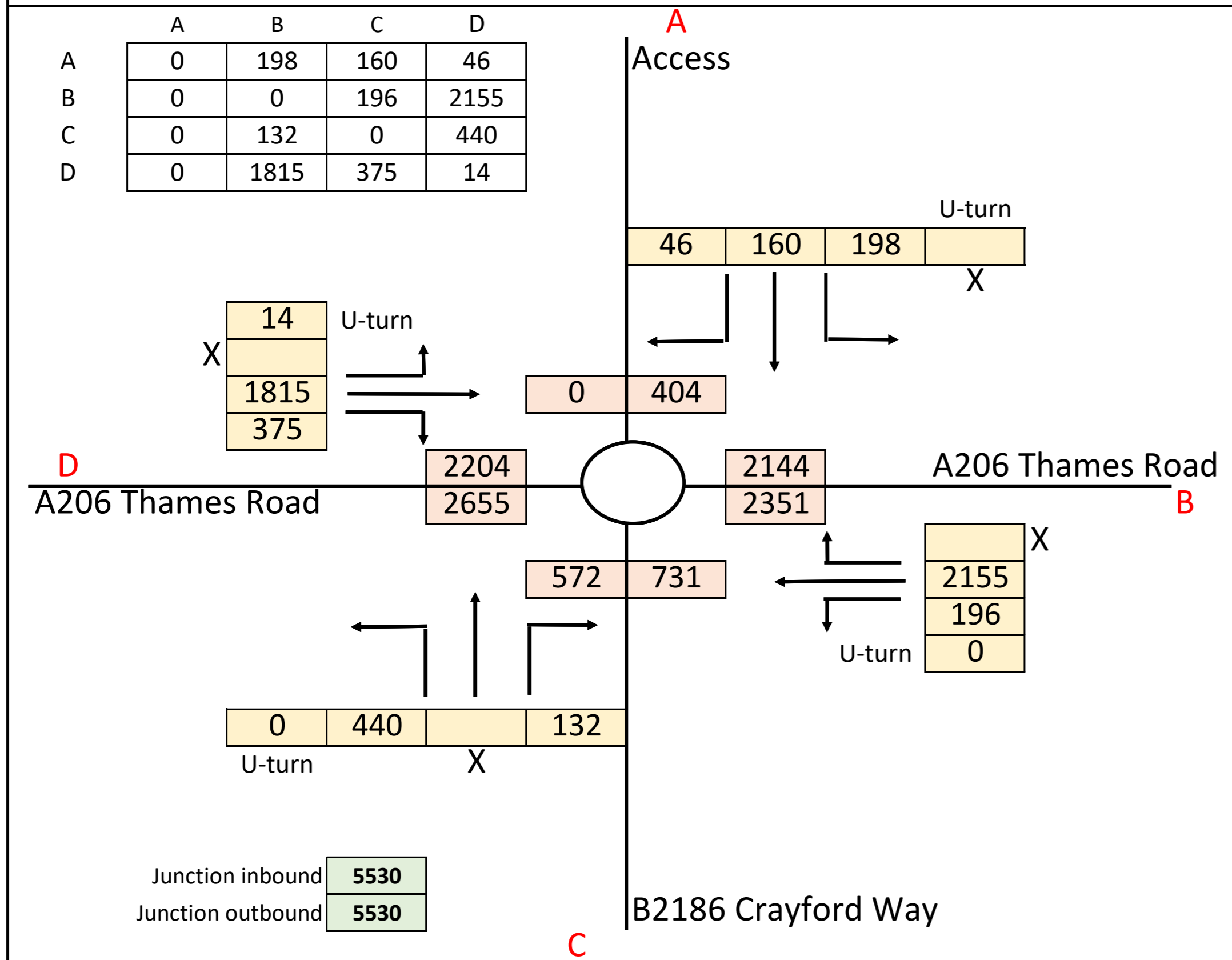
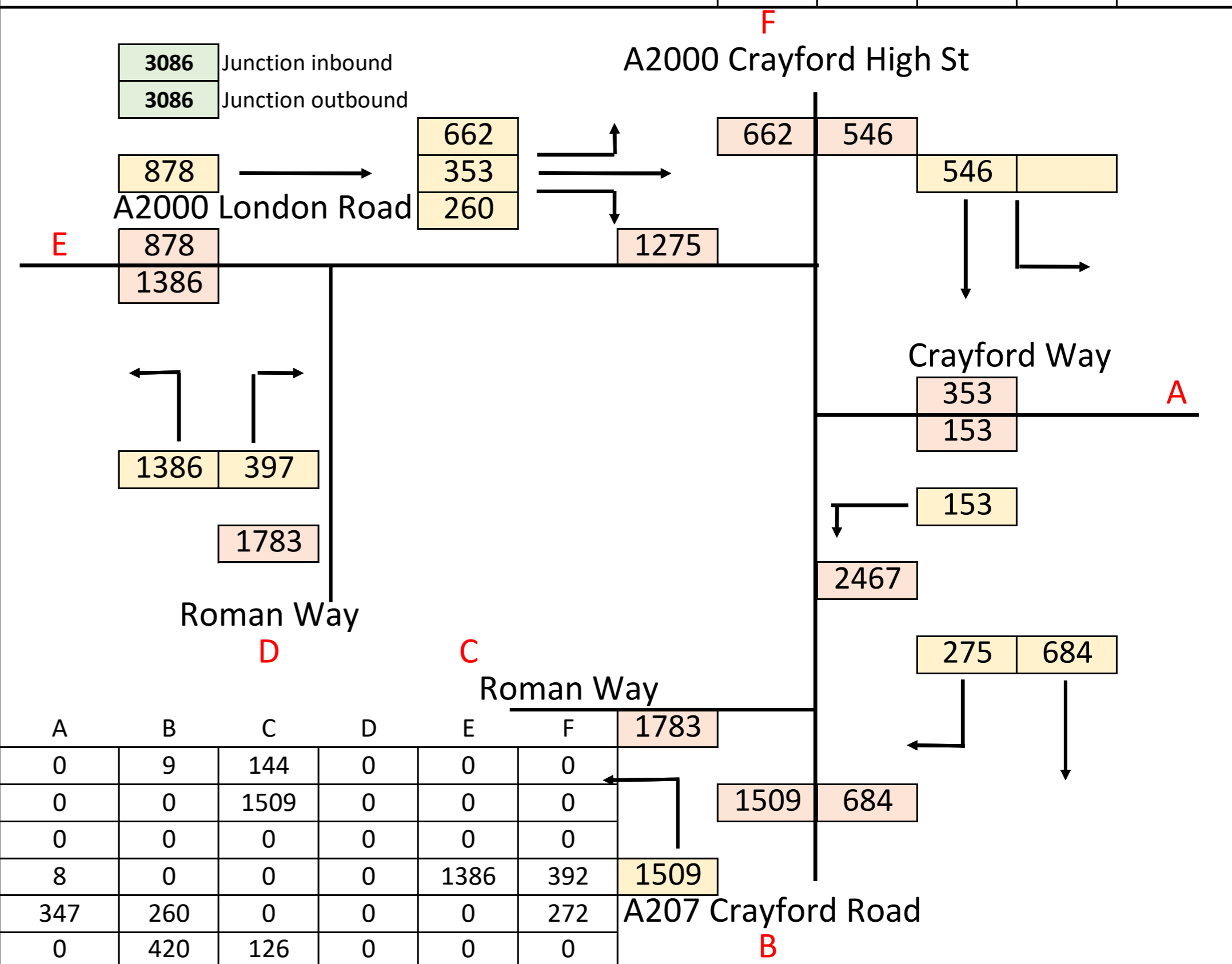
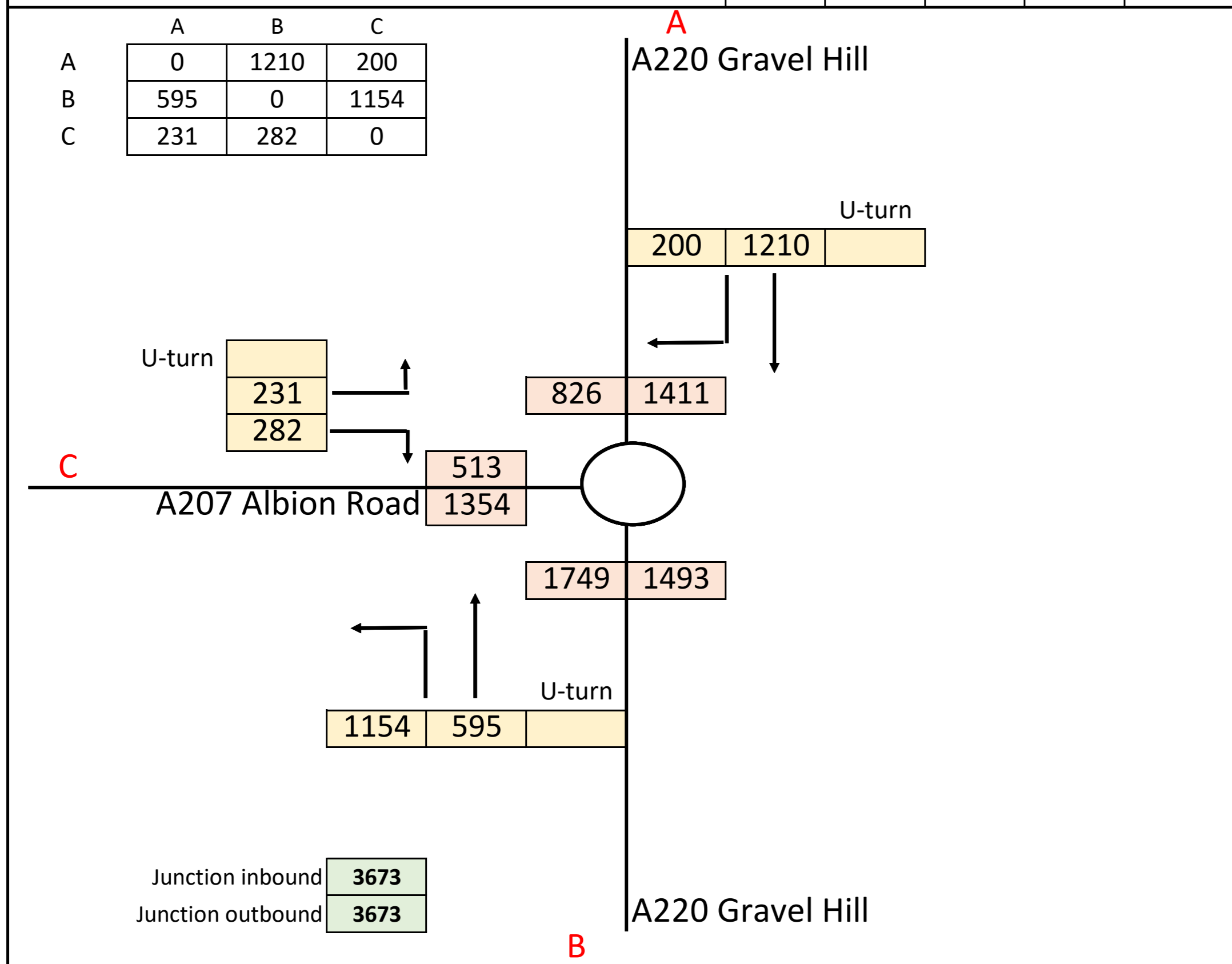
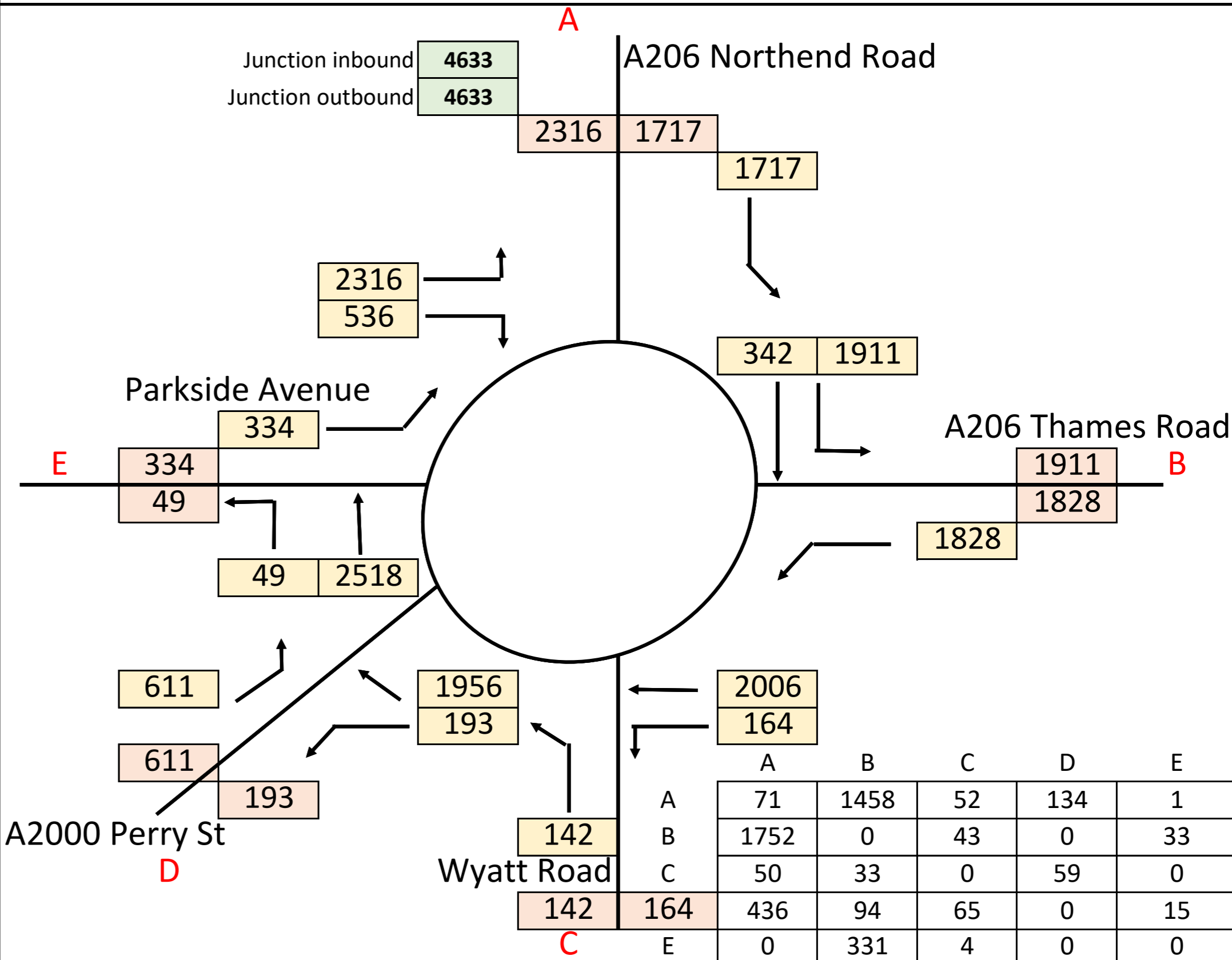
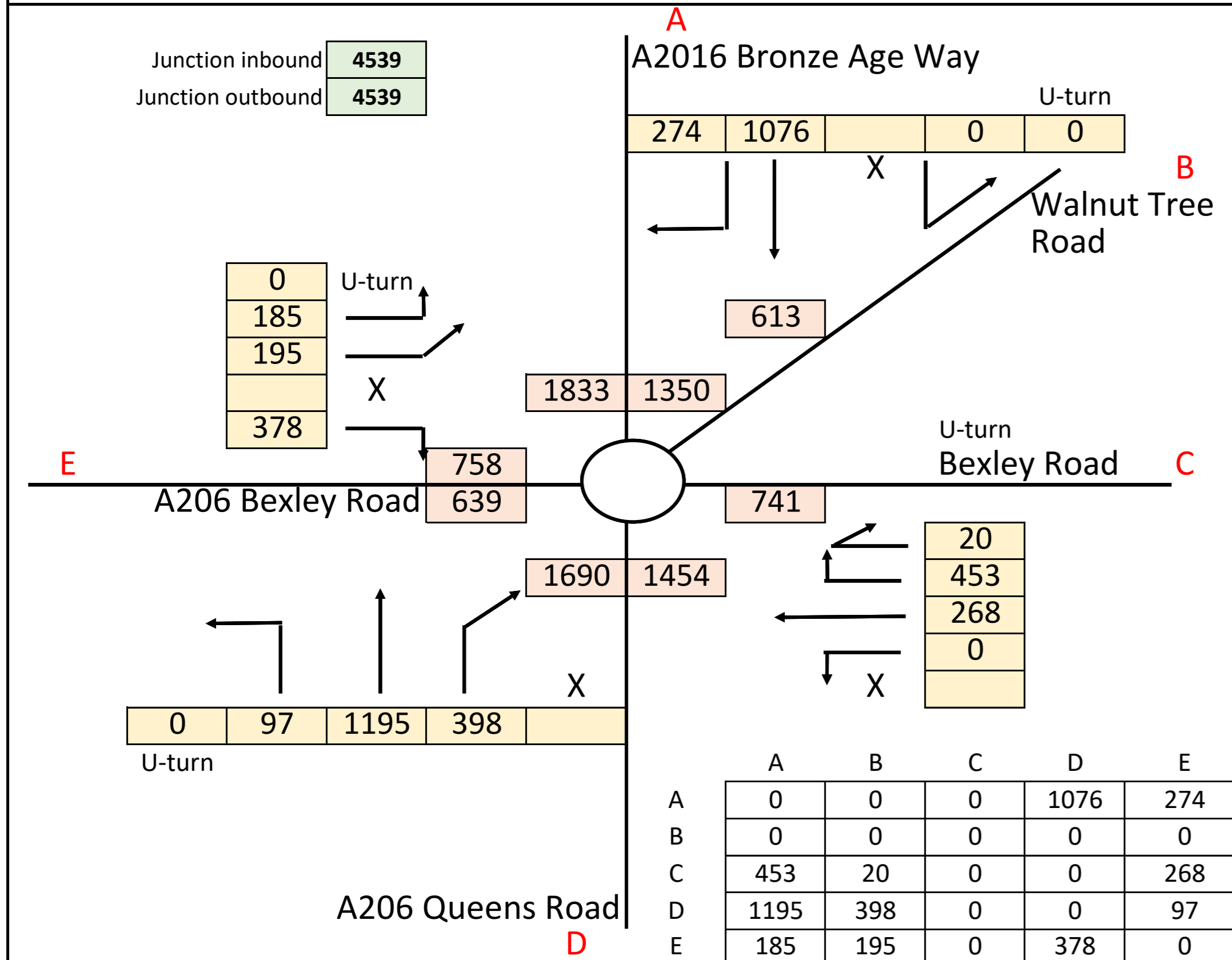
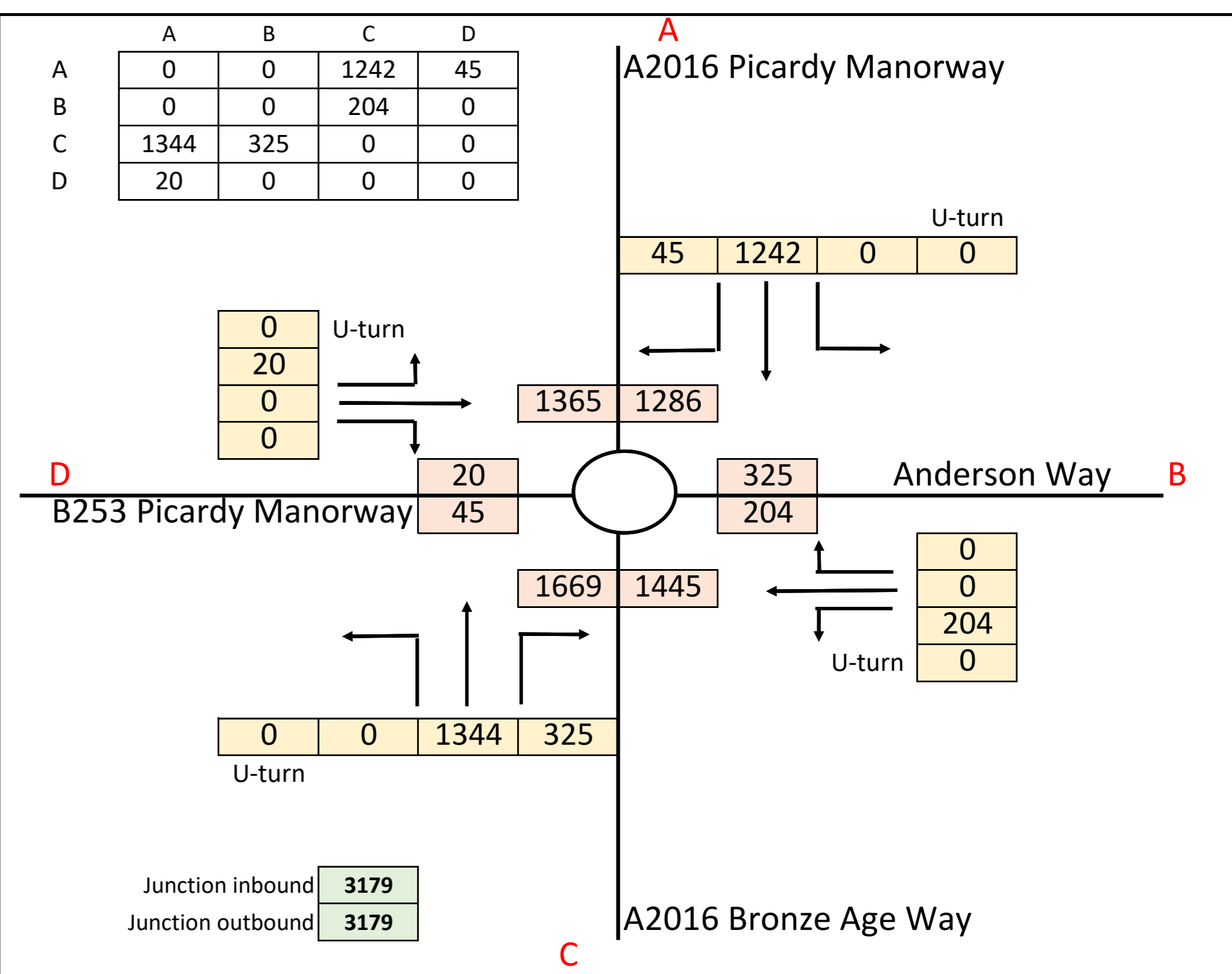
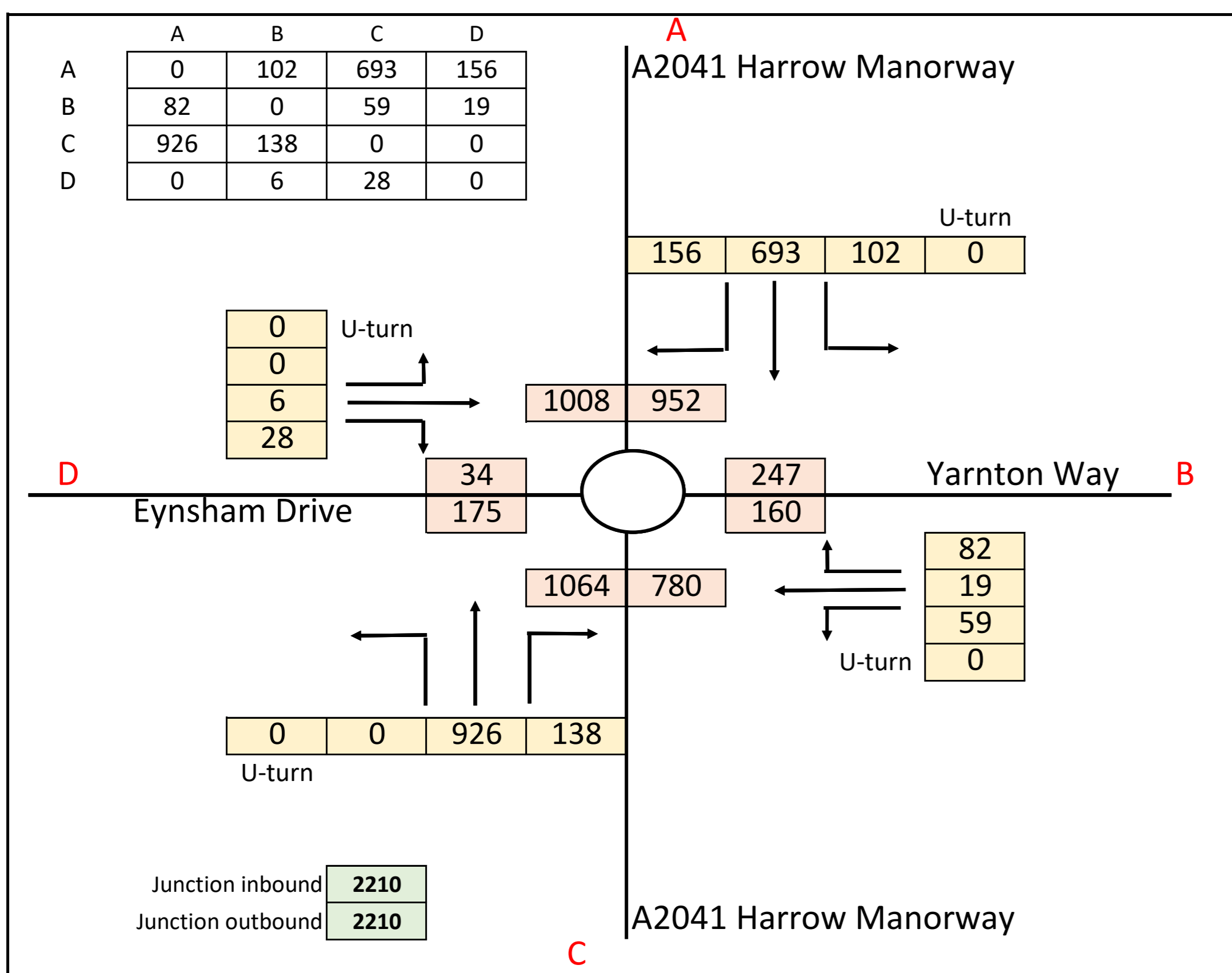
2038 Local Plan without LTC (0800-0900)
Demand Flow (% HGVs based upon PCUs)



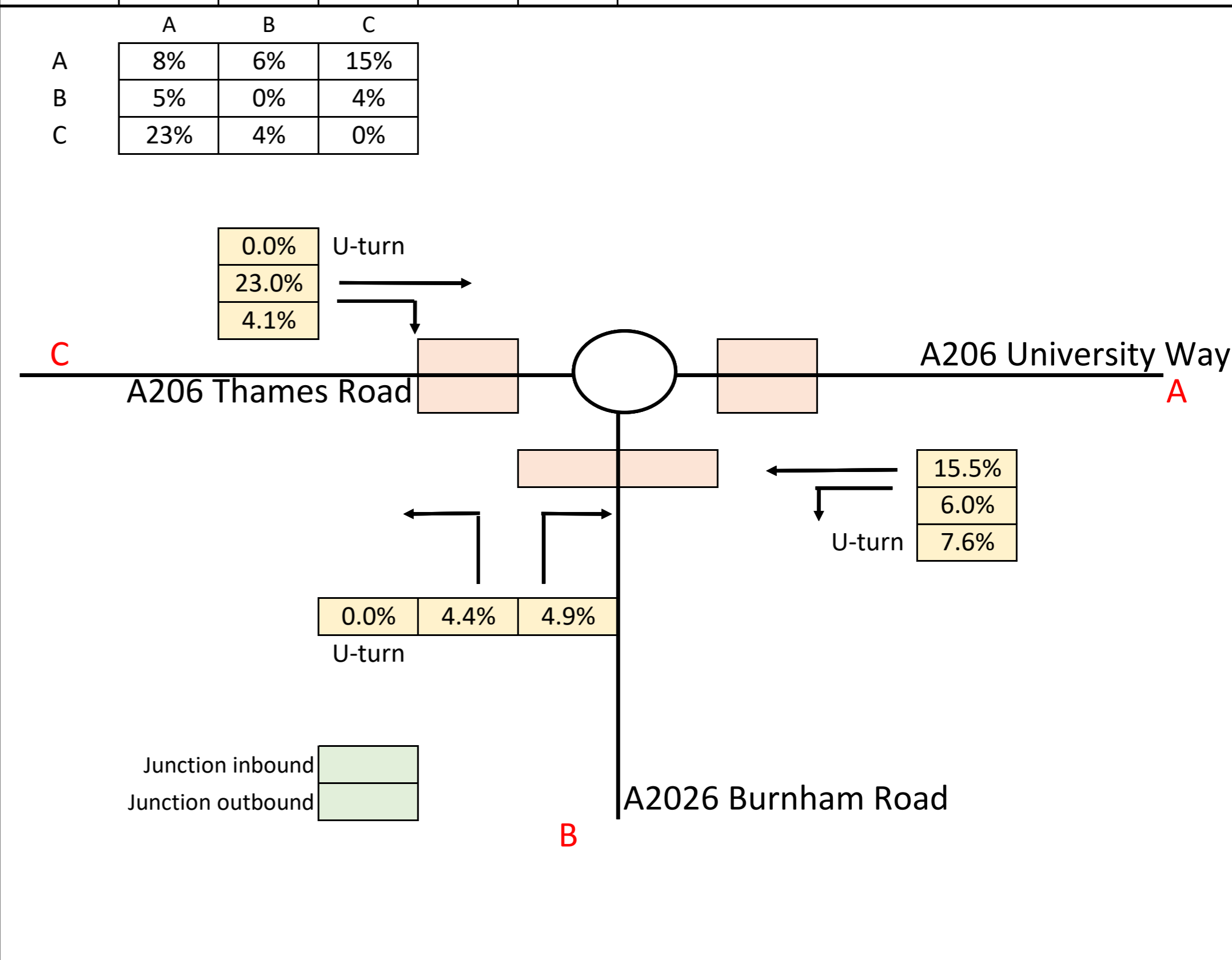
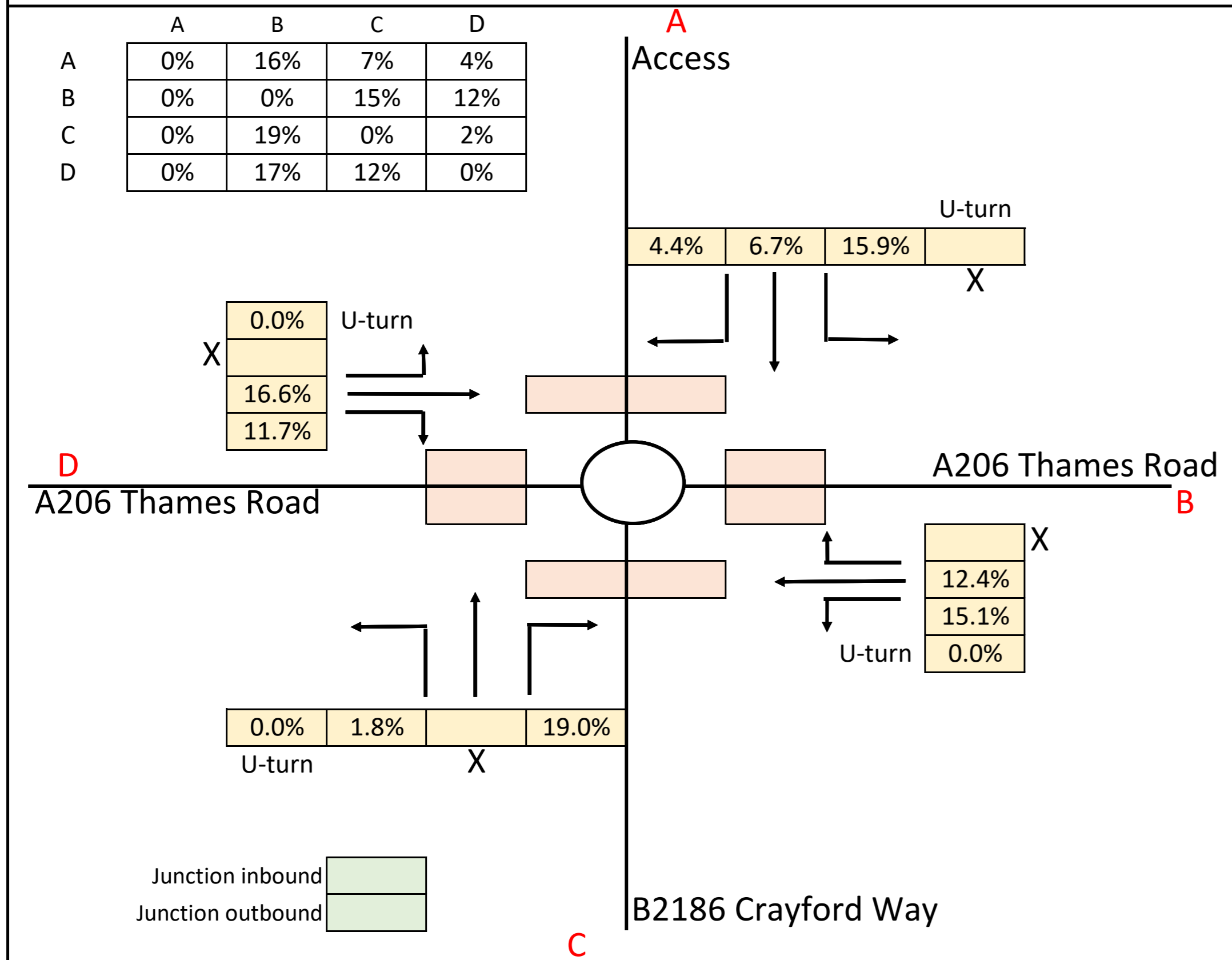
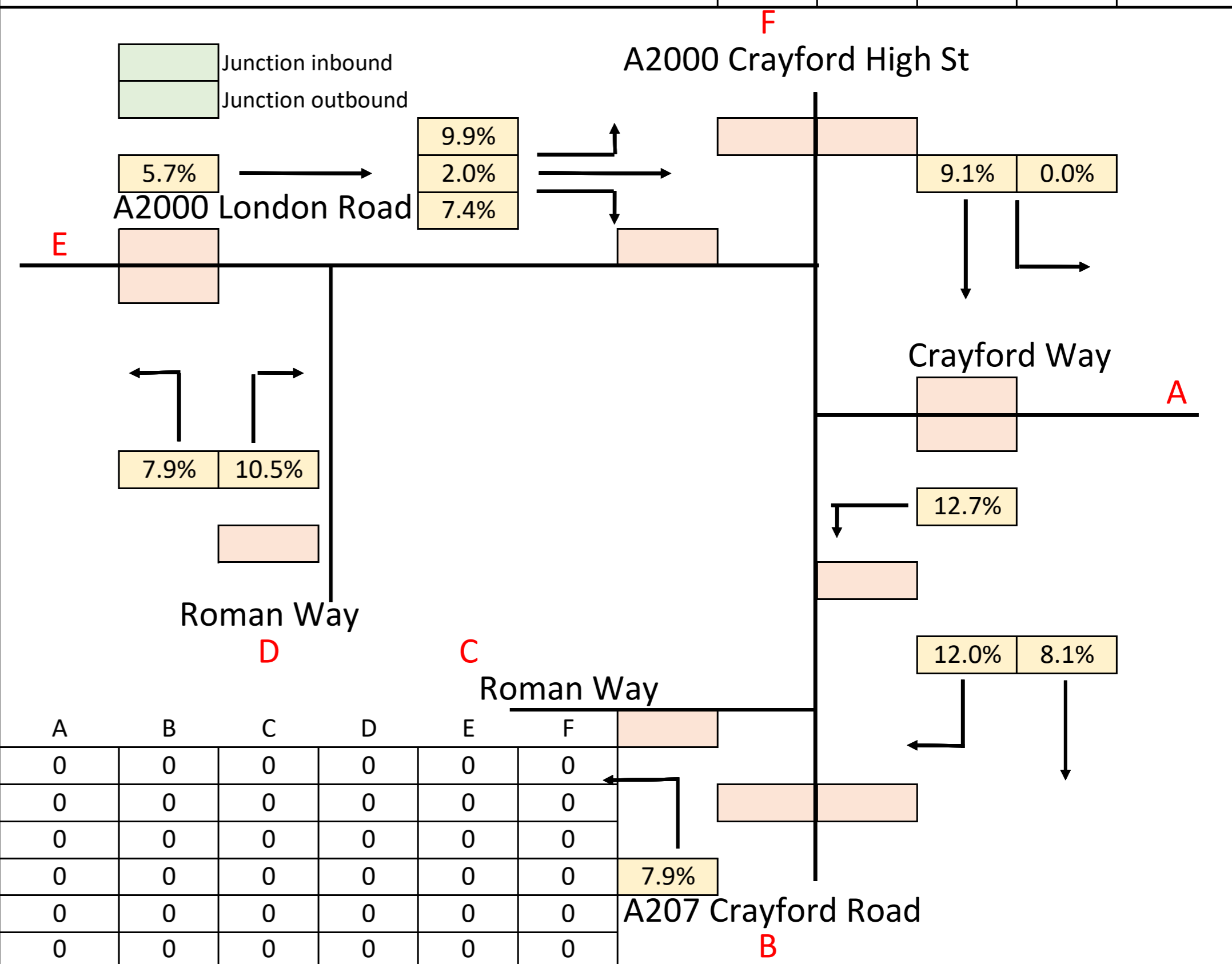
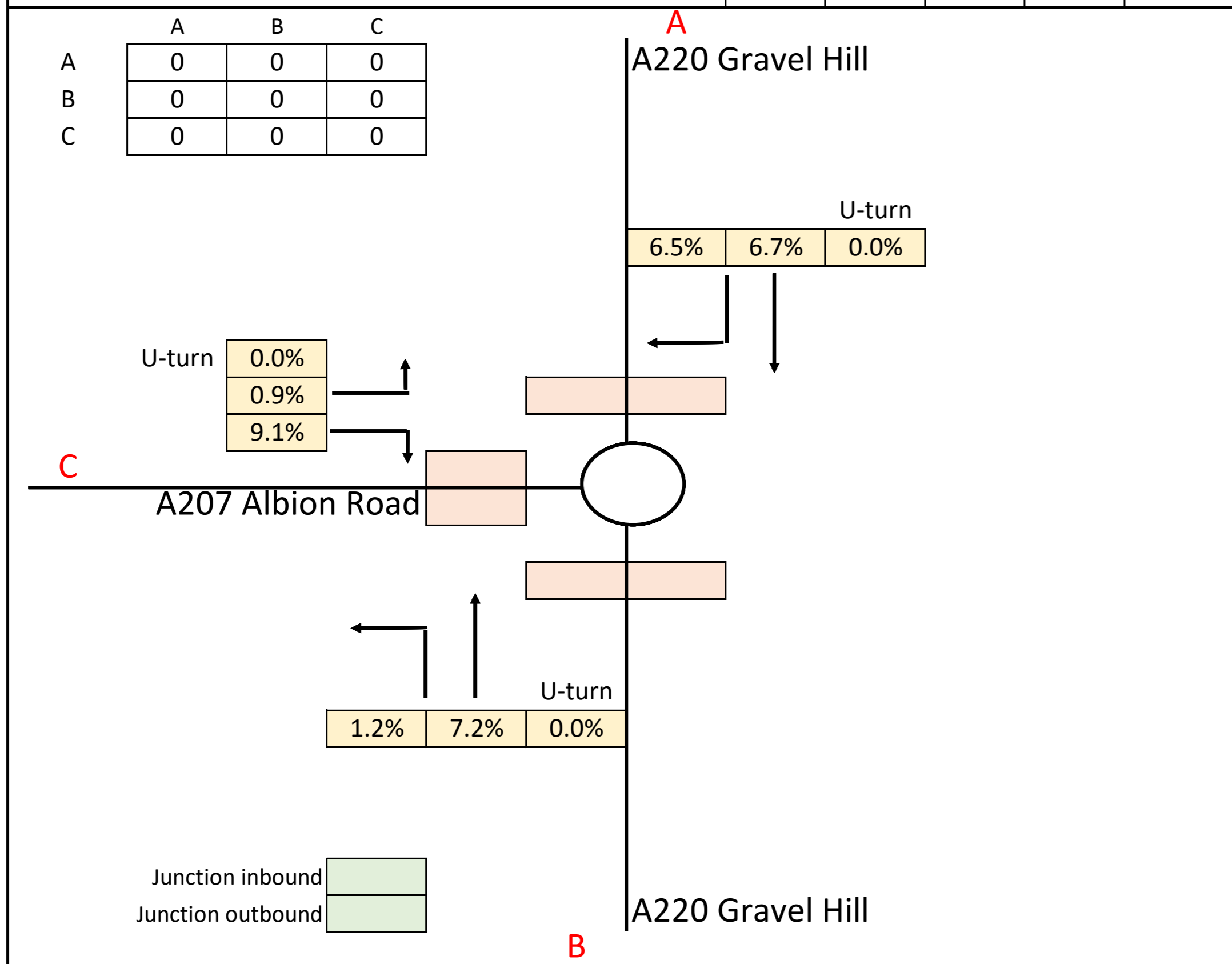
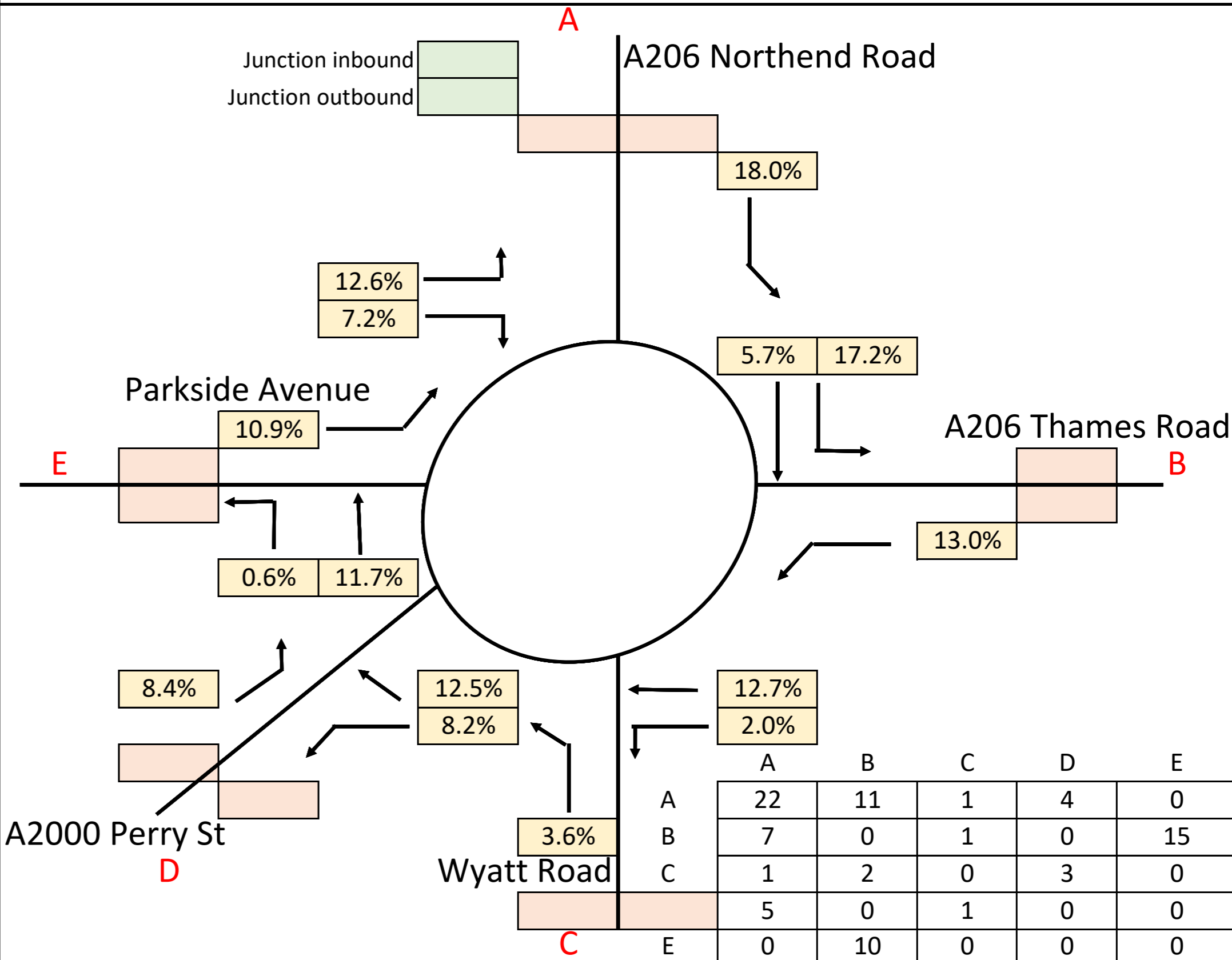
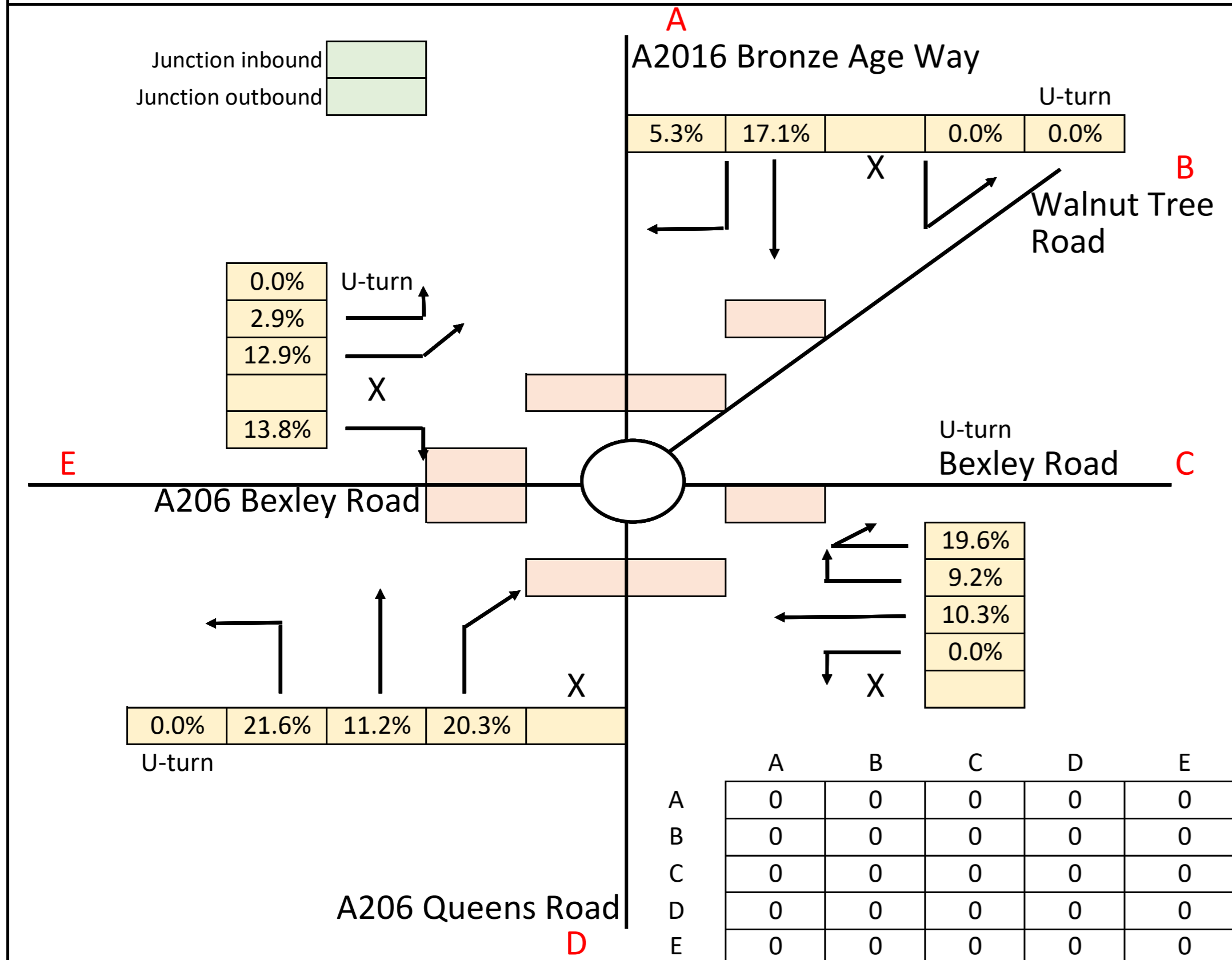
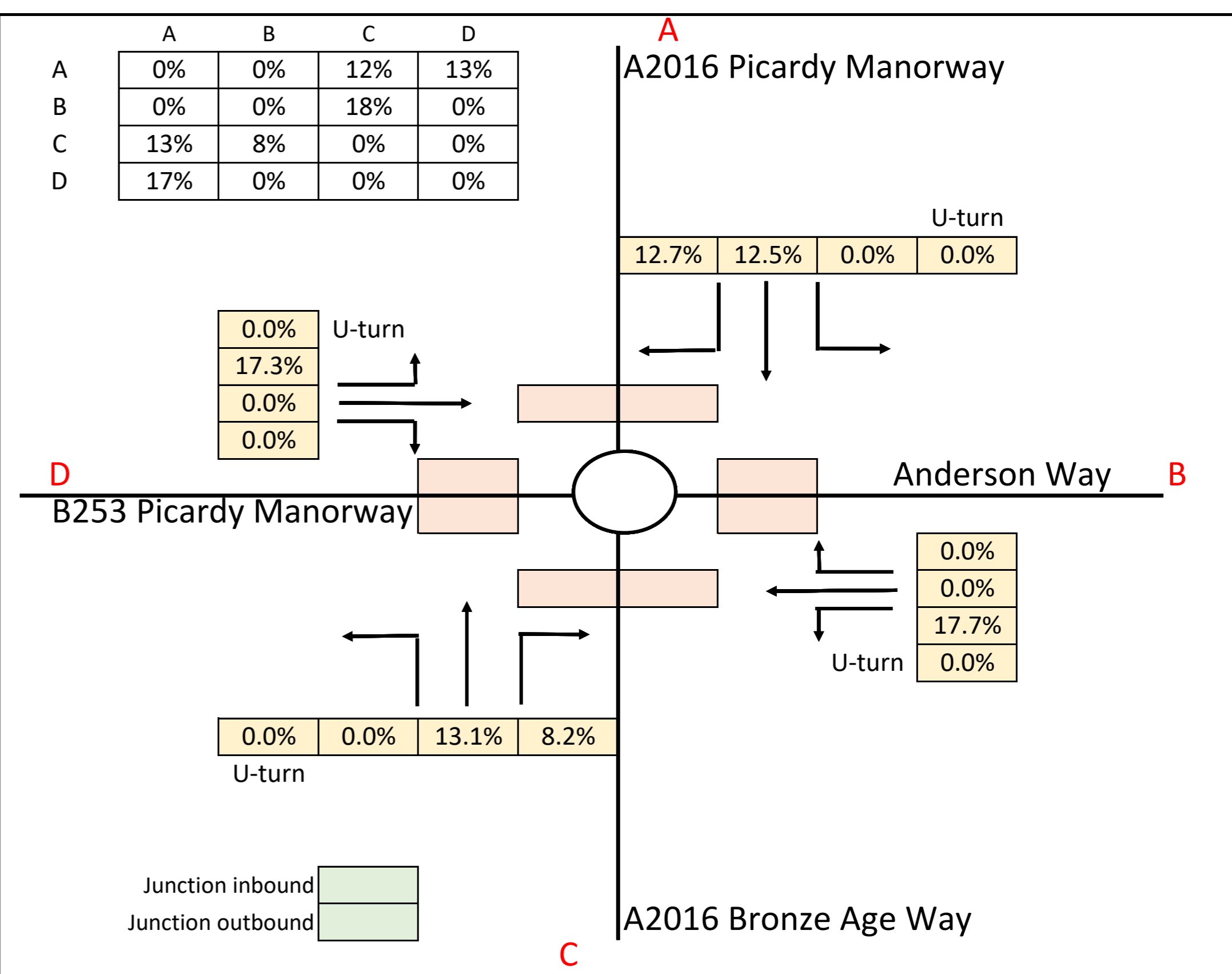
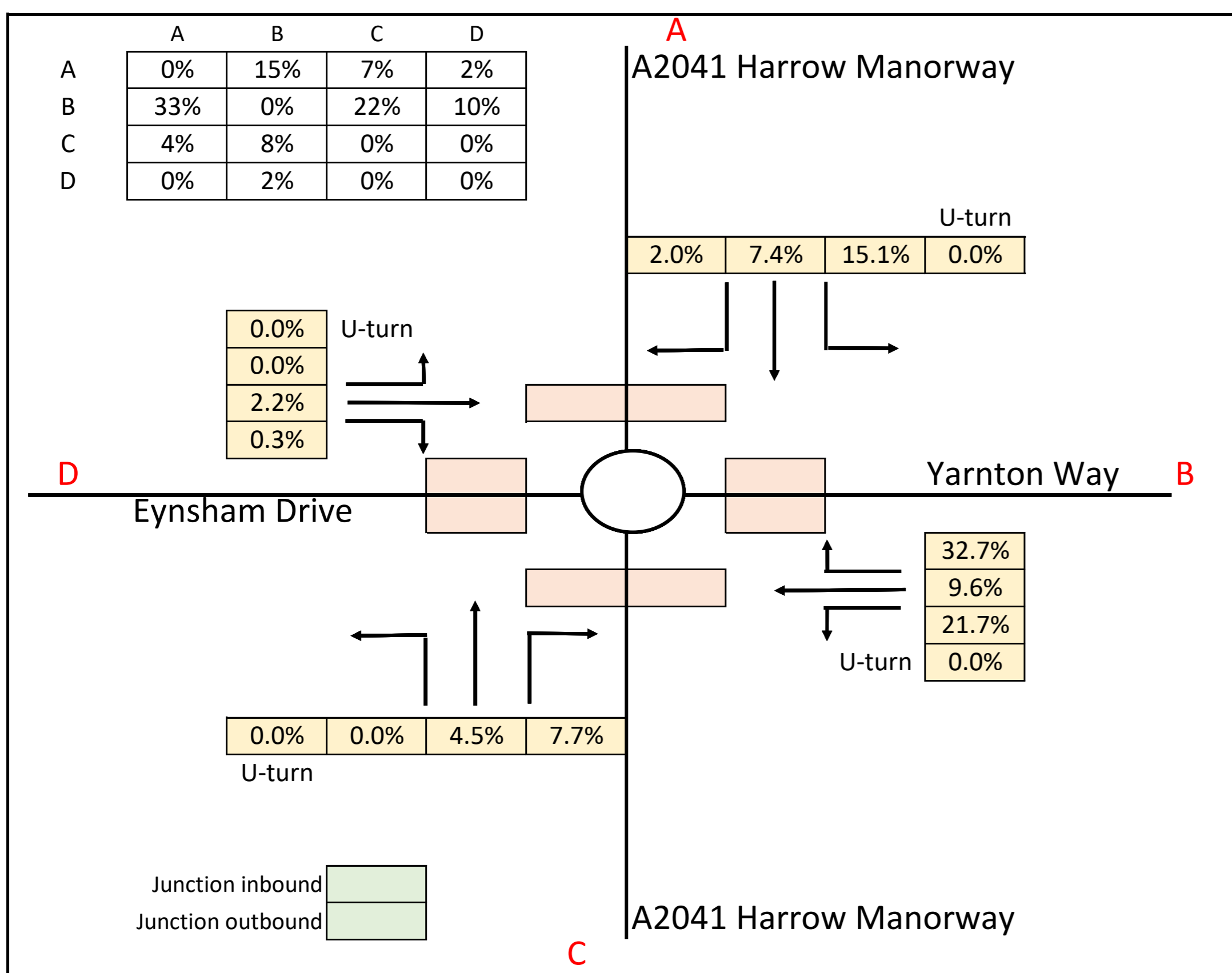
2038 Local Plan without LTC (1700-1800)
Demand Flow (PCUs)



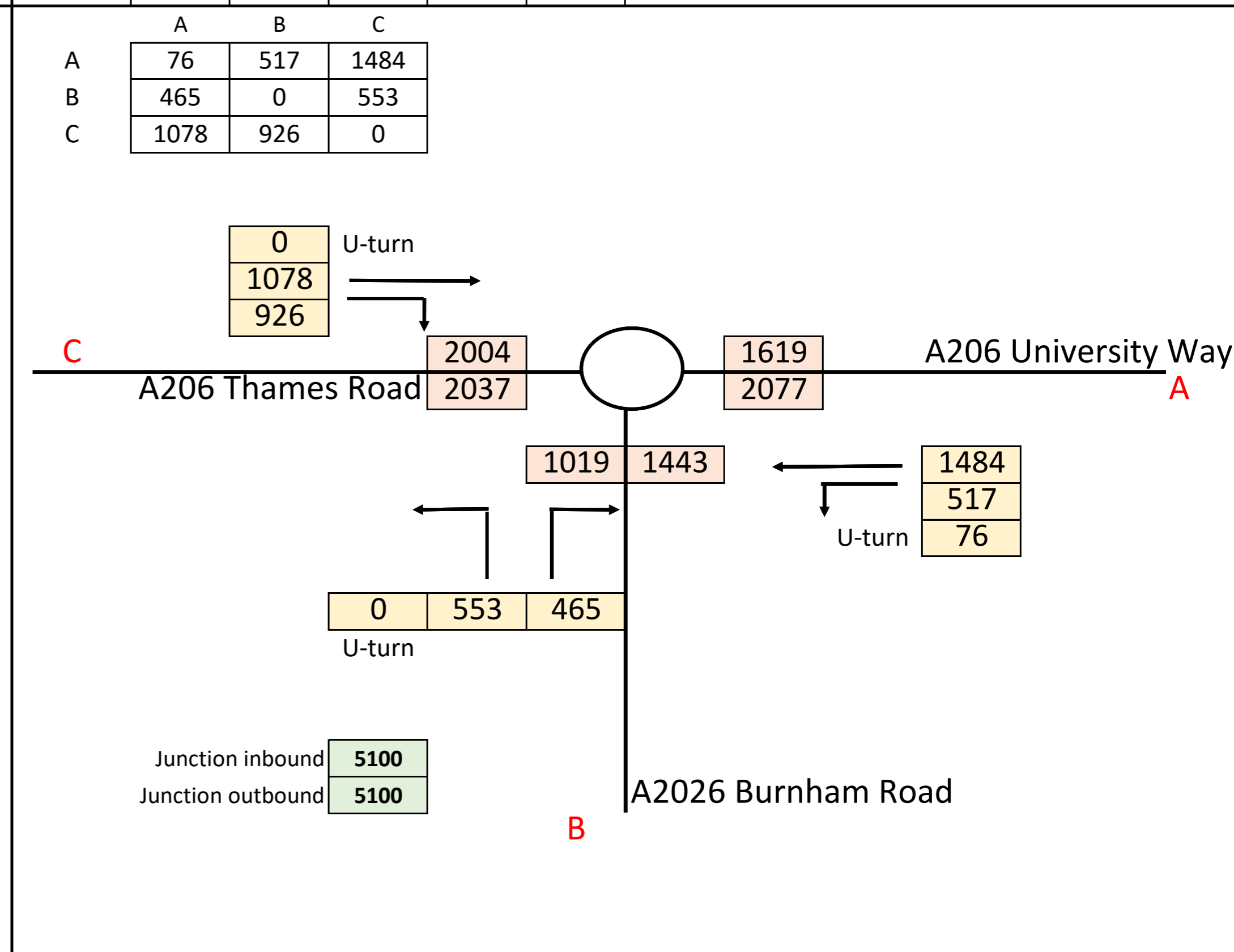
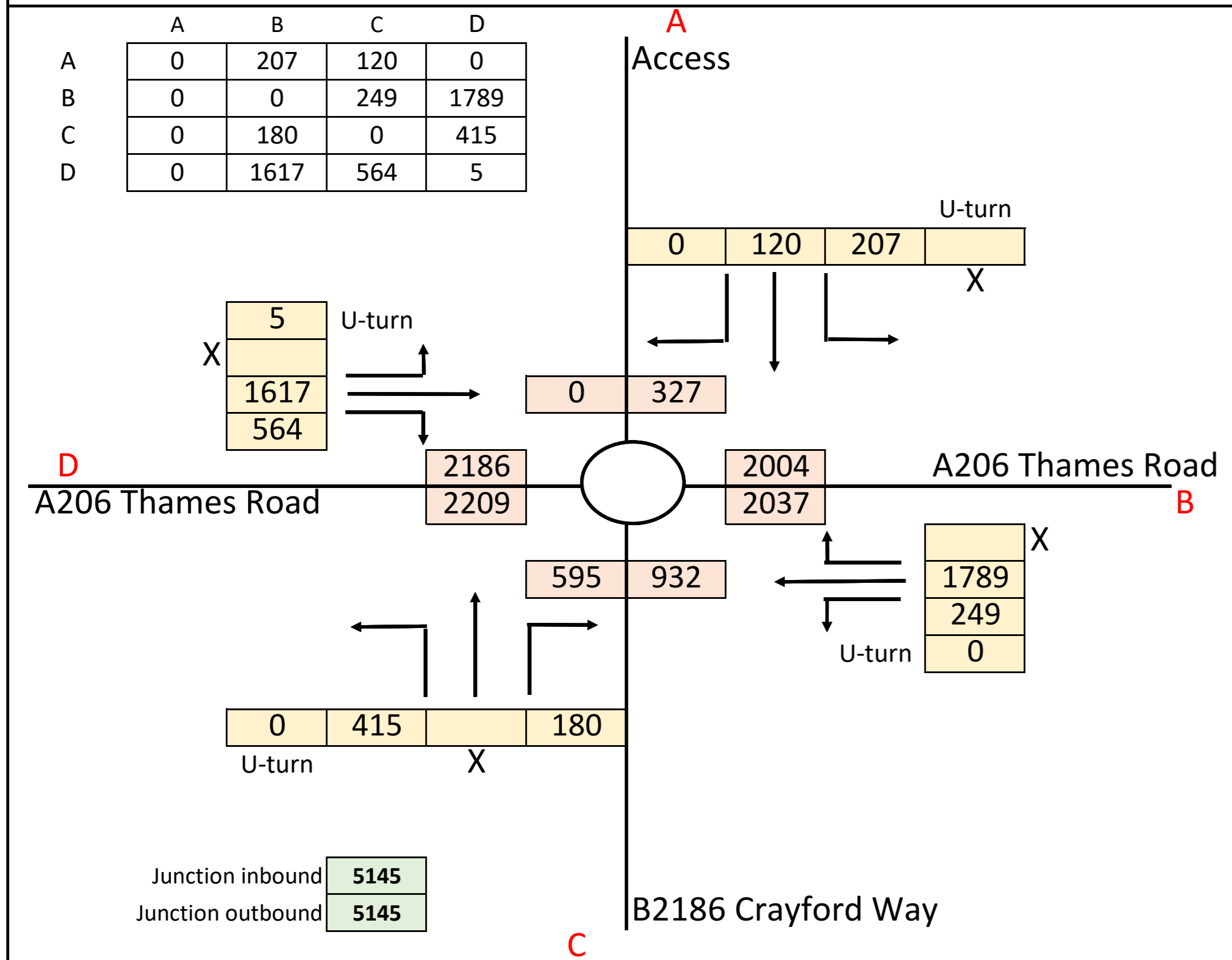
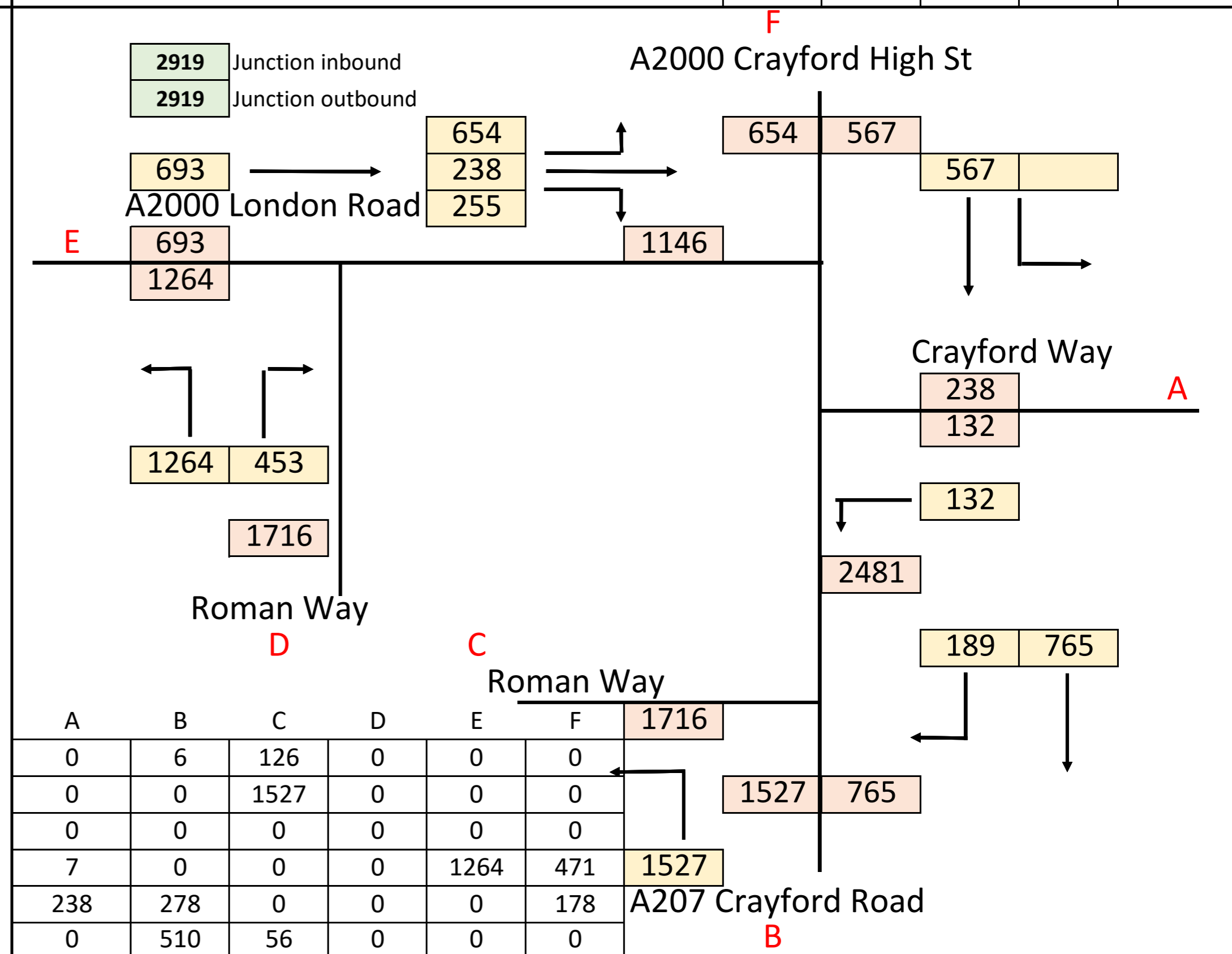
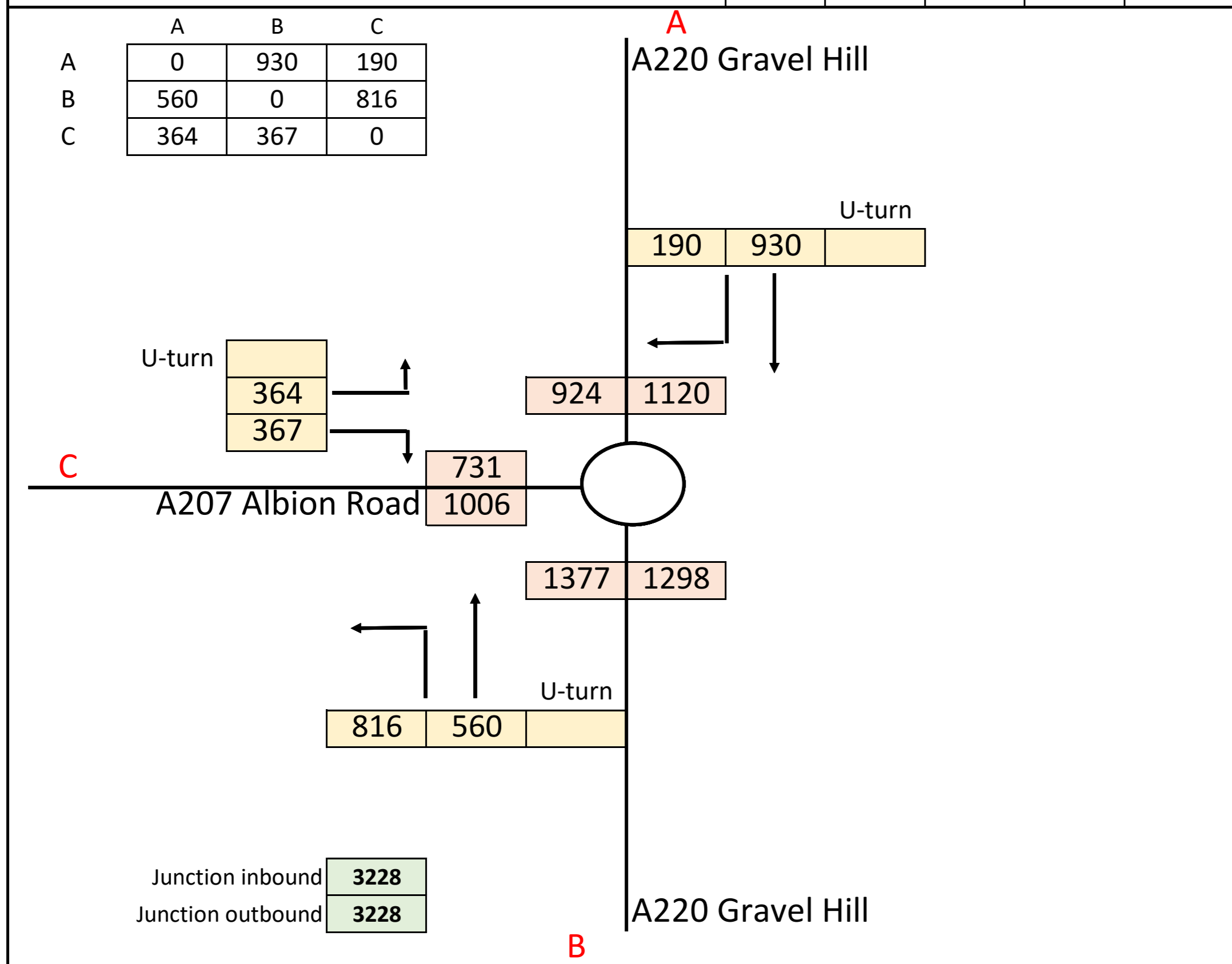
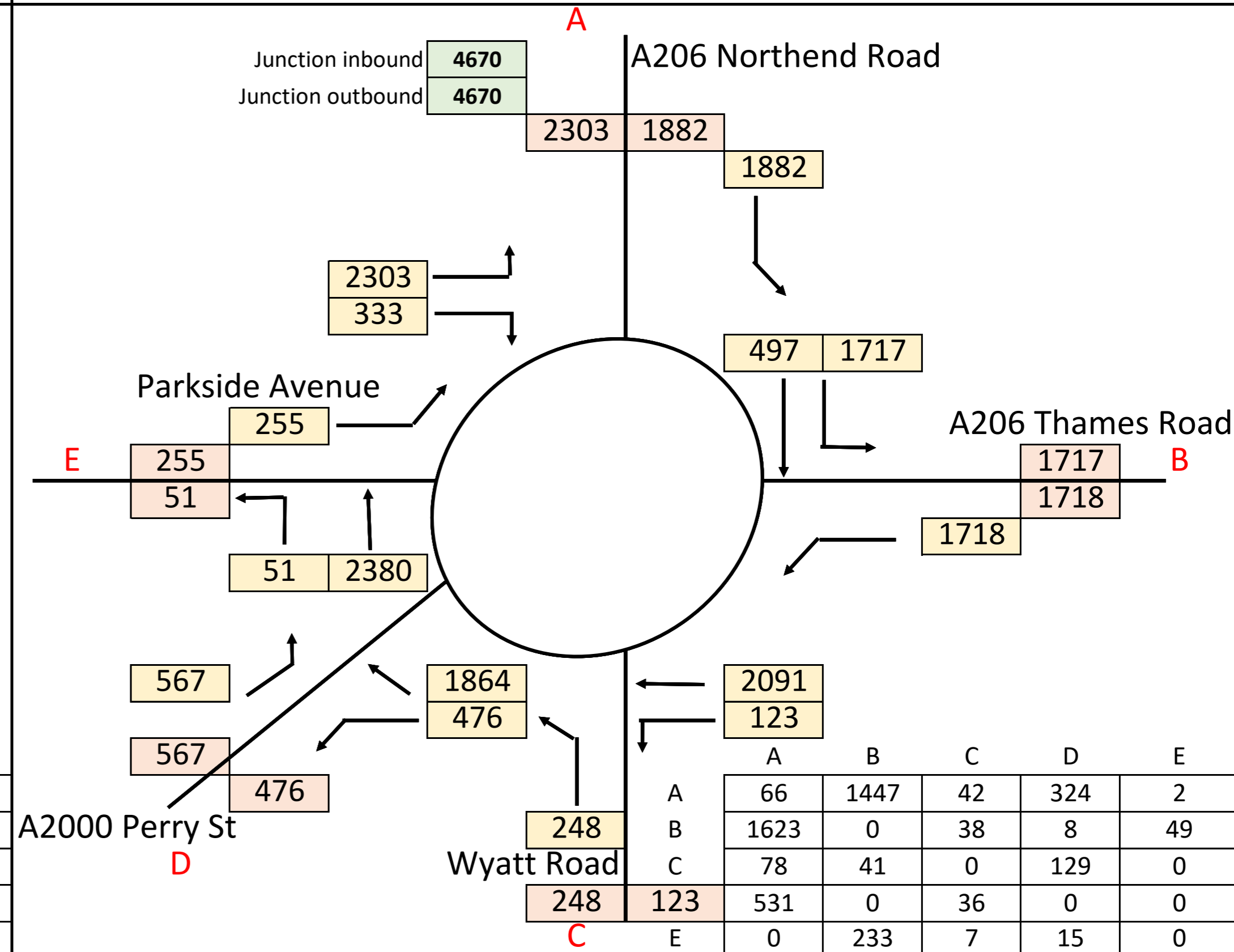
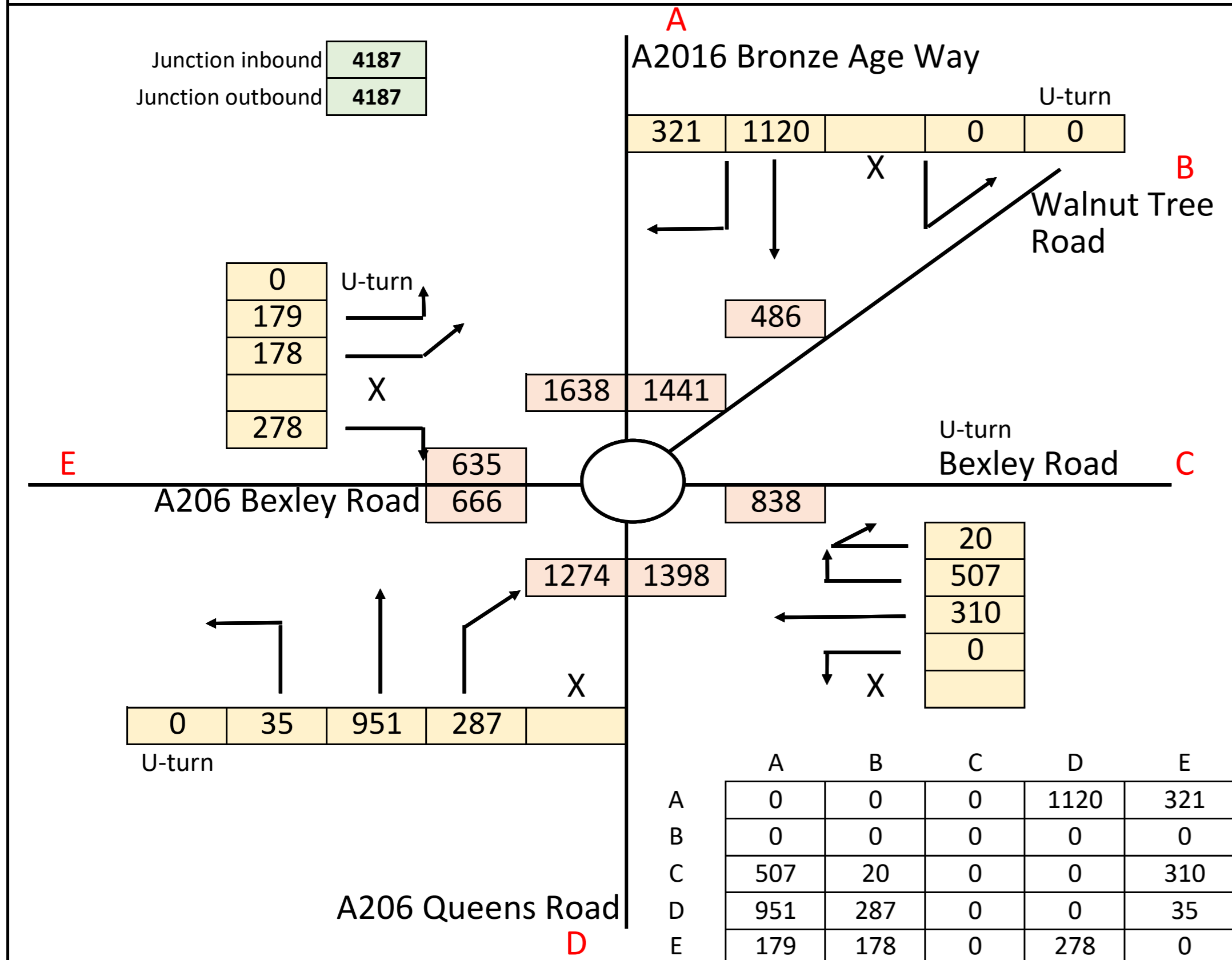
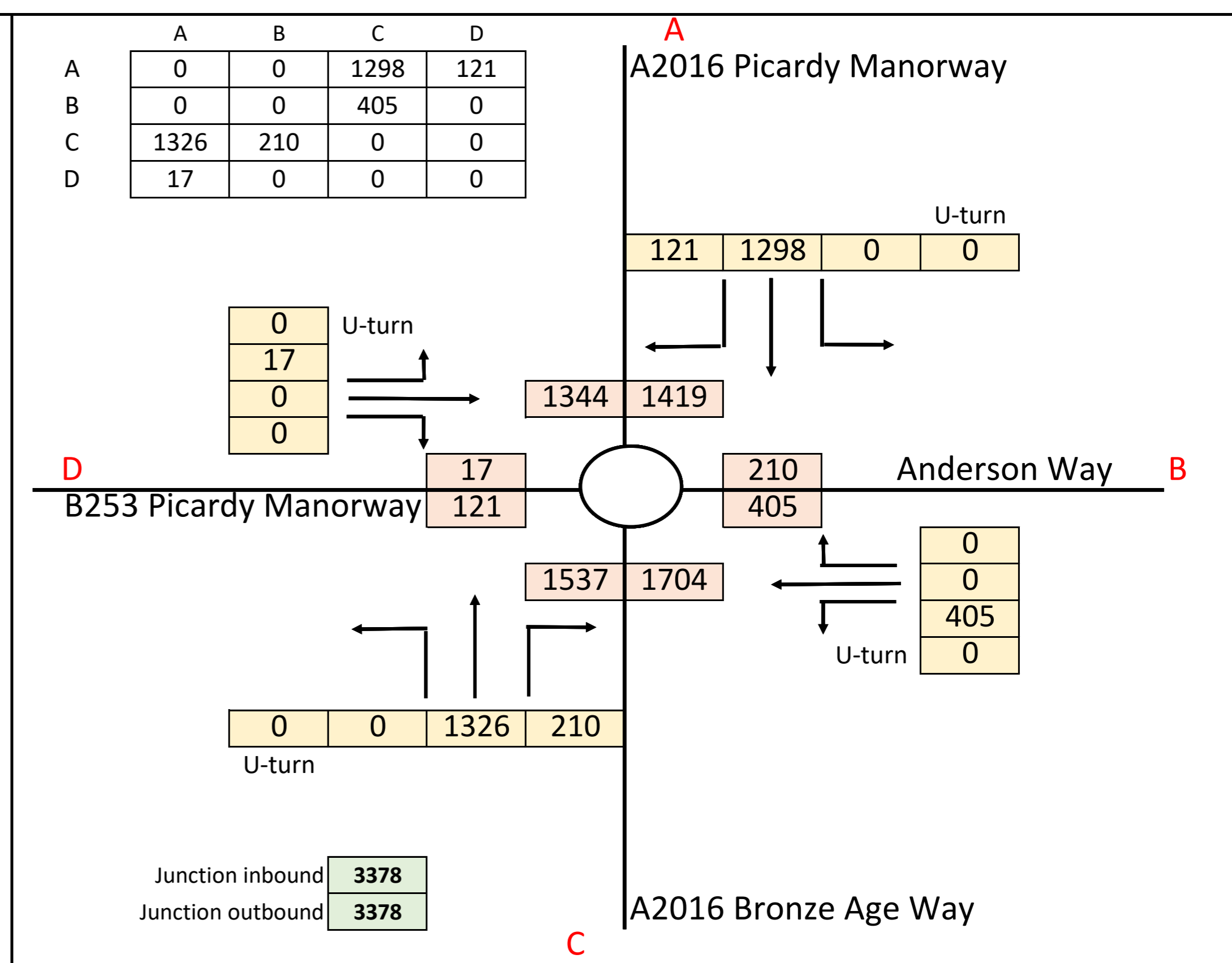
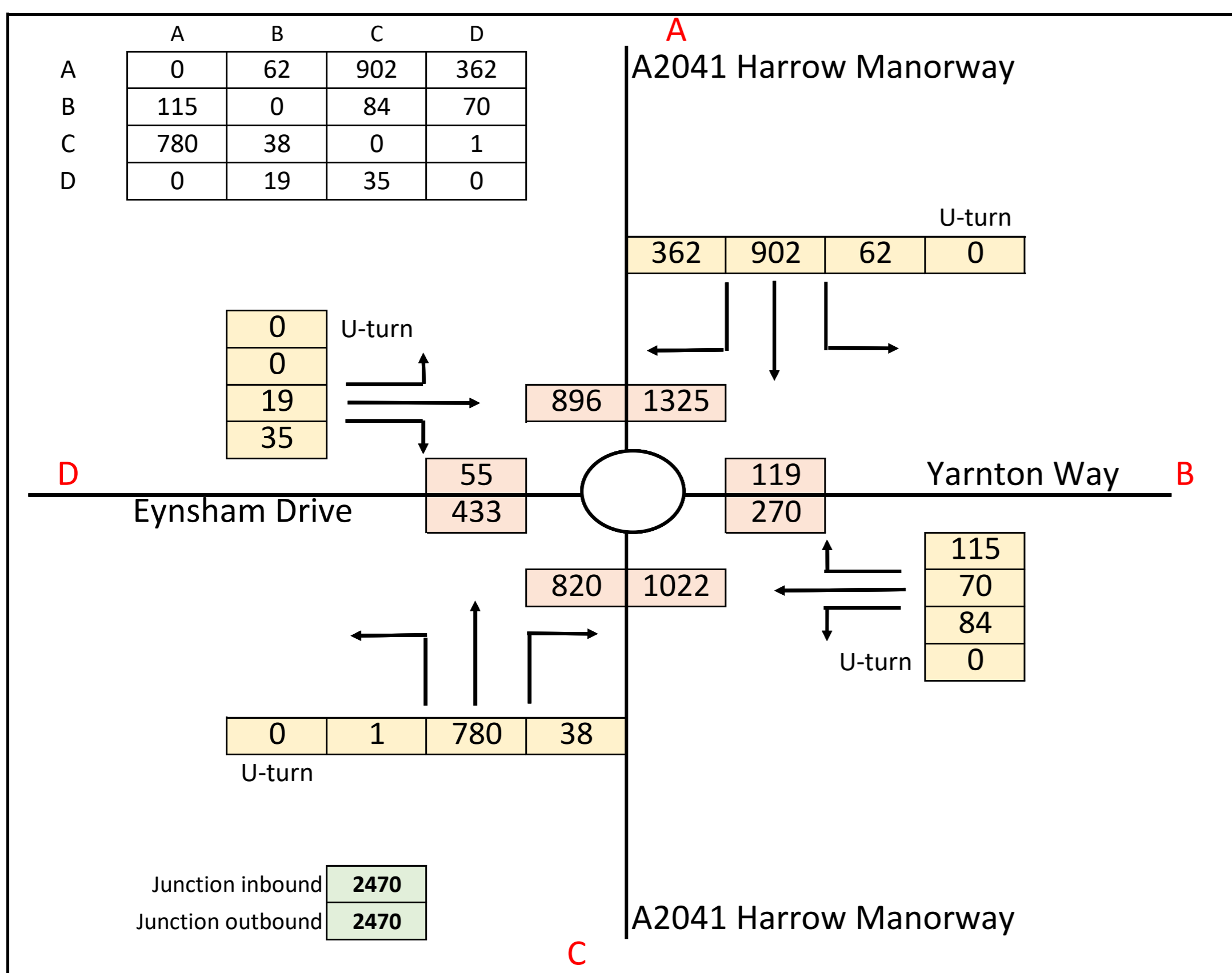
2038 Local Plan without LTC (1700-1800)
Demand Flow (% HGVs based upon PCUs)



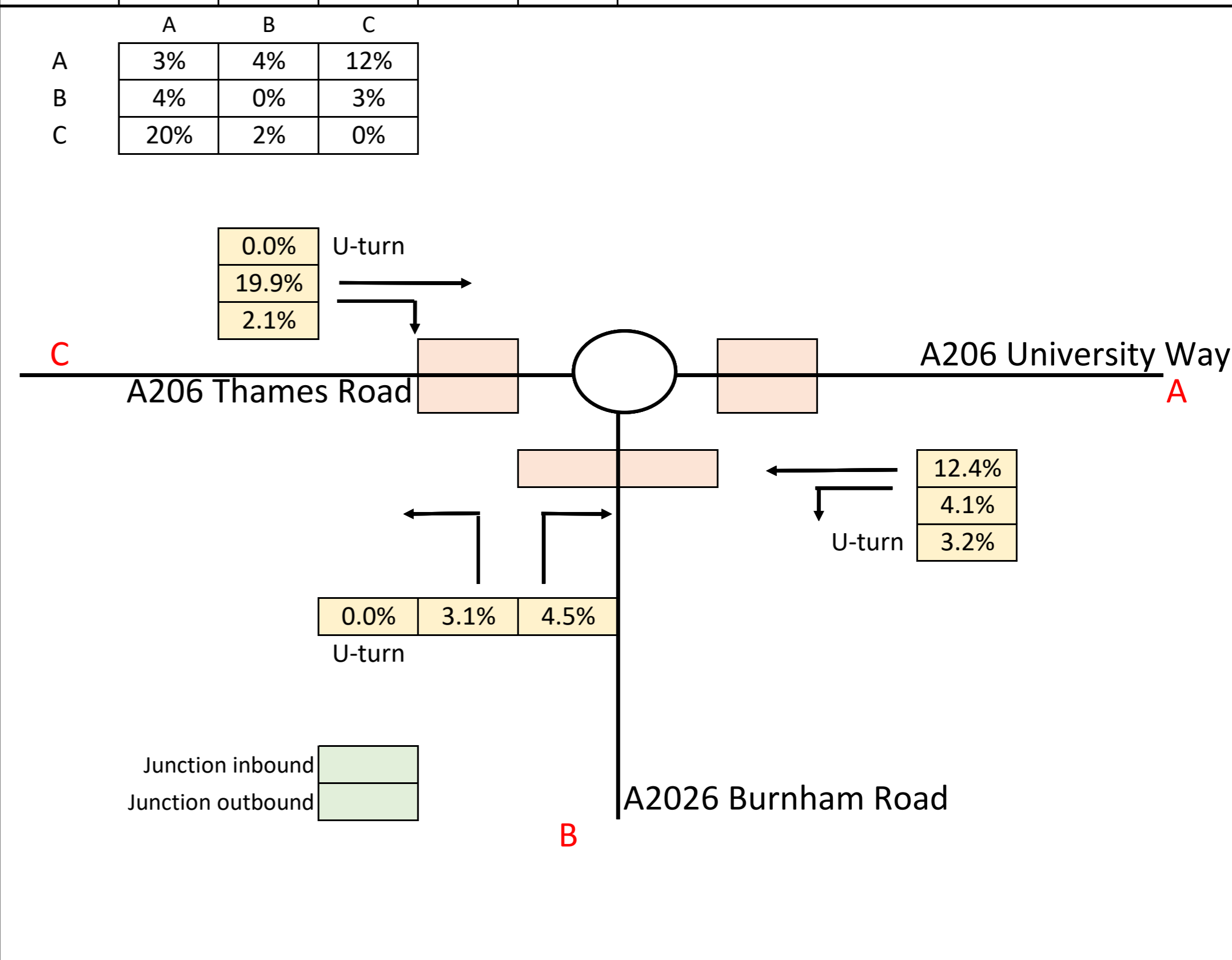
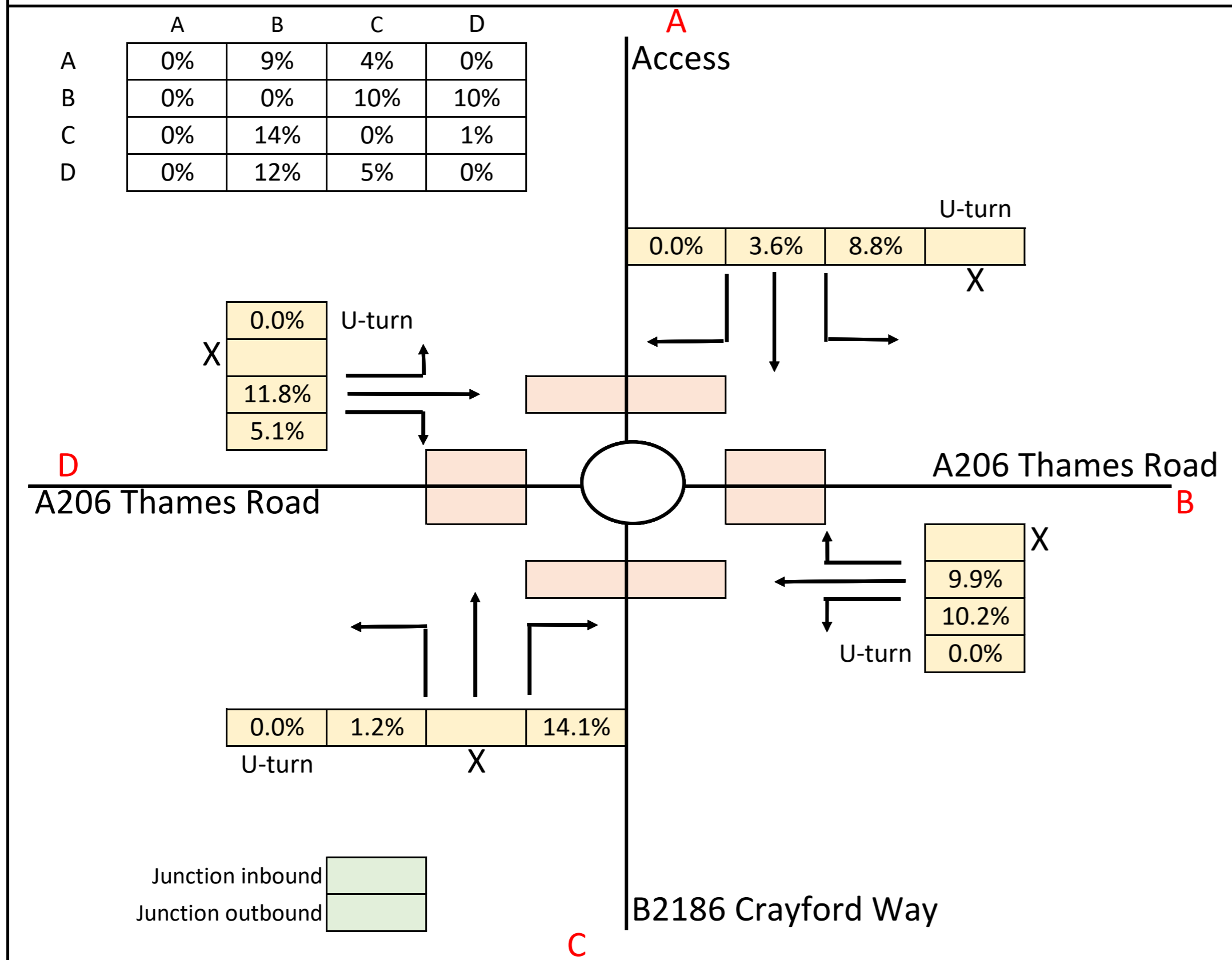
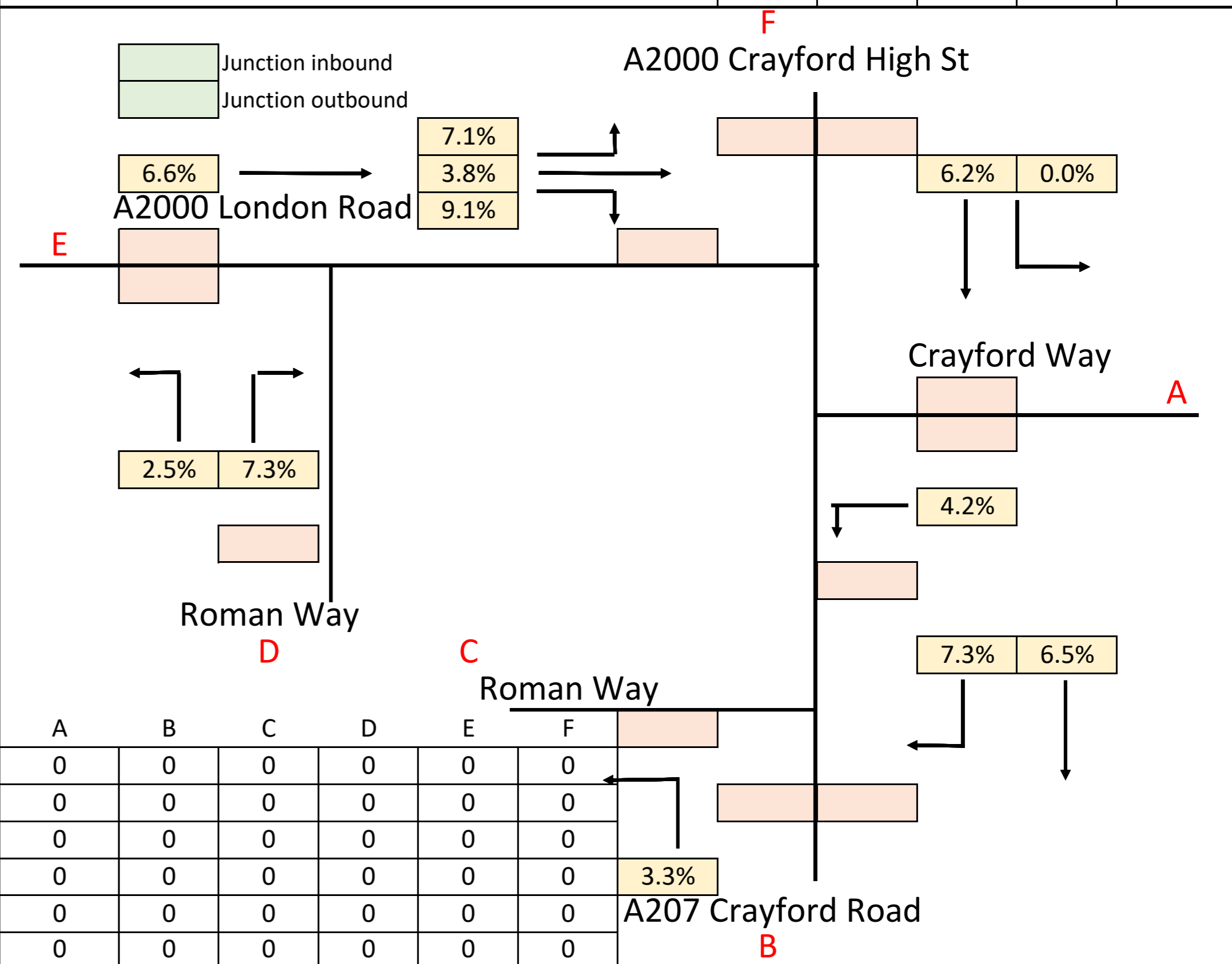
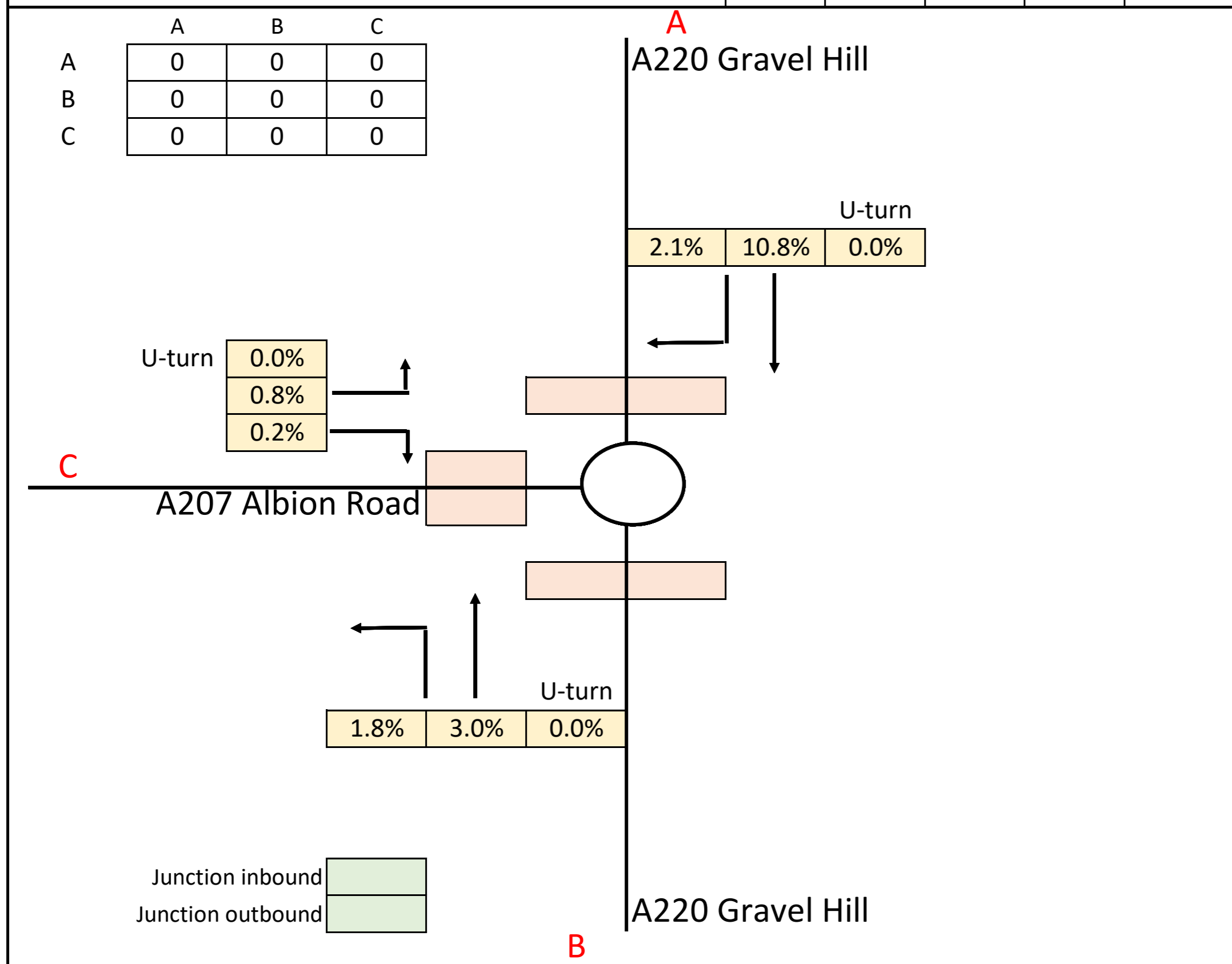
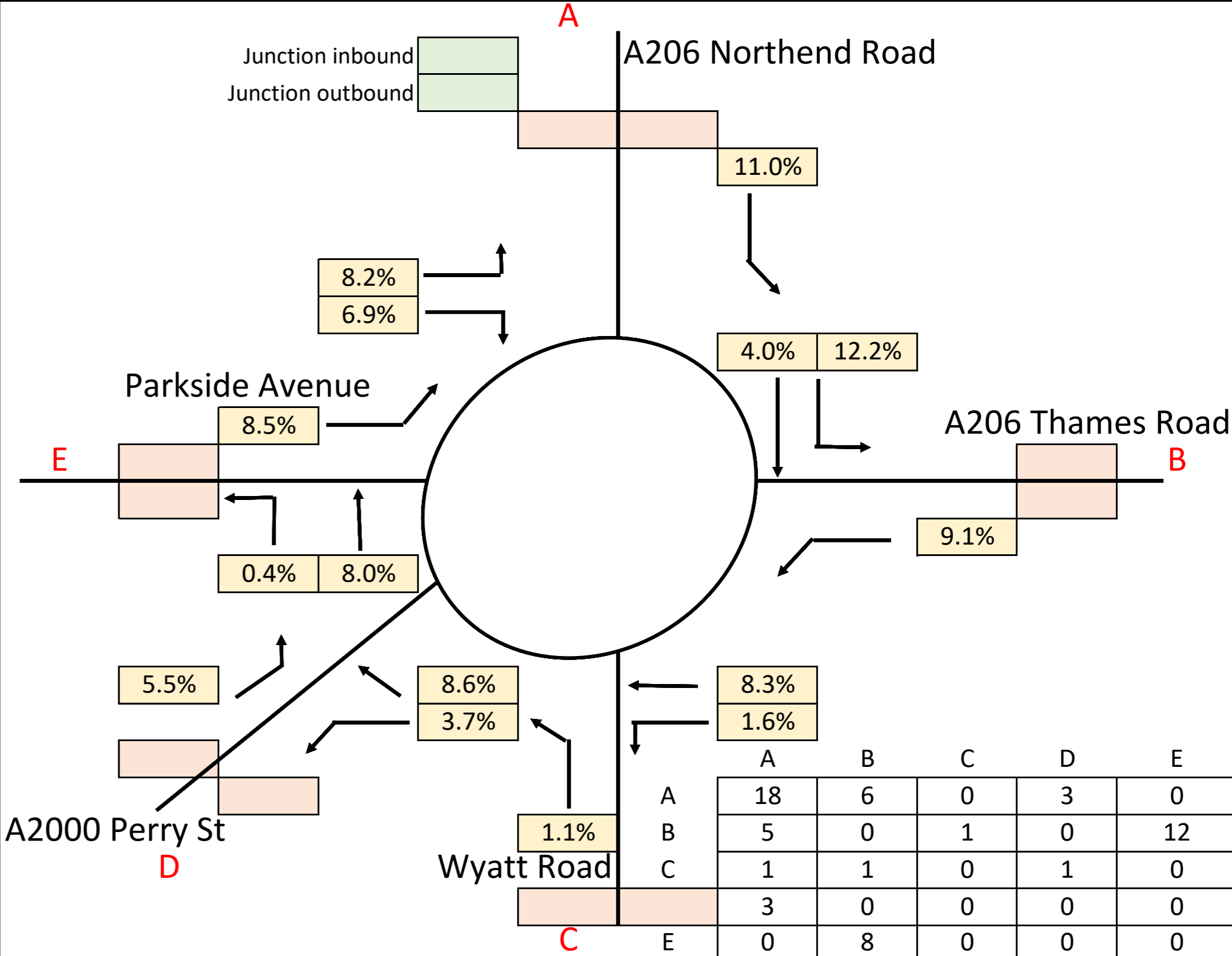
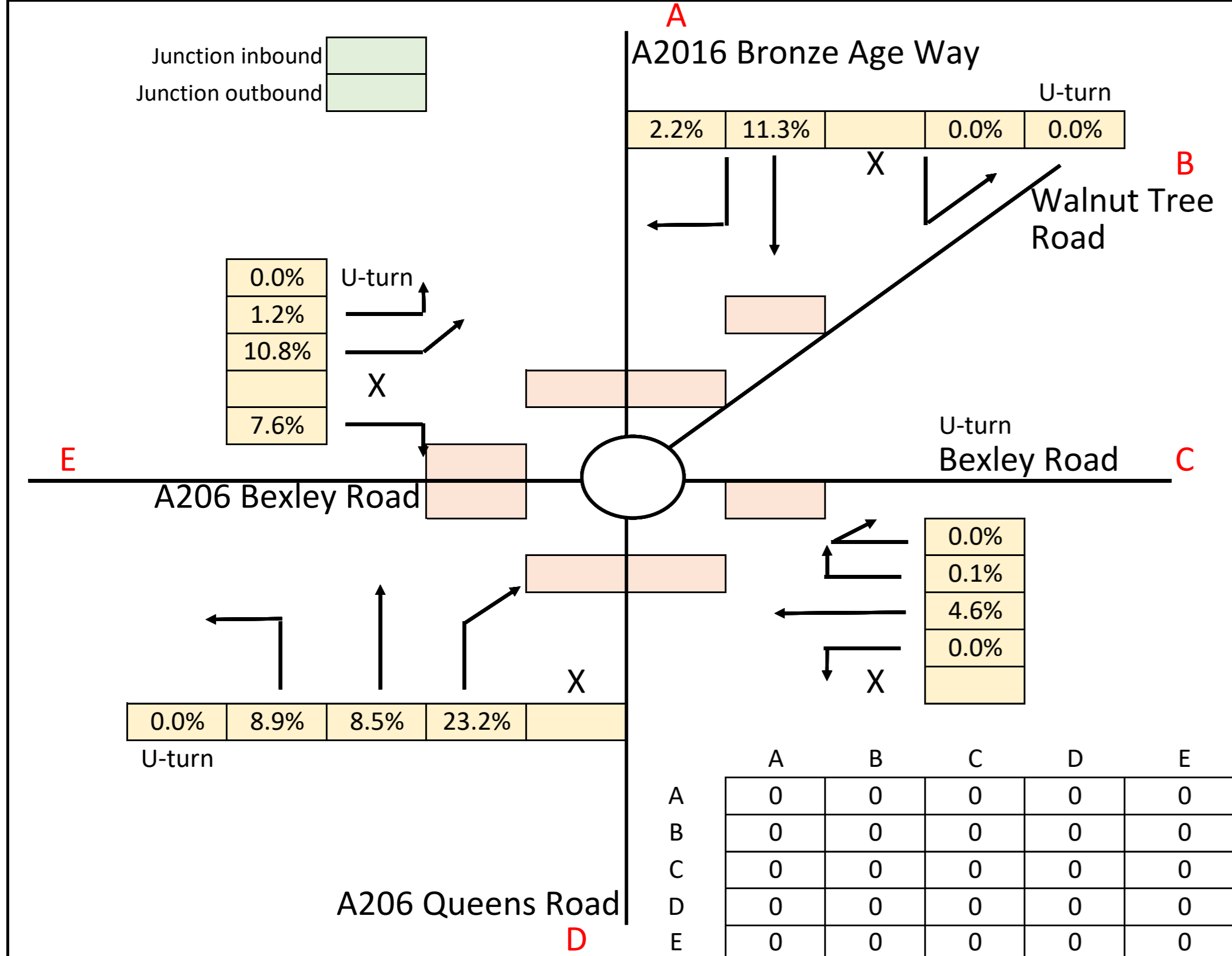
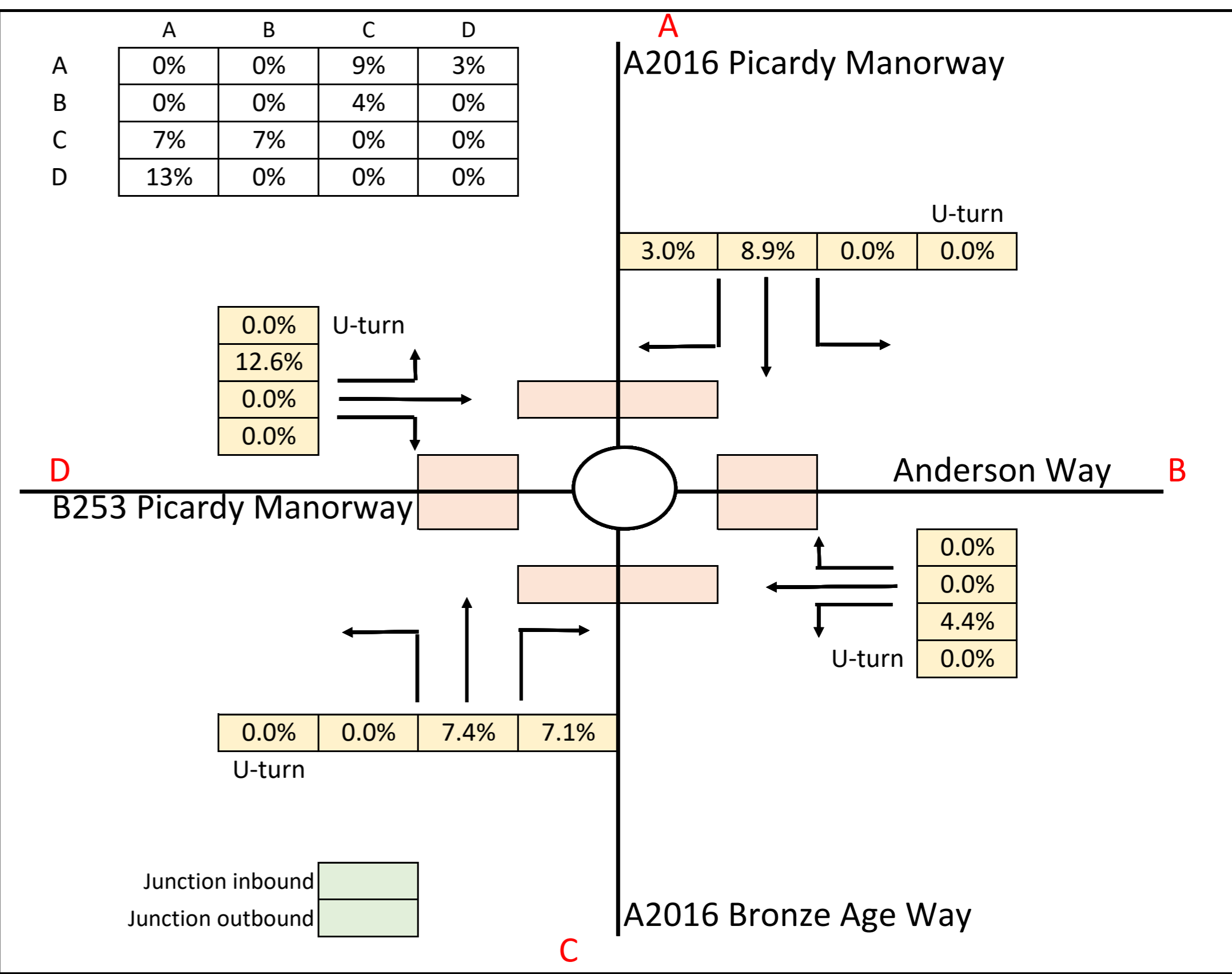
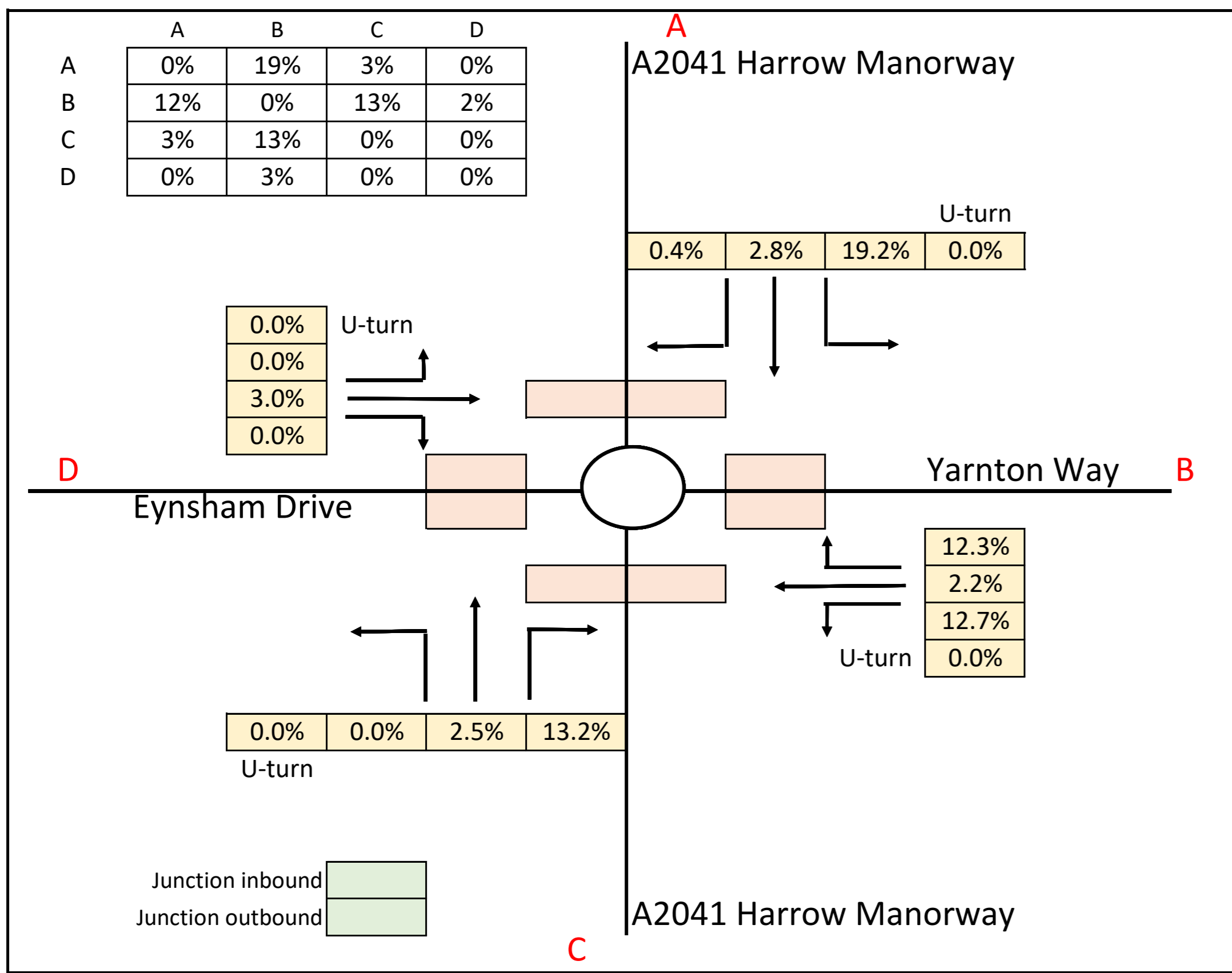
2038 Local Plan with LTC (0800-0900)
Demand Flow (PCUs)



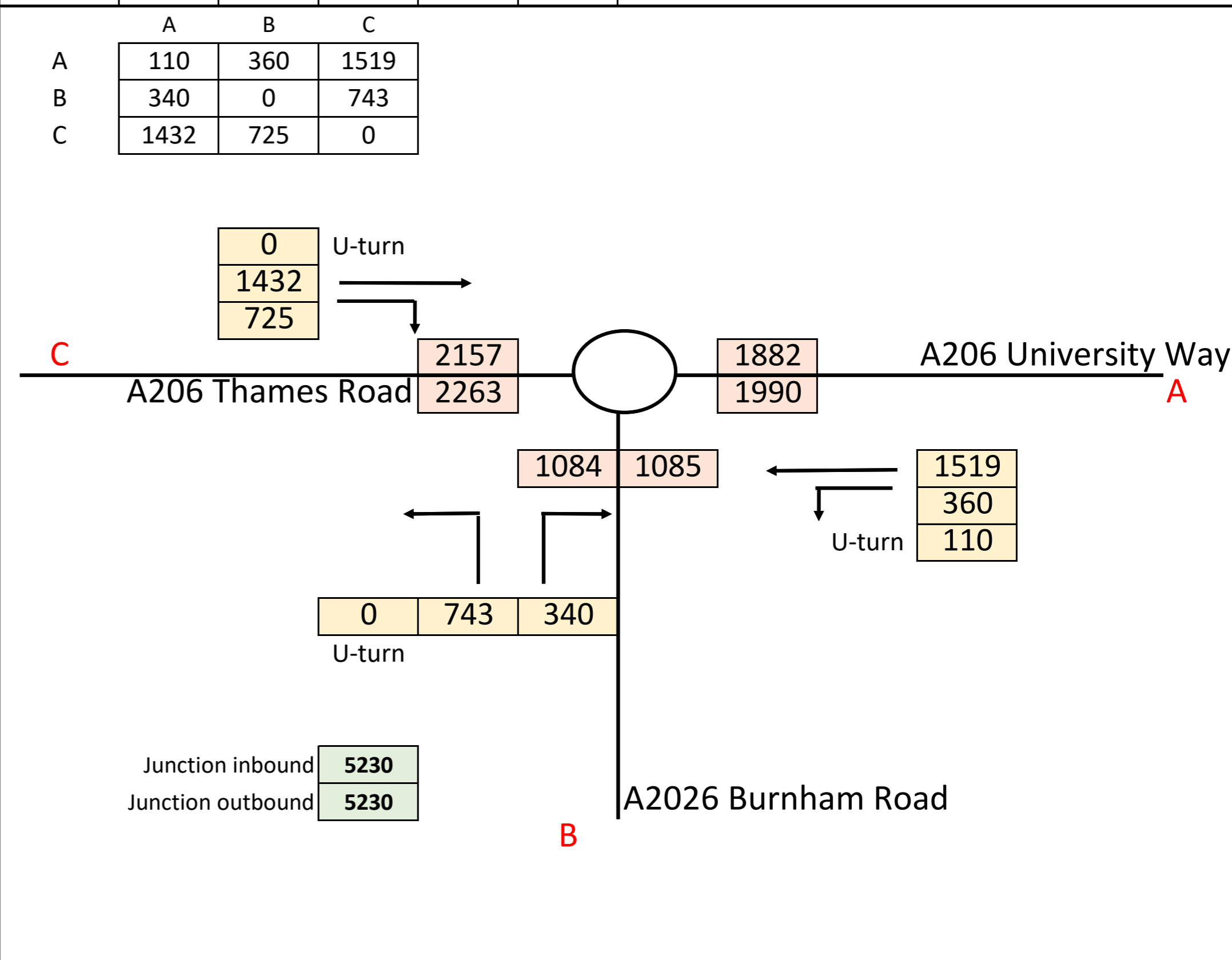
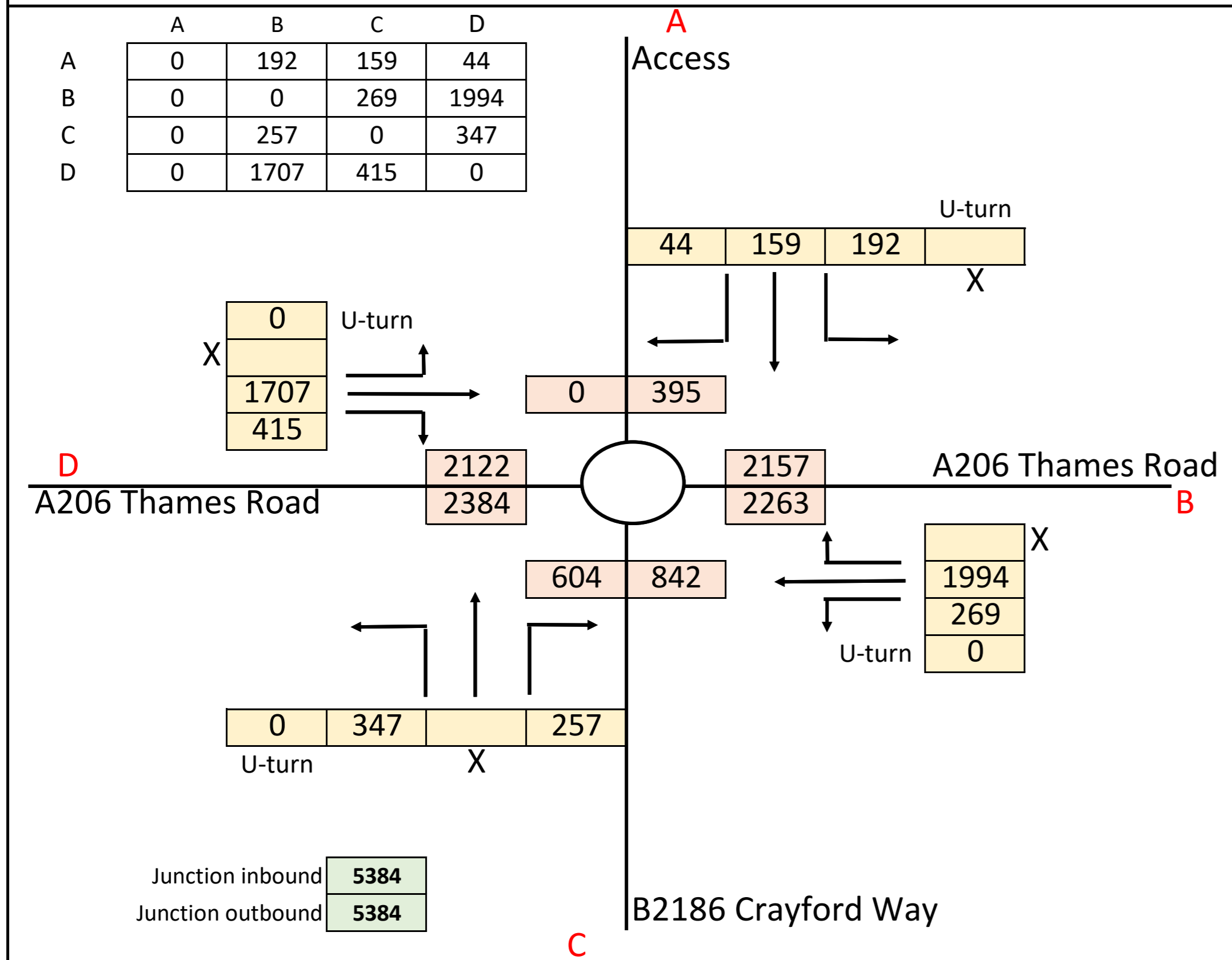
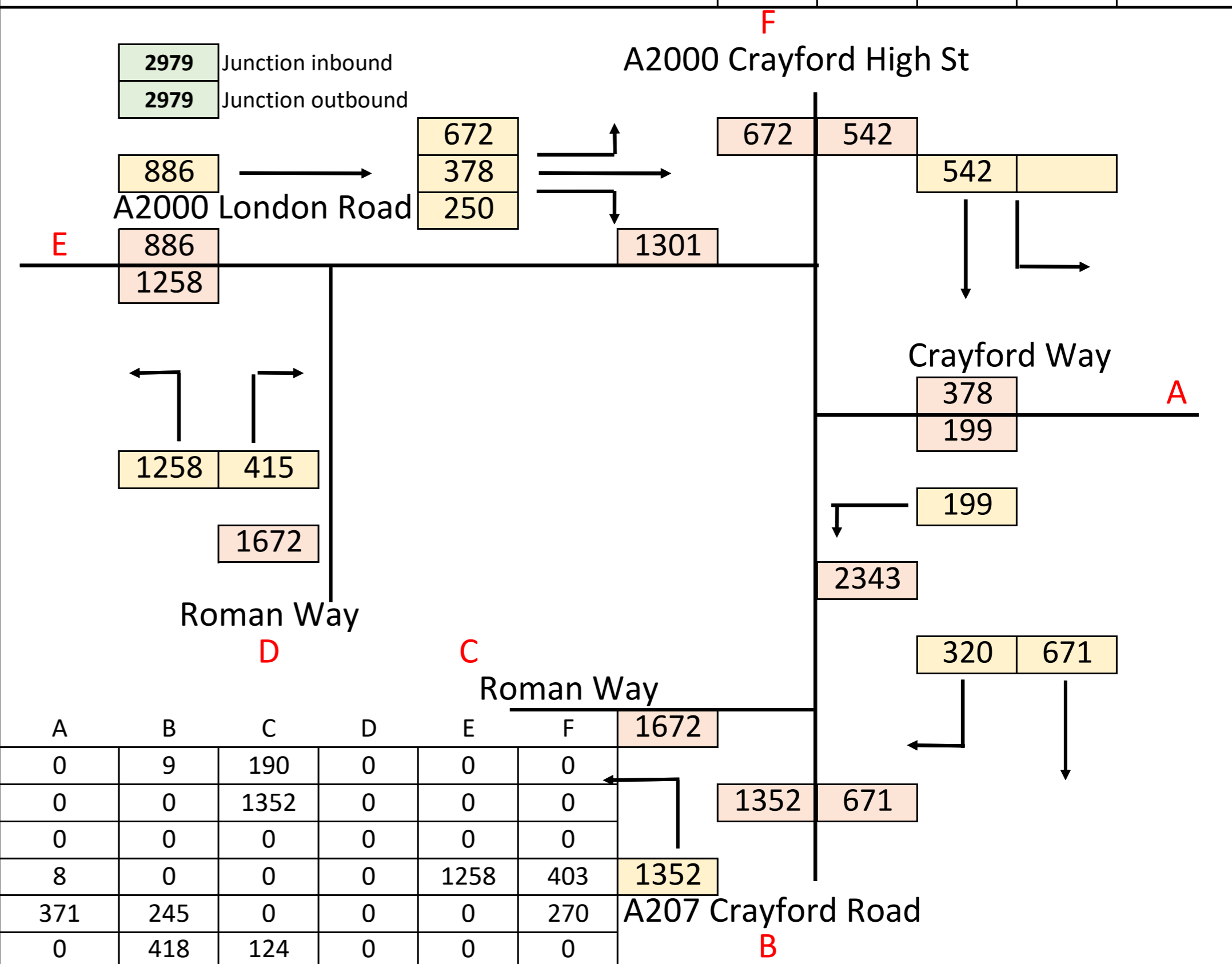
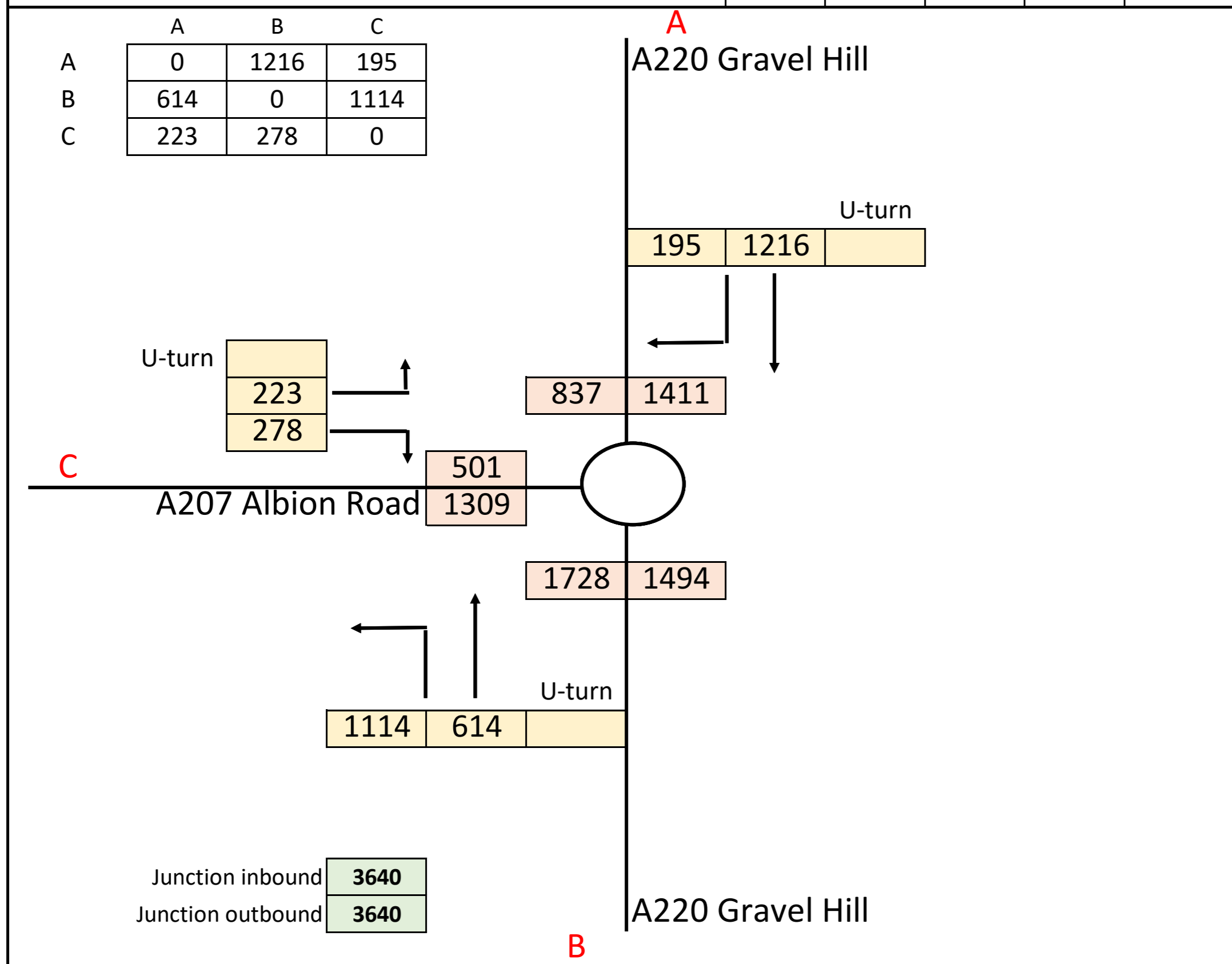
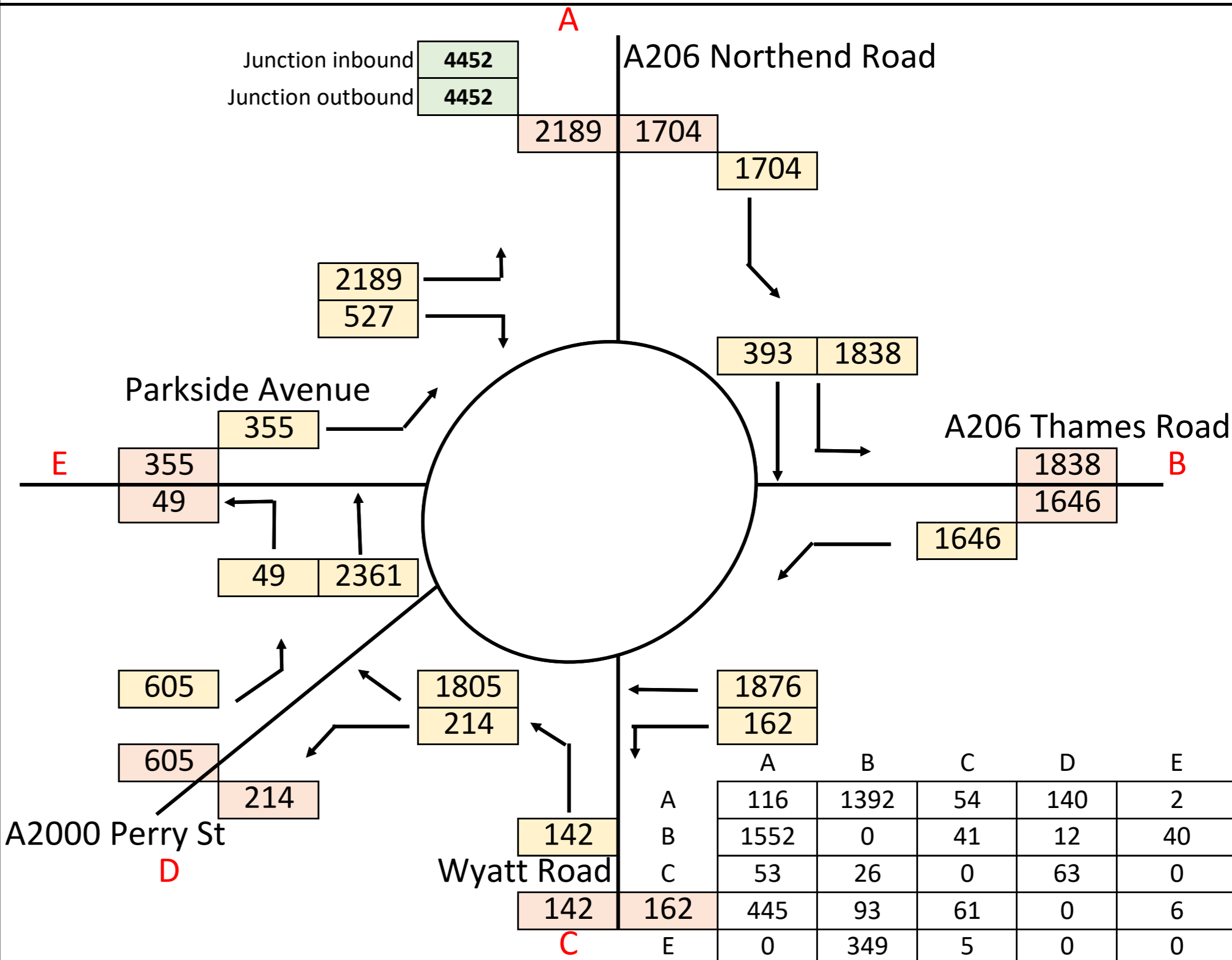
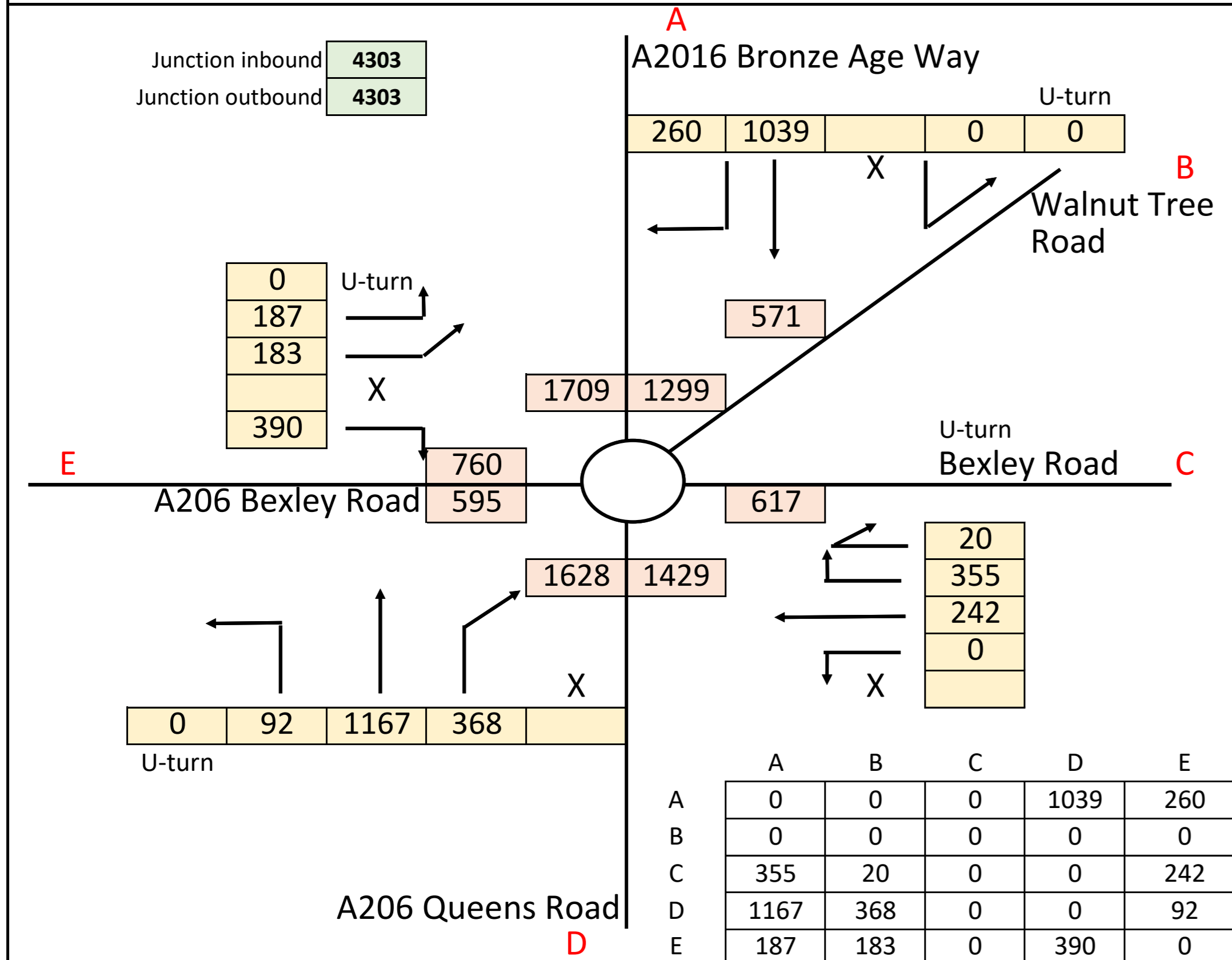
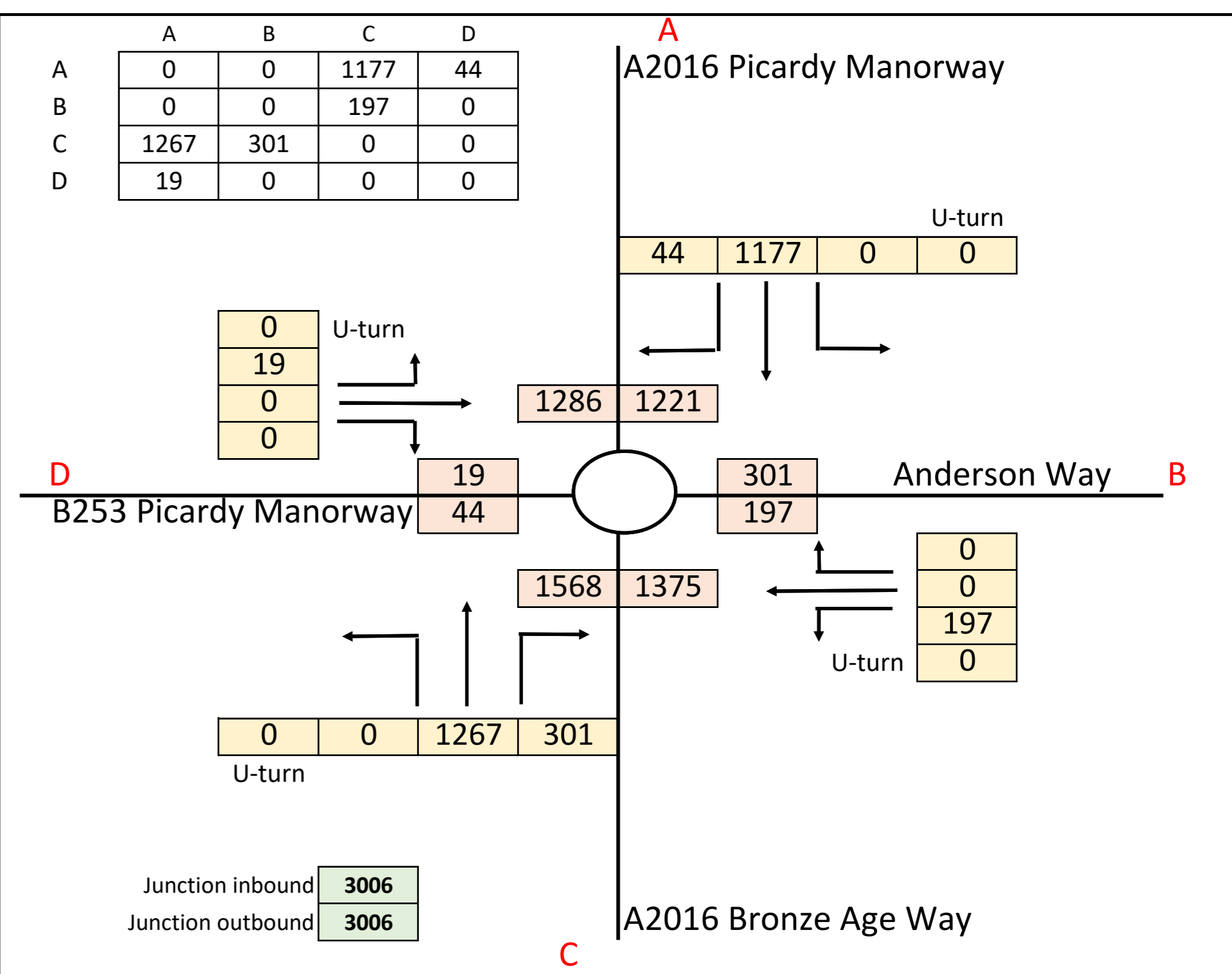
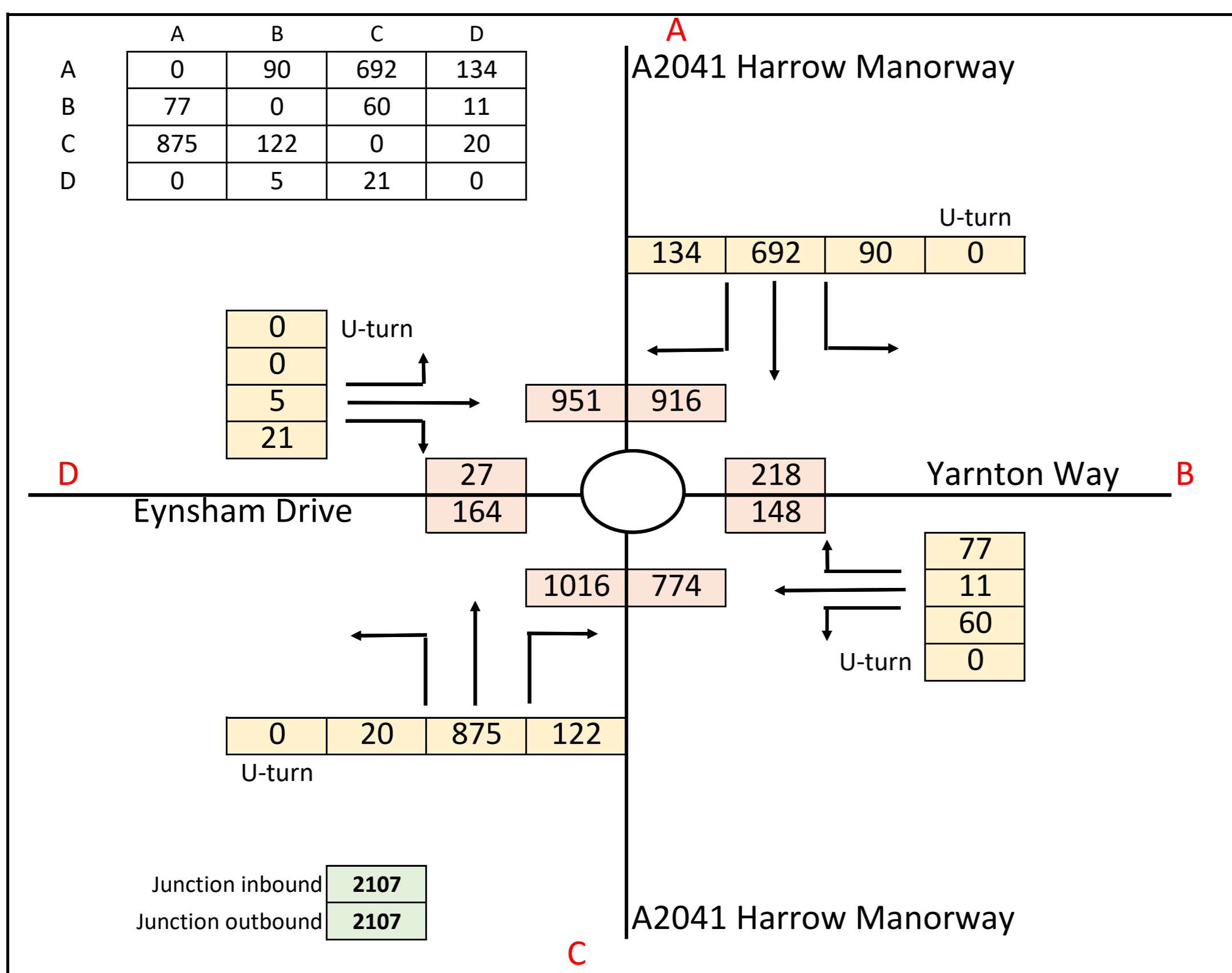
2038 Local Plan with LTC (0800-0900)
Demand Flow (% HGVs based upon PCUs)



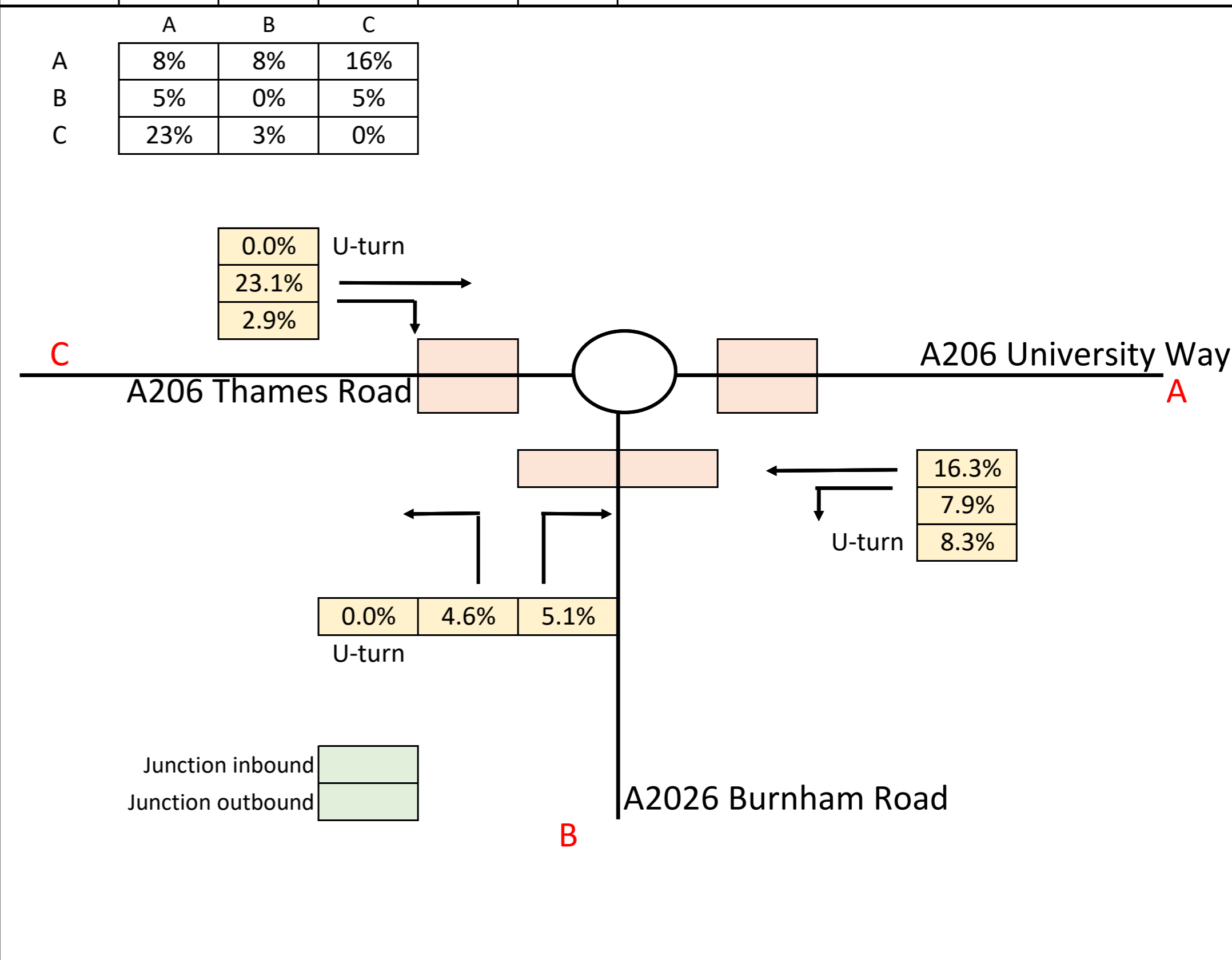
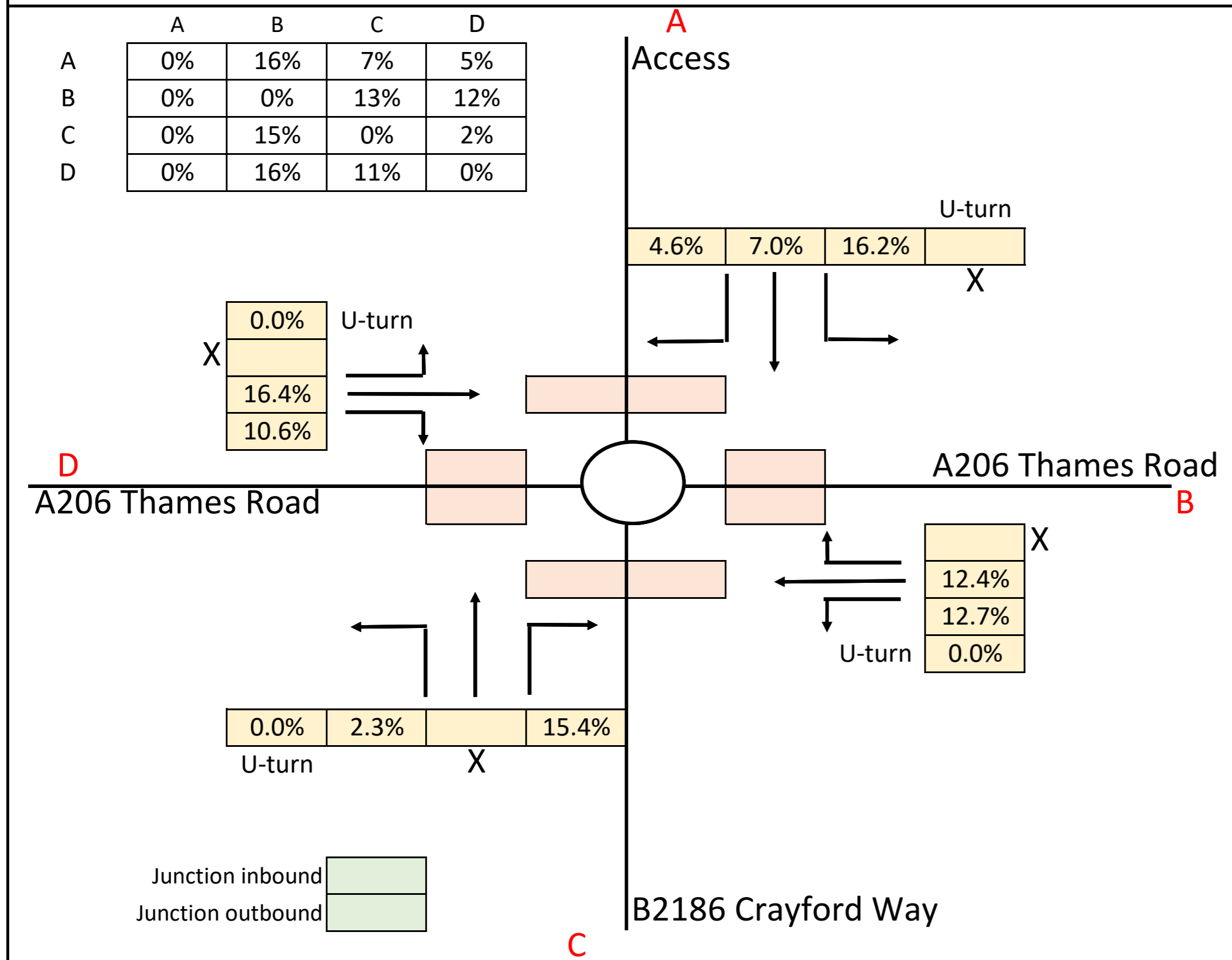
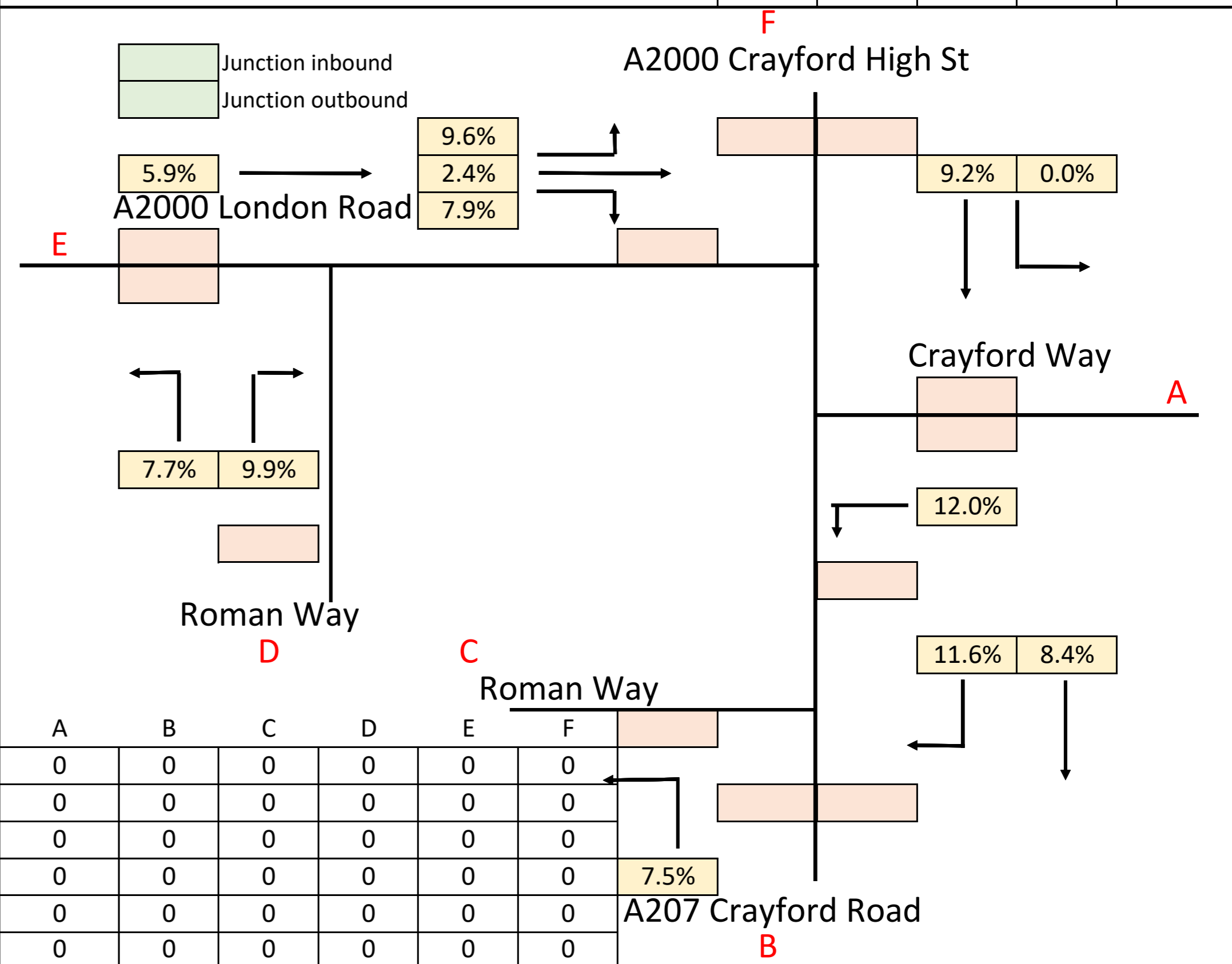
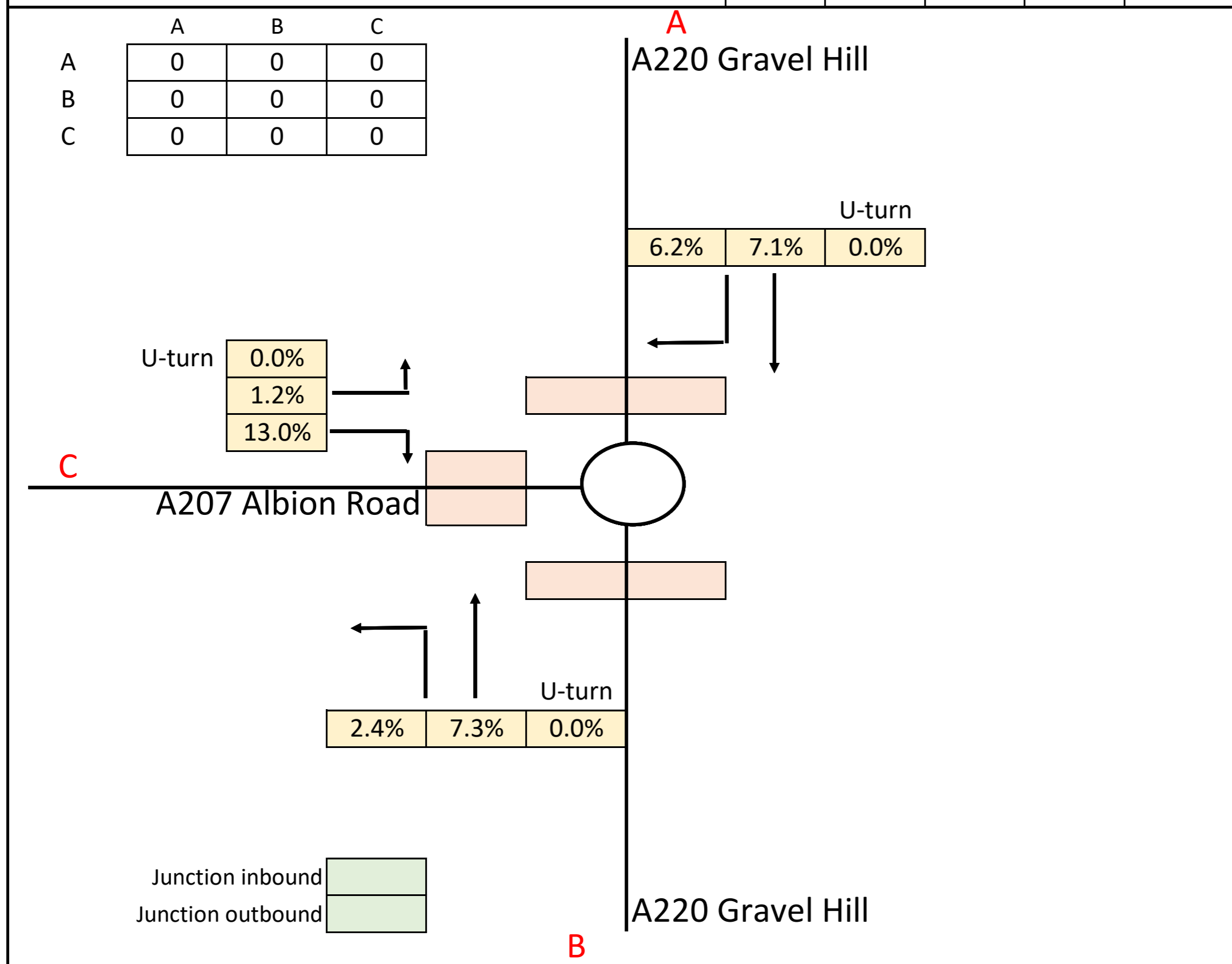
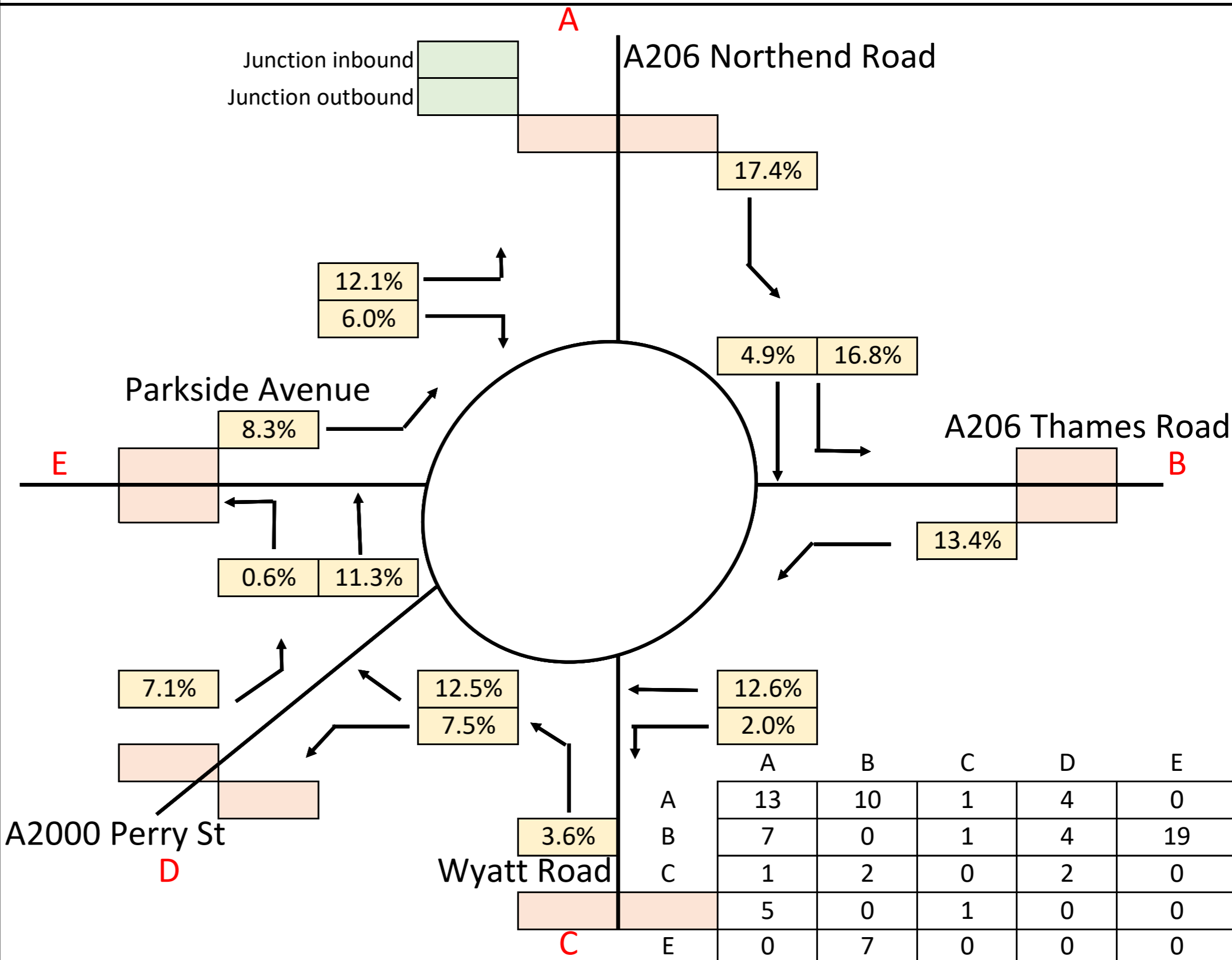
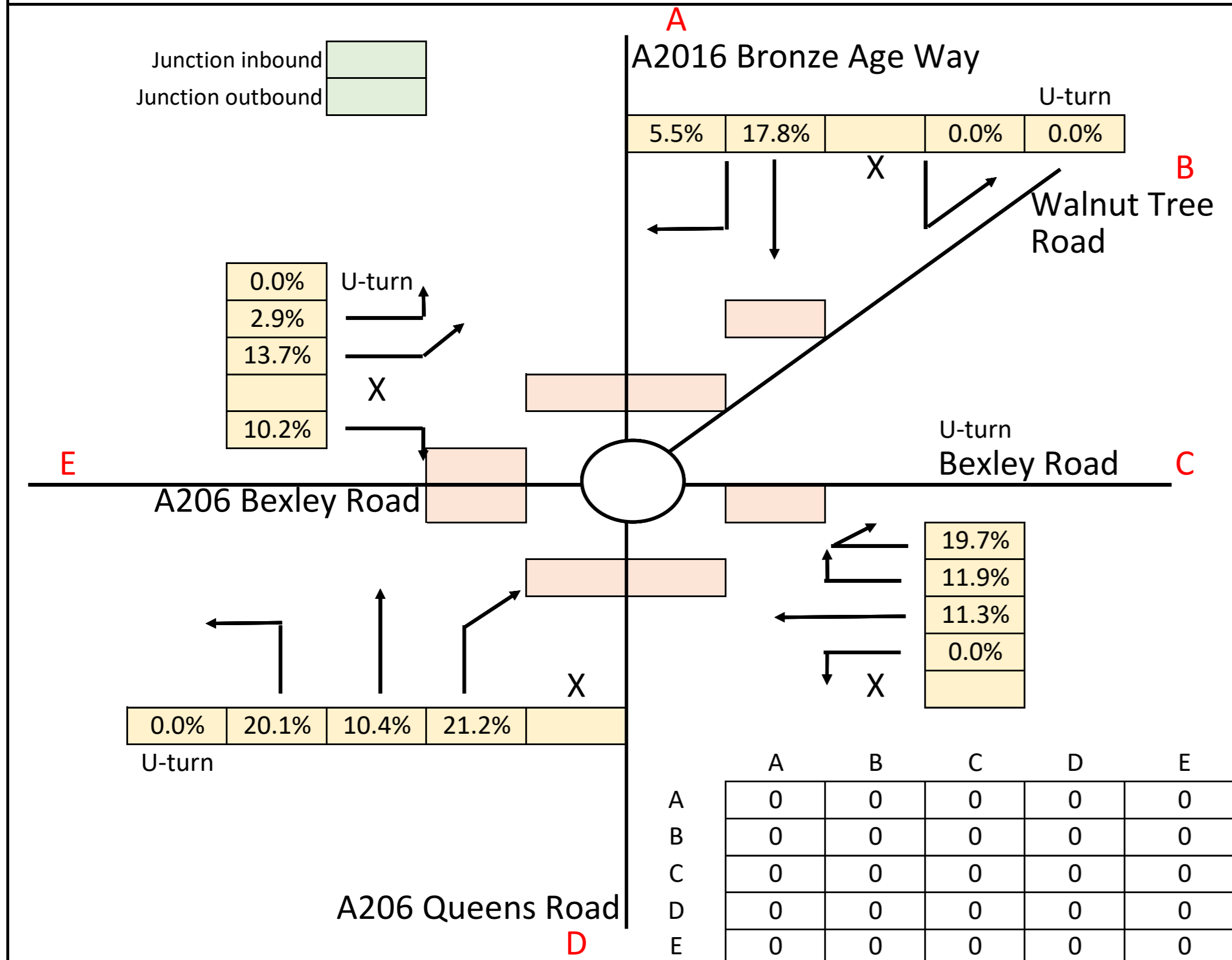
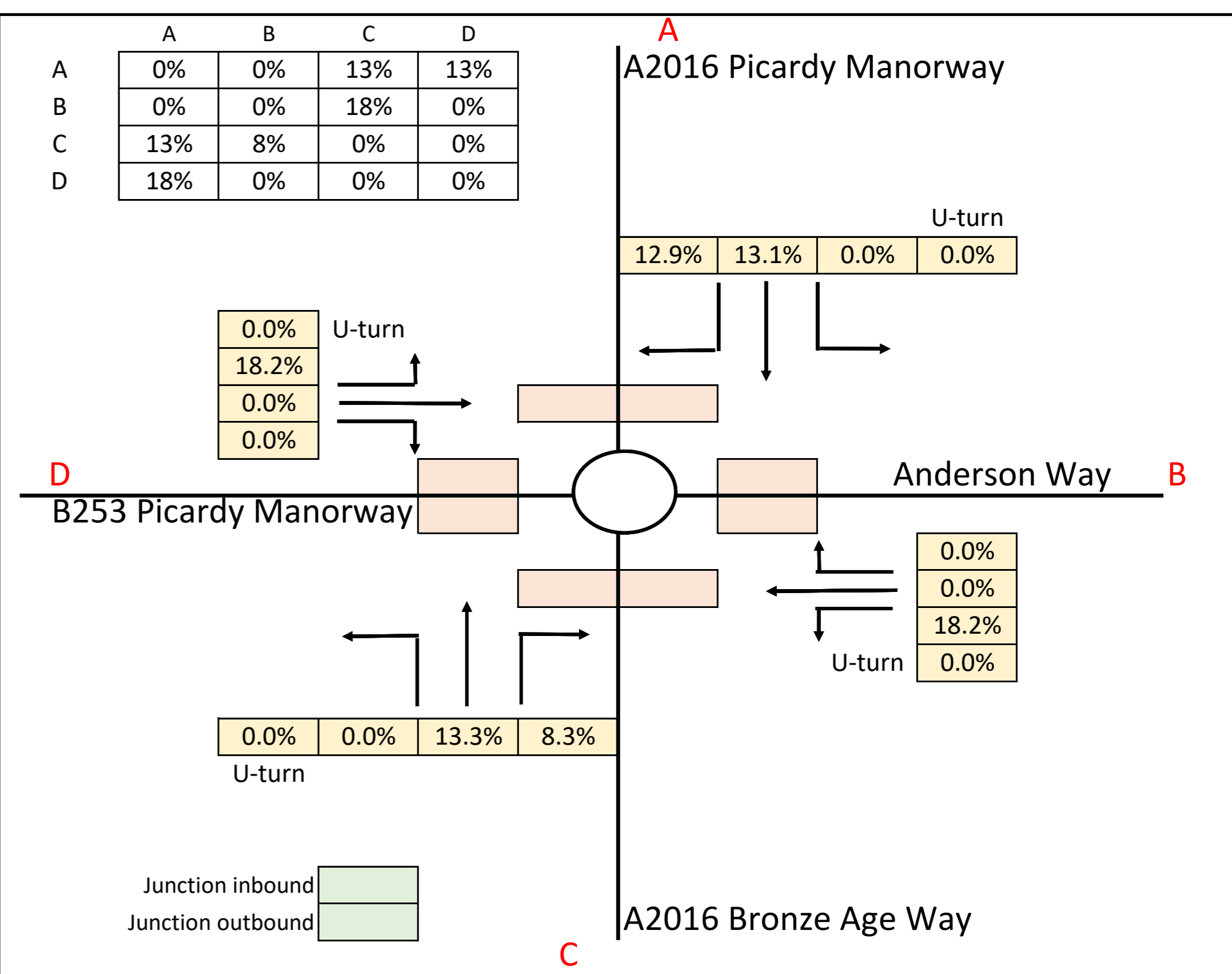
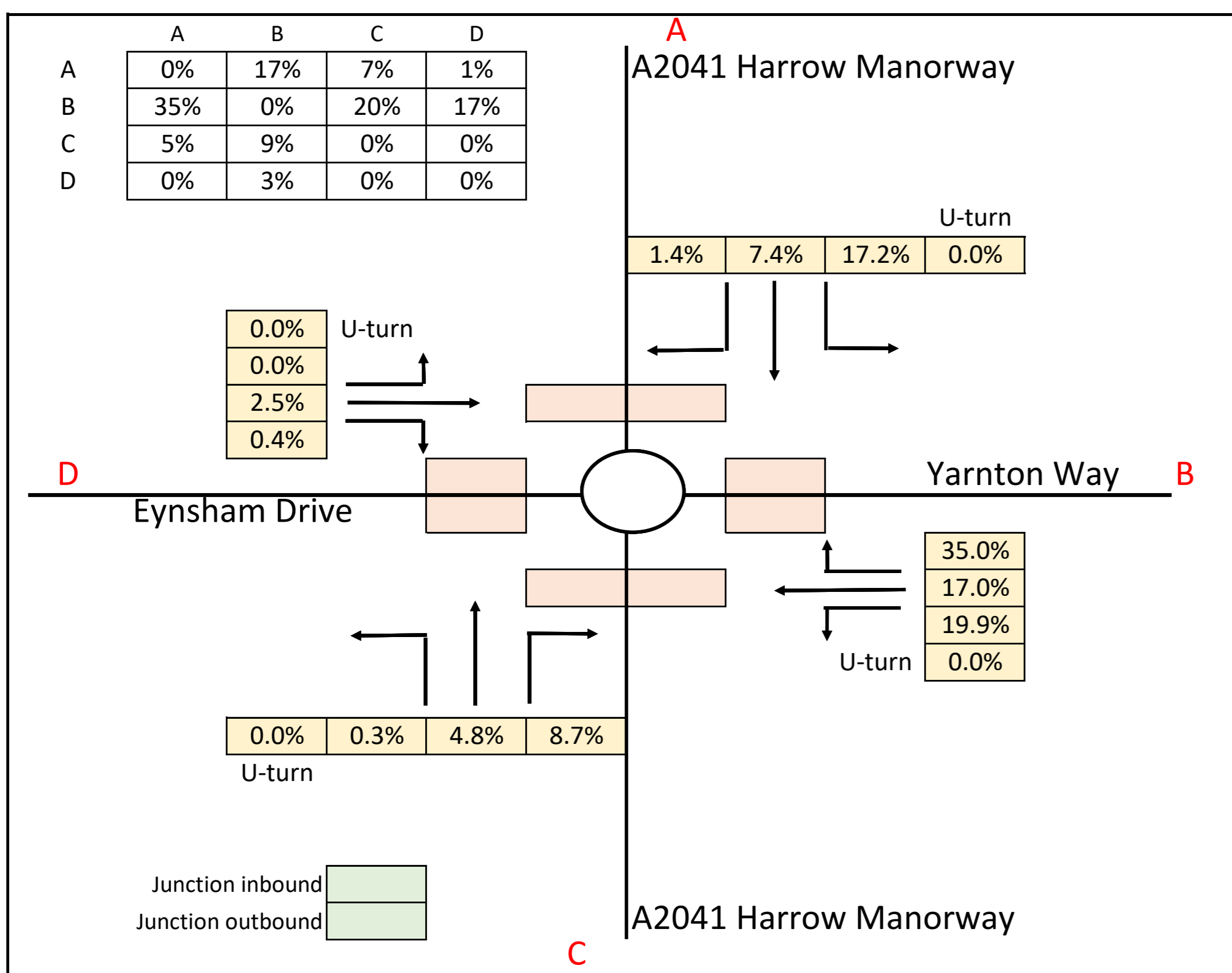
2038 Local Plan with LTC (1700-1800)
Demand Flow (PCUs)



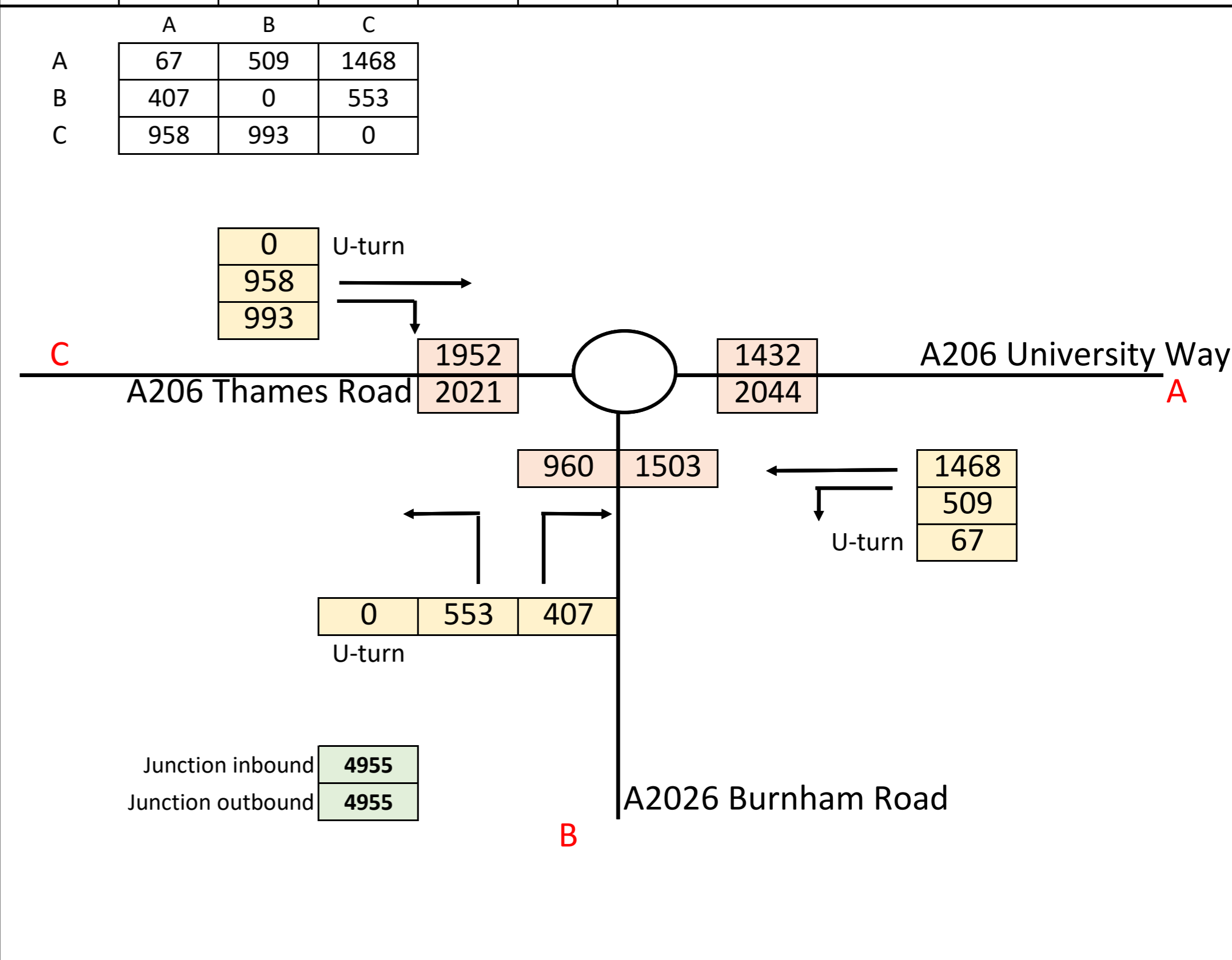
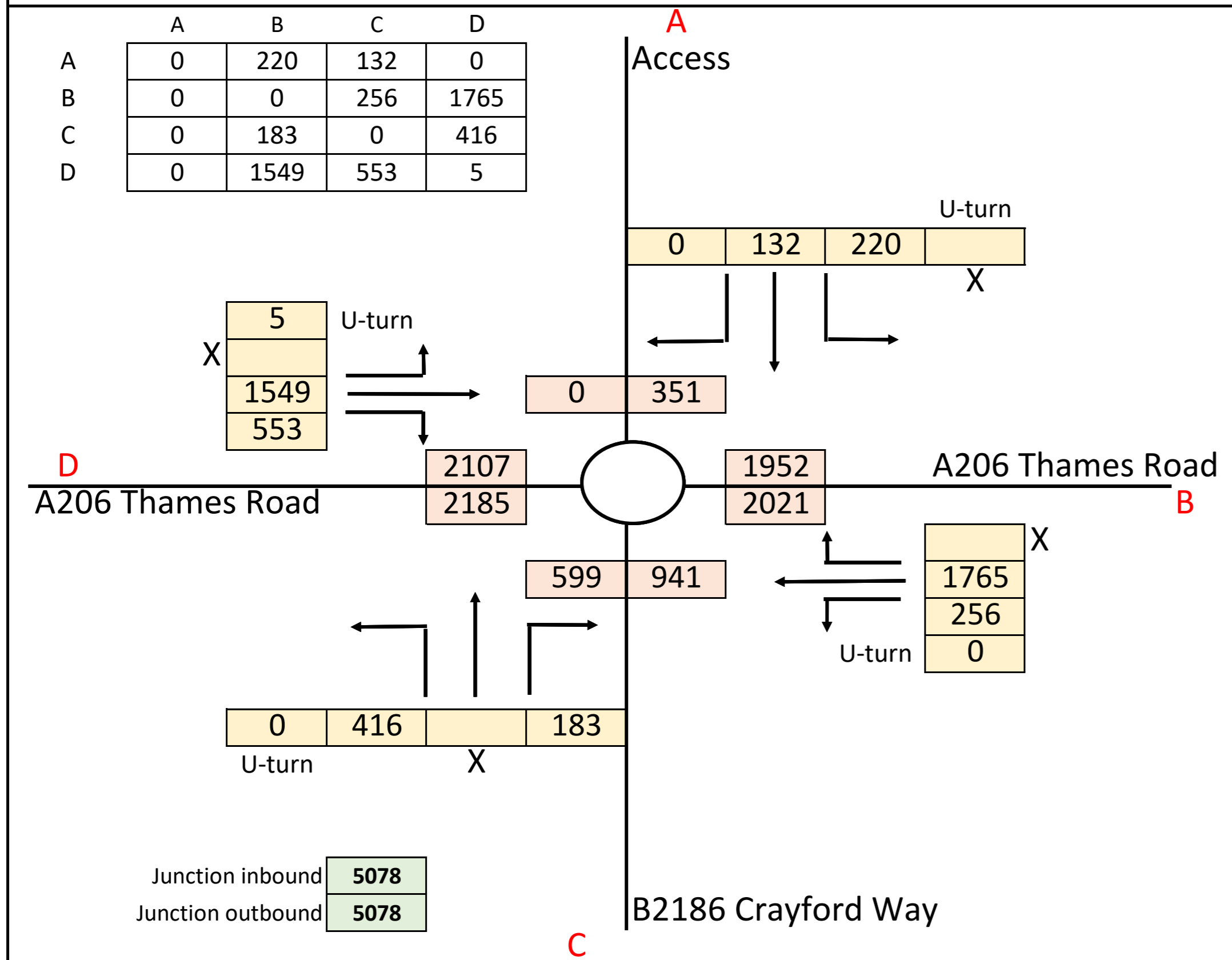
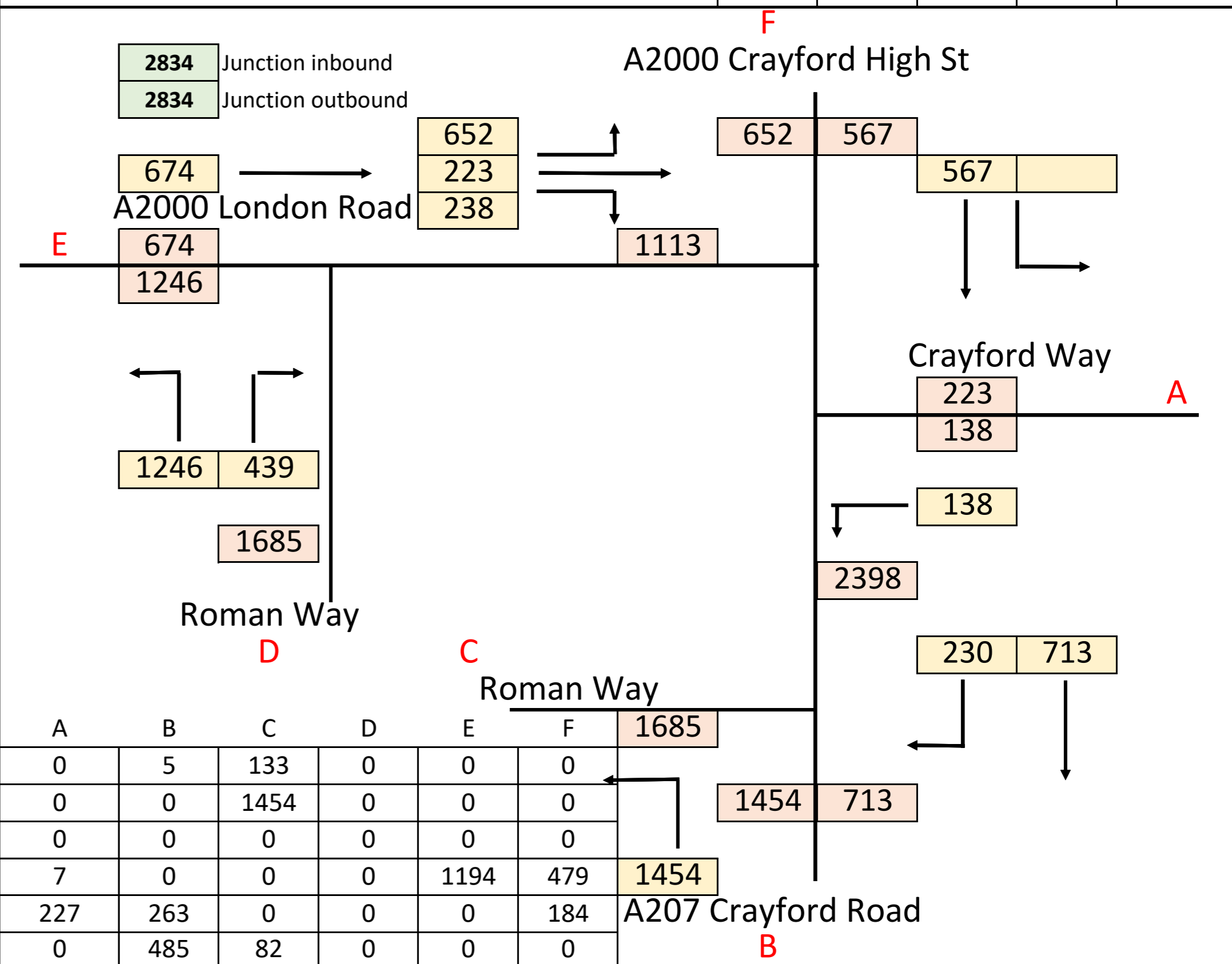
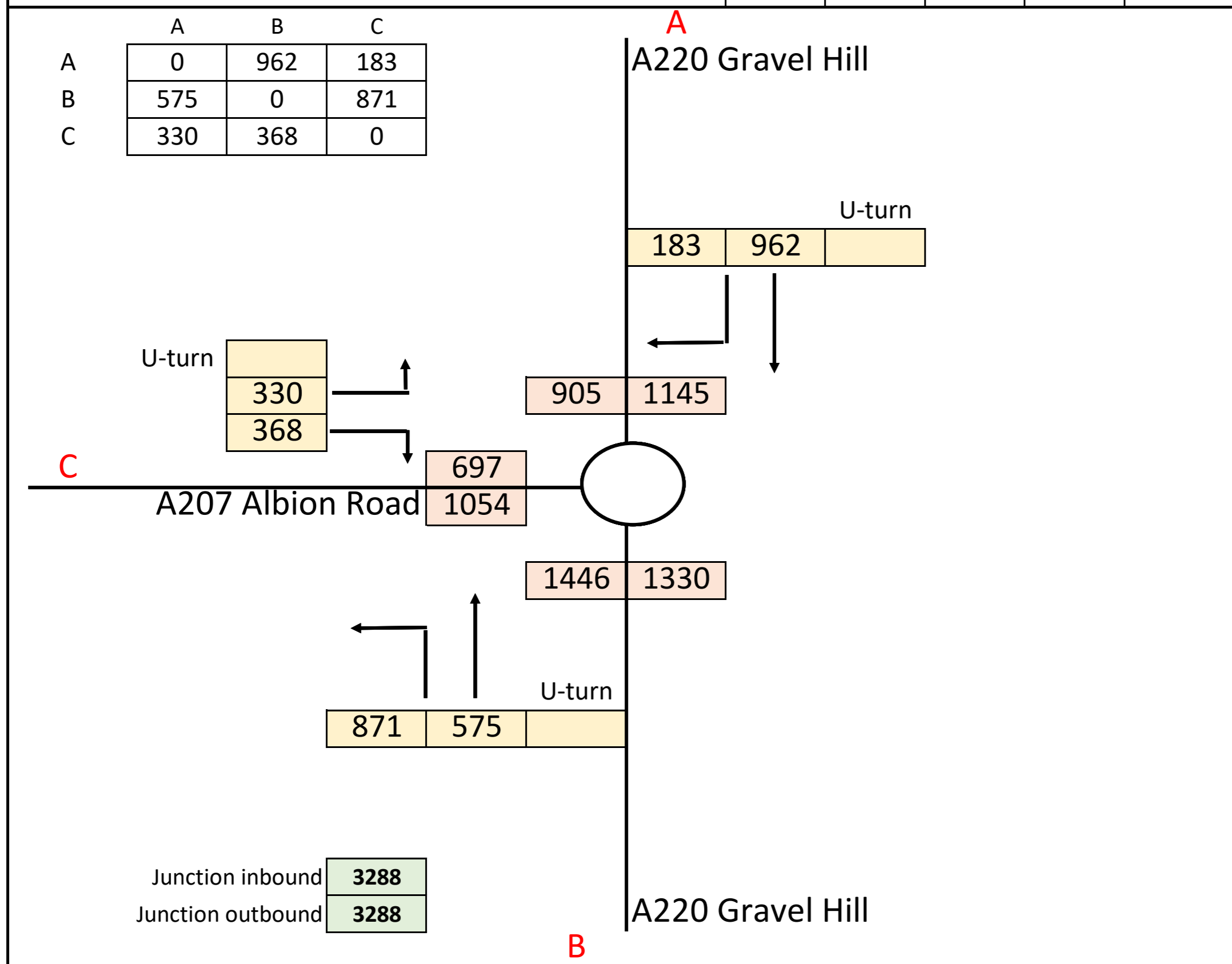
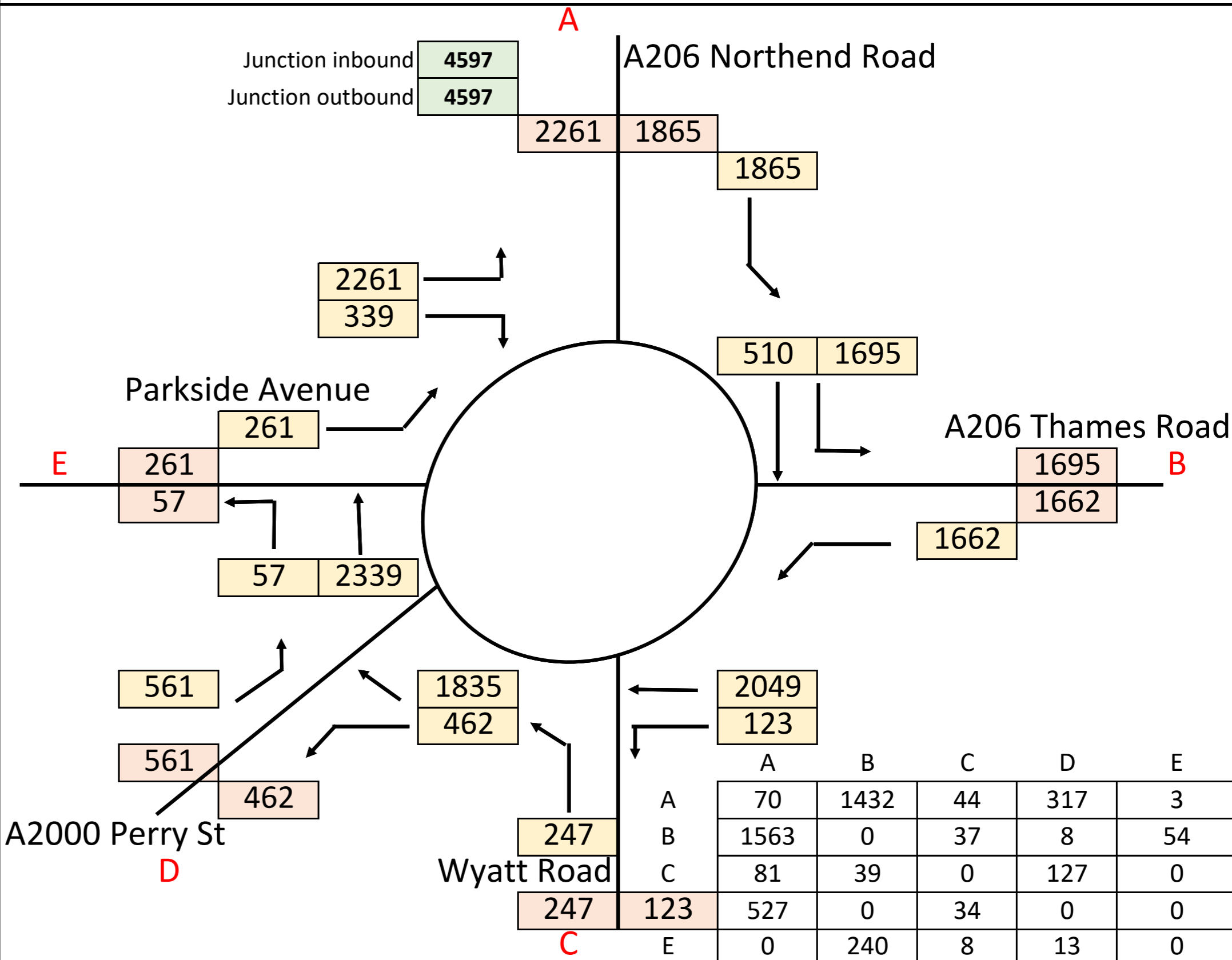
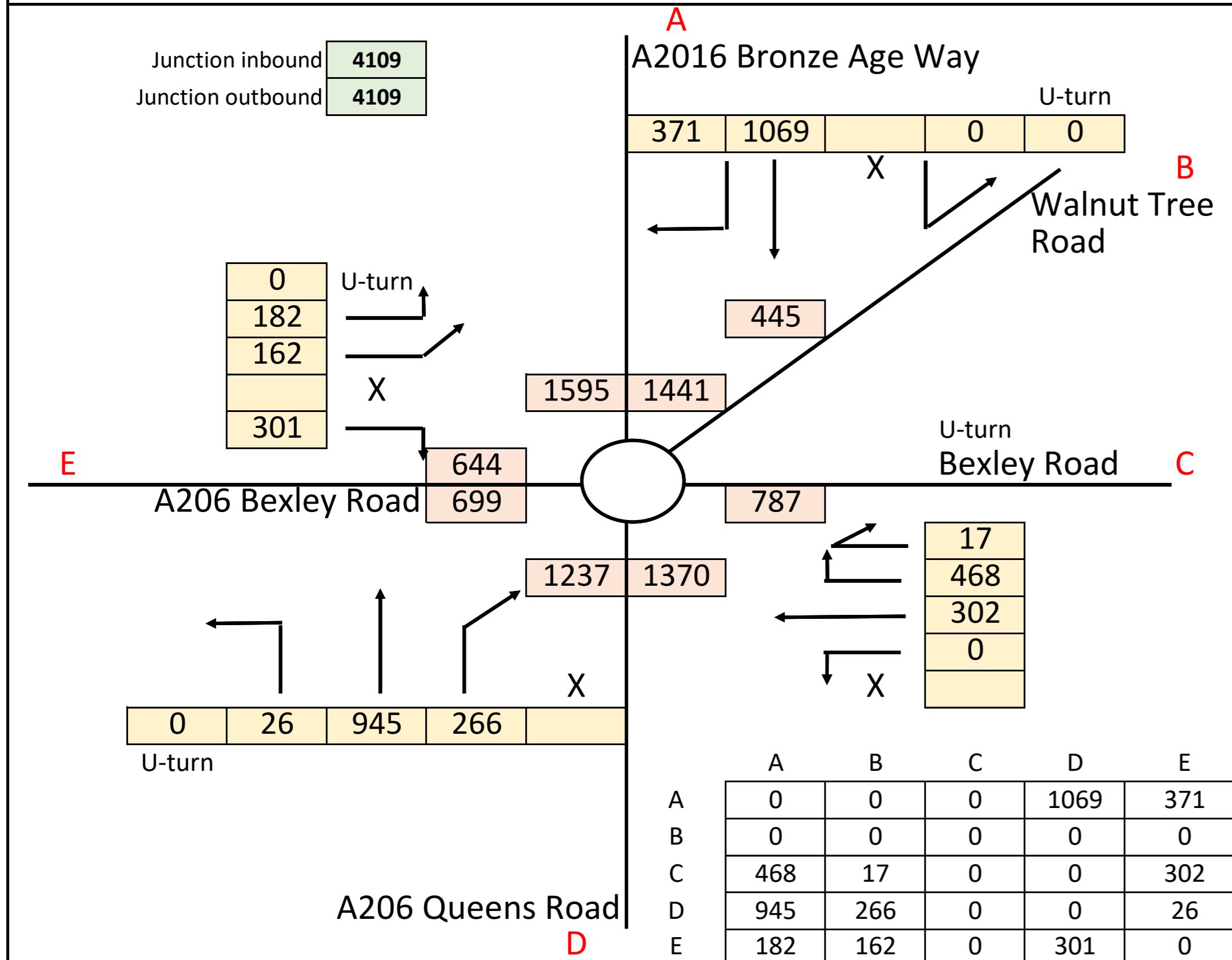
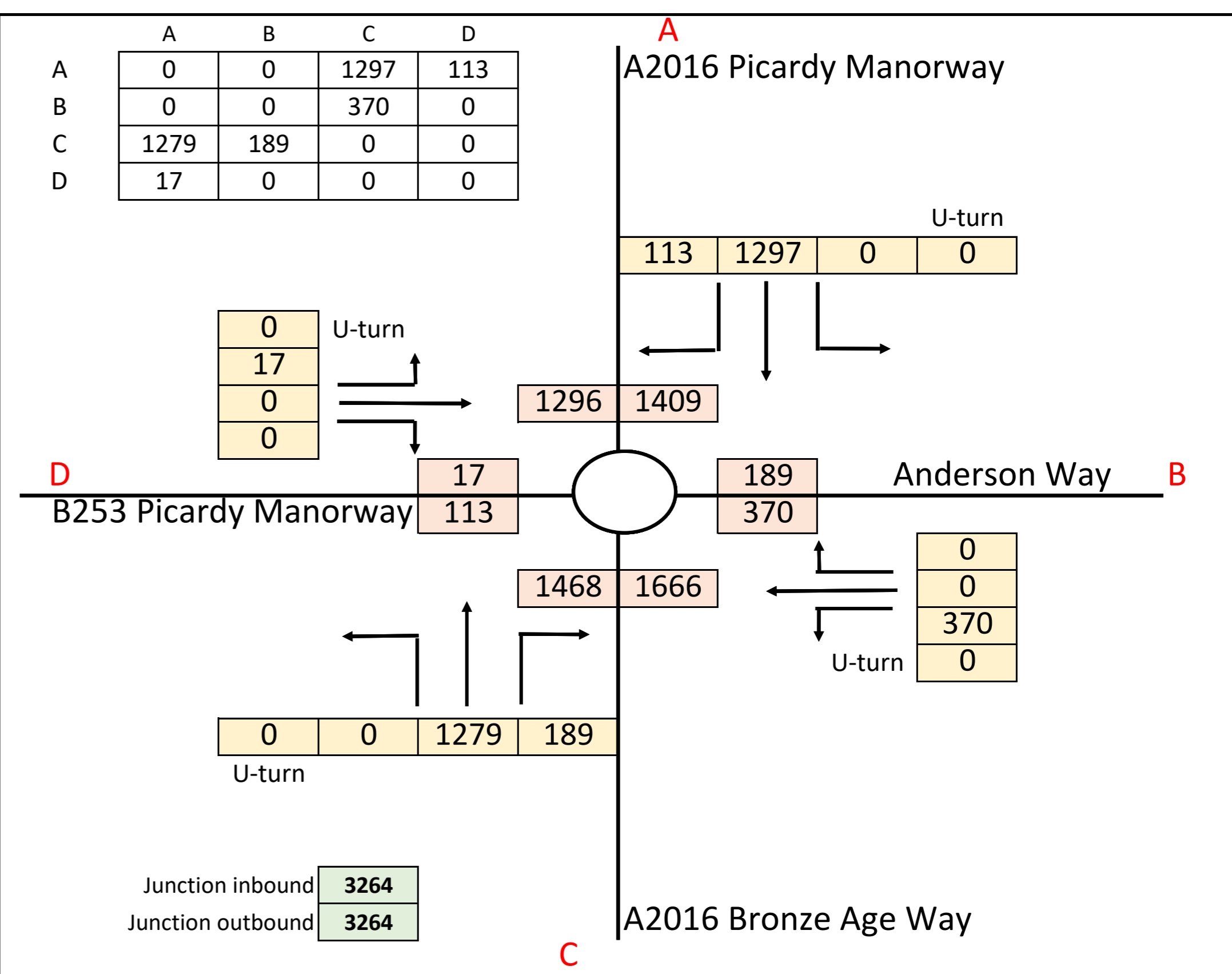
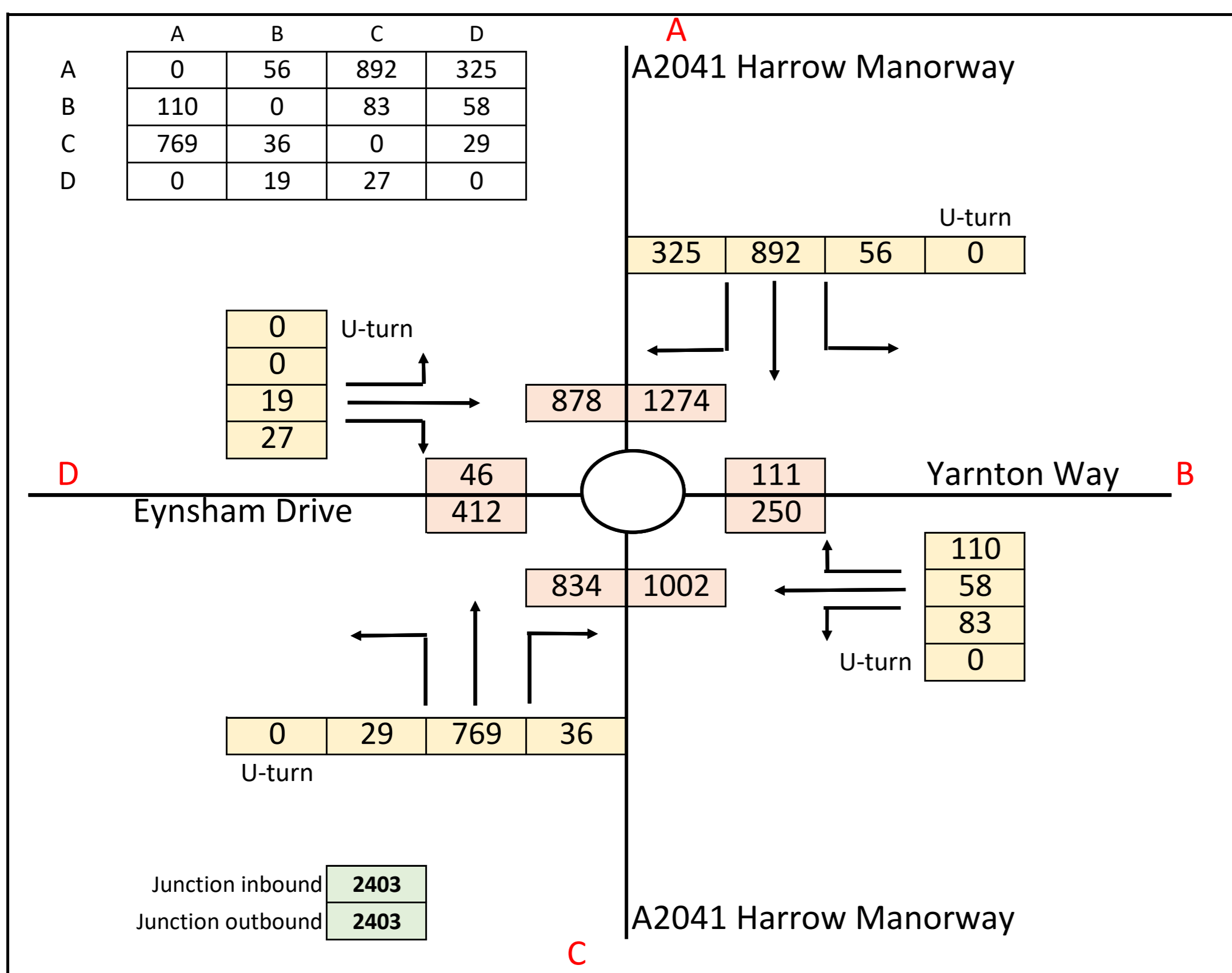
2038 Local Plan with LTC (1700-1800)
Demand Flow (% HGVs based upon PCUs)



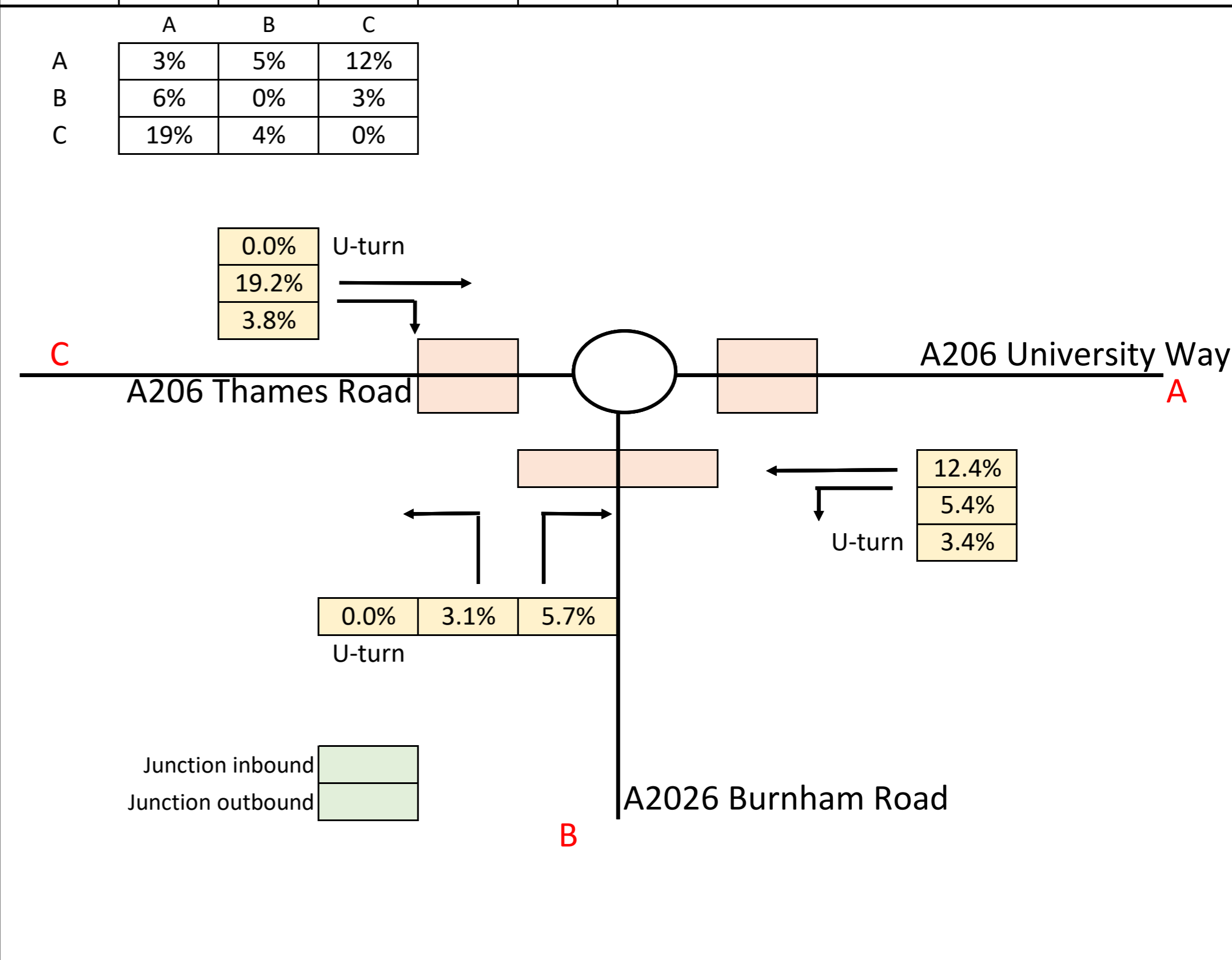
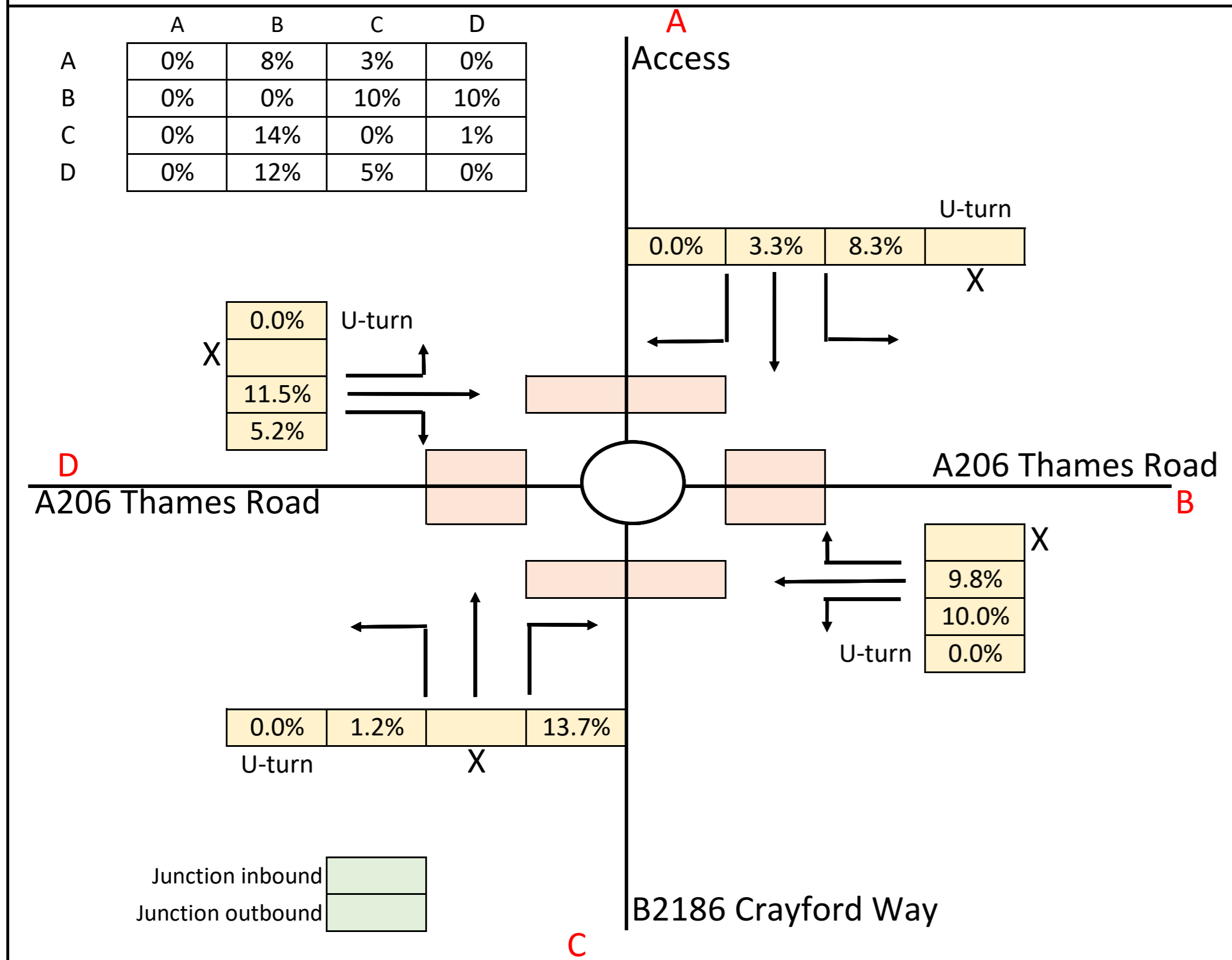
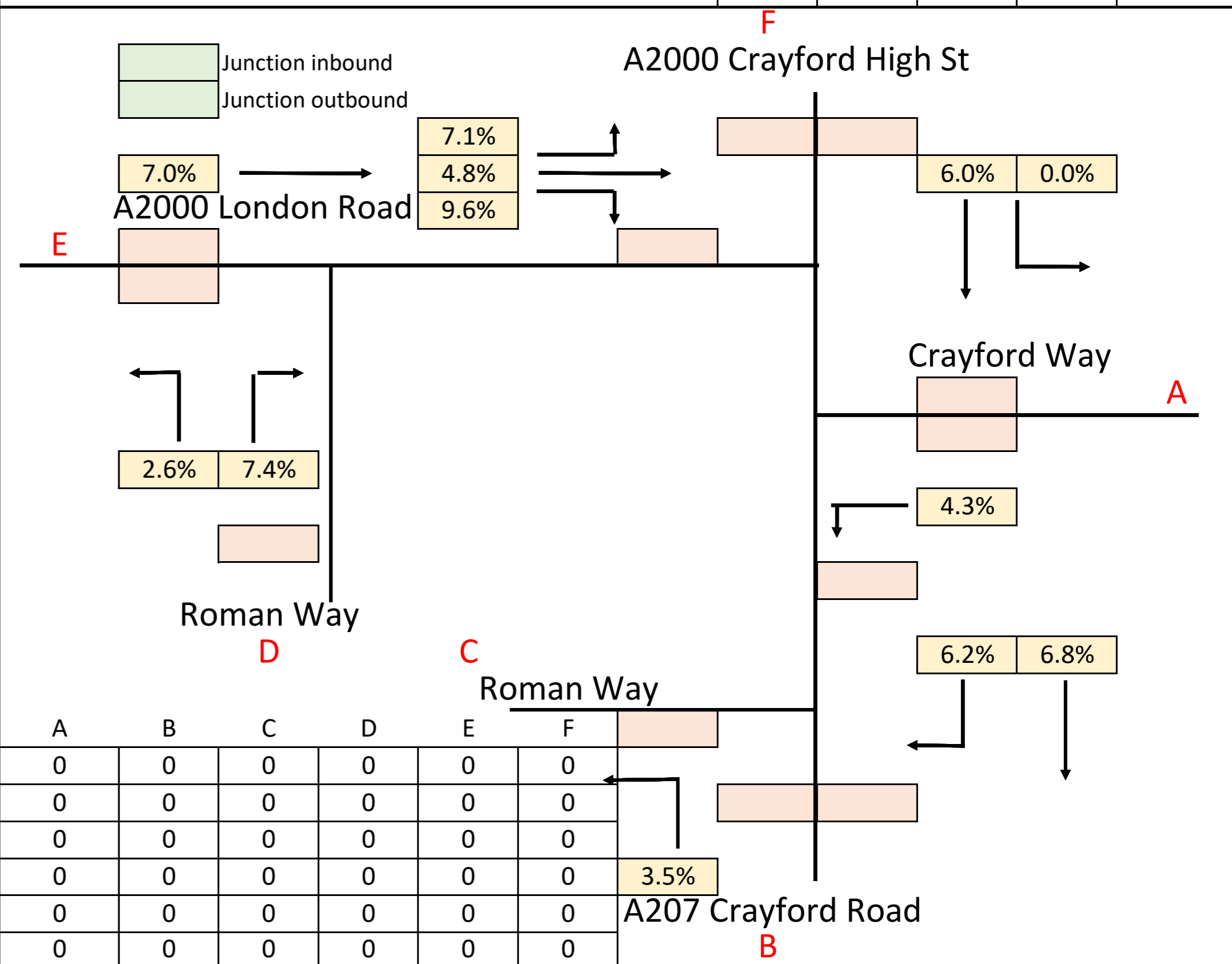
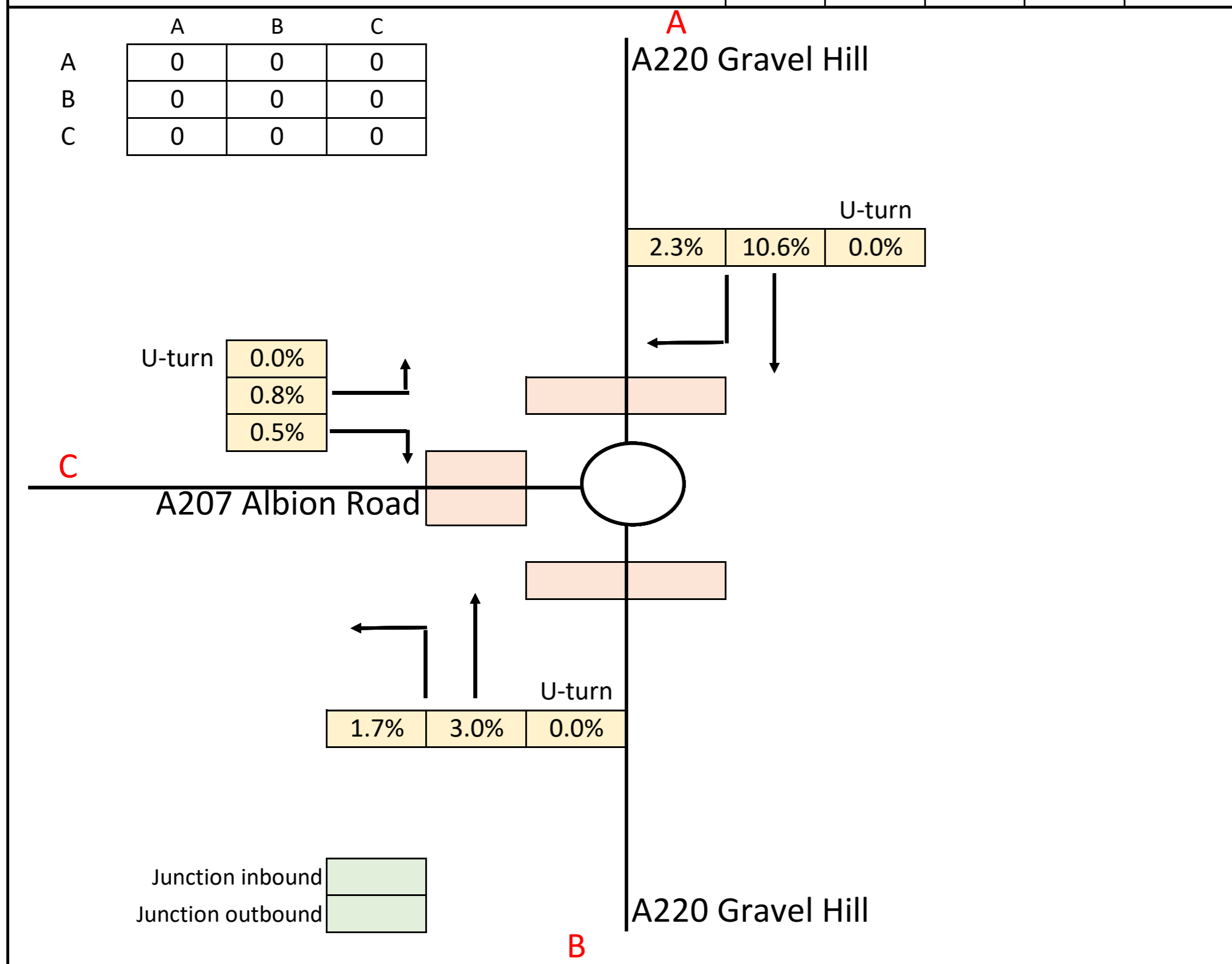
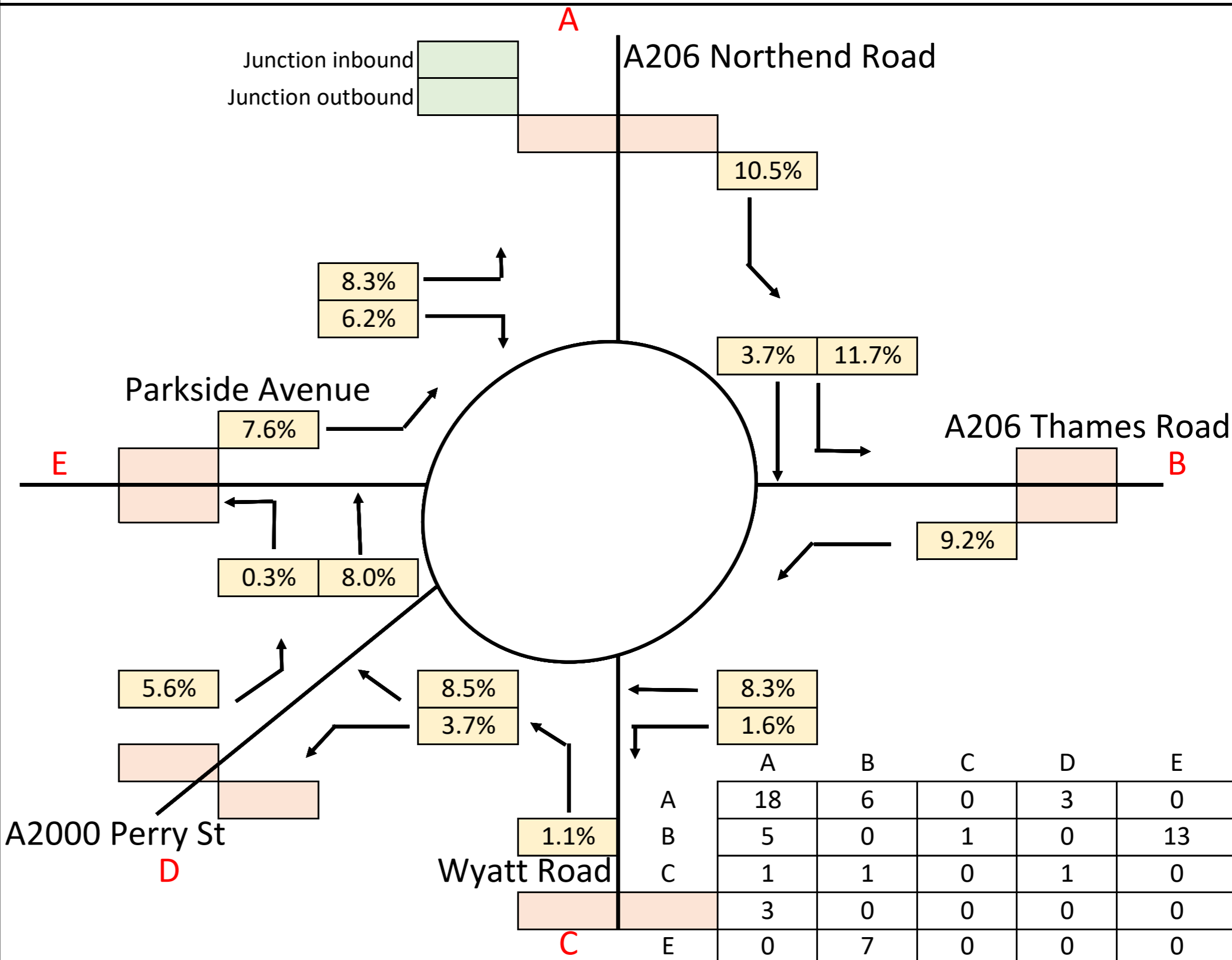
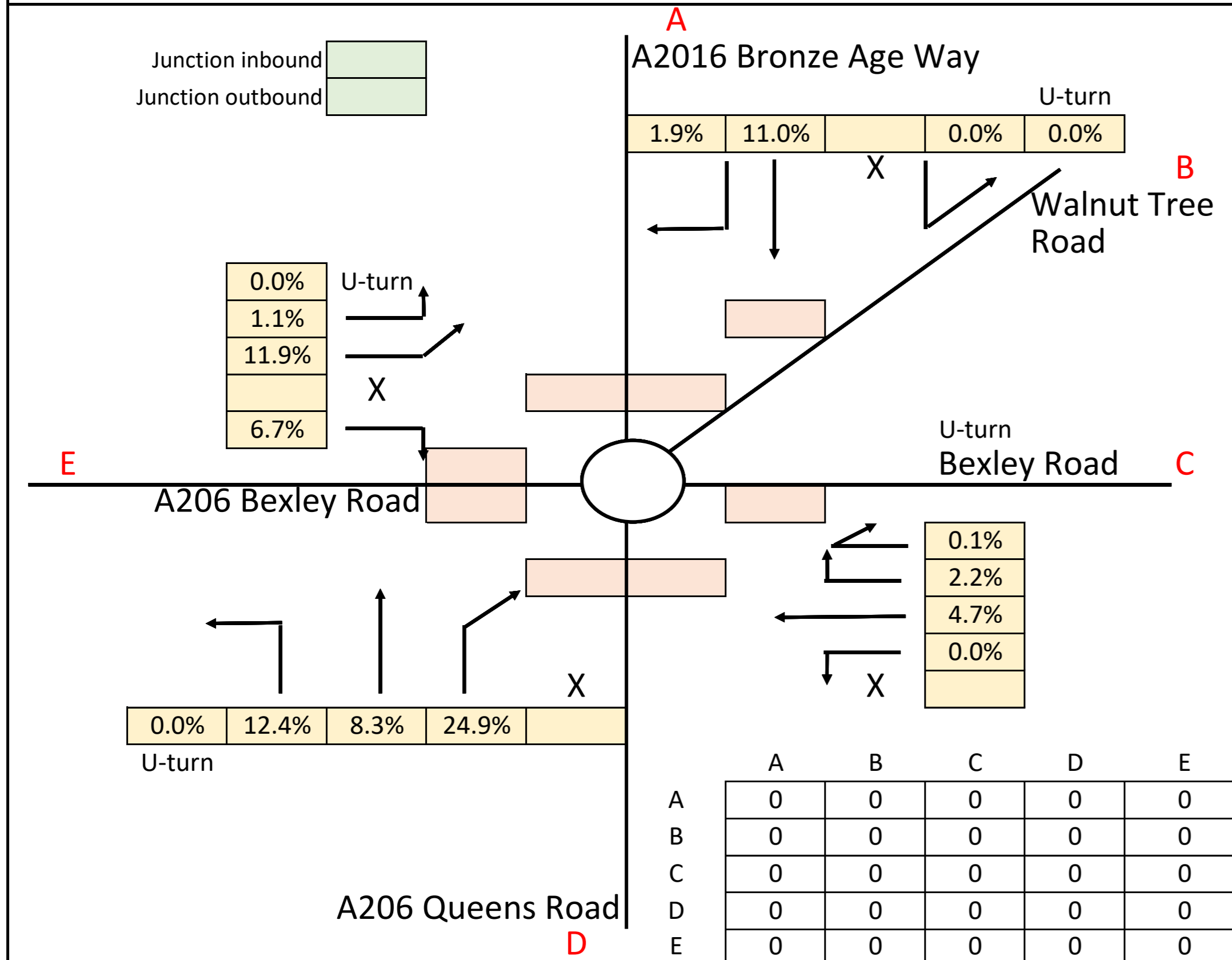
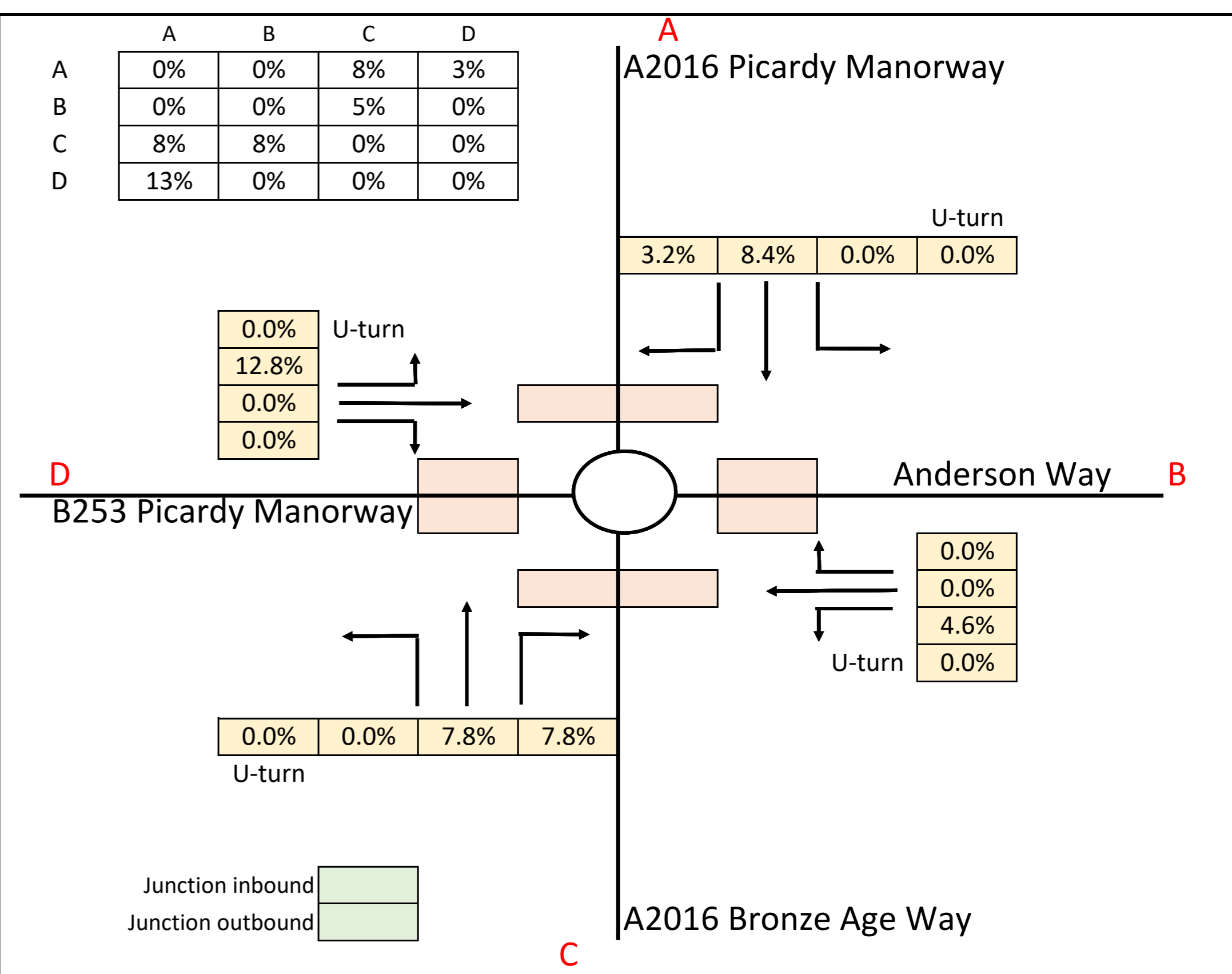
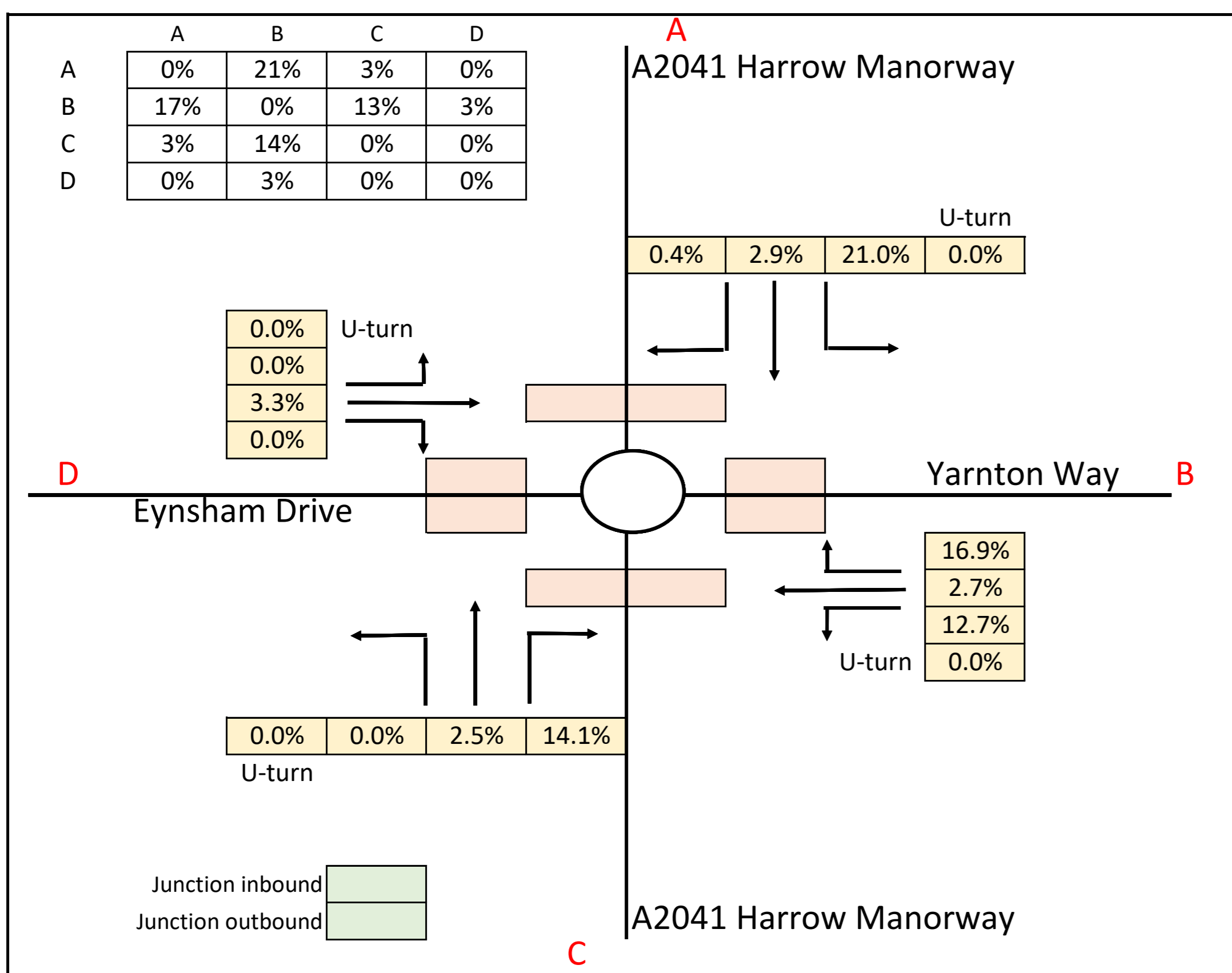
SENSITIVITY FLOWS
2038 Local Plan without LTC (0800-0900)
Demand Flow (PCUs)



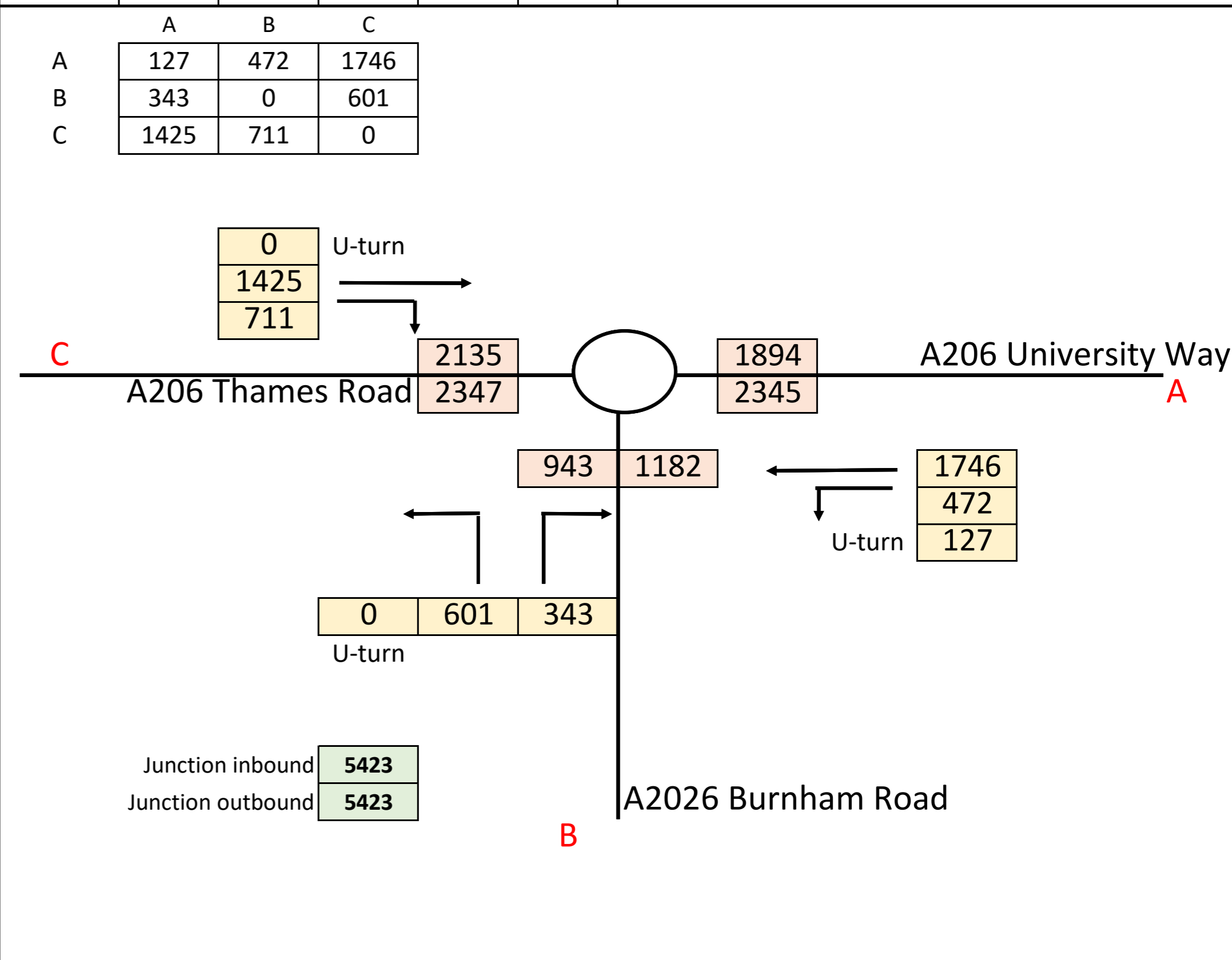
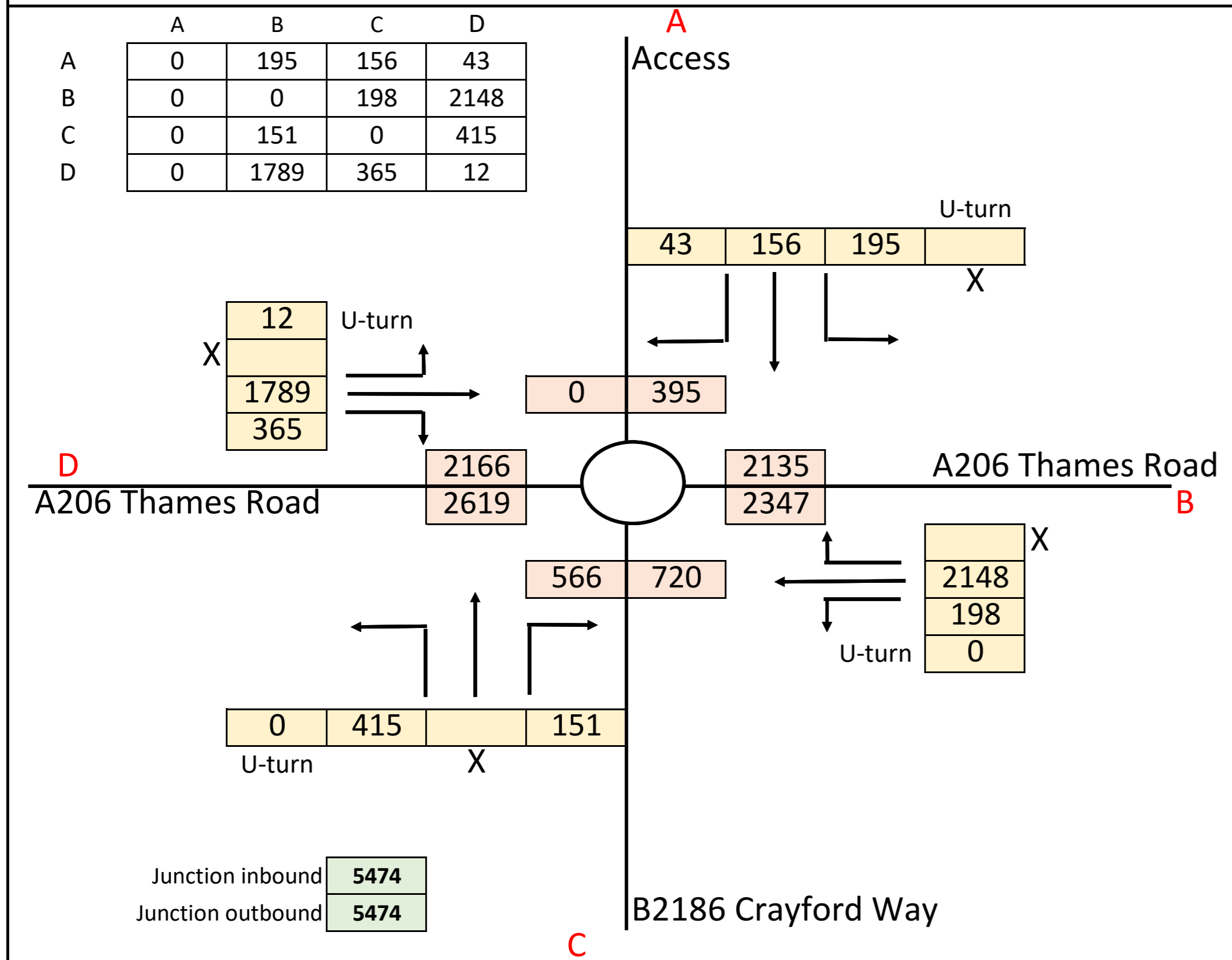
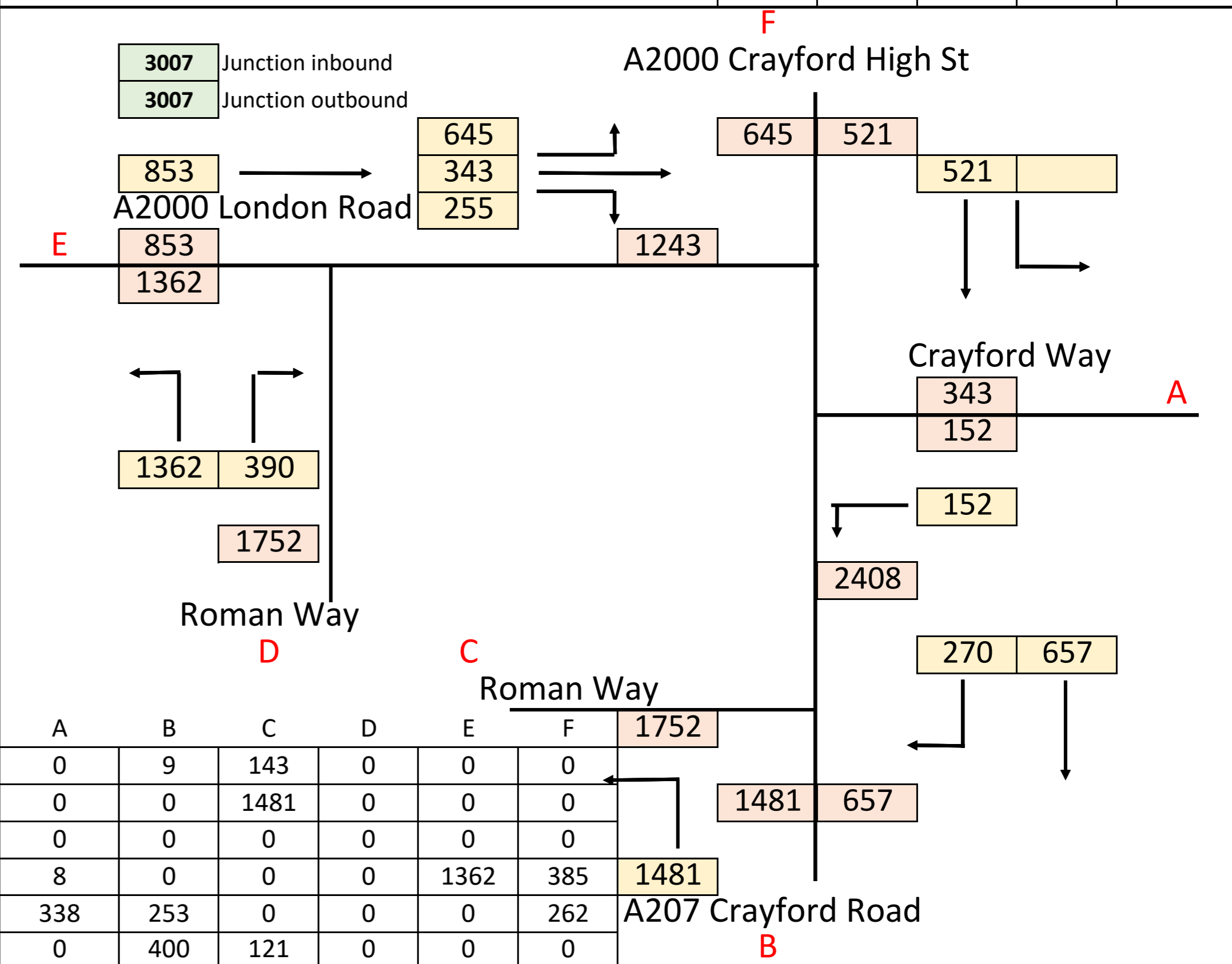
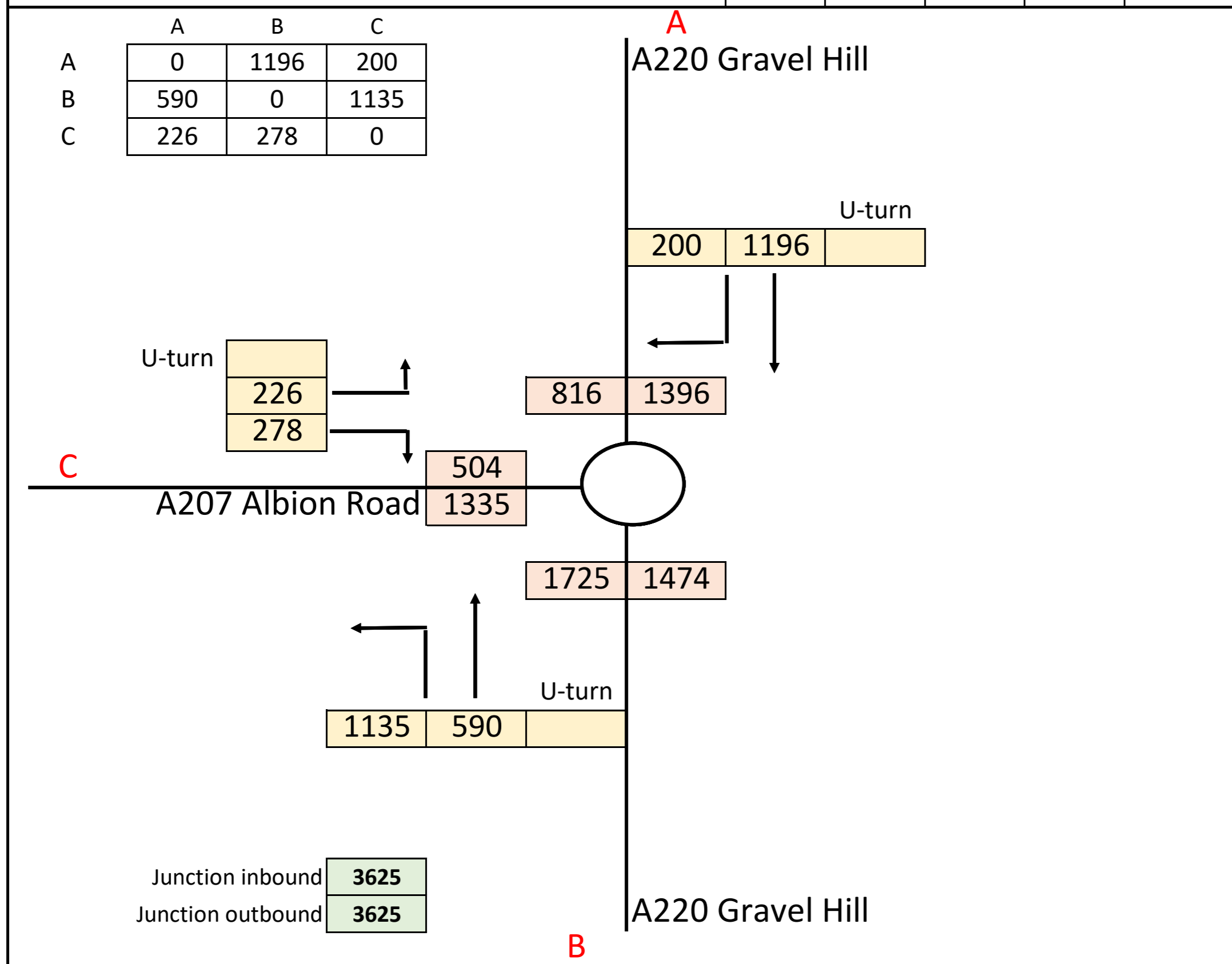
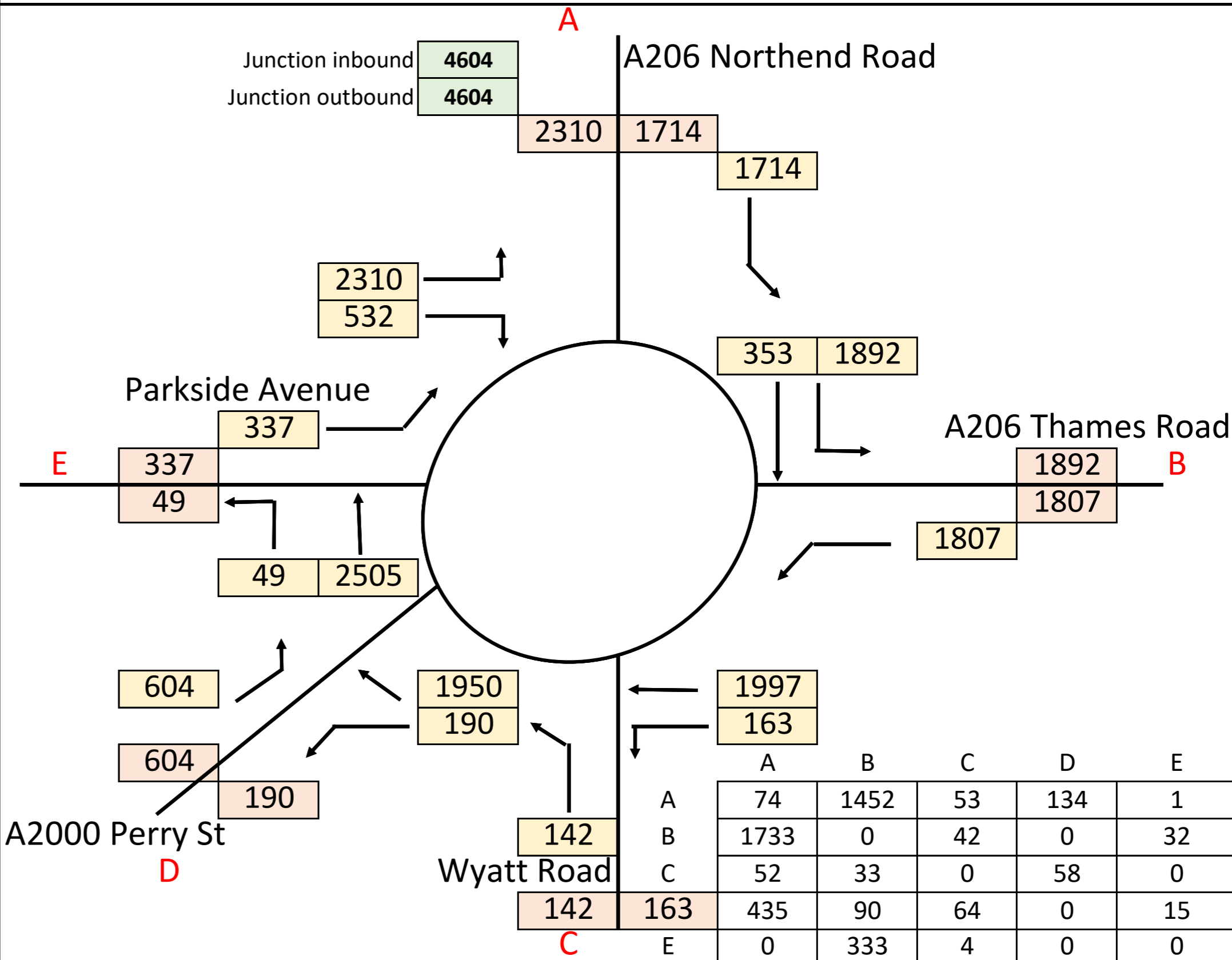
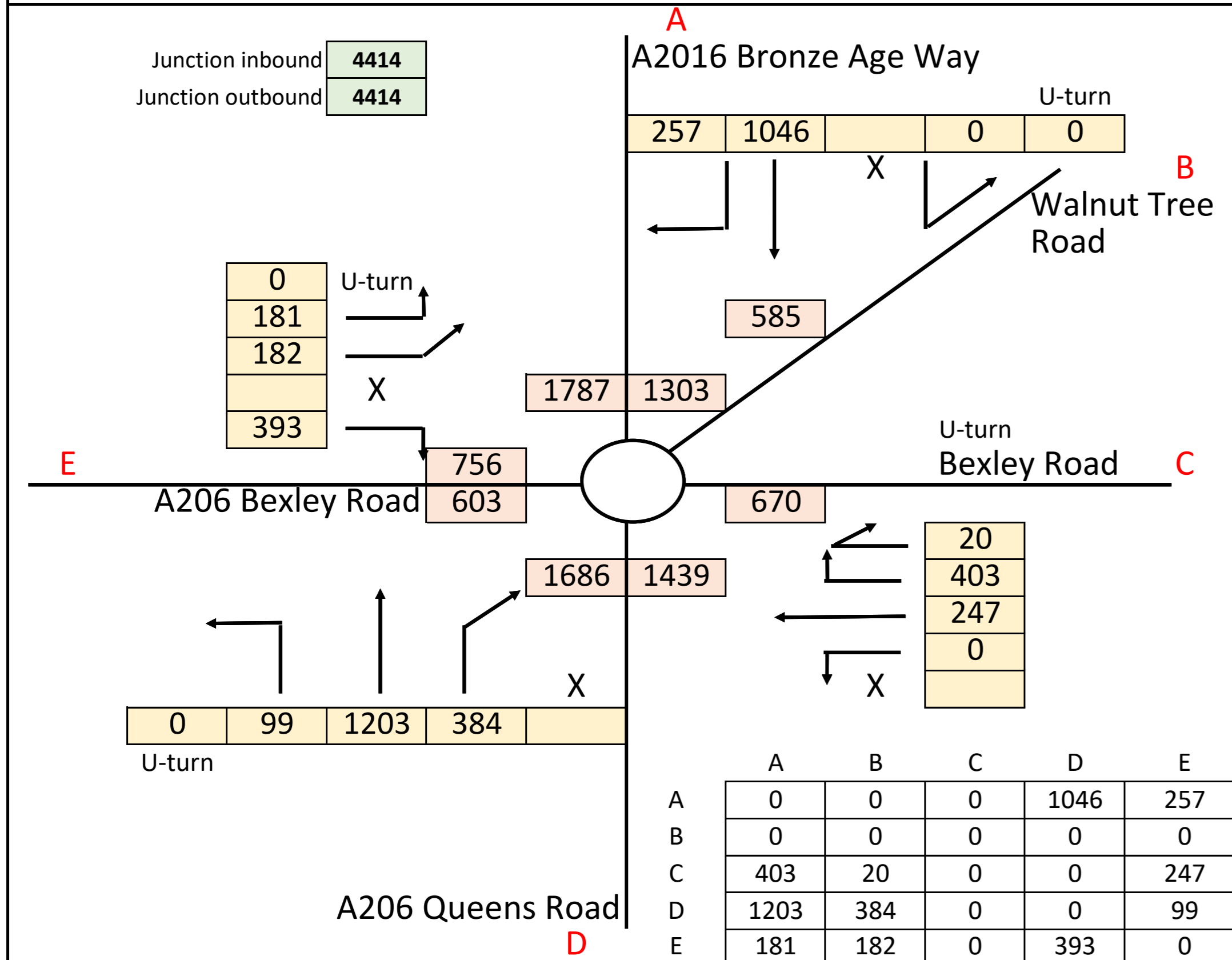
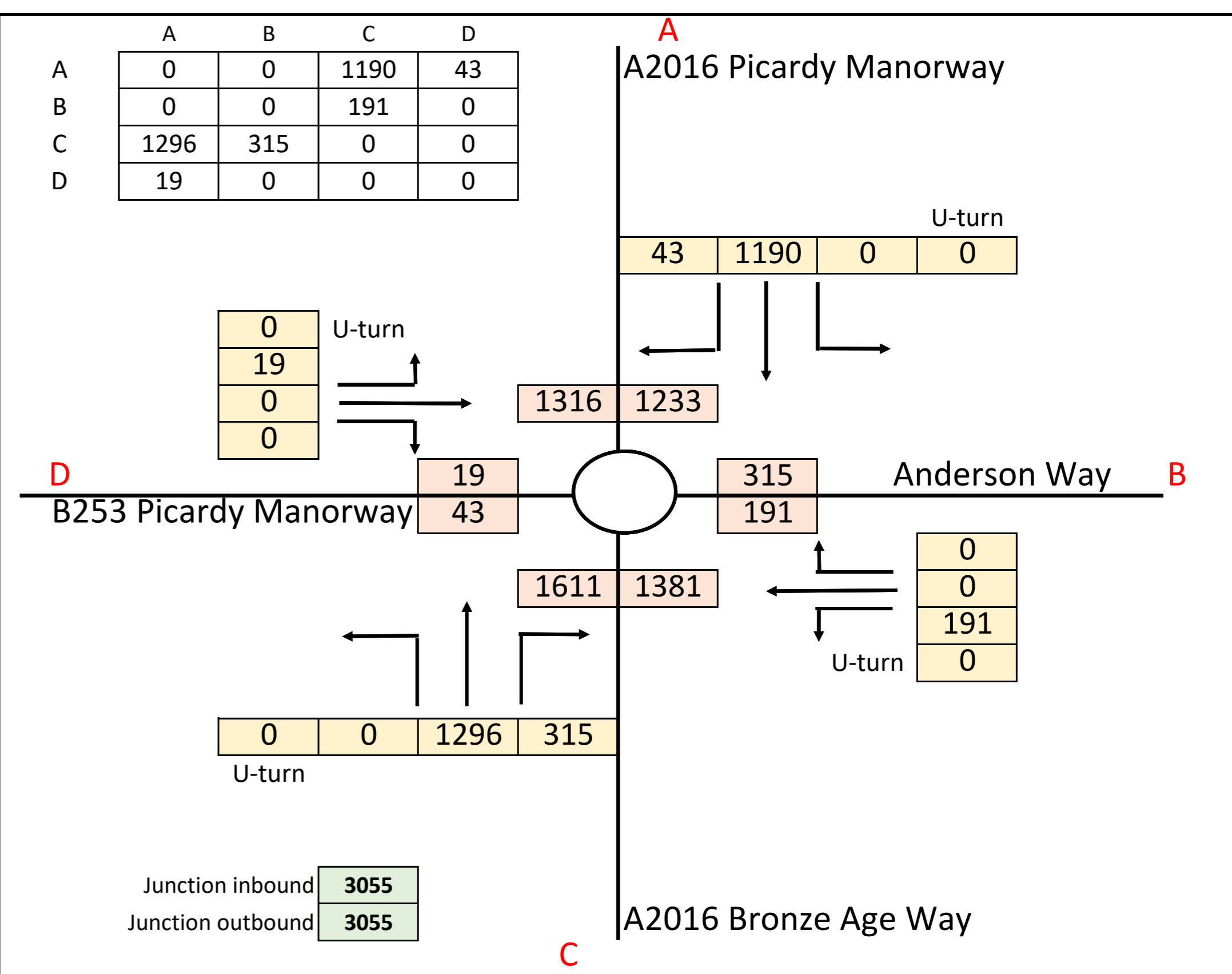
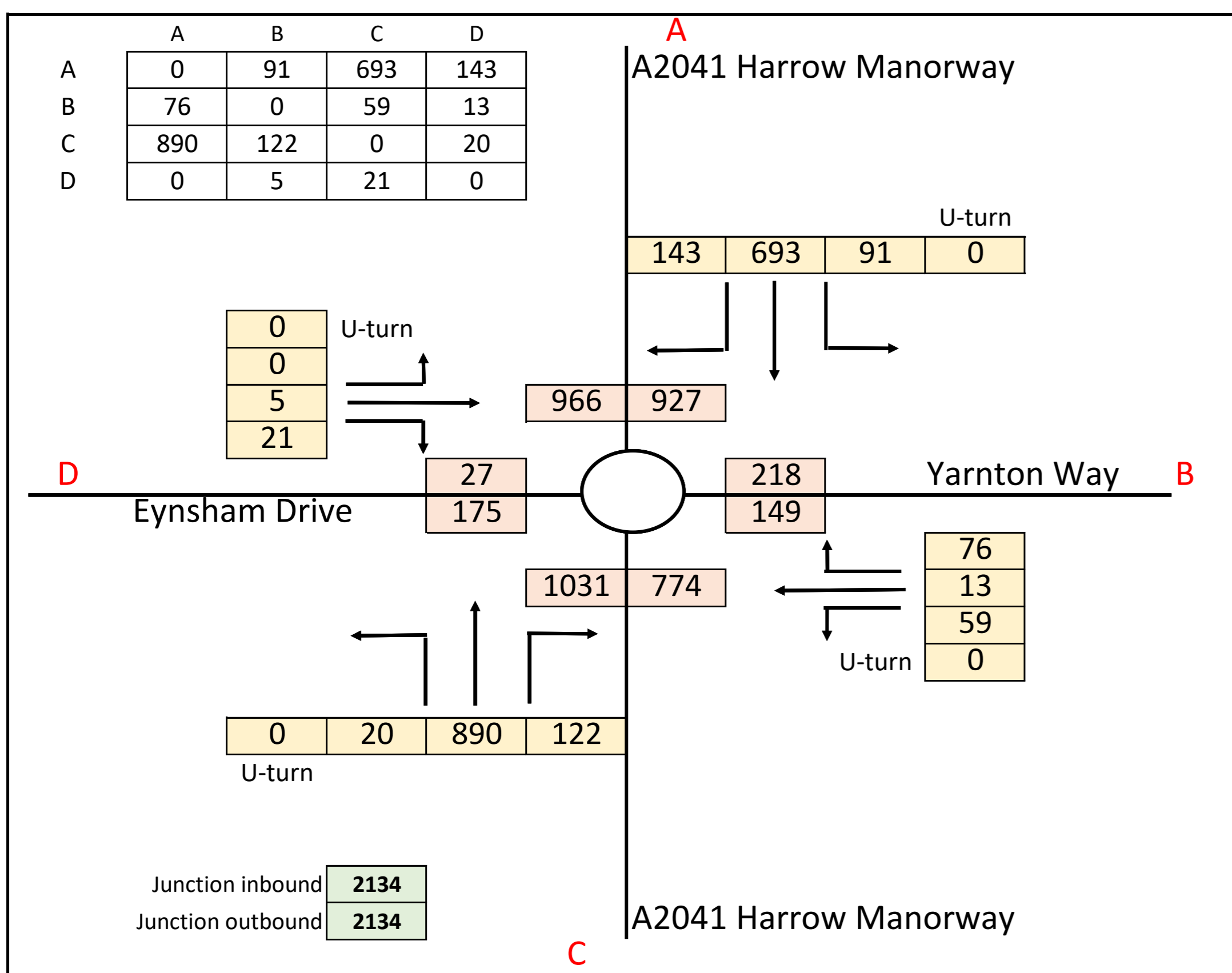
SENSITIVITY FLOWS
2038 Local Plan without LTC (0800-0900)
Demand Flow (% HGVs based upon PCUs)



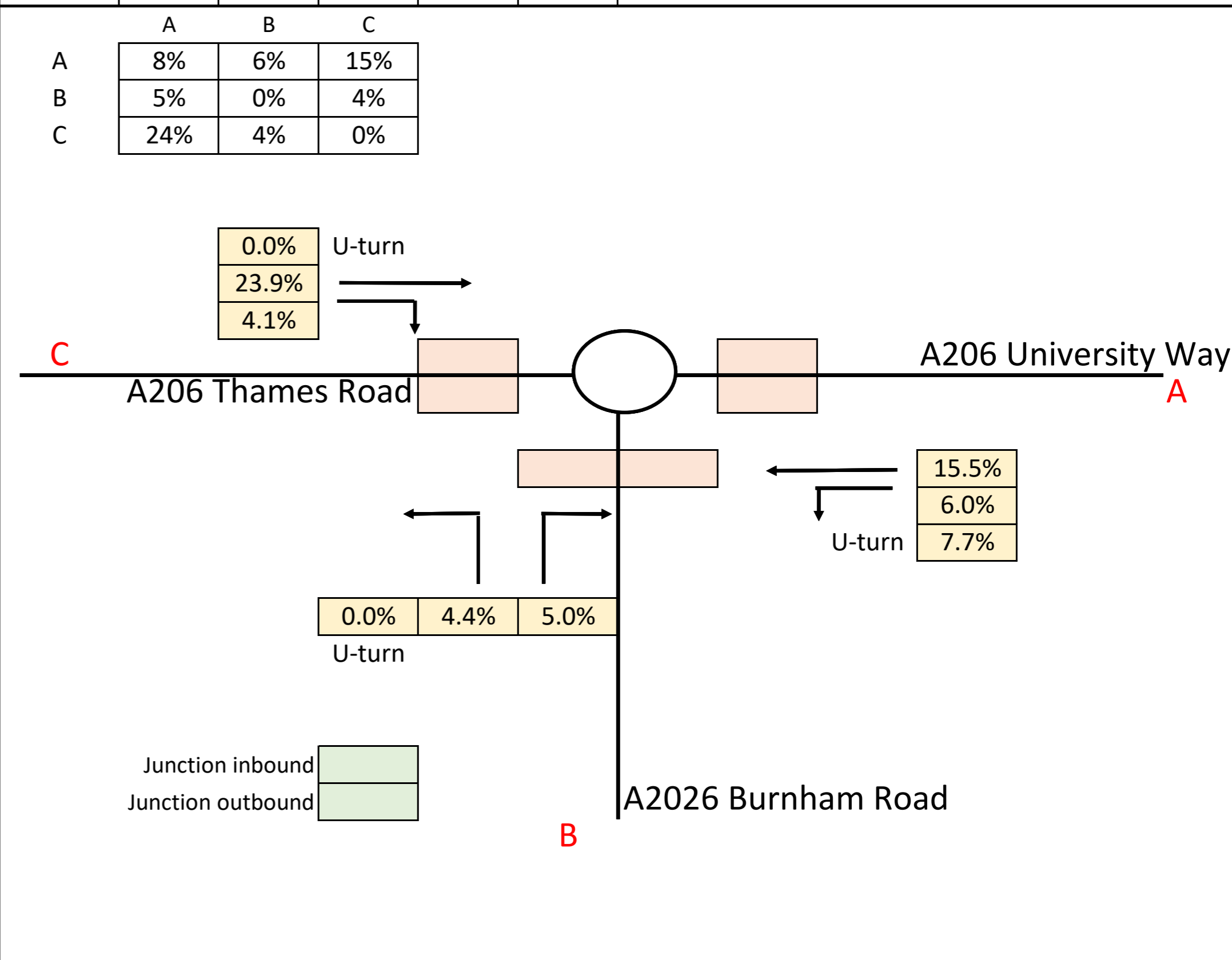
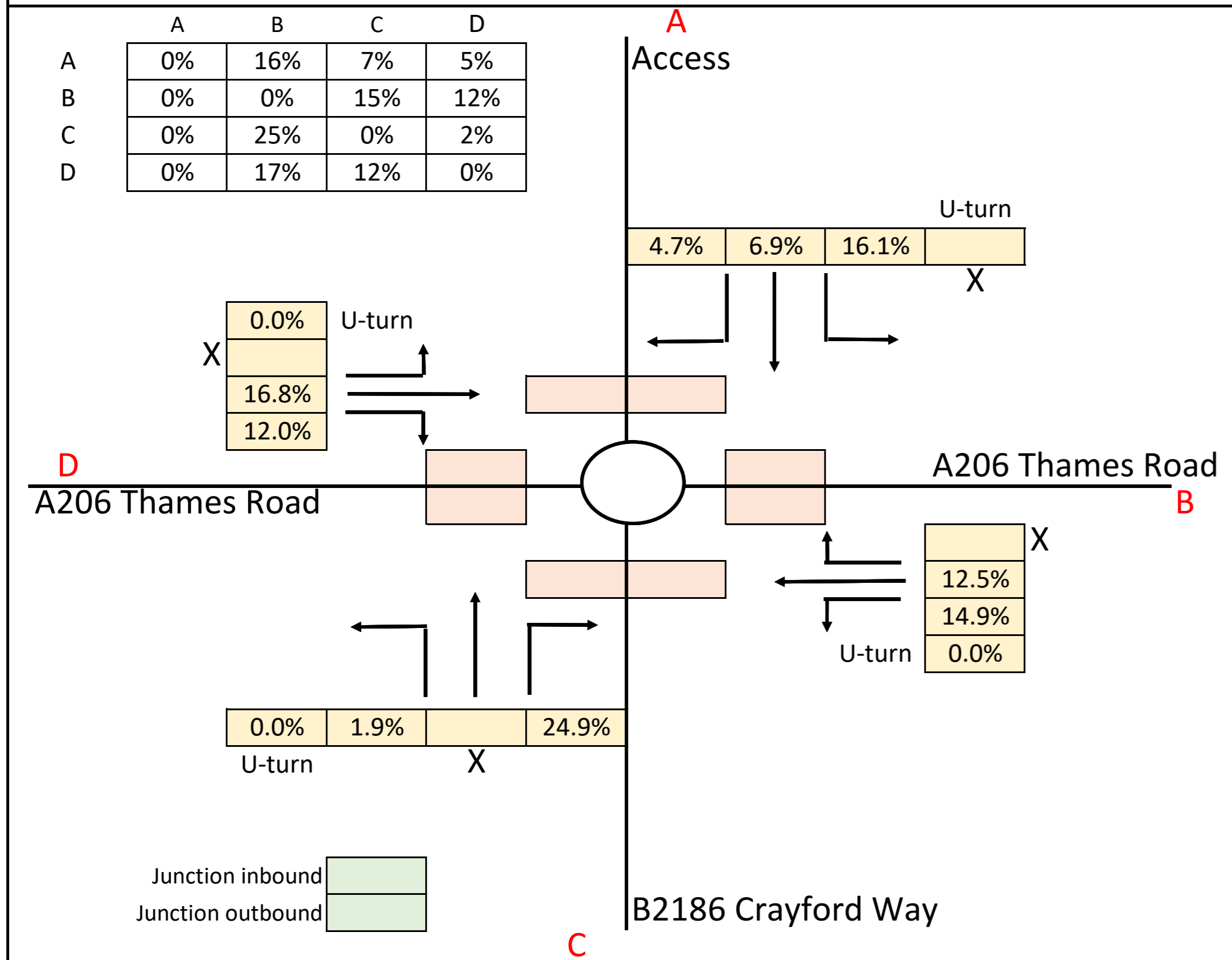
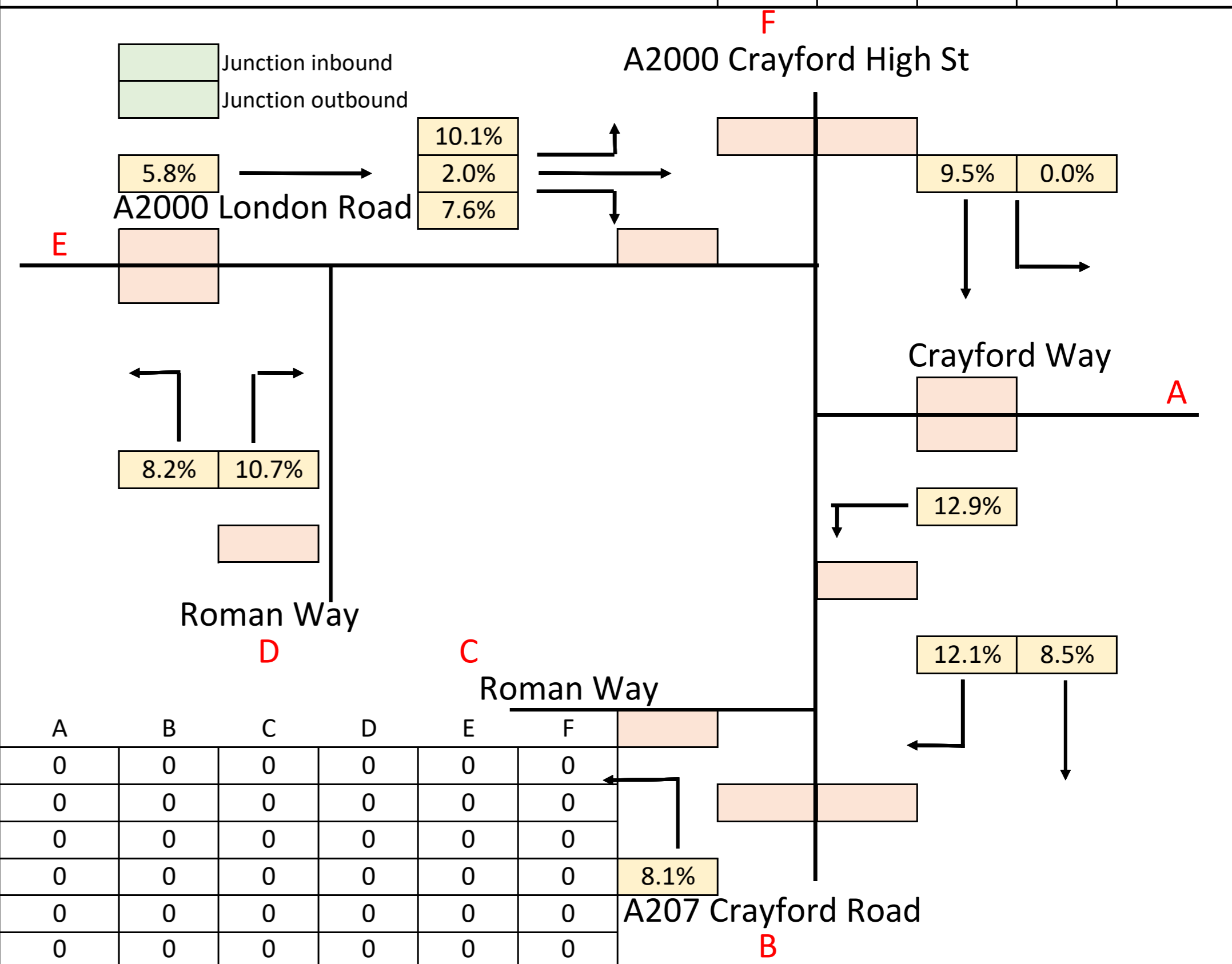
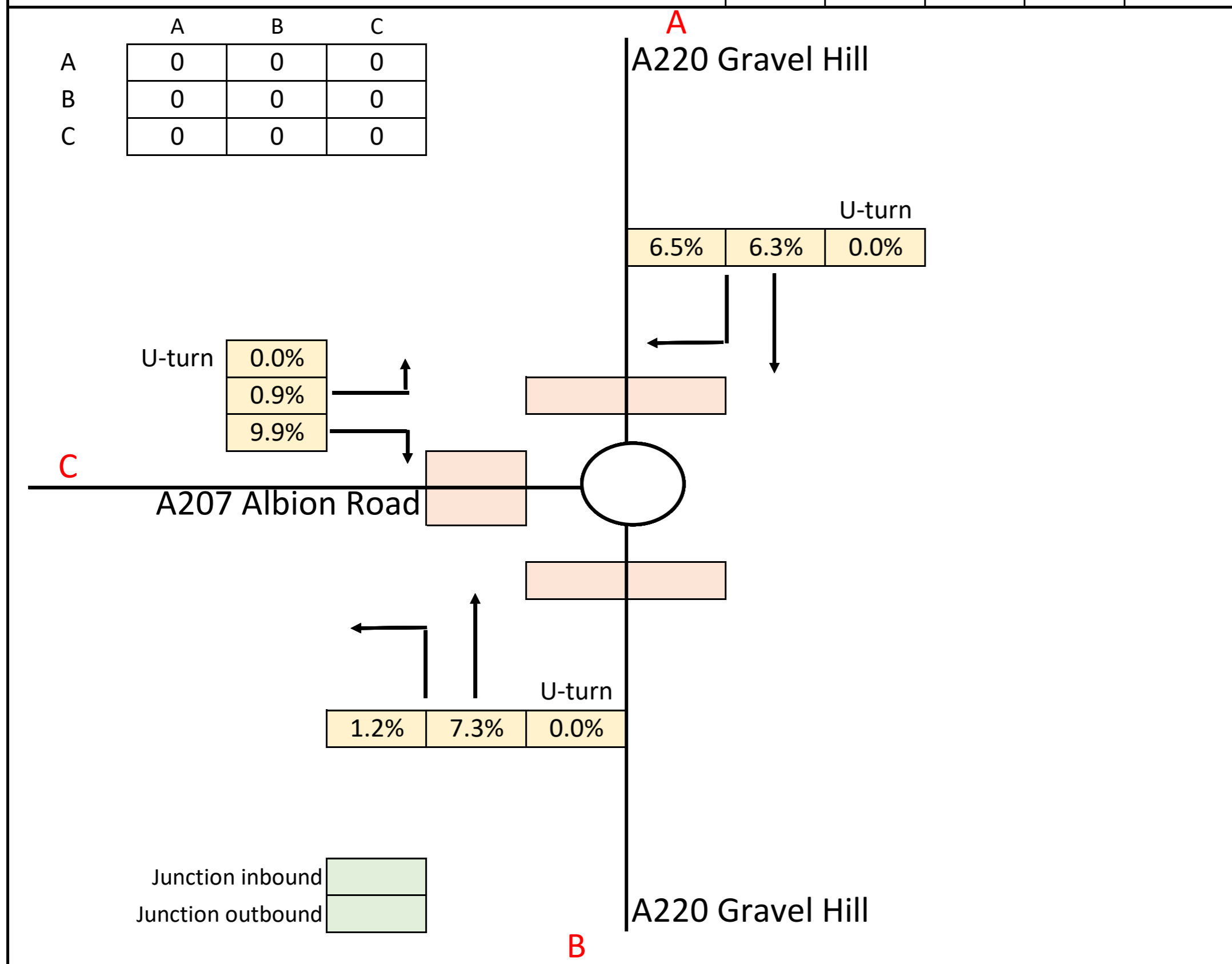
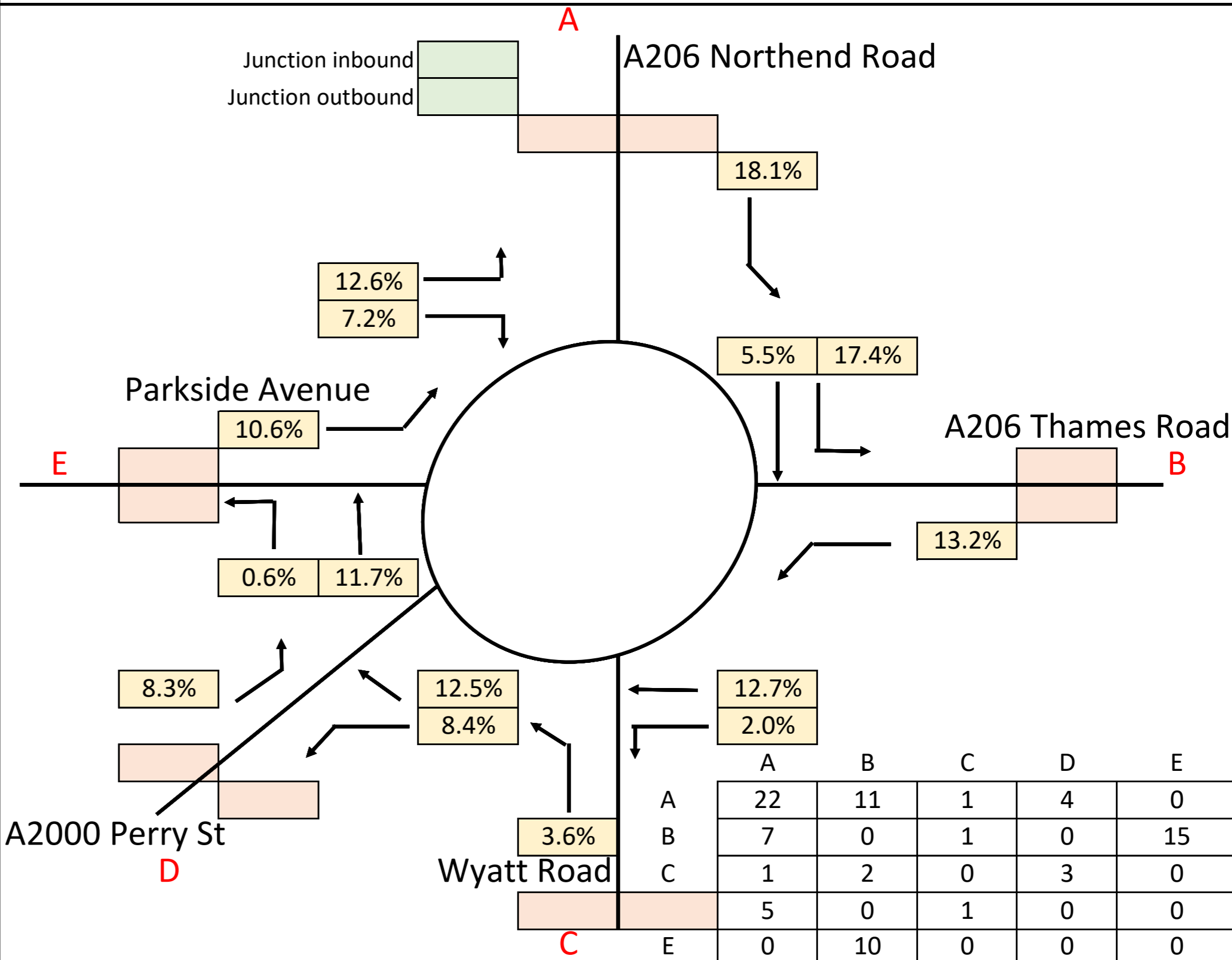
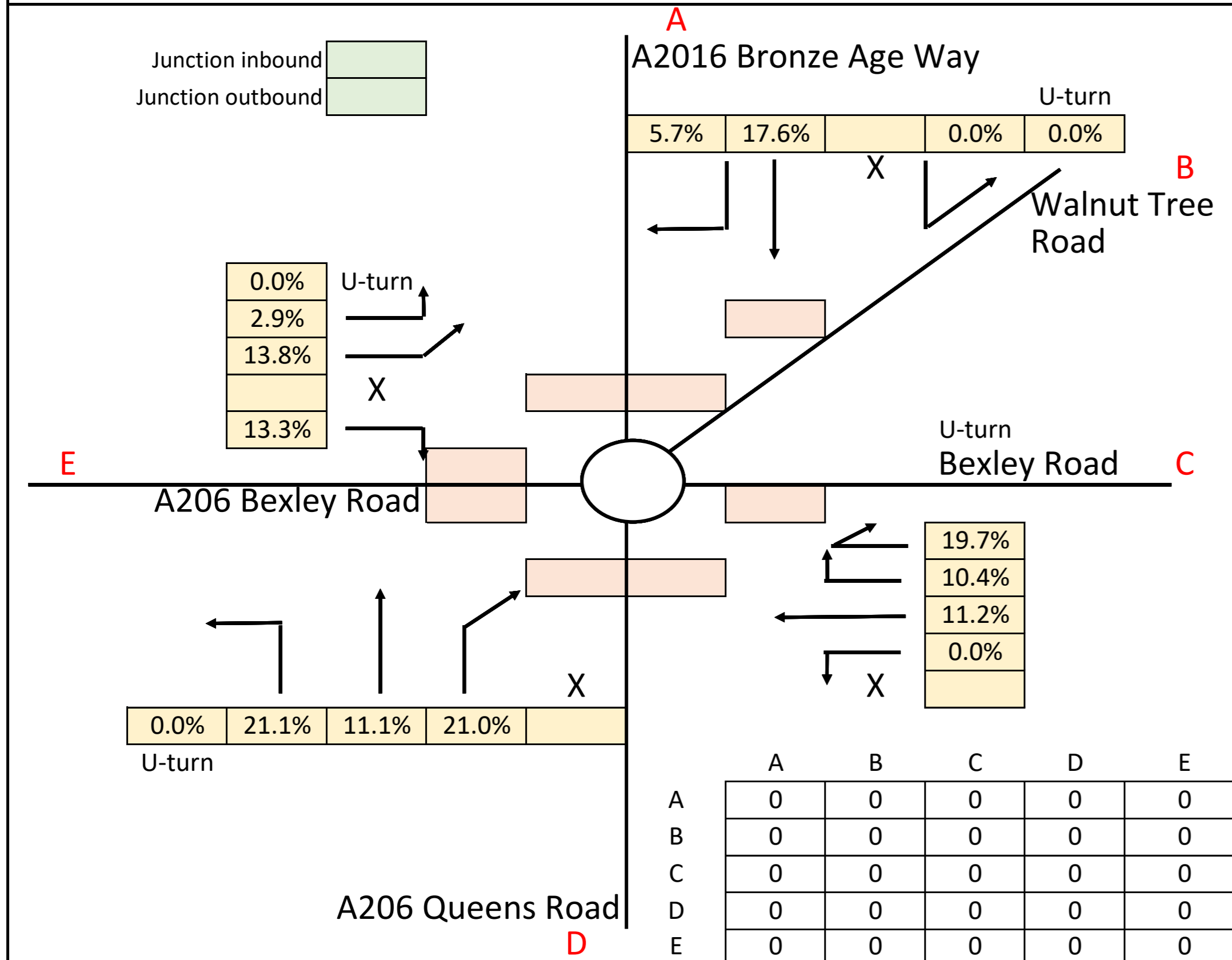
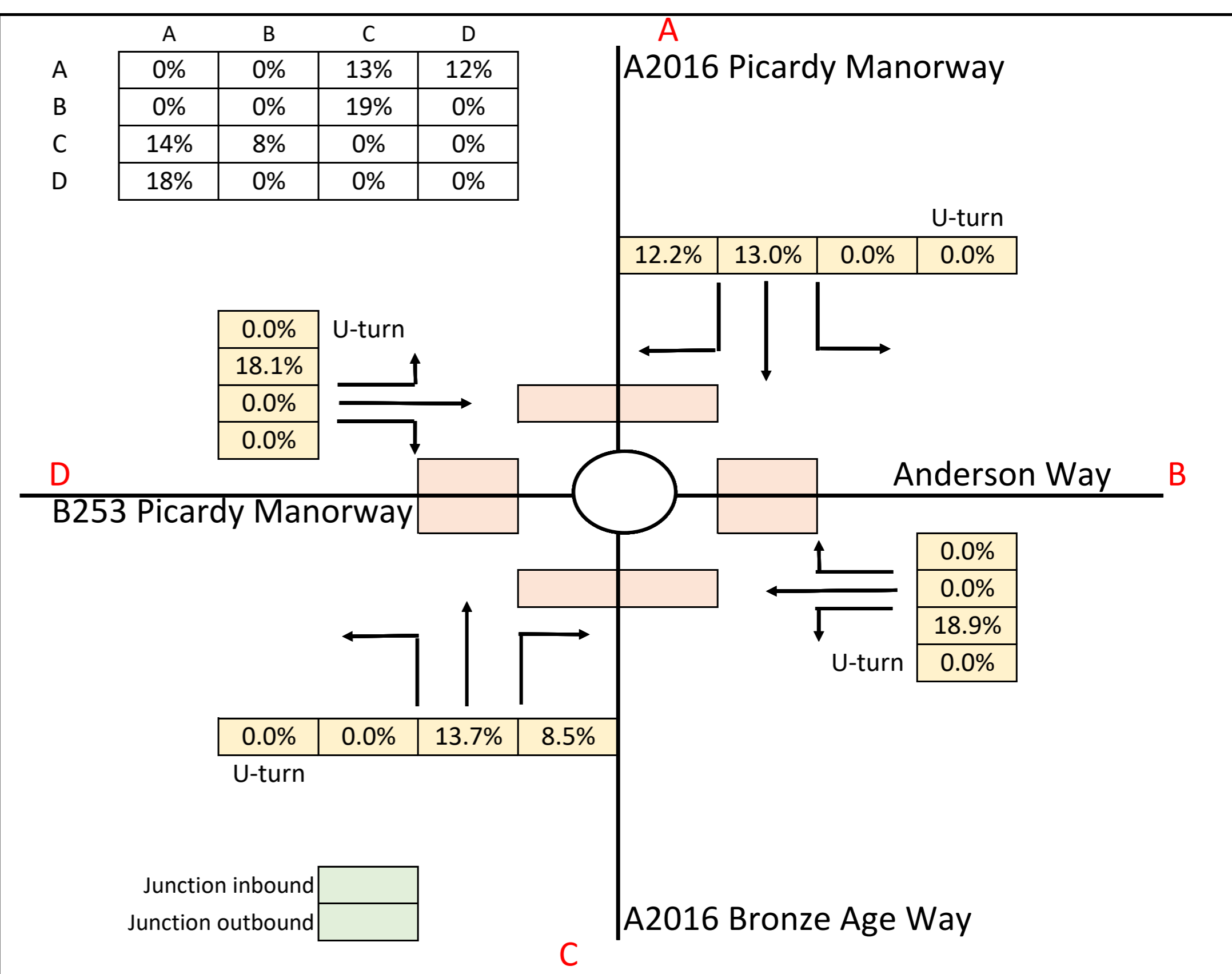
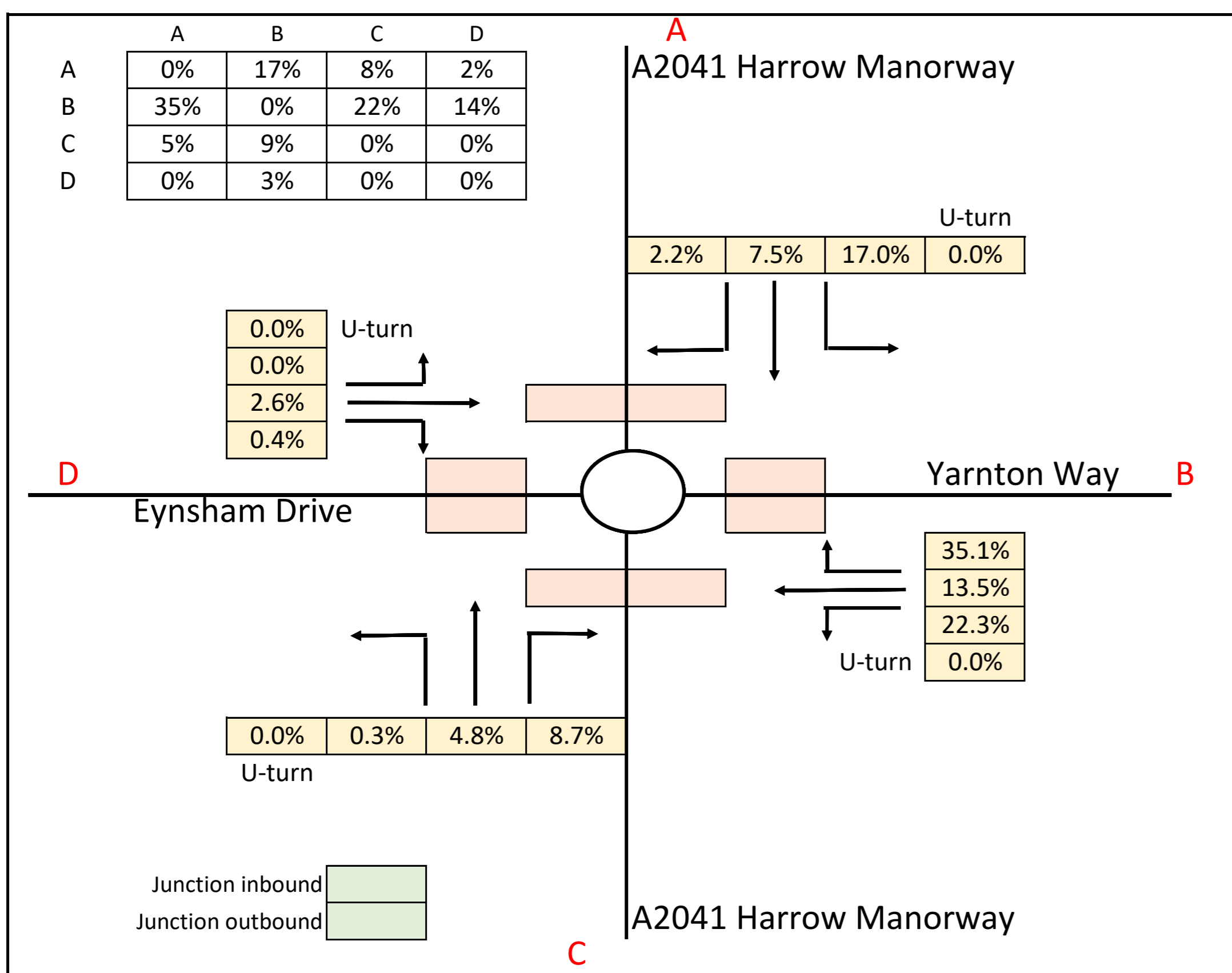
SENSITIVITY FLOWS
2038 Local Plan without LTC (1700-1800)
Demand Flow (PCUs)



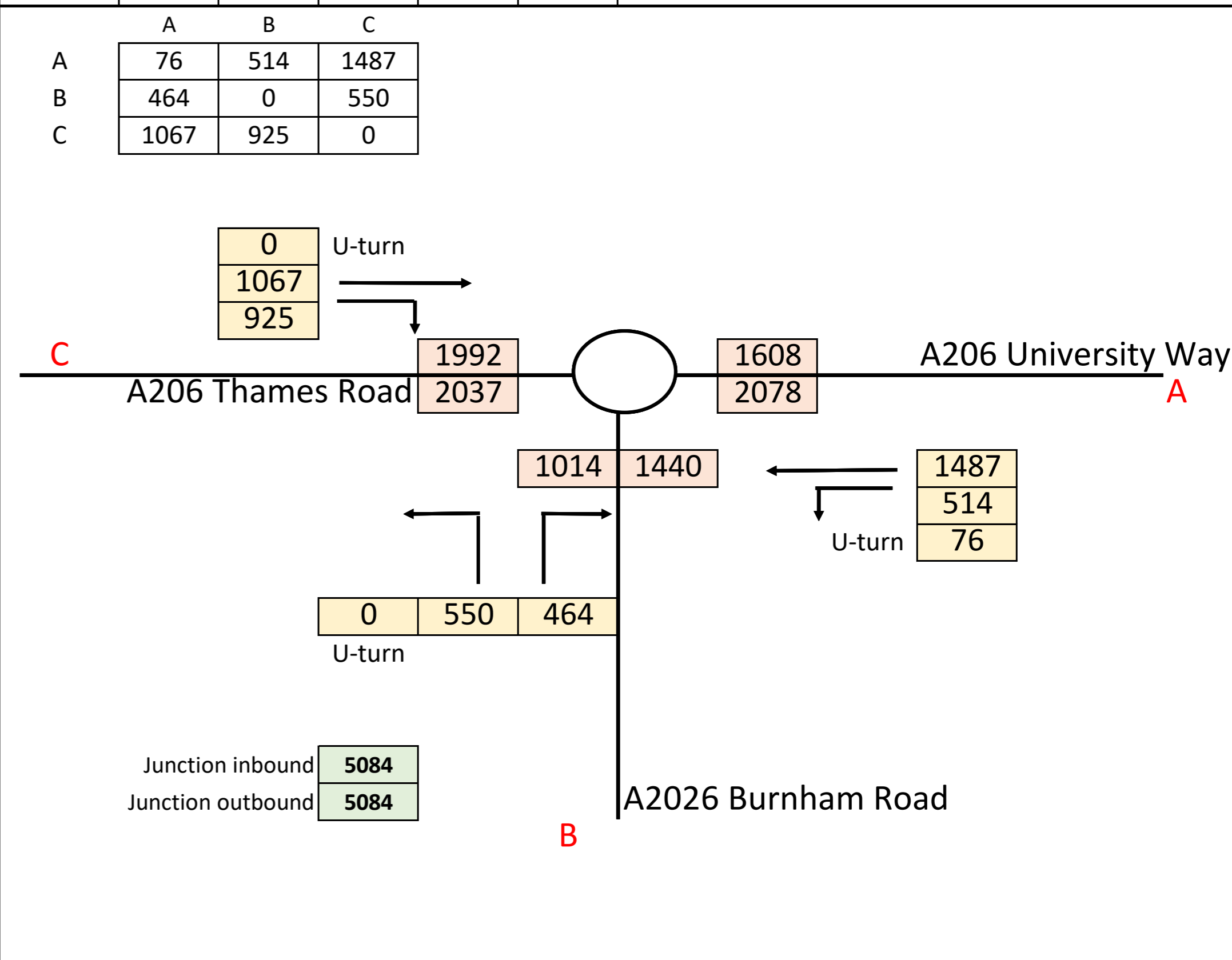
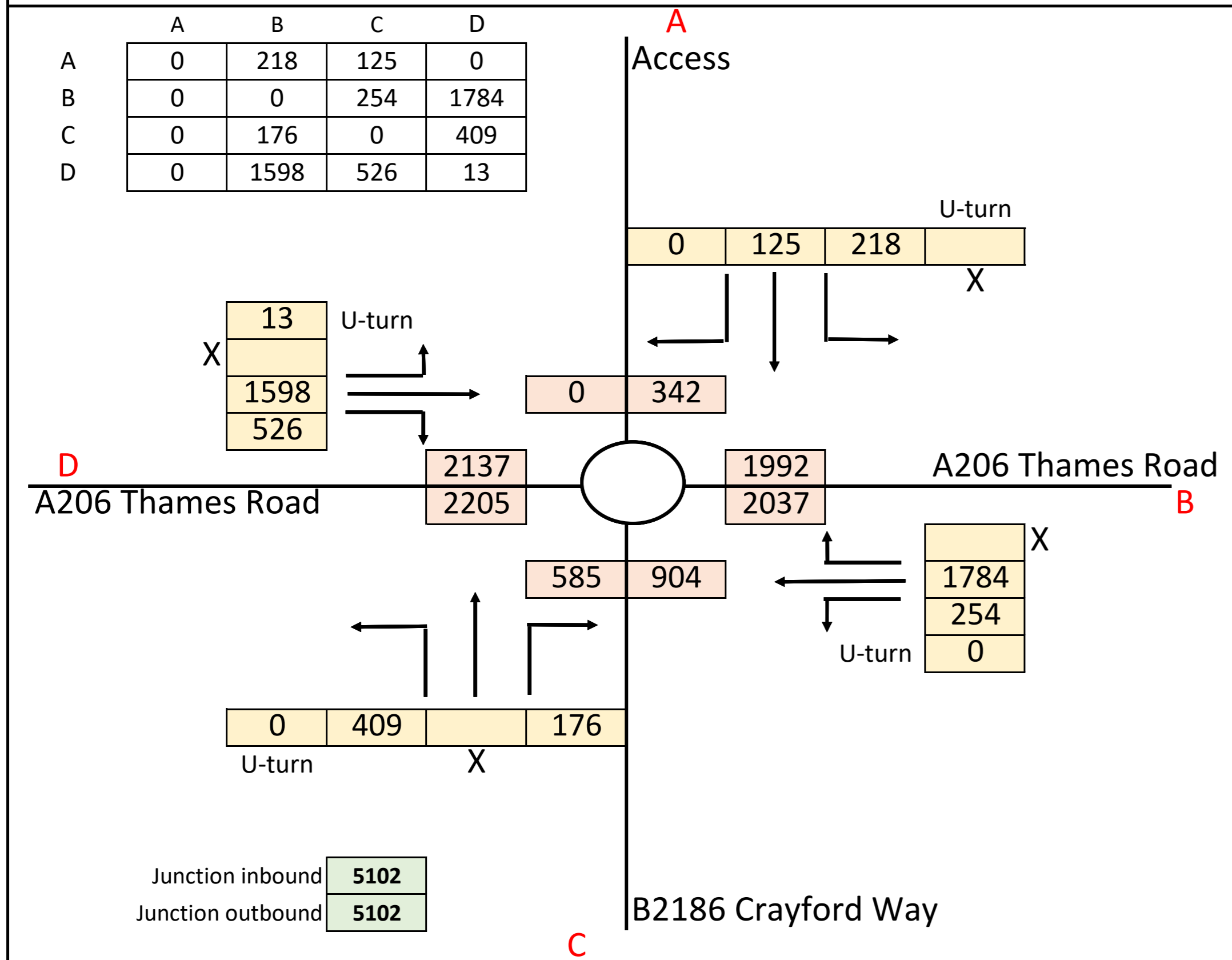
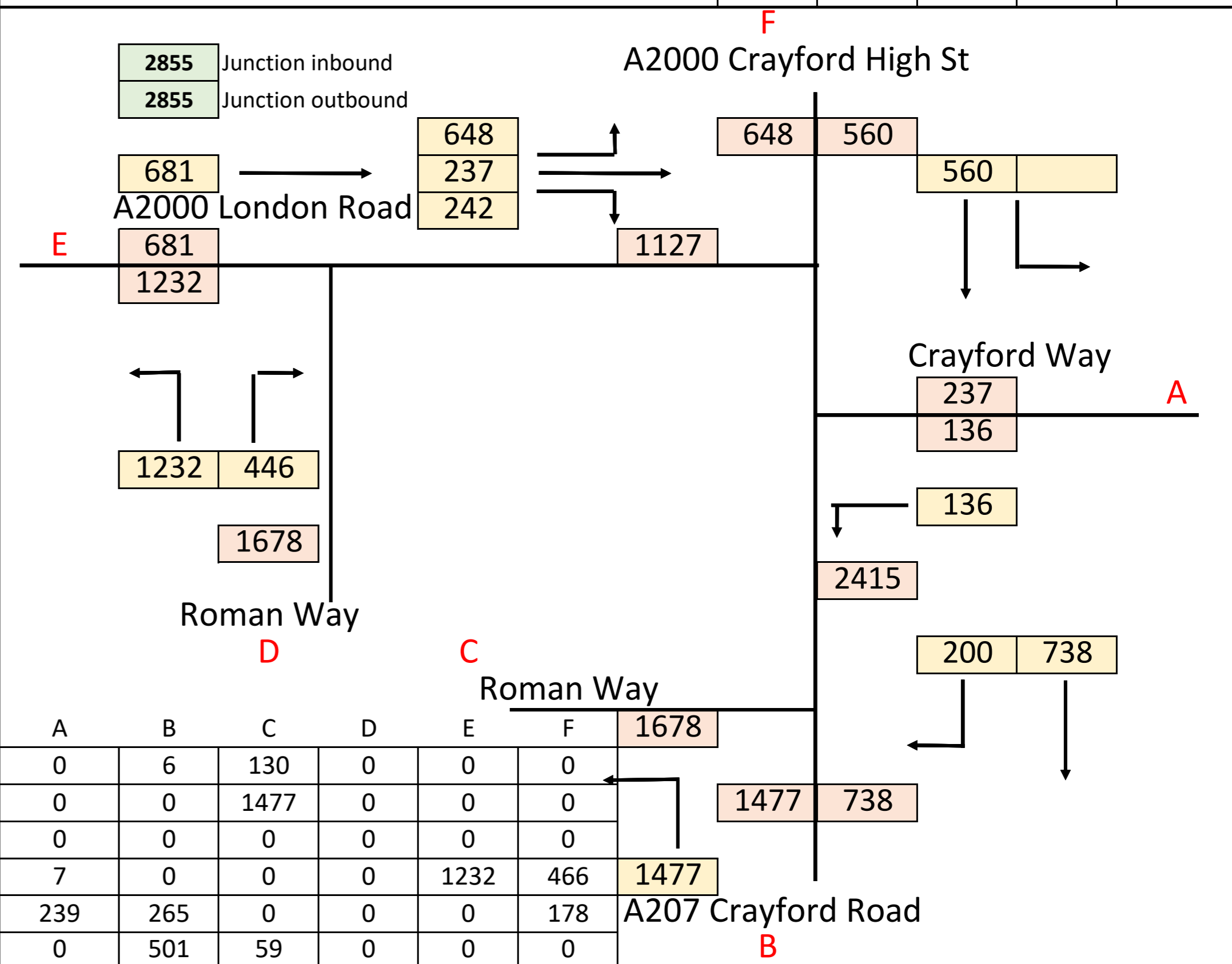
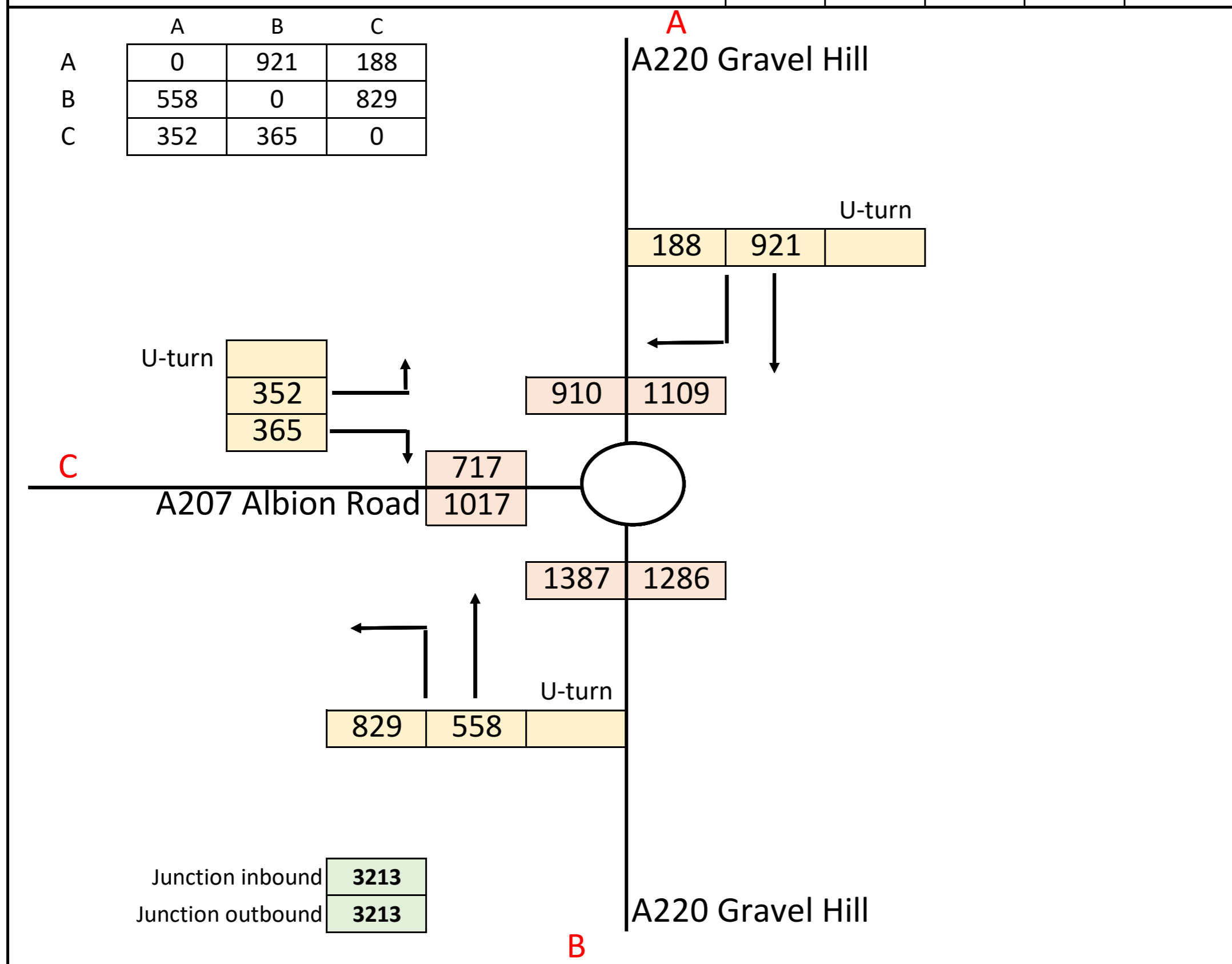
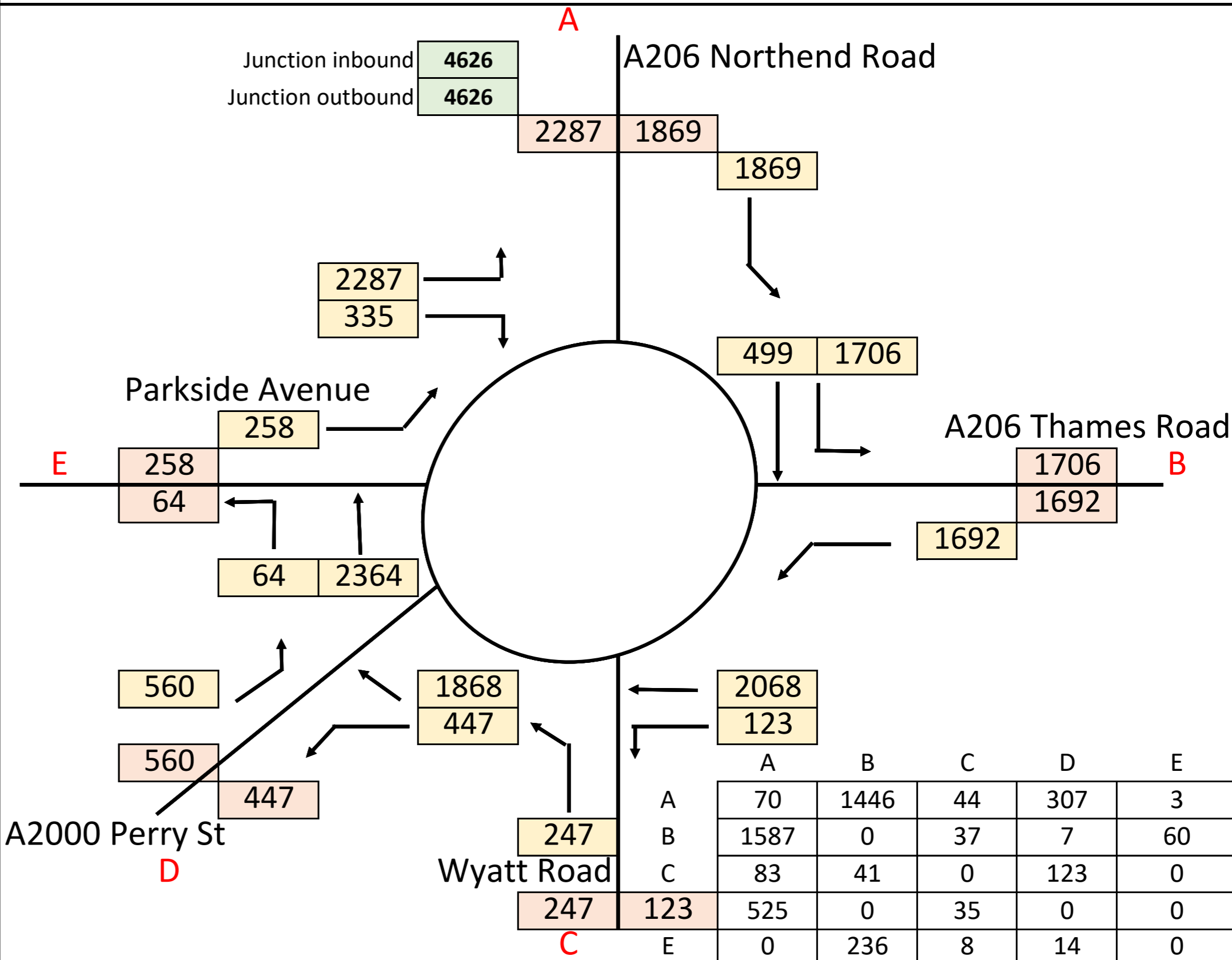
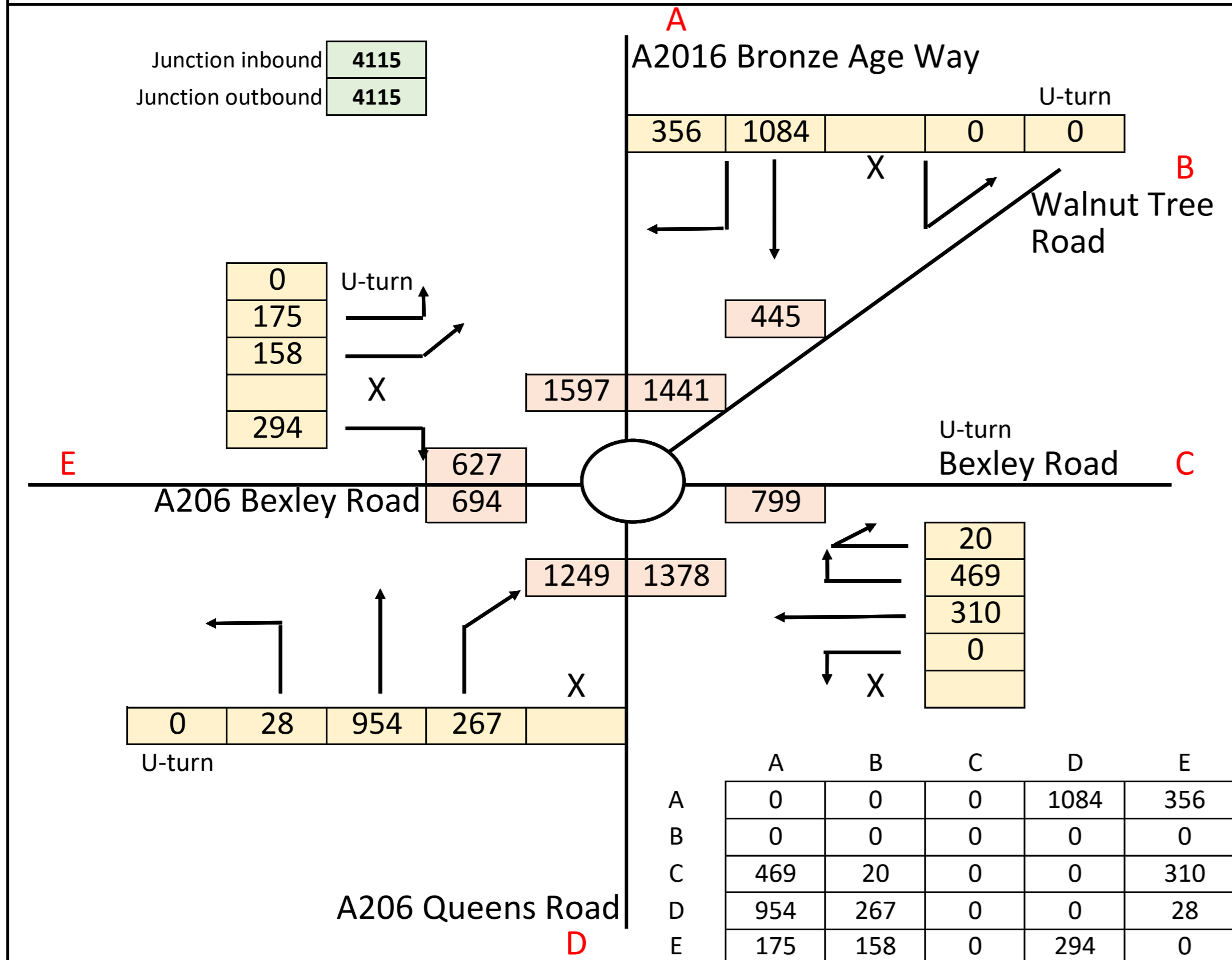
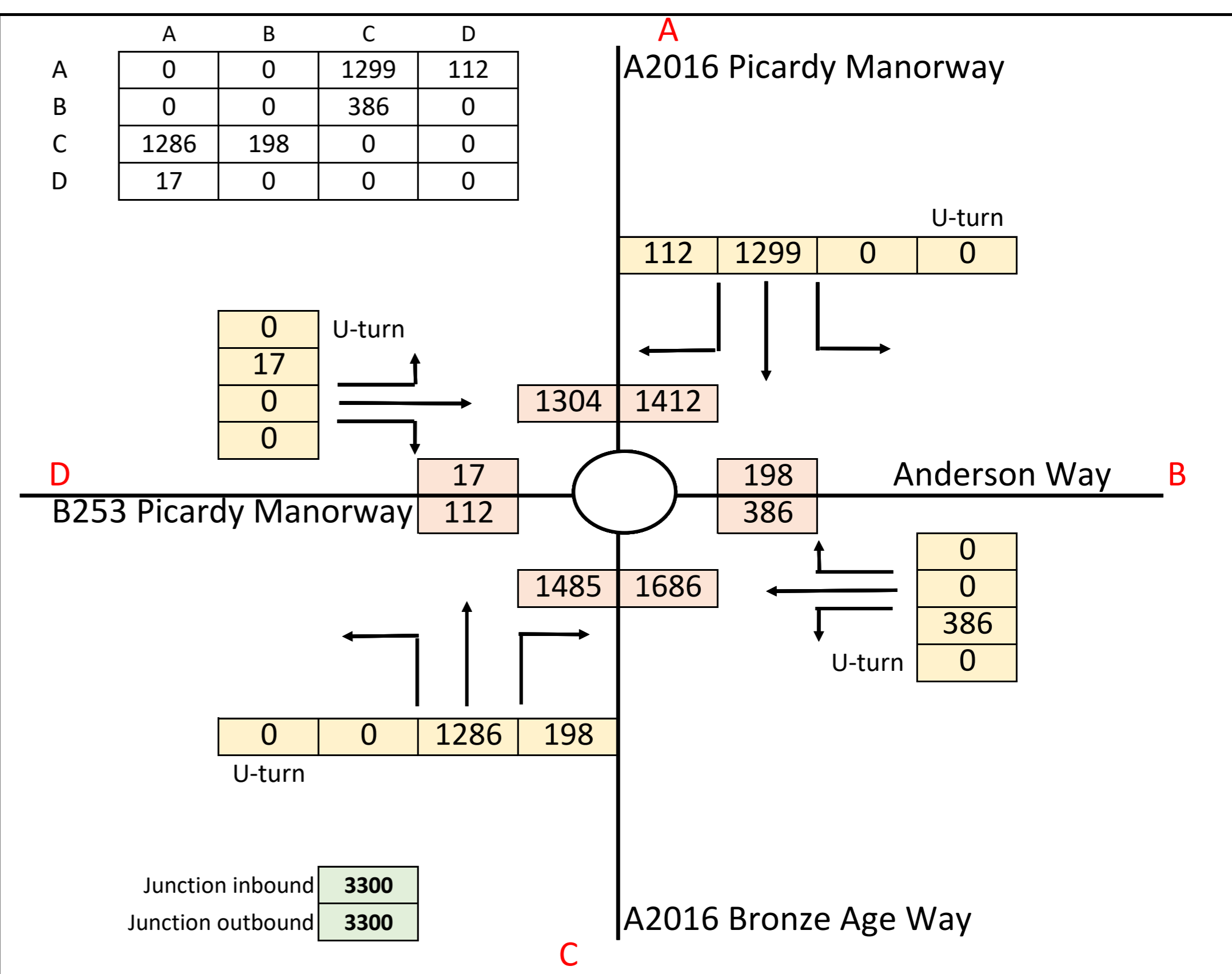
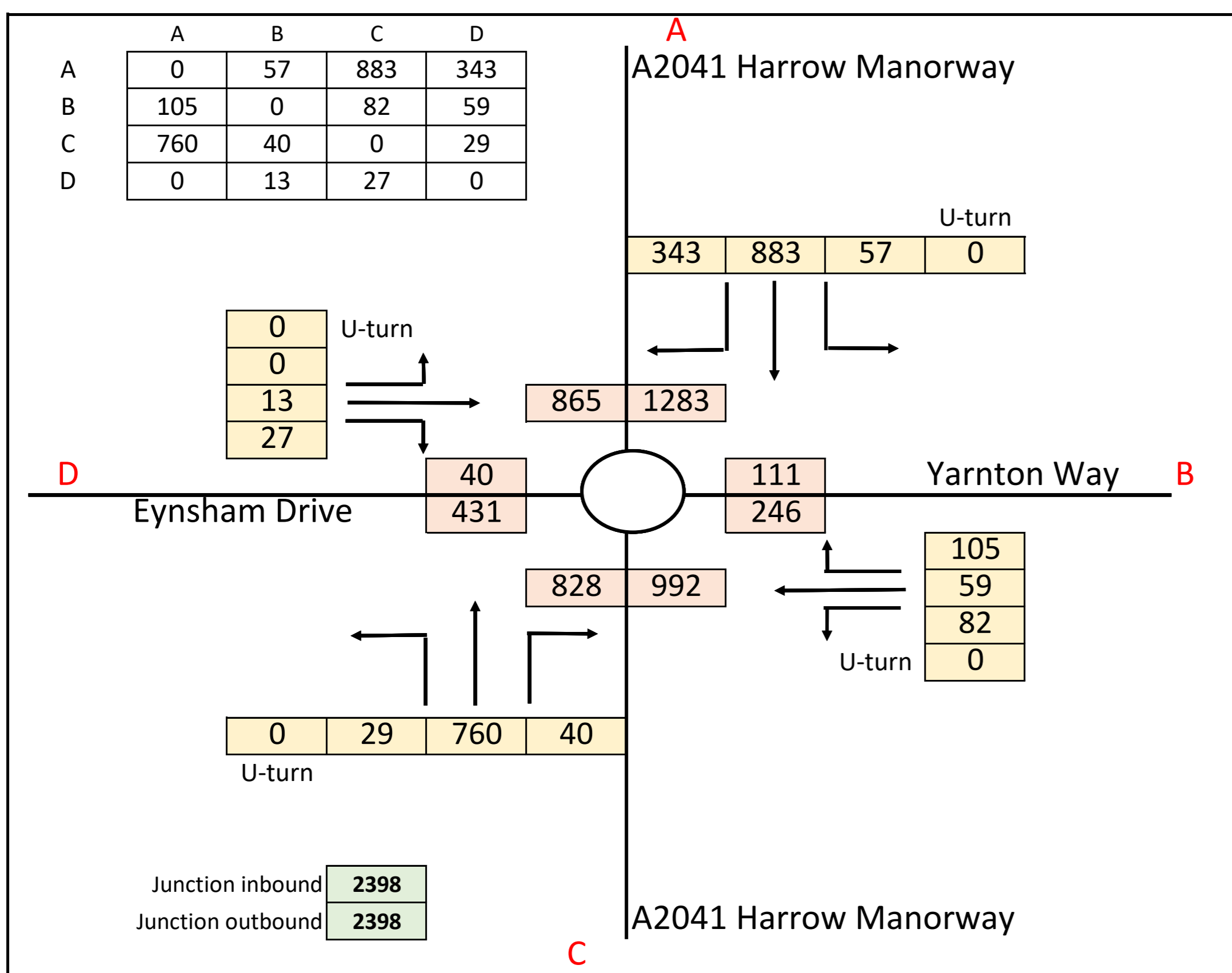
SENSITIVITY FLOWS
2038 Local Plan without LTC (1700-1800)
Demand Flow (% HGVs based upon PCUs)



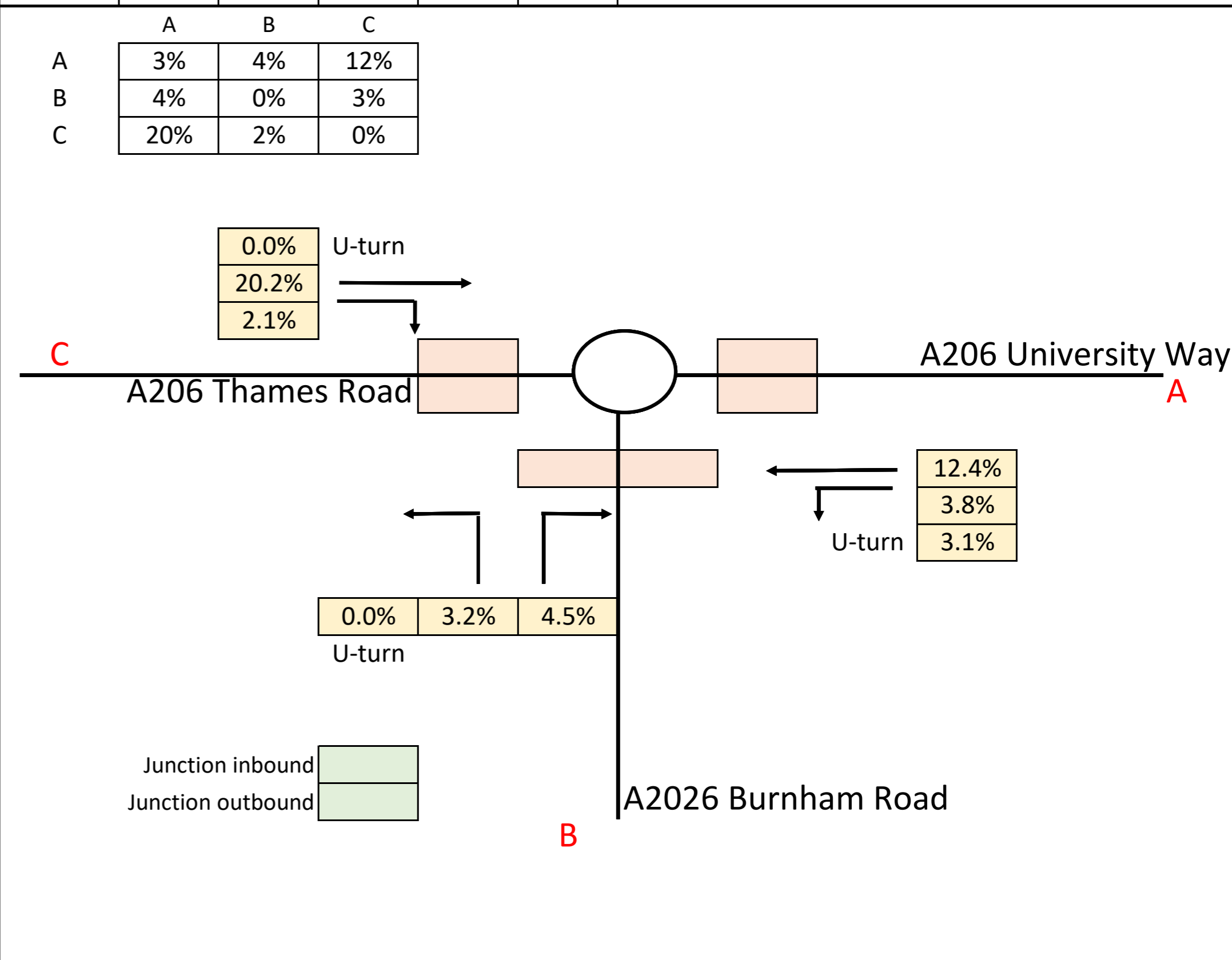
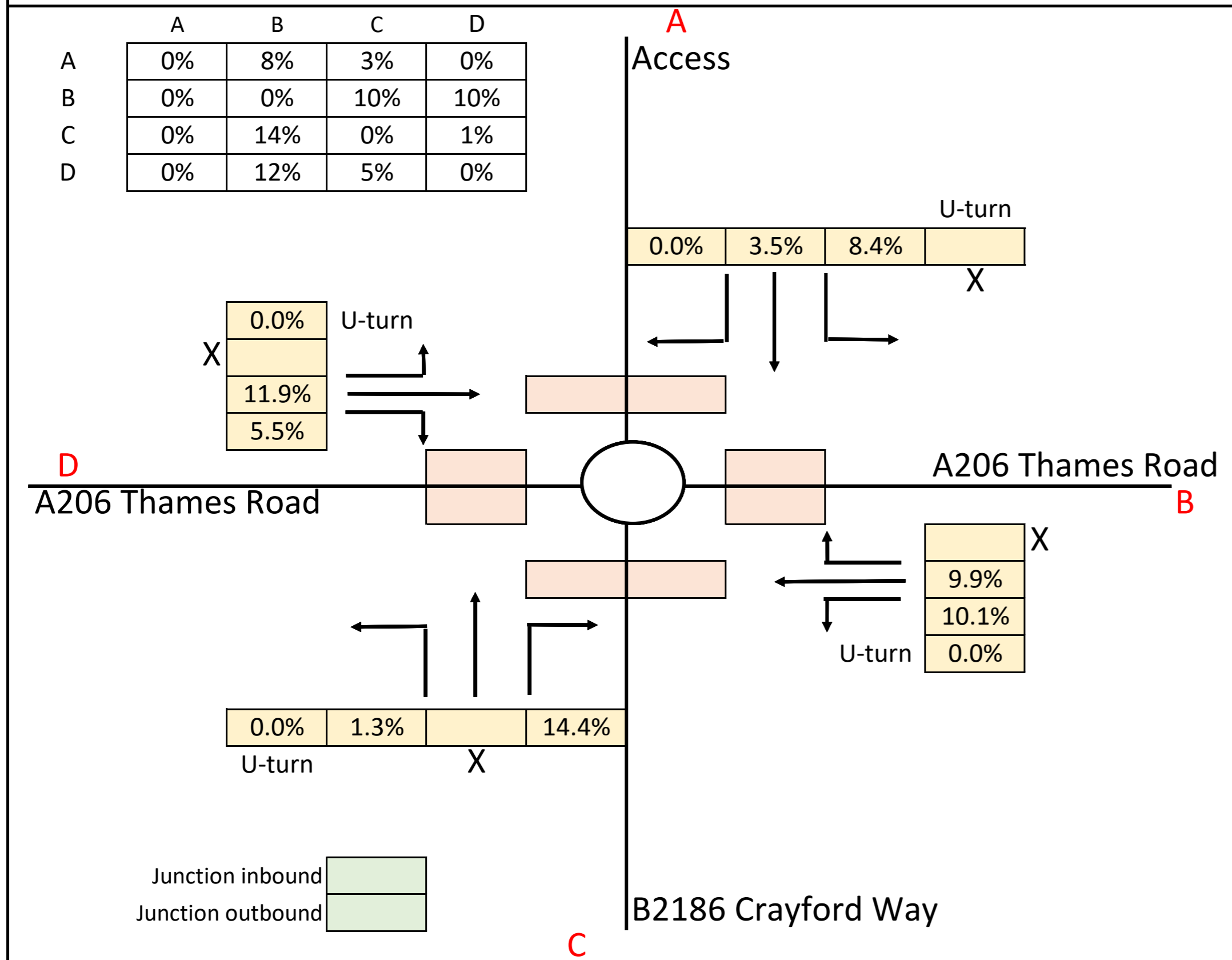
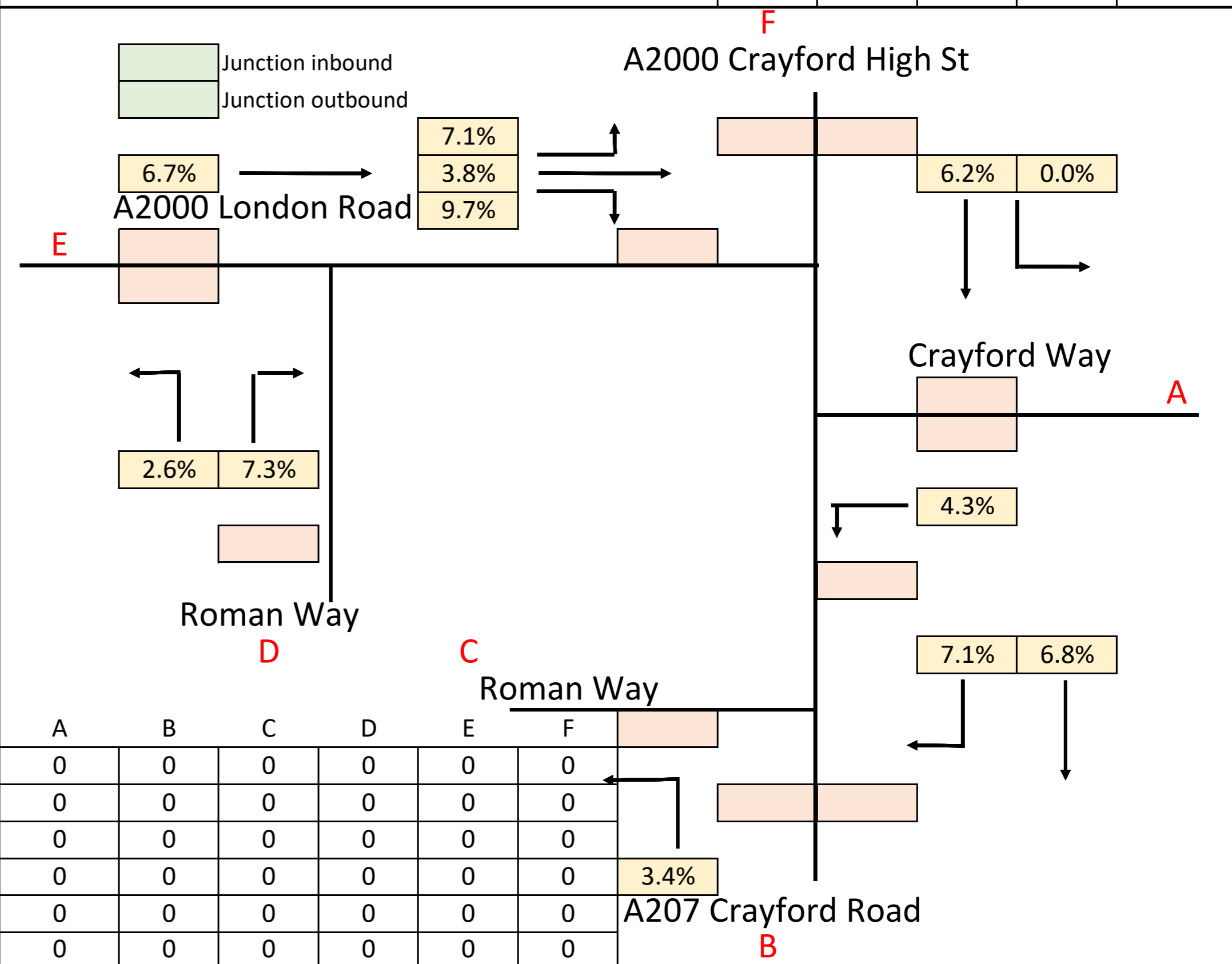
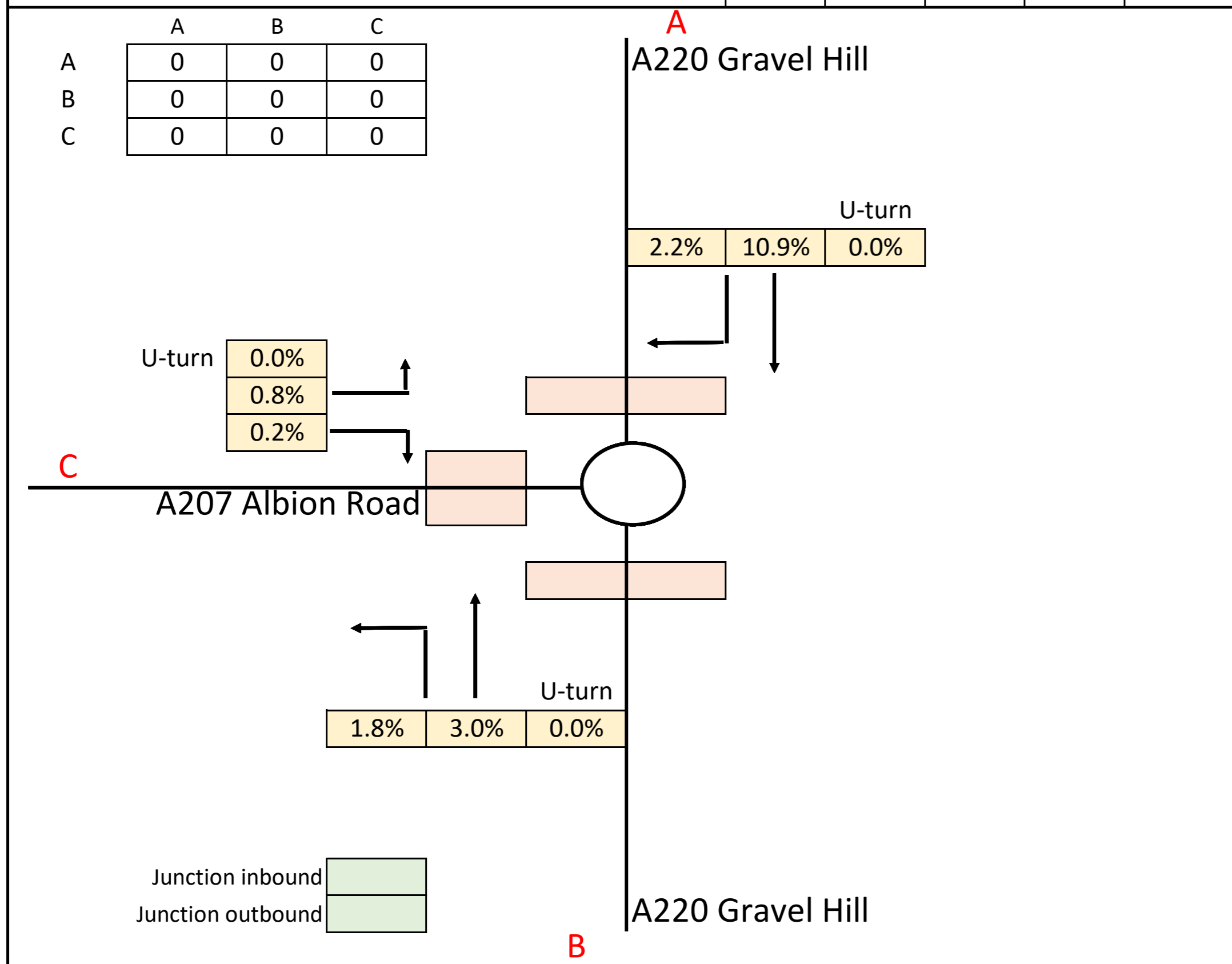
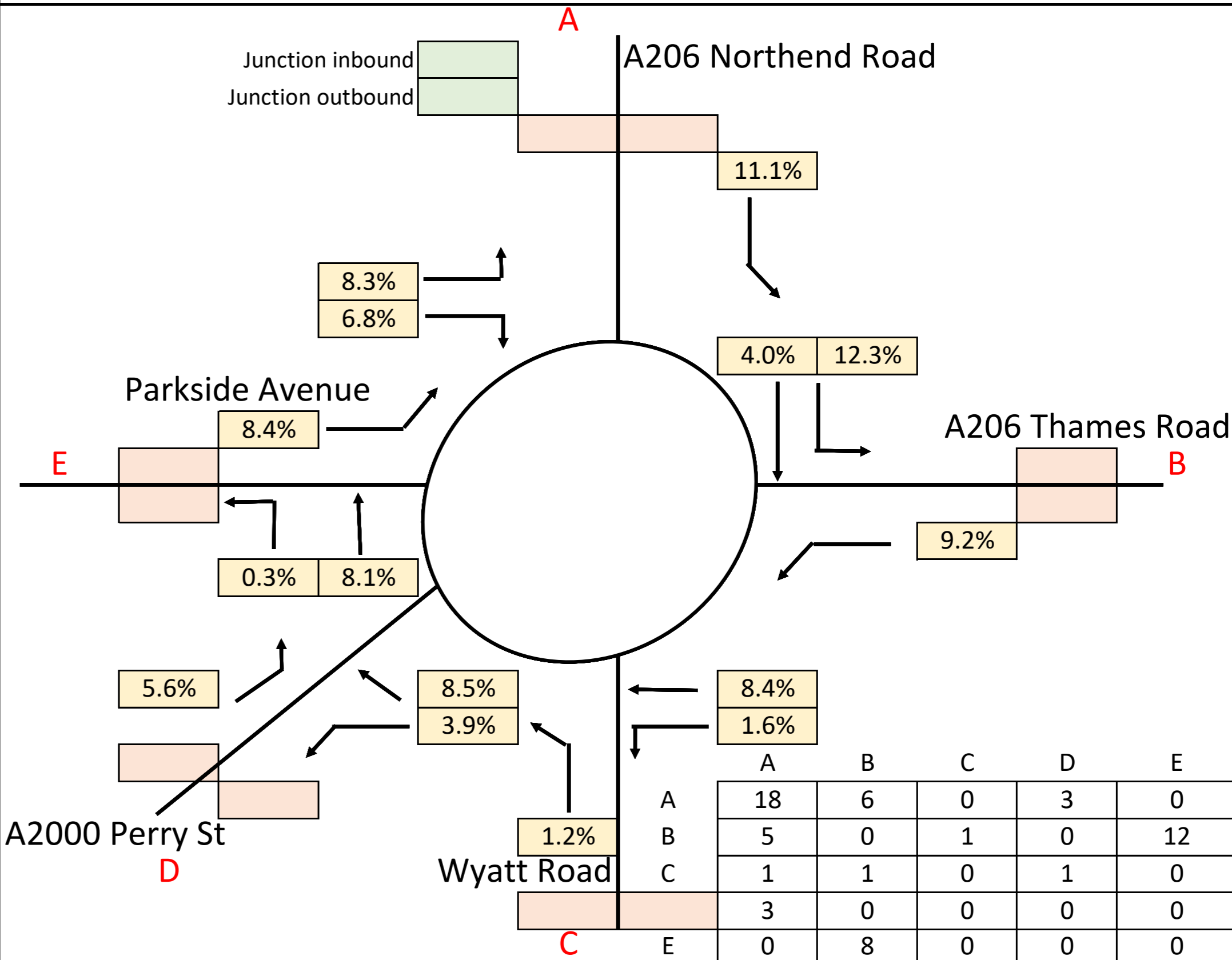
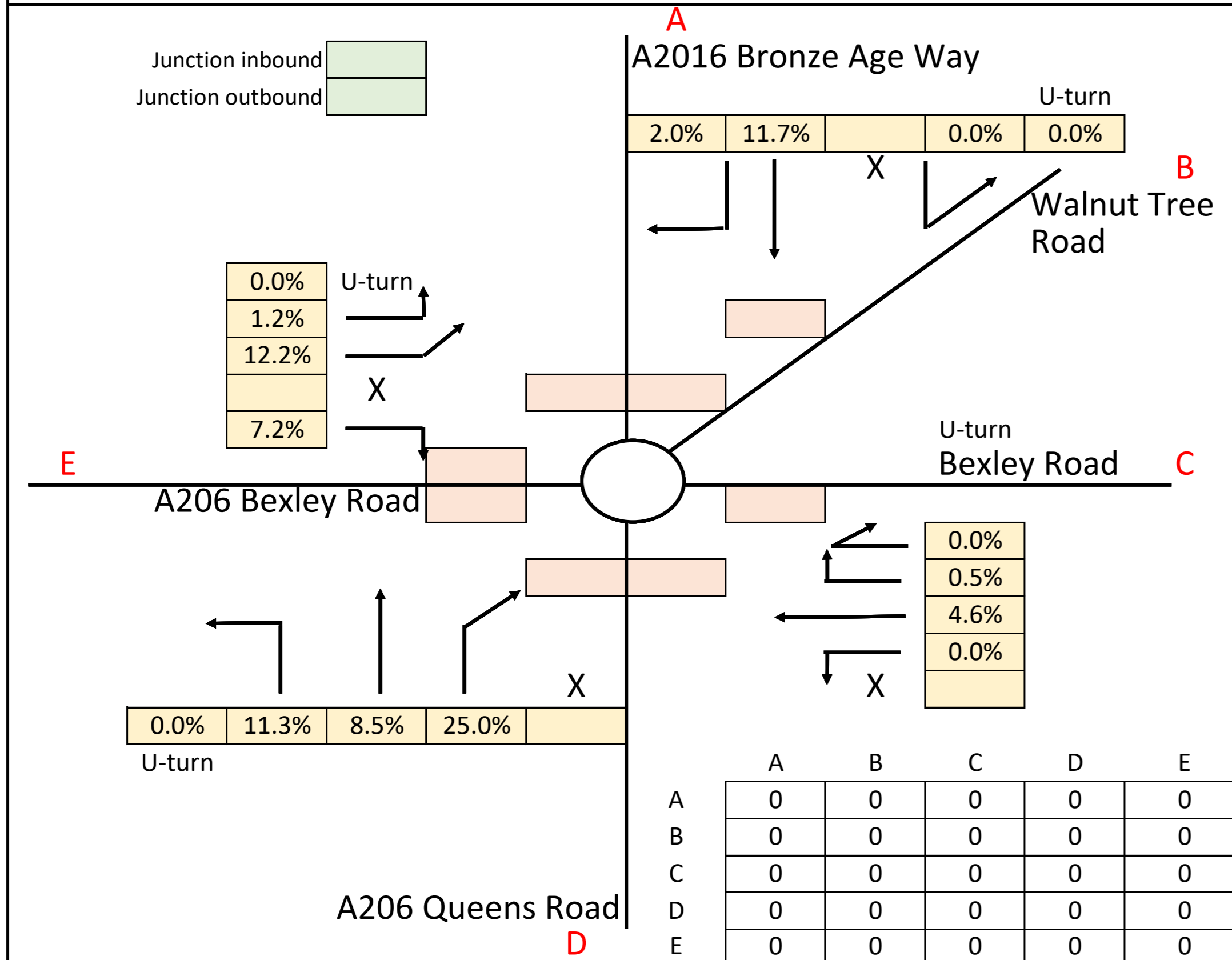
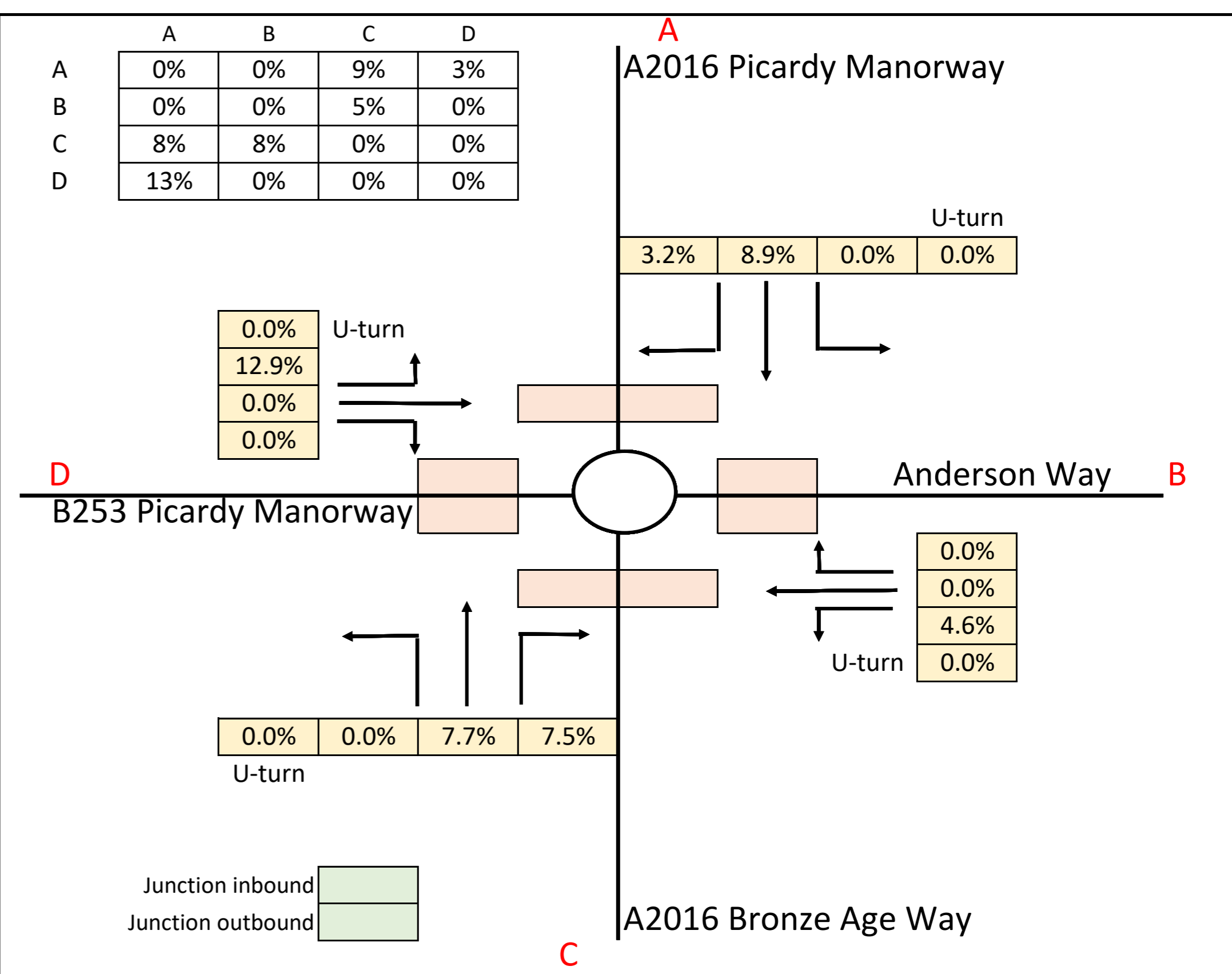
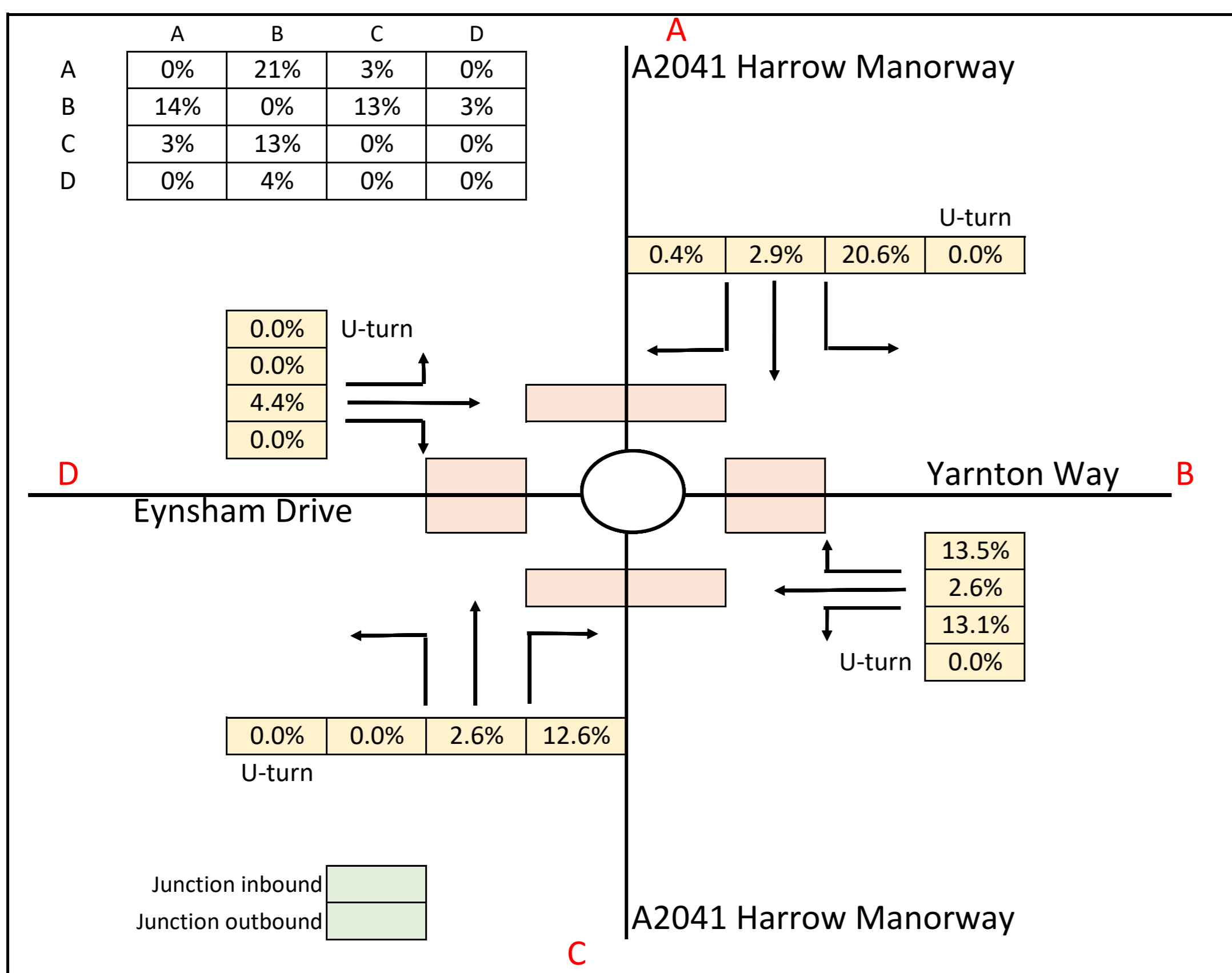
SENSITIVITY FLOWS
2038 Local Plan with LTC (0800-0900)
Demand Flow (PCUs)



SENSITIVITY FLOWS
2038 Local Plan with LTC (0800-0900)
Demand Flow (% HGVs based upon PCUs)



SENSITIVITY FLOWS
2038 Local Plan with LTC (1700-1800)
Demand Flow (PCUs)



SENSITIVITY FLOWS
2038 Local Plan with LTC (1700-1800)
Demand Flow (% HGVs based upon PCUs)

Appendix C Harrow Manorway / Yarnton Way Modelling Results

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.4.1693

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Filename: Harrow Manorway _Yarnton Way RBT.j10

Path: J:\50923 - GH - LB Bexley Local Plan\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10\2022 Modelling Update

Report generation date: 30/03/2022 11:15:25

-
- »New Geometry - 2021 Baseline (unchanged), AM
 - »New Geometry - 2021 Baseline (unchanged), PM
 - »New Geometry - 2038 Reference Case - No LTC, AM
 - »New Geometry - 2038 Reference Case - No LTC, PM
 - »New Geometry - 2038 Reference Case - With LTC, AM
 - »New Geometry - 2038 Reference Case - With LTC, PM
 - »New Geometry - 2038 Local Plan Case - No LTC, AM
 - »New Geometry - 2038 Local Plan Case - No LTC, PM
 - »New Geometry - 2038 Local Plan Case - With LTC, AM
 - »New Geometry - 2038 Local Plan Case - With LTC, PM
 - »New Geometry - 2038 Local Plan Case - No LTC - Sensitivity Test, AM
 - »New Geometry - 2038 Local Plan Case - No LTC - Sensitivity Test, PM
 - »New Geometry - 2038 Local Plan Case - With LTC - Sensitivity Test, AM
 - »New Geometry - 2038 Local Plan Case - With LTC - Sensitivity Test, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
New Geometry - 2021 Baseline (unchanged)						
A - Harrow Manorway (N)	2.1	7.68	0.66	3.1	9.79	0.75
B - Yarnton Way	0.4	3.49	0.26	0.4	3.45	0.26
C - Harrow Manorway (S)	1.3	5.23	0.56	1.2	4.93	0.53
D - Eynsham Drive	0.5	5.55	0.26	0.3	4.72	0.20
New Geometry - 2038 Reference Case - No LTC						
A - Harrow Manorway (N)	1.4	5.52	0.57	3.0	8.93	0.75
B - Yarnton Way	0.1	3.01	0.08	0.2	3.21	0.14
C - Harrow Manorway (S)	1.1	4.32	0.51	1.2	4.79	0.55
D - Eynsham Drive	0.0	2.83	0.01	0.0	2.89	0.01
New Geometry - 2038 Reference Case - With LTC						
A - Harrow Manorway (N)	1.5	5.63	0.58	3.2	9.23	0.76
B - Yarnton Way	0.1	3.03	0.08	0.2	3.14	0.14
C - Harrow Manorway (S)	1.1	4.38	0.52	1.2	4.81	0.55
D - Eynsham Drive	0.0	2.85	0.01	0.0	2.88	0.01
New Geometry - 2038 Local Plan Case - No LTC						
A - Harrow Manorway (N)	2.1	7.31	0.66	8.1	21.04	0.90
B - Yarnton Way	0.1	3.03	0.11	0.3	3.78	0.22
C - Harrow Manorway (S)	1.8	5.61	0.63	1.3	5.13	0.55
D - Eynsham Drive	0.0	3.16	0.03	0.1	2.96	0.05
New Geometry - 2038 Local Plan Case - With LTC						
A - Harrow Manorway (N)	2.1	7.37	0.67	8.1	21.12	0.90
B - Yarnton Way	0.1	3.05	0.11	0.3	3.70	0.22
C - Harrow Manorway (S)	1.8	5.71	0.64	1.3	5.14	0.56
D - Eynsham Drive	0.0	3.23	0.03	0.0	2.95	0.05
New Geometry - 2038 Local Plan Case - No LTC - Sensitivity Test						
A - Harrow Manorway (N)	1.8	6.66	0.64	5.9	15.65	0.86
B - Yarnton Way	0.1	3.01	0.10	0.3	3.59	0.20
C - Harrow Manorway (S)	1.6	5.28	0.61	1.3	5.03	0.56
D - Eynsham Drive	0.0	3.09	0.02	0.0	2.90	0.04
New Geometry - 2038 Local Plan Case - With LTC - Sensitivity Test						
A - Harrow Manorway (N)	1.9	6.86	0.64	6.1	16.28	0.86
B - Yarnton Way	0.1	3.04	0.10	0.3	3.55	0.19
C - Harrow Manorway (S)	1.7	5.41	0.62	1.3	5.05	0.55
D - Eynsham Drive	0.0	3.11	0.02	0.0	2.88	0.03

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

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

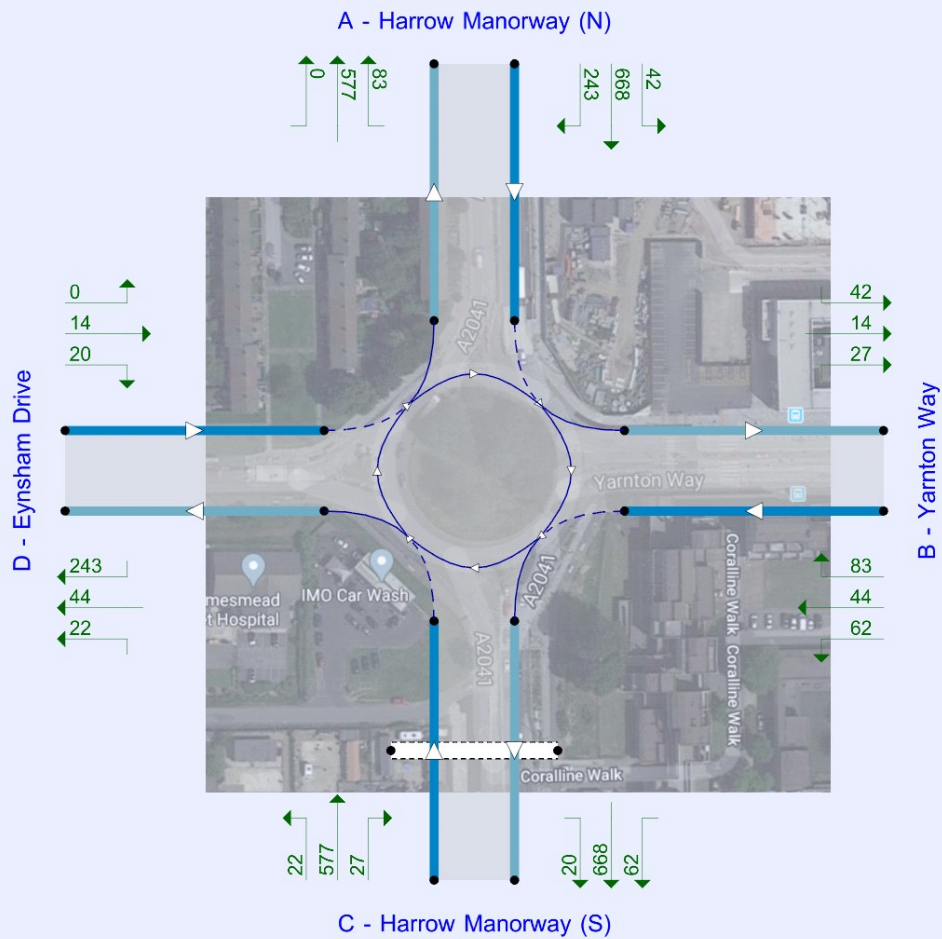
File summary

File Description

Title	
Location	
Site number	
Date	17/03/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SDGNT\dsabathier
Description	

Units

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



Flows show modelled flow through junction (PCU/hr).
Time Segment: 16:45-17:00

The junction diagram reflects the last run of Junctions.

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
D1	2021 Baseline (unchanged)	AM	ONE HOUR	07:45	09:15	15	✓
D2	2021 Baseline (unchanged)	PM	ONE HOUR	16:45	18:15	15	✓
D3	2038 Reference Case - No LTC	AM	ONE HOUR	07:45	09:15	15	✓
D4	2038 Reference Case - No LTC	PM	ONE HOUR	16:45	18:15	15	✓
D5	2038 Reference Case - With LTC	AM	ONE HOUR	07:45	09:15	15	✓
D6	2038 Reference Case - With LTC	PM	ONE HOUR	16:45	18:15	15	✓
D7	2038 Local Plan Case - No LTC	AM	ONE HOUR	07:45	09:15	15	✓
D8	2038 Local Plan Case - No LTC	PM	ONE HOUR	16:45	18:15	15	✓
D9	2038 Local Plan Case - With LTC	AM	ONE HOUR	07:45	09:15	15	✓
D10	2038 Local Plan Case - With LTC	PM	ONE HOUR	16:45	18:15	15	✓
D11	2038 Local Plan Case - No LTC - Sensitivity Test	AM	ONE HOUR	07:45	09:15	15	✓
D12	2038 Local Plan Case - No LTC - Sensitivity Test	PM	ONE HOUR	16:45	18:15	15	✓
D13	2038 Local Plan Case - With LTC - Sensitivity Test	AM	ONE HOUR	07:45	09:15	15	✓
D14	2038 Local Plan Case - With LTC - Sensitivity Test	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A_Base	New Geometry	✓	100.000	100.000

New Geometry - 2021 Baseline (unchanged), 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	HarrowManorway_YarntonWay	Standard Roundabout		A, B, C, D	5.88	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.88	A

Arms

Arms

Arm	Name	Description	No give-way line
A	Harrow Manorway (N)		
B	Yarnton Way		
C	Harrow Manorway (S)		
D	Eynsham Drive		

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
A - Harrow Manorway (N)	6.99	7.32	3.5	24.7	63.9	15.0		
B - Yarnton Way	6.72	7.64	2.9	15.0	63.9	11.0		
C - Harrow Manorway (S)	6.50	7.13	1.4	24.6	63.9	11.0		
D - Eynsham Drive	4.30	6.46	14.4	29.8	63.9	9.0		

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
C - Harrow Manorway (S)	4.00	3.00	2.90	1.00	6.00	6.00	7.00

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A - Harrow Manorway (N)	Direct		-636
B - Yarnton Way	None		
C - Harrow Manorway (S)	None		
D - Eynsham Drive	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Harrow Manorway (N)	0.656	1693
B - Yarnton Way	0.645	2282
C - Harrow Manorway (S)	0.638	2201
D - Eynsham Drive	0.591	1900

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021 Baseline (unchanged)	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Harrow Manorway (N)		ONE HOUR	✓	898	100.000
B - Yarnton Way		ONE HOUR	✓	402	100.000
C - Harrow Manorway (S)		ONE HOUR	✓	848	100.000
D - Eynsham Drive		ONE HOUR	✓	298	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - Harrow Manorway (N)		
B - Yarnton Way		
C - Harrow Manorway (S)	[ONEHOUR]	85.00
D - Eynsham Drive		

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
From	A - Harrow Manorway (N)	26	176	522	174
	B - Yarnton Way	155	1	137	109
	C - Harrow Manorway (S)	672	119	0	57
	D - Eynsham Drive	151	96	50	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
From	A - Harrow Manorway (N)	0	27	6	6
	B - Yarnton Way	38	0	25	11
	C - Harrow Manorway (S)	5	13	0	41
	D - Eynsham Drive	100	2	41	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Harrow Manorway (N)	0.66	7.68	2.1	3.1	A	824	1236
B - Yarnton Way	0.26	3.49	0.4	1.7	A	369	553
C - Harrow Manorway (S)	0.56	5.23	1.3	1.6	A	778	1167
D - Eynsham Drive	0.26	5.55	0.5	2.1	A	273	410

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	676	169	200		1562	0.433	673	753	0.0	0.8	4.411	A
B - Yarnton Way	303	76	579		1909	0.159	302	294	0.0	0.2	2.803	A
C - Harrow Manorway (S)	638	160	349	63.99	1778	0.359	636	531	0.0	0.6	3.395	A
D - Eynsham Drive	224	56	730		1469	0.153	223	256	0.0	0.3	4.176	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	807	202	240		1536	0.525	806	901	0.8	1.2	5.378	A
B - Yarnton Way	361	90	694		1835	0.197	361	352	0.2	0.3	3.057	A
C - Harrow Manorway (S)	762	191	418	76.41	1733	0.440	761	636	0.6	0.8	3.995	A
D - Eynsham Drive	268	67	874		1384	0.194	268	306	0.3	0.3	4.663	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	989	247	293		1501	0.659	985	1103	1.2	2.1	7.581	A
B - Yarnton Way	443	111	848		1735	0.255	442	430	0.3	0.4	3.485	A
C - Harrow Manorway (S)	934	233	512	93.59	1672	0.558	932	778	0.8	1.3	5.229	A
D - Eynsham Drive	328	82	1069		1268	0.259	327	375	0.3	0.5	5.531	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	989	247	294		1501	0.659	989	1105	2.1	2.1	7.685	A
B - Yarnton Way	443	111	851		1733	0.255	443	432	0.4	0.4	3.490	A
C - Harrow Manorway (S)	934	233	513	93.59	1690	0.553	934	781	1.3	1.3	5.139	A
D - Eynsham Drive	328	82	1071		1267	0.259	328	375	0.5	0.5	5.545	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	807	202	241		1536	0.526	811	905	2.1	1.2	5.455	A
B - Yarnton Way	361	90	698		1832	0.197	362	354	0.4	0.3	3.067	A
C - Harrow Manorway (S)	762	191	420	76.41	1754	0.435	764	640	1.3	0.8	3.933	A
D - Eynsham Drive	268	67	877		1382	0.194	269	307	0.5	0.4	4.678	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	676	169	201		1561	0.433	678	757	1.2	0.8	4.461	A
B - Yarnton Way	303	76	583		1906	0.159	303	296	0.3	0.2	2.811	A
C - Harrow Manorway (S)	638	160	351	63.99	1799	0.355	639	535	0.8	0.6	3.352	A
D - Eynsham Drive	224	56	734		1466	0.153	225	257	0.4	0.3	4.193	A

Queue Variation Results for each time segment
07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	0.83	0.60	1.09	1.53	1.59			N/A	N/A
B - Yarnton Way	0.24	0.00	0.00	0.24	0.24			N/A	N/A
C - Harrow Manorway (S)	0.60	0.59	1.08	1.51	1.56			N/A	N/A
D - Eynsham Drive	0.26	0.00	0.00	0.26	0.26			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.20	0.07	0.93	2.23	3.13			N/A	N/A
B - Yarnton Way	0.31	0.00	0.00	0.31	0.31			N/A	N/A
C - Harrow Manorway (S)	0.84	0.09	0.88	1.42	1.42			N/A	N/A
D - Eynsham Drive	0.35	0.00	0.00	0.35	0.35			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	2.06	0.03	0.30	2.06	2.29			N/A	N/A
B - Yarnton Way	0.43	0.03	0.32	0.57	0.60			N/A	N/A
C - Harrow Manorway (S)	1.35	0.03	0.28	1.35	1.35			N/A	N/A
D - Eynsham Drive	0.50	0.04	0.37	0.66	0.70			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	2.09	0.03	0.29	2.09	2.09			N/A	N/A
B - Yarnton Way	0.43	0.04	0.41	1.43	1.74			N/A	N/A
C - Harrow Manorway (S)	1.34	0.03	0.29	1.34	1.34			N/A	N/A
D - Eynsham Drive	0.50	0.05	0.47	1.71	2.11			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.23	0.11	1.10	2.02	2.63			N/A	N/A
B - Yarnton Way	0.31	0.00	0.00	0.31	0.31			N/A	N/A
C - Harrow Manorway (S)	0.84	0.27	1.02	1.50	1.56			N/A	N/A
D - Eynsham Drive	0.35	0.00	0.00	0.35	0.35			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	0.84	0.06	0.63	1.52	2.05			N/A	N/A
B - Yarnton Way	0.24	0.00	0.00	0.24	0.24			N/A	N/A
C - Harrow Manorway (S)	0.60	0.06	0.65	1.43	1.52			N/A	N/A
D - Eynsham Drive	0.26	0.00	0.00	0.26	0.26			N/A	N/A

New Geometry - 2021 Baseline (unchanged), PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	HarrowManorway_YarntonWay	Standard Roundabout		A, B, C, D	6.76	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.76	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)	Run automatically
D2	2021 Baseline (unchanged)	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Harrow Manorway (N)		ONE HOUR	✓	1039	100.000
B - Yarnton Way		ONE HOUR	✓	367	100.000
C - Harrow Manorway (S)		ONE HOUR	✓	788	100.000
D - Eynsham Drive		ONE HOUR	✓	241	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - Harrow Manorway (N)		
B - Yarnton Way		
C - Harrow Manorway (S)	[ONEHOUR]	85.00
D - Eynsham Drive		

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
From	A - Harrow Manorway (N)	33	117	644	245
	B - Yarnton Way	113	0	150	104
	C - Harrow Manorway (S)	612	91	1	84
	D - Eynsham Drive	107	71	63	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
From	A - Harrow Manorway (N)	0	30	3	3
	B - Yarnton Way	22	0	15	2
	C - Harrow Manorway (S)	3	18	0	33
	D - Eynsham Drive	100	1	37	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Harrow Manorway (N)	0.75	9.79	3.1	10.2	A	953	1430
B - Yarnton Way	0.26	3.45	0.4	1.6	A	337	505
C - Harrow Manorway (S)	0.53	4.93	1.2	1.6	A	723	1085
D - Eynsham Drive	0.20	4.72	0.3	1.3	A	221	332

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	782	196	169		1582	0.494	778	649	0.0	1.0	4.694	A
B - Yarnton Way	276	69	738		1806	0.153	275	209	0.0	0.2	2.654	A
C - Harrow Manorway (S)	593	148	371	63.99	1764	0.336	591	643	0.0	0.5	3.283	A
D - Eynsham Drive	181	45	638		1523	0.119	181	325	0.0	0.2	3.804	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	934	234	203		1560	0.599	932	777	1.0	1.5	6.015	A
B - Yarnton Way	330	82	884		1712	0.193	330	250	0.2	0.3	2.941	A
C - Harrow Manorway (S)	708	177	444	76.41	1714	0.413	708	770	0.5	0.7	3.829	A
D - Eynsham Drive	217	54	763		1449	0.150	216	389	0.2	0.2	4.146	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1144	286	248		1531	0.747	1138	951	1.5	3.0	9.525	A
B - Yarnton Way	404	101	1080		1585	0.255	404	306	0.3	0.4	3.437	A
C - Harrow Manorway (S)	868	217	543	93.59	1646	0.527	866	941	0.7	1.2	4.931	A
D - Eynsham Drive	265	66	934		1348	0.197	265	475	0.2	0.3	4.717	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1144	286	249		1530	0.748	1144	952	3.0	3.1	9.795	A
B - Yarnton Way	404	101	1085		1582	0.255	404	307	0.4	0.4	3.449	A
C - Harrow Manorway (S)	868	217	545	93.59	1661	0.522	868	945	1.2	1.2	4.866	A
D - Eynsham Drive	265	66	936		1347	0.197	265	477	0.3	0.3	4.724	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	934	234	204		1560	0.599	940	779	3.1	1.6	6.175	A
B - Yarnton Way	330	82	892		1707	0.193	330	252	0.4	0.3	2.955	A
C - Harrow Manorway (S)	708	177	447	76.41	1732	0.409	710	775	1.2	0.7	3.783	A
D - Eynsham Drive	217	54	766		1447	0.150	217	391	0.3	0.3	4.156	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	782	196	170		1582	0.495	784	652	1.6	1.0	4.770	A
B - Yarnton Way	276	69	744		1802	0.153	277	210	0.3	0.2	2.666	A
C - Harrow Manorway (S)	593	148	373	63.99	1782	0.333	594	647	0.7	0.5	3.250	A
D - Eynsham Drive	181	45	641		1521	0.119	182	327	0.3	0.2	3.817	A

Queue Variation Results for each time segment
16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.02	0.58	1.05	1.48	1.53			N/A	N/A
B - Yarnton Way	0.20	0.00	0.00	0.20	0.20			N/A	N/A
C - Harrow Manorway (S)	0.54	0.54	1.07	1.50	1.55			N/A	N/A
D - Eynsham Drive	0.19	0.00	0.00	0.19	0.19			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.55	0.06	0.72	3.75	5.55			N/A	N/A
B - Yarnton Way	0.27	0.00	0.00	0.27	0.27			N/A	N/A
C - Harrow Manorway (S)	0.75	0.10	0.87	1.48	1.56			N/A	N/A
D - Eynsham Drive	0.25	0.00	0.00	0.25	0.25			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	3.00	0.03	0.30	3.00	10.22			N/A	N/A
B - Yarnton Way	0.38	0.03	0.29	0.51	0.54			N/A	N/A
C - Harrow Manorway (S)	1.18	0.03	0.28	1.18	1.18			N/A	N/A
D - Eynsham Drive	0.35	0.04	0.36	0.65	0.69			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	3.06	0.03	0.29	3.06	3.36			N/A	N/A
B - Yarnton Way	0.39	0.04	0.37	1.28	1.55			N/A	N/A
C - Harrow Manorway (S)	1.18	0.03	0.29	1.18	1.18			N/A	N/A
D - Eynsham Drive	0.35	0.04	0.39	0.70	1.35			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.60	0.07	0.97	3.65	5.15			N/A	N/A
B - Yarnton Way	0.27	0.00	0.00	0.27	0.27			N/A	N/A
C - Harrow Manorway (S)	0.75	0.34	1.03	1.49	1.55			N/A	N/A
D - Eynsham Drive	0.25	0.00	0.00	0.25	0.25			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.04	0.04	0.45	2.51	3.98			N/A	N/A
B - Yarnton Way	0.21	0.00	0.00	0.21	0.21			N/A	N/A
C - Harrow Manorway (S)	0.54	0.05	0.50	1.38	1.49			N/A	N/A
D - Eynsham Drive	0.19	0.00	0.00	0.19	0.19			N/A	N/A

New Geometry - 2038 Reference Case - No LTC, 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.

Junction Network

Junctions

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

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.78	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)	Run automatically
D3	2038 Reference Case - No LTC	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Harrow Manorway (N)		ONE HOUR	✓	837	100.000
B - Yarnton Way		ONE HOUR	✓	121	100.000
C - Harrow Manorway (S)		ONE HOUR	✓	848	100.000
D - Eynsham Drive		ONE HOUR	✓	10	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - Harrow Manorway (N)		
B - Yarnton Way		
C - Harrow Manorway (S)	[ONEHOUR]	85.00
D - Eynsham Drive		

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
From	A - Harrow Manorway (N)	0	64	646	127
	B - Yarnton Way	64	0	49	8
	C - Harrow Manorway (S)	758	84	0	6
	D - Eynsham Drive	0	4	6	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
From	A - Harrow Manorway (N)	0	24	8	1
	B - Yarnton Way	42	0	26	19
	C - Harrow Manorway (S)	6	13	0	1
	D - Eynsham Drive	0	4	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Harrow Manorway (N)	0.57	5.52	1.4	1.7	A	768	1152
B - Yarnton Way	0.08	3.01	0.1	0.7	A	111	167
C - Harrow Manorway (S)	0.51	4.32	1.1	1.5	A	778	1167
D - Eynsham Drive	0.01	2.83	0.0	0.5	A	9	14

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	630	158	71		1647	0.383	627	617	0.0	0.7	3.801	A
B - Yarnton Way	91	23	584		1906	0.048	91	114	0.0	0.1	2.646	A
C - Harrow Manorway (S)	638	160	149	63.99	1890	0.338	636	526	0.0	0.5	3.056	A
D - Eynsham Drive	8	2	680		1498	0.005	8	106	0.0	0.0	2.467	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	752	188	84		1638	0.459	751	738	0.7	0.9	4.378	A
B - Yarnton Way	109	27	699		1831	0.059	109	136	0.1	0.1	2.788	A
C - Harrow Manorway (S)	762	191	179	76.41	1861	0.410	762	629	0.5	0.7	3.489	A
D - Eynsham Drive	9	2	814		1419	0.006	9	127	0.0	0.0	2.608	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	922	230	103		1626	0.567	920	904	0.9	1.4	5.487	A
B - Yarnton Way	133	33	856		1730	0.077	133	167	0.1	0.1	3.007	A
C - Harrow Manorway (S)	934	233	219	93.59	1819	0.513	932	770	0.7	1.1	4.319	A
D - Eynsham Drive	11	3	996		1311	0.008	11	155	0.0	0.0	2.828	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	922	230	103		1626	0.567	922	905	1.4	1.4	5.518	A
B - Yarnton Way	133	33	858		1729	0.077	133	167	0.1	0.1	3.009	A
C - Harrow Manorway (S)	934	233	219	93.59	1833	0.509	934	772	1.1	1.1	4.269	A
D - Eynsham Drive	11	3	998		1310	0.008	11	155	0.0	0.0	2.830	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	752	188	85		1638	0.459	754	740	1.4	0.9	4.406	A
B - Yarnton Way	109	27	702		1829	0.059	109	137	0.1	0.1	2.793	A
C - Harrow Manorway (S)	762	191	179	76.41	1878	0.406	764	632	1.1	0.7	3.450	A
D - Eynsham Drive	9	2	816		1418	0.006	9	127	0.0	0.0	2.612	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	630	158	71		1647	0.383	631	620	0.9	0.7	3.827	A
B - Yarnton Way	91	23	587		1903	0.048	91	115	0.1	0.1	2.652	A
C - Harrow Manorway (S)	638	160	150	63.99	1909	0.334	639	529	0.7	0.5	3.026	A
D - Eynsham Drive	8	2	683		1496	0.005	8	106	0.0	0.0	2.470	A

Queue Variation Results for each time segment
07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	0.66	0.59	1.08	1.51	1.56			N/A	N/A
B - Yarnton Way	0.07	0.00	0.00	0.07	0.07			N/A	N/A
C - Harrow Manorway (S)	0.54	0.54	1.07	1.49	1.55			N/A	N/A
D - Eynsham Drive	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	0.91	0.10	0.92	1.16	1.71			N/A	N/A
B - Yarnton Way	0.08	0.03	0.33	0.60	0.64			N/A	N/A
C - Harrow Manorway (S)	0.73	0.10	0.87	1.47	1.54			N/A	N/A
D - Eynsham Drive	0.01	0.01	0.26	0.46	0.49			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.39	0.03	0.28	1.39	1.39			N/A	N/A
B - Yarnton Way	0.11	0.03	0.35	0.62	0.66			N/A	N/A
C - Harrow Manorway (S)	1.11	0.03	0.27	1.11	1.11			N/A	N/A
D - Eynsham Drive	0.01	0.01	0.26	0.48	0.50			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.40	0.03	0.29	1.40	1.40			N/A	N/A
B - Yarnton Way	0.11	0.00	0.00	0.11	0.11			N/A	N/A
C - Harrow Manorway (S)	1.11	0.03	0.28	1.11	1.51			N/A	N/A
D - Eynsham Drive	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	0.93	0.29	1.04	1.53	1.59			N/A	N/A
B - Yarnton Way	0.08	0.00	0.00	0.08	0.08			N/A	N/A
C - Harrow Manorway (S)	0.73	0.59	1.07	1.49	1.55			N/A	N/A
D - Eynsham Drive	0.01	0.00	0.00	0.01	0.01			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	0.67	0.07	0.78	1.46	1.54			N/A	N/A
B - Yarnton Way	0.07	0.00	0.00	0.07	0.07			N/A	N/A
C - Harrow Manorway (S)	0.54	0.05	0.52	1.38	1.49			N/A	N/A
D - Eynsham Drive	0.01	0.00	0.00	0.01	0.01			N/A	N/A

New Geometry - 2038 Reference Case - No LTC, PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	HarrowManorway_YarntonWay	Standard Roundabout		A, B, C, D	6.78	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.78	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)	Run automatically
D4	2038 Reference Case - No LTC	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Harrow Manorway (N)		ONE HOUR	✓	1126	100.000
B - Yarnton Way		ONE HOUR	✓	192	100.000
C - Harrow Manorway (S)		ONE HOUR	✓	853	100.000
D - Eynsham Drive		ONE HOUR	✓	11	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - Harrow Manorway (N)		
B - Yarnton Way		
C - Harrow Manorway (S)	[ONEHOUR]	85.00
D - Eynsham Drive		

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
From	A - Harrow Manorway (N)	0	47	803	276
	B - Yarnton Way	86	0	68	38
	C - Harrow Manorway (S)	802	42	0	9
	D - Eynsham Drive	0	4	7	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
From	A - Harrow Manorway (N)	0	25	3	1
	B - Yarnton Way	22	0	16	4
	C - Harrow Manorway (S)	2	13	0	0
	D - Eynsham Drive	0	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Harrow Manorway (N)	0.75	8.93	3.0	9.1	A	1033	1550
B - Yarnton Way	0.14	3.21	0.2	0.6	A	176	264
C - Harrow Manorway (S)	0.55	4.79	1.2	1.5	A	783	1174
D - Eynsham Drive	0.01	2.89	0.0	0.5	A	10	15

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	848	212	40		1667	0.508	843	666	0.0	1.1	4.490	A
B - Yarnton Way	145	36	814		1758	0.082	144	70	0.0	0.1	2.586	A
C - Harrow Manorway (S)	642	161	300	63.99	1805	0.356	640	658	0.0	0.6	3.161	A
D - Eynsham Drive	8	2	698		1488	0.006	8	242	0.0	0.0	2.508	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1012	253	48		1662	0.609	1010	797	1.1	1.6	5.682	A
B - Yarnton Way	173	43	974		1654	0.104	172	83	0.1	0.1	2.816	A
C - Harrow Manorway (S)	767	192	359	76.41	1763	0.435	766	788	0.6	0.8	3.696	A
D - Eynsham Drive	10	2	835		1406	0.007	10	290	0.0	0.0	2.657	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1240	310	58		1655	0.749	1234	976	1.6	3.0	8.713	A
B - Yarnton Way	211	53	1190		1514	0.140	211	102	0.1	0.2	3.201	A
C - Harrow Manorway (S)	939	235	439	93.59	1706	0.550	937	963	0.8	1.2	4.786	A
D - Eynsham Drive	12	3	1022		1296	0.009	12	354	0.0	0.0	2.890	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1240	310	58		1655	0.749	1240	978	3.0	3.0	8.929	A
B - Yarnton Way	211	53	1196		1511	0.140	211	102	0.2	0.2	3.209	A
C - Harrow Manorway (S)	939	235	440	93.59	1722	0.546	939	967	1.2	1.2	4.714	A
D - Eynsham Drive	12	3	1024		1295	0.009	12	356	0.0	0.0	2.892	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1012	253	48		1662	0.609	1018	800	3.0	1.6	5.819	A
B - Yarnton Way	173	43	982		1649	0.105	173	84	0.2	0.1	2.828	A
C - Harrow Manorway (S)	767	192	361	76.41	1782	0.430	769	793	1.2	0.8	3.644	A
D - Eynsham Drive	10	2	838		1405	0.007	10	292	0.0	0.0	2.662	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	848	212	40		1667	0.508	850	669	1.6	1.1	4.561	A
B - Yarnton Way	145	36	820		1754	0.082	145	70	0.1	0.1	2.593	A
C - Harrow Manorway (S)	642	161	302	63.99	1825	0.352	643	663	0.8	0.6	3.123	A
D - Eynsham Drive	8	2	701		1486	0.006	8	244	0.0	0.0	2.513	A

Queue Variation Results for each time segment
16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.06	0.57	1.03	1.45	1.50			N/A	N/A
B - Yarnton Way	0.10	0.00	0.00	0.10	0.10			N/A	N/A
C - Harrow Manorway (S)	0.56	0.56	1.02	1.43	1.49			N/A	N/A
D - Eynsham Drive	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.58	0.05	0.66	3.92	5.91			N/A	N/A
B - Yarnton Way	0.13	0.00	0.00	0.13	0.13			N/A	N/A
C - Harrow Manorway (S)	0.78	0.08	0.83	1.25	1.25			N/A	N/A
D - Eynsham Drive	0.01	0.01	0.26	0.46	0.49			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	2.97	0.03	0.29	2.97	9.15			N/A	N/A
B - Yarnton Way	0.19	0.03	0.30	0.53	0.56			N/A	N/A
C - Harrow Manorway (S)	1.24	0.03	0.26	1.24	1.24			N/A	N/A
D - Eynsham Drive	0.01	0.01	0.26	0.48	0.50			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	3.02	0.03	0.28	3.02	3.02			N/A	N/A
B - Yarnton Way	0.19	0.03	0.29	0.52	0.55			N/A	N/A
C - Harrow Manorway (S)	1.24	0.03	0.27	1.24	1.24			N/A	N/A
D - Eynsham Drive	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.63	0.07	1.01	3.71	5.18			N/A	N/A
B - Yarnton Way	0.14	0.00	0.00	0.14	0.14			N/A	N/A
C - Harrow Manorway (S)	0.78	0.37	0.99	1.43	1.48			N/A	N/A
D - Eynsham Drive	0.01	0.00	0.00	0.01	0.01			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.08	0.05	0.45	2.61	4.04			N/A	N/A
B - Yarnton Way	0.10	0.00	0.00	0.10	0.10			N/A	N/A
C - Harrow Manorway (S)	0.56	0.06	0.63	1.36	1.45			N/A	N/A
D - Eynsham Drive	0.01	0.00	0.00	0.01	0.01			N/A	N/A

New Geometry - 2038 Reference Case - With LTC, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	HarrowManorway_YarntonWay	Standard Roundabout		A, B, C, D	4.86	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.86	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)	Run automatically
D5	2038 Reference Case - With LTC	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Harrow Manorway (N)		ONE HOUR	✓	850	100.000
B - Yarnton Way		ONE HOUR	✓	121	100.000
C - Harrow Manorway (S)		ONE HOUR	✓	860	100.000
D - Eynsham Drive		ONE HOUR	✓	10	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - Harrow Manorway (N)		
B - Yarnton Way		
C - Harrow Manorway (S)	[ONEHOUR]	85.00
D - Eynsham Drive		

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
From	A - Harrow Manorway (N)	0	64	656	130
	B - Yarnton Way	63	0	50	8
	C - Harrow Manorway (S)	771	83	0	6
	D - Eynsham Drive	0	4	6	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
From	A - Harrow Manorway (N)	0	24	8	2
	B - Yarnton Way	42	0	27	19
	C - Harrow Manorway (S)	6	13	0	1
	D - Eynsham Drive	0	4	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Harrow Manorway (N)	0.58	5.63	1.5	1.8	A	780	1170
B - Yarnton Way	0.08	3.03	0.1	0.7	A	111	167
C - Harrow Manorway (S)	0.52	4.38	1.1	1.6	A	789	1184
D - Eynsham Drive	0.01	2.85	0.0	0.5	A	9	14

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	640	160	70		1648	0.388	637	626	0.0	0.7	3.840	A
B - Yarnton Way	91	23	594		1899	0.048	91	113	0.0	0.1	2.662	A
C - Harrow Manorway (S)	647	162	151	63.99	1889	0.343	645	534	0.0	0.6	3.079	A
D - Eynsham Drive	8	2	688		1493	0.005	8	108	0.0	0.0	2.475	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	764	191	84		1639	0.466	763	749	0.7	0.9	4.437	A
B - Yarnton Way	109	27	711		1824	0.060	109	136	0.1	0.1	2.807	A
C - Harrow Manorway (S)	773	193	180	76.41	1861	0.415	772	639	0.6	0.8	3.523	A
D - Eynsham Drive	9	2	824		1413	0.006	9	129	0.0	0.0	2.618	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	936	234	102		1626	0.575	934	917	0.9	1.4	5.600	A
B - Yarnton Way	133	33	870		1721	0.077	133	166	0.1	0.1	3.032	A
C - Harrow Manorway (S)	947	237	221	93.59	1820	0.520	945	782	0.8	1.1	4.379	A
D - Eynsham Drive	11	3	1008		1304	0.008	11	158	0.0	0.0	2.843	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	936	234	102		1626	0.575	936	918	1.4	1.5	5.634	A
B - Yarnton Way	133	33	872		1720	0.077	133	166	0.1	0.1	3.034	A
C - Harrow Manorway (S)	947	237	221	93.59	1834	0.516	947	784	1.1	1.1	4.329	A
D - Eynsham Drive	11	3	1010		1303	0.008	11	159	0.0	0.0	2.846	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	764	191	84		1639	0.466	766	751	1.5	1.0	4.469	A
B - Yarnton Way	109	27	714		1822	0.060	109	136	0.1	0.1	2.812	A
C - Harrow Manorway (S)	773	193	181	76.41	1879	0.411	775	642	1.1	0.8	3.482	A
D - Eynsham Drive	9	2	826		1412	0.006	9	130	0.0	0.0	2.623	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	640	160	70		1648	0.388	641	629	1.0	0.7	3.869	A
B - Yarnton Way	91	23	597		1897	0.048	91	114	0.1	0.1	2.666	A
C - Harrow Manorway (S)	647	162	152	63.99	1909	0.339	648	537	0.8	0.5	3.045	A
D - Eynsham Drive	8	2	691		1492	0.005	8	109	0.0	0.0	2.478	A

Queue Variation Results for each time segment
07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	0.68	0.59	1.08	1.51	1.57			N/A	N/A
B - Yarnton Way	0.07	0.00	0.00	0.07	0.07			N/A	N/A
C - Harrow Manorway (S)	0.55	0.55	1.07	1.49	1.55			N/A	N/A
D - Eynsham Drive	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	0.94	0.09	0.93	1.35	1.83			N/A	N/A
B - Yarnton Way	0.08	0.03	0.34	0.60	0.64			N/A	N/A
C - Harrow Manorway (S)	0.75	0.10	0.87	1.48	1.55			N/A	N/A
D - Eynsham Drive	0.01	0.01	0.26	0.46	0.49			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.44	0.03	0.28	1.44	1.44			N/A	N/A
B - Yarnton Way	0.11	0.03	0.35	0.63	0.66			N/A	N/A
C - Harrow Manorway (S)	1.14	0.03	0.27	1.14	1.14			N/A	N/A
D - Eynsham Drive	0.01	0.01	0.26	0.48	0.50			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.45	0.03	0.29	1.45	1.45			N/A	N/A
B - Yarnton Way	0.11	0.00	0.00	0.11	0.11			N/A	N/A
C - Harrow Manorway (S)	1.14	0.03	0.28	1.14	1.43			N/A	N/A
D - Eynsham Drive	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	0.95	0.27	1.05	1.55	1.62			N/A	N/A
B - Yarnton Way	0.09	0.00	0.00	0.09	0.09			N/A	N/A
C - Harrow Manorway (S)	0.75	0.54	1.04	1.49	1.54			N/A	N/A
D - Eynsham Drive	0.01	0.00	0.00	0.01	0.01			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	0.69	0.07	0.78	1.47	1.55			N/A	N/A
B - Yarnton Way	0.07	0.00	0.00	0.07	0.07			N/A	N/A
C - Harrow Manorway (S)	0.55	0.06	0.58	1.40	1.50			N/A	N/A
D - Eynsham Drive	0.01	0.00	0.00	0.01	0.01			N/A	N/A

New Geometry - 2038 Reference Case - With LTC, PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	HarrowManorway_YarntonWay	Standard Roundabout		A, B, C, D	6.96	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.96	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)	Run automatically
D6	2038 Reference Case - With LTC	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Harrow Manorway (N)		ONE HOUR	✓	1139	100.000
B - Yarnton Way		ONE HOUR	✓	185	100.000
C - Harrow Manorway (S)		ONE HOUR	✓	853	100.000
D - Eynsham Drive		ONE HOUR	✓	10	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - Harrow Manorway (N)		
B - Yarnton Way		
C - Harrow Manorway (S)	[ONEHOUR]	85.00
D - Eynsham Drive		

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
From	A - Harrow Manorway (N)	0	48	804	287
	B - Yarnton Way	82	0	65	38
	C - Harrow Manorway (S)	802	42	0	9
	D - Eynsham Drive	0	3	7	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
From	A - Harrow Manorway (N)	0	25	3	1
	B - Yarnton Way	17	0	15	4
	C - Harrow Manorway (S)	2	13	0	0
	D - Eynsham Drive	0	11	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Harrow Manorway (N)	0.76	9.23	3.2	10.3	A	1045	1568
B - Yarnton Way	0.14	3.14	0.2	0.6	A	170	255
C - Harrow Manorway (S)	0.55	4.81	1.2	1.5	A	783	1174
D - Eynsham Drive	0.01	2.88	0.0	0.5	A	9	14

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	857	214	39		1668	0.514	853	663	0.0	1.1	4.539	A
B - Yarnton Way	139	35	822		1752	0.080	139	70	0.0	0.1	2.531	A
C - Harrow Manorway (S)	642	161	305	63.99	1802	0.356	640	656	0.0	0.6	3.169	A
D - Eynsham Drive	8	2	695		1489	0.005	8	250	0.0	0.0	2.503	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1024	256	47		1663	0.616	1022	794	1.1	1.6	5.778	A
B - Yarnton Way	166	42	985		1647	0.101	166	83	0.1	0.1	2.756	A
C - Harrow Manorway (S)	767	192	365	76.41	1760	0.436	766	786	0.6	0.8	3.708	A
D - Eynsham Drive	9	2	832		1409	0.006	9	300	0.0	0.0	2.650	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1254	314	57		1656	0.757	1248	971	1.6	3.1	8.985	A
B - Yarnton Way	204	51	1203		1506	0.135	203	102	0.1	0.2	3.133	A
C - Harrow Manorway (S)	939	235	447	93.59	1702	0.552	937	960	0.8	1.2	4.810	A
D - Eynsham Drive	11	3	1018		1298	0.008	11	366	0.0	0.0	2.881	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1254	314	57		1656	0.757	1254	973	3.1	3.2	9.229	A
B - Yarnton Way	204	51	1209		1503	0.136	204	102	0.2	0.2	3.142	A
C - Harrow Manorway (S)	939	235	448	93.59	1718	0.547	939	964	1.2	1.2	4.737	A
D - Eynsham Drive	11	3	1020		1297	0.008	11	368	0.0	0.0	2.883	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1024	256	47		1663	0.616	1030	797	3.2	1.7	5.928	A
B - Yarnton Way	166	42	993		1642	0.101	167	84	0.2	0.1	2.768	A
C - Harrow Manorway (S)	767	192	367	76.41	1779	0.431	769	792	1.2	0.8	3.656	A
D - Eynsham Drive	9	2	834		1407	0.006	9	302	0.0	0.0	2.653	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	857	214	39		1668	0.514	860	666	1.7	1.1	4.613	A
B - Yarnton Way	139	35	829		1748	0.080	139	70	0.1	0.1	2.537	A
C - Harrow Manorway (S)	642	161	307	63.99	1822	0.353	643	661	0.8	0.6	3.131	A
D - Eynsham Drive	8	2	698		1487	0.005	8	252	0.0	0.0	2.508	A

Queue Variation Results for each time segment
16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.08	0.57	1.03	1.45	1.50			N/A	N/A
B - Yarnton Way	0.10	0.00	0.00	0.10	0.10			N/A	N/A
C - Harrow Manorway (S)	0.56	0.56	1.02	1.43	1.49			N/A	N/A
D - Eynsham Drive	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.63	0.05	0.64	4.05	6.15			N/A	N/A
B - Yarnton Way	0.13	0.00	0.00	0.13	0.13			N/A	N/A
C - Harrow Manorway (S)	0.79	0.08	0.83	1.28	1.28			N/A	N/A
D - Eynsham Drive	0.01	0.01	0.26	0.46	0.49			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	3.10	0.03	0.30	3.10	10.31			N/A	N/A
B - Yarnton Way	0.18	0.03	0.29	0.52	0.55			N/A	N/A
C - Harrow Manorway (S)	1.25	0.03	0.26	1.25	1.25			N/A	N/A
D - Eynsham Drive	0.01	0.01	0.27	0.48	0.51			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	3.16	0.03	0.28	3.16	3.16			N/A	N/A
B - Yarnton Way	0.18	0.00	0.00	0.18	0.18			N/A	N/A
C - Harrow Manorway (S)	1.24	0.03	0.27	1.24	1.24			N/A	N/A
D - Eynsham Drive	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.68	0.07	0.98	3.90	5.58			N/A	N/A
B - Yarnton Way	0.13	0.00	0.00	0.13	0.13			N/A	N/A
C - Harrow Manorway (S)	0.78	0.36	0.99	1.43	1.48			N/A	N/A
D - Eynsham Drive	0.01	0.00	0.00	0.01	0.01			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.10	0.04	0.44	2.72	4.29			N/A	N/A
B - Yarnton Way	0.10	0.00	0.00	0.10	0.10			N/A	N/A
C - Harrow Manorway (S)	0.56	0.06	0.63	1.36	1.45			N/A	N/A
D - Eynsham Drive	0.01	0.00	0.00	0.01	0.01			N/A	N/A

New Geometry - 2038 Local Plan Case - No LTC, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	HarrowManorway_YarntonWay	Standard Roundabout		A, B, C, D	6.12	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.12	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)	Run automatically
D7	2038 Local Plan Case - No LTC	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Harrow Manorway (N)		ONE HOUR	✓	947	100.000
B - Yarnton Way		ONE HOUR	✓	159	100.000
C - Harrow Manorway (S)		ONE HOUR	✓	1050	100.000
D - Eynsham Drive		ONE HOUR	✓	34	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - Harrow Manorway (N)		
B - Yarnton Way		
C - Harrow Manorway (S)	[ONE HOUR]	85.00
D - Eynsham Drive		

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
From	A - Harrow Manorway (N)	0	101	697	149
	B - Yarnton Way	82	0	59	18
	C - Harrow Manorway (S)	886	139	0	25
	D - Eynsham Drive	0	6	28	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
From	A - Harrow Manorway (N)	0	15	7	1
	B - Yarnton Way	33	0	20	11
	C - Harrow Manorway (S)	5	8	0	0
	D - Eynsham Drive	0	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Harrow Manorway (N)	0.66	7.31	2.1	3.3	A	869	1303
B - Yarnton Way	0.11	3.03	0.1	0.6	A	146	219
C - Harrow Manorway (S)	0.63	5.61	1.8	2.8	A	963	1445
D - Eynsham Drive	0.03	3.16	0.0	0.5	A	31	47

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	713	178	130		1608	0.443	710	726	0.0	0.8	4.263	A
B - Yarnton Way	120	30	655		1860	0.064	119	184	0.0	0.1	2.588	A
C - Harrow Manorway (S)	790	198	187	63.99	1875	0.422	787	588	0.0	0.8	3.475	A
D - Eynsham Drive	26	6	830		1409	0.018	26	144	0.0	0.0	2.610	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	851	213	155		1592	0.535	850	869	0.8	1.2	5.172	A
B - Yarnton Way	143	36	784		1776	0.080	143	221	0.1	0.1	2.757	A
C - Harrow Manorway (S)	944	236	224	76.41	1854	0.509	943	704	0.8	1.1	4.153	A
D - Eynsham Drive	31	8	994		1313	0.023	31	172	0.0	0.0	2.817	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1043	261	190		1569	0.665	1039	1063	1.2	2.1	7.212	A
B - Yarnton Way	175	44	959		1664	0.105	175	270	0.1	0.1	3.026	A
C - Harrow Manorway (S)	1156	289	274	93.59	1826	0.633	1153	861	1.1	1.8	5.608	A
D - Eynsham Drive	37	9	1216		1181	0.032	37	211	0.0	0.0	3.157	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1043	261	190		1569	0.665	1043	1066	2.1	2.1	7.307	A
B - Yarnton Way	175	44	962		1662	0.105	175	271	0.1	0.1	3.030	A
C - Harrow Manorway (S)	1156	289	274	93.59	1850	0.625	1156	863	1.8	1.8	5.462	A
D - Eynsham Drive	37	9	1219		1179	0.032	37	211	0.0	0.0	3.162	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	851	213	156		1591	0.535	855	873	2.1	1.2	5.243	A
B - Yarnton Way	143	36	789		1774	0.081	143	222	0.1	0.1	2.765	A
C - Harrow Manorway (S)	944	236	224	76.41	1884	0.501	947	707	1.8	1.1	4.058	A
D - Eynsham Drive	31	8	998		1310	0.023	31	173	0.0	0.0	2.825	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	713	178	130		1608	0.443	714	730	1.2	0.9	4.310	A
B - Yarnton Way	120	30	659		1857	0.064	120	186	0.1	0.1	2.593	A
C - Harrow Manorway (S)	790	198	188	63.99	1902	0.416	792	591	1.1	0.8	3.418	A
D - Eynsham Drive	26	6	835		1407	0.018	26	145	0.0	0.0	2.617	A

Queue Variation Results for each time segment
07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	0.84	0.59	1.07	1.50	1.55			N/A	N/A
B - Yarnton Way	0.09	0.00	0.00	0.09	0.09			N/A	N/A
C - Harrow Manorway (S)	0.76	0.58	1.05	1.47	1.53			N/A	N/A
D - Eynsham Drive	0.02	0.00	0.00	0.02	0.02			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.21	0.07	0.89	2.44	3.33			N/A	N/A
B - Yarnton Way	0.11	0.03	0.33	0.59	0.62			N/A	N/A
C - Harrow Manorway (S)	1.08	0.07	0.84	2.02	2.84			N/A	N/A
D - Eynsham Drive	0.02	0.02	0.25	0.45	0.48			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	2.07	0.03	0.29	2.07	2.11			N/A	N/A
B - Yarnton Way	0.15	0.03	0.32	0.58	0.61			N/A	N/A
C - Harrow Manorway (S)	1.79	0.03	0.28	1.79	1.79			N/A	N/A
D - Eynsham Drive	0.03	0.00	0.00	0.03	0.03			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	2.09	0.03	0.28	2.09	2.09			N/A	N/A
B - Yarnton Way	0.15	0.00	0.00	0.15	0.15			N/A	N/A
C - Harrow Manorway (S)	1.77	0.03	0.28	1.77	1.77			N/A	N/A
D - Eynsham Drive	0.03	0.00	0.00	0.03	0.03			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.24	0.11	1.11	2.04	2.72			N/A	N/A
B - Yarnton Way	0.11	0.00	0.00	0.11	0.11			N/A	N/A
C - Harrow Manorway (S)	1.07	0.16	1.06	1.54	1.88			N/A	N/A
D - Eynsham Drive	0.02	0.00	0.00	0.02	0.02			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	0.86	0.06	0.65	1.59	2.07			N/A	N/A
B - Yarnton Way	0.09	0.00	0.00	0.09	0.09			N/A	N/A
C - Harrow Manorway (S)	0.75	0.07	0.72	1.46	1.46			N/A	N/A
D - Eynsham Drive	0.02	0.00	0.00	0.02	0.02			N/A	N/A

New Geometry - 2038 Local Plan Case - No LTC, PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	HarrowManorway_YarntonWay	Standard Roundabout		A, B, C, D	13.46	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	13.46	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2038 Local Plan Case - No LTC	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Harrow Manorway (N)		ONE HOUR	✓	1324	100.000
B - Yarnton Way		ONE HOUR	✓	275	100.000
C - Harrow Manorway (S)		ONE HOUR	✓	815	100.000
D - Eynsham Drive		ONE HOUR	✓	56	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - Harrow Manorway (N)		
B - Yarnton Way		
C - Harrow Manorway (S)	[ONEHOUR]	85.00
D - Eynsham Drive		

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
From	A - Harrow Manorway (N)	0	60	904	360
	B - Yarnton Way	120	0	83	72
	C - Harrow Manorway (S)	775	38	0	2
	D - Eynsham Drive	0	21	35	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
From	A - Harrow Manorway (N)	0	20	3	0
	B - Yarnton Way	16	0	13	2
	C - Harrow Manorway (S)	3	13	0	0
	D - Eynsham Drive	0	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Harrow Manorway (N)	0.90	21.04	8.1	41.9	C	1215	1822
B - Yarnton Way	0.22	3.78	0.3	1.3	A	252	379
C - Harrow Manorway (S)	0.55	5.13	1.3	1.5	A	748	1122
D - Eynsham Drive	0.05	2.96	0.1	0.5	A	51	77

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	997	249	71		1647	0.605	991	671	0.0	1.6	5.585	A
B - Yarnton Way	207	52	972		1655	0.125	206	89	0.0	0.2	2.759	A
C - Harrow Manorway (S)	614	153	413	63.99	1740	0.353	611	765	0.0	0.6	3.290	A
D - Eynsham Drive	42	11	700		1486	0.028	42	325	0.0	0.0	2.519	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1190	298	84		1638	0.727	1186	804	1.6	2.6	8.105	A
B - Yarnton Way	247	62	1164		1532	0.161	247	107	0.2	0.2	3.113	A
C - Harrow Manorway (S)	733	183	495	76.41	1687	0.434	732	916	0.6	0.8	3.893	A
D - Eynsham Drive	50	13	838		1405	0.036	50	389	0.0	0.0	2.686	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1458	364	103		1626	0.897	1438	983	2.6	7.5	18.140	C
B - Yarnton Way	303	76	1412		1372	0.221	302	130	0.2	0.3	3.741	A
C - Harrow Manorway (S)	897	224	602	93.59	1619	0.554	895	1112	0.8	1.3	5.133	A
D - Eynsham Drive	62	15	1025		1294	0.048	62	472	0.0	0.1	2.952	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1458	364	103		1626	0.897	1455	985	7.5	8.1	21.044	C
B - Yarnton Way	303	76	1428		1361	0.222	303	131	0.3	0.3	3.778	A
C - Harrow Manorway (S)	897	224	607	93.59	1633	0.549	897	1124	1.3	1.3	5.059	A
D - Eynsham Drive	62	15	1027		1293	0.048	62	477	0.1	0.1	2.955	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1190	298	85		1638	0.727	1211	807	8.1	2.8	9.073	A
B - Yarnton Way	247	62	1188		1516	0.163	248	108	0.3	0.2	3.156	A
C - Harrow Manorway (S)	733	183	502	76.41	1705	0.430	735	933	1.3	0.8	3.844	A
D - Eynsham Drive	50	13	841		1403	0.036	50	396	0.1	0.0	2.692	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	997	249	71		1647	0.605	1002	675	2.8	1.6	5.777	A
B - Yarnton Way	207	52	983		1648	0.126	207	90	0.2	0.2	2.775	A
C - Harrow Manorway (S)	614	153	417	63.99	1759	0.349	614	773	0.8	0.6	3.257	A
D - Eynsham Drive	42	11	703		1484	0.028	42	328	0.0	0.0	2.523	A

Queue Variation Results for each time segment
16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.55	0.61	1.48	1.90	2.02			N/A	N/A
B - Yarnton Way	0.16	0.00	0.00	0.16	0.16			N/A	N/A
C - Harrow Manorway (S)	0.56	0.56	1.03	1.45	1.50			N/A	N/A
D - Eynsham Drive	0.03	0.00	0.00	0.03	0.03			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	2.65	0.05	0.51	7.28	11.83			N/A	N/A
B - Yarnton Way	0.21	0.00	0.00	0.21	0.21			N/A	N/A
C - Harrow Manorway (S)	0.79	0.09	0.84	1.22	1.22			N/A	N/A
D - Eynsham Drive	0.04	0.03	0.25	0.46	0.48			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	7.47	0.04	0.44	20.28	40.32			N/A	N/A
B - Yarnton Way	0.31	0.03	0.28	0.51	0.53			N/A	N/A
C - Harrow Manorway (S)	1.27	0.03	0.27	1.27	1.27			N/A	N/A
D - Eynsham Drive	0.05	0.03	0.26	0.46	0.49			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	8.07	0.03	0.34	13.34	41.94			N/A	N/A
B - Yarnton Way	0.32	0.03	0.33	0.92	1.30			N/A	N/A
C - Harrow Manorway (S)	1.27	0.03	0.28	1.27	1.35			N/A	N/A
D - Eynsham Drive	0.05	0.00	0.00	0.05	0.05			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	2.82	0.05	0.45	7.83	13.62			N/A	N/A
B - Yarnton Way	0.22	0.00	0.00	0.22	0.22			N/A	N/A
C - Harrow Manorway (S)	0.79	0.28	0.98	1.44	1.50			N/A	N/A
D - Eynsham Drive	0.04	0.00	0.00	0.04	0.04			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.60	0.03	0.34	3.38	8.33			N/A	N/A
B - Yarnton Way	0.16	0.00	0.00	0.16	0.16			N/A	N/A
C - Harrow Manorway (S)	0.56	0.06	0.58	1.36	1.46			N/A	N/A
D - Eynsham Drive	0.03	0.00	0.00	0.03	0.03			N/A	N/A

New Geometry - 2038 Local Plan Case - With LTC, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	HarrowManorway_YarntonWay	Standard Roundabout		A, B, C, D	6.19	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.19	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)	Run automatically
D9	2038 Local Plan Case - With LTC	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Harrow Manorway (N)		ONE HOUR	✓	951	100.000
B - Yarnton Way		ONE HOUR	✓	160	100.000
C - Harrow Manorway (S)		ONE HOUR	✓	1064	100.000
D - Eynsham Drive		ONE HOUR	✓	34	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - Harrow Manorway (N)		
B - Yarnton Way		
C - Harrow Manorway (S)	[ONEHOUR]	85.00
D - Eynsham Drive		

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
From	A - Harrow Manorway (N)	0	102	693	156
	B - Yarnton Way	82	0	59	19
	C - Harrow Manorway (S)	926	138	0	0
	D - Eynsham Drive	0	6	28	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
From	A - Harrow Manorway (N)	0	15	7	2
	B - Yarnton Way	33	0	22	10
	C - Harrow Manorway (S)	4	8	0	0
	D - Eynsham Drive	0	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Harrow Manorway (N)	0.67	7.37	2.1	3.4	A	873	1309
B - Yarnton Way	0.11	3.05	0.1	0.6	A	147	220
C - Harrow Manorway (S)	0.64	5.71	1.8	3.0	A	976	1465
D - Eynsham Drive	0.03	3.23	0.0	0.5	A	31	47

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	716	179	129		1609	0.445	713	756	0.0	0.9	4.279	A
B - Yarnton Way	120	30	657		1858	0.065	120	184	0.0	0.1	2.603	A
C - Harrow Manorway (S)	801	200	193	63.99	1872	0.428	798	585	0.0	0.8	3.494	A
D - Eynsham Drive	26	6	859		1392	0.018	26	131	0.0	0.0	2.643	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	855	214	154		1592	0.537	853	905	0.9	1.2	5.200	A
B - Yarnton Way	144	36	787		1775	0.081	144	221	0.1	0.1	2.774	A
C - Harrow Manorway (S)	957	239	231	76.41	1851	0.517	955	700	0.8	1.1	4.194	A
D - Eynsham Drive	31	8	1029		1292	0.024	31	157	0.0	0.0	2.863	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1047	262	189		1570	0.667	1044	1107	1.2	2.1	7.272	A
B - Yarnton Way	176	44	962		1661	0.106	176	270	0.1	0.1	3.045	A
C - Harrow Manorway (S)	1171	293	282	93.59	1824	0.642	1169	856	1.1	1.8	5.710	A
D - Eynsham Drive	37	9	1259		1156	0.032	37	192	0.0	0.0	3.229	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1047	262	189		1569	0.667	1047	1110	2.1	2.1	7.368	A
B - Yarnton Way	176	44	966		1660	0.106	176	271	0.1	0.1	3.049	A
C - Harrow Manorway (S)	1171	293	283	93.59	1849	0.633	1172	859	1.8	1.8	5.553	A
D - Eynsham Drive	37	9	1262		1154	0.032	37	193	0.0	0.0	3.234	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	855	214	155		1592	0.537	858	909	2.1	1.3	5.273	A
B - Yarnton Way	144	36	792		1772	0.081	144	222	0.1	0.1	2.781	A
C - Harrow Manorway (S)	957	239	232	76.41	1882	0.508	959	704	1.8	1.1	4.092	A
D - Eynsham Drive	31	8	1033		1289	0.024	31	158	0.0	0.0	2.869	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	716	179	130		1608	0.445	718	760	1.3	0.9	4.330	A
B - Yarnton Way	120	30	662		1856	0.065	121	186	0.1	0.1	2.607	A
C - Harrow Manorway (S)	801	200	194	63.99	1900	0.422	802	588	1.1	0.8	3.434	A
D - Eynsham Drive	26	6	864		1389	0.018	26	132	0.0	0.0	2.648	A

Queue Variation Results for each time segment
07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	0.85	0.59	1.07	1.50	1.55			N/A	N/A
B - Yarnton Way	0.09	0.00	0.00	0.09	0.09			N/A	N/A
C - Harrow Manorway (S)	0.78	0.57	1.05	1.46	1.52			N/A	N/A
D - Eynsham Drive	0.02	0.00	0.00	0.02	0.02			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.23	0.07	0.89	2.48	3.41			N/A	N/A
B - Yarnton Way	0.11	0.03	0.33	0.59	0.62			N/A	N/A
C - Harrow Manorway (S)	1.11	0.07	0.82	2.10	2.99			N/A	N/A
D - Eynsham Drive	0.02	0.02	0.25	0.45	0.48			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	2.09	0.03	0.29	2.09	2.28			N/A	N/A
B - Yarnton Way	0.15	0.03	0.32	0.58	0.62			N/A	N/A
C - Harrow Manorway (S)	1.84	0.03	0.28	1.84	1.84			N/A	N/A
D - Eynsham Drive	0.03	0.00	0.00	0.03	0.03			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	2.12	0.03	0.28	2.12	2.12			N/A	N/A
B - Yarnton Way	0.15	0.00	0.00	0.15	0.15			N/A	N/A
C - Harrow Manorway (S)	1.82	0.03	0.28	1.82	1.82			N/A	N/A
D - Eynsham Drive	0.03	0.00	0.00	0.03	0.03			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.26	0.11	1.11	2.07	2.78			N/A	N/A
B - Yarnton Way	0.11	0.00	0.00	0.11	0.11			N/A	N/A
C - Harrow Manorway (S)	1.09	0.15	1.06	1.64	1.94			N/A	N/A
D - Eynsham Drive	0.02	0.00	0.00	0.02	0.02			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	0.87	0.06	0.64	1.62	2.10			N/A	N/A
B - Yarnton Way	0.09	0.00	0.00	0.09	0.09			N/A	N/A
C - Harrow Manorway (S)	0.77	0.06	0.71	1.56	1.61			N/A	N/A
D - Eynsham Drive	0.02	0.00	0.00	0.02	0.02			N/A	N/A

New Geometry - 2038 Local Plan Case - With LTC, PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	HarrowManorway_YarntonWay	Standard Roundabout		A, B, C, D	13.52	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	13.52	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2038 Local Plan Case - With LTC	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Harrow Manorway (N)		ONE HOUR	✓	1326	100.000
B - Yarnton Way		ONE HOUR	✓	269	100.000
C - Harrow Manorway (S)		ONE HOUR	✓	819	100.000
D - Eynsham Drive		ONE HOUR	✓	54	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - Harrow Manorway (N)		
B - Yarnton Way		
C - Harrow Manorway (S)	[ONEHOUR]	85.00
D - Eynsham Drive		

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
From	A - Harrow Manorway (N)	0	62	902	362
	B - Yarnton Way	115	0	84	70
	C - Harrow Manorway (S)	780	38	0	1
	D - Eynsham Drive	0	19	35	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
A - Harrow Manorway (N)	0	19	3	0
B - Yarnton Way	12	0	13	2
C - Harrow Manorway (S)	3	13	0	0
D - Eynsham Drive	0	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Harrow Manorway (N)	0.90	21.12	8.1	42.2	C	1217	1825
B - Yarnton Way	0.22	3.70	0.3	1.2	A	247	370
C - Harrow Manorway (S)	0.56	5.14	1.3	1.5	A	752	1127
D - Eynsham Drive	0.05	2.95	0.0	0.5	A	50	74

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	998	250	69		1648	0.606	992	671	0.0	1.6	5.589	A
B - Yarnton Way	203	51	972		1655	0.122	202	89	0.0	0.2	2.710	A
C - Harrow Manorway (S)	617	154	410	63.99	1743	0.354	614	764	0.0	0.6	3.292	A
D - Eynsham Drive	41	10	700		1486	0.027	41	324	0.0	0.0	2.515	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1192	298	83		1639	0.727	1188	804	1.6	2.7	8.114	A
B - Yarnton Way	242	60	1164		1532	0.158	242	107	0.2	0.2	3.055	A
C - Harrow Manorway (S)	736	184	490	76.41	1690	0.436	735	915	0.6	0.8	3.897	A
D - Eynsham Drive	49	12	838		1405	0.035	49	388	0.0	0.0	2.681	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1460	365	101		1627	0.897	1441	983	2.7	7.5	18.189	C
B - Yarnton Way	296	74	1412		1372	0.216	296	130	0.2	0.3	3.664	A
C - Harrow Manorway (S)	902	225	597	93.59	1622	0.556	900	1111	0.8	1.3	5.140	A
D - Eynsham Drive	59	15	1025		1294	0.046	59	471	0.0	0.0	2.945	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1460	365	101		1627	0.897	1458	985	7.5	8.1	21.121	C
B - Yarnton Way	296	74	1428		1361	0.218	296	131	0.3	0.3	3.700	A
C - Harrow Manorway (S)	902	225	602	93.59	1637	0.551	902	1122	1.3	1.3	5.064	A
D - Eynsham Drive	59	15	1027		1293	0.046	59	476	0.0	0.0	2.948	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1192	298	83		1639	0.727	1213	807	8.1	2.8	9.090	A
B - Yarnton Way	242	60	1188		1516	0.160	242	108	0.3	0.2	3.095	A
C - Harrow Manorway (S)	736	184	498	76.41	1708	0.431	738	932	1.3	0.8	3.849	A
D - Eynsham Drive	49	12	841		1403	0.035	49	395	0.0	0.0	2.687	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	998	250	69		1648	0.606	1003	675	2.8	1.6	5.784	A
B - Yarnton Way	203	51	983		1648	0.123	203	90	0.2	0.2	2.726	A
C - Harrow Manorway (S)	617	154	413	63.99	1761	0.350	618	772	0.8	0.6	3.256	A
D - Eynsham Drive	41	10	703		1484	0.027	41	327	0.0	0.0	2.521	A

Queue Variation Results for each time segment
16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.55	0.61	1.48	1.90	2.02			N/A	N/A
B - Yarnton Way	0.15	0.00	0.00	0.15	0.15			N/A	N/A
C - Harrow Manorway (S)	0.56	0.56	1.03	1.45	1.50			N/A	N/A
D - Eynsham Drive	0.03	0.00	0.00	0.03	0.03			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	2.66	0.05	0.51	7.30	11.86			N/A	N/A
B - Yarnton Way	0.20	0.00	0.00	0.20	0.20			N/A	N/A
C - Harrow Manorway (S)	0.79	0.09	0.84	1.28	1.28			N/A	N/A
D - Eynsham Drive	0.04	0.03	0.25	0.46	0.48			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	7.50	0.04	0.44	20.41	40.47			N/A	N/A
B - Yarnton Way	0.30	0.03	0.28	0.50	0.53			N/A	N/A
C - Harrow Manorway (S)	1.28	0.03	0.27	1.28	1.28			N/A	N/A
D - Eynsham Drive	0.05	0.03	0.26	0.46	0.49			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	8.11	0.03	0.34	13.53	42.25			N/A	N/A
B - Yarnton Way	0.30	0.03	0.31	0.79	1.22			N/A	N/A
C - Harrow Manorway (S)	1.27	0.03	0.28	1.27	1.33			N/A	N/A
D - Eynsham Drive	0.05	0.00	0.00	0.05	0.05			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	2.83	0.05	0.45	7.86	13.67			N/A	N/A
B - Yarnton Way	0.21	0.00	0.00	0.21	0.21			N/A	N/A
C - Harrow Manorway (S)	0.79	0.28	0.98	1.44	1.50			N/A	N/A
D - Eynsham Drive	0.04	0.00	0.00	0.04	0.04			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.60	0.03	0.34	3.38	8.35			N/A	N/A
B - Yarnton Way	0.15	0.00	0.00	0.15	0.15			N/A	N/A
C - Harrow Manorway (S)	0.56	0.06	0.59	1.36	1.46			N/A	N/A
D - Eynsham Drive	0.03	0.00	0.00	0.03	0.03			N/A	N/A

New Geometry - 2038 Local Plan Case - No LTC - Sensitivity Test, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	HarrowManorway_YarntonWay	Standard Roundabout		A, B, C, D	5.69	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.69	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)	Run automatically
D11	2038 Local Plan Case - No LTC - Sensitivity Test	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Harrow Manorway (N)		ONE HOUR	✓	916	100.000
B - Yarnton Way		ONE HOUR	✓	148	100.000
C - Harrow Manorway (S)		ONE HOUR	✓	1017	100.000
D - Eynsham Drive		ONE HOUR	✓	26	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - Harrow Manorway (N)		
B - Yarnton Way		
C - Harrow Manorway (S)	[ONEHOUR]	85.00
D - Eynsham Drive		

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
From	A - Harrow Manorway (N)	0	90	692	134
	B - Yarnton Way	77	0	60	11
	C - Harrow Manorway (S)	875	122	0	20
	D - Eynsham Drive	0	5	21	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
From	A - Harrow Manorway (N)	0	17	7	1
	B - Yarnton Way	35	0	20	17
	C - Harrow Manorway (S)	5	9	0	0
	D - Eynsham Drive	0	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Harrow Manorway (N)	0.64	6.66	1.8	2.8	A	841	1261
B - Yarnton Way	0.10	3.01	0.1	0.6	A	136	204
C - Harrow Manorway (S)	0.61	5.28	1.6	2.3	A	933	1400
D - Eynsham Drive	0.02	3.09	0.0	0.5	A	24	36

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	690	172	111		1621	0.426	686	714	0.0	0.8	4.108	A
B - Yarnton Way	111	28	635		1873	0.059	111	163	0.0	0.1	2.597	A
C - Harrow Manorway (S)	766	191	166	63.99	1885	0.406	763	579	0.0	0.7	3.372	A
D - Eynsham Drive	20	5	806		1424	0.014	20	124	0.0	0.0	2.577	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	823	206	133		1606	0.513	822	855	0.8	1.1	4.903	A
B - Yarnton Way	133	33	760		1792	0.074	133	195	0.1	0.1	2.757	A
C - Harrow Manorway (S)	914	229	199	76.41	1863	0.491	913	694	0.7	1.0	3.986	A
D - Eynsham Drive	23	6	964		1330	0.018	23	148	0.0	0.0	2.770	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1009	252	163		1587	0.636	1006	1046	1.1	1.8	6.593	A
B - Yarnton Way	163	41	930		1682	0.097	163	238	0.1	0.1	3.010	A
C - Harrow Manorway (S)	1120	280	244	93.59	1834	0.611	1117	849	1.0	1.6	5.275	A
D - Eynsham Drive	29	7	1180		1202	0.024	29	181	0.0	0.0	3.083	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1009	252	163		1587	0.636	1008	1048	1.8	1.8	6.658	A
B - Yarnton Way	163	41	932		1681	0.097	163	239	0.1	0.1	3.013	A
C - Harrow Manorway (S)	1120	280	244	93.59	1855	0.604	1120	851	1.6	1.6	5.157	A
D - Eynsham Drive	29	7	1183		1201	0.024	29	182	0.0	0.0	3.087	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	823	206	133		1606	0.513	826	858	1.8	1.1	4.958	A
B - Yarnton Way	133	33	764		1790	0.074	133	196	0.1	0.1	2.764	A
C - Harrow Manorway (S)	914	229	200	76.41	1890	0.484	917	697	1.6	1.0	3.907	A
D - Eynsham Drive	23	6	968		1328	0.018	23	149	0.0	0.0	2.776	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	690	172	112		1620	0.426	691	718	1.1	0.8	4.149	A
B - Yarnton Way	111	28	639		1870	0.060	112	164	0.1	0.1	2.603	A
C - Harrow Manorway (S)	766	191	167	63.99	1911	0.401	767	583	1.0	0.7	3.318	A
D - Eynsham Drive	20	5	810		1421	0.014	20	124	0.0	0.0	2.584	A

Queue Variation Results for each time segment
07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	0.79	0.59	1.07	1.50	1.55			N/A	N/A
B - Yarnton Way	0.08	0.00	0.00	0.08	0.08			N/A	N/A
C - Harrow Manorway (S)	0.72	0.58	1.05	1.48	1.53			N/A	N/A
D - Eynsham Drive	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.11	0.08	0.91	2.02	2.78			N/A	N/A
B - Yarnton Way	0.10	0.03	0.32	0.58	0.61			N/A	N/A
C - Harrow Manorway (S)	1.01	0.07	0.86	1.80	2.33			N/A	N/A
D - Eynsham Drive	0.02	0.02	0.25	0.45	0.48			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.83	0.03	0.28	1.83	1.83			N/A	N/A
B - Yarnton Way	0.14	0.03	0.33	0.59	0.62			N/A	N/A
C - Harrow Manorway (S)	1.63	0.03	0.28	1.63	1.63			N/A	N/A
D - Eynsham Drive	0.02	0.00	0.00	0.02	0.02			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.85	0.03	0.28	1.85	1.85			N/A	N/A
B - Yarnton Way	0.14	0.00	0.00	0.14	0.14			N/A	N/A
C - Harrow Manorway (S)	1.62	0.03	0.28	1.62	1.62			N/A	N/A
D - Eynsham Drive	0.02	0.00	0.00	0.02	0.02			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.14	0.14	1.09	1.75	2.05			N/A	N/A
B - Yarnton Way	0.10	0.00	0.00	0.10	0.10			N/A	N/A
C - Harrow Manorway (S)	1.00	0.21	1.04	1.07	1.60			N/A	N/A
D - Eynsham Drive	0.02	0.00	0.00	0.02	0.02			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	0.80	0.06	0.72	1.13	1.73			N/A	N/A
B - Yarnton Way	0.08	0.00	0.00	0.08	0.08			N/A	N/A
C - Harrow Manorway (S)	0.71	0.07	0.74	1.46	1.56			N/A	N/A
D - Eynsham Drive	0.01	0.00	0.00	0.01	0.01			N/A	N/A

New Geometry - 2038 Local Plan Case - No LTC - Sensitivity Test, PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	HarrowManorway_YarntonWay	Standard Roundabout		A, B, C, D	10.47	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.47	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2038 Local Plan Case - No LTC - Sensitivity Test	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Harrow Manorway (N)		ONE HOUR	✓	1273	100.000
B - Yarnton Way		ONE HOUR	✓	251	100.000
C - Harrow Manorway (S)		ONE HOUR	✓	834	100.000
D - Eynsham Drive		ONE HOUR	✓	46	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - Harrow Manorway (N)		
B - Yarnton Way		
C - Harrow Manorway (S)	[ONEHOUR]	85.00
D - Eynsham Drive		

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
From	A - Harrow Manorway (N)	0	56	892	325
	B - Yarnton Way	110	0	83	58
	C - Harrow Manorway (S)	769	36	0	29
	D - Eynsham Drive	0	19	27	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
A - Harrow Manorway (N)	0	21	3	0
B - Yarnton Way	17	0	13	3
C - Harrow Manorway (S)	3	14	0	0
D - Eynsham Drive	0	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Harrow Manorway (N)	0.86	15.65	5.9	30.4	C	1168	1752
B - Yarnton Way	0.20	3.59	0.3	0.6	A	230	345
C - Harrow Manorway (S)	0.56	5.03	1.3	1.5	A	765	1148
D - Eynsham Drive	0.04	2.90	0.0	0.5	A	42	63

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	958	240	62		1653	0.580	953	659	0.0	1.4	5.247	A
B - Yarnton Way	189	47	931		1682	0.112	188	83	0.0	0.1	2.704	A
C - Harrow Manorway (S)	628	157	369	63.99	1766	0.356	626	750	0.0	0.6	3.255	A
D - Eynsham Drive	35	9	686		1494	0.023	35	309	0.0	0.0	2.495	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1144	286	74		1645	0.696	1141	789	1.4	2.3	7.291	A
B - Yarnton Way	226	56	1115		1563	0.144	225	100	0.1	0.2	3.018	A
C - Harrow Manorway (S)	750	187	442	76.41	1717	0.437	749	898	0.6	0.8	3.838	A
D - Eynsham Drive	41	10	822		1414	0.029	41	369	0.0	0.0	2.653	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1402	350	90		1634	0.858	1388	966	2.3	5.6	14.342	B
B - Yarnton Way	276	69	1357		1407	0.196	276	122	0.2	0.3	3.570	A
C - Harrow Manorway (S)	918	230	539	93.59	1653	0.555	916	1094	0.8	1.3	5.033	A
D - Eynsham Drive	51	13	1005		1306	0.039	51	450	0.0	0.0	2.902	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1402	350	90		1634	0.858	1401	968	5.6	5.9	15.653	C
B - Yarnton Way	276	69	1369		1399	0.197	276	122	0.3	0.3	3.594	A
C - Harrow Manorway (S)	918	230	543	93.59	1669	0.550	918	1102	1.3	1.3	4.957	A
D - Eynsham Drive	51	13	1007		1305	0.039	51	453	0.0	0.0	2.905	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1144	286	74		1645	0.696	1158	792	5.9	2.4	7.811	A
B - Yarnton Way	226	56	1132		1552	0.145	226	100	0.3	0.2	3.046	A
C - Harrow Manorway (S)	750	187	447	76.41	1736	0.432	752	911	1.3	0.8	3.788	A
D - Eynsham Drive	41	10	825		1413	0.029	41	374	0.0	0.0	2.658	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	958	240	62		1653	0.580	962	663	2.4	1.4	5.392	A
B - Yarnton Way	189	47	940		1676	0.113	189	84	0.2	0.1	2.715	A
C - Harrow Manorway (S)	628	157	372	63.99	1785	0.352	629	757	0.8	0.6	3.221	A
D - Eynsham Drive	35	9	690		1492	0.023	35	311	0.0	0.0	2.499	A

Queue Variation Results for each time segment
16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.40	0.59	1.25	1.72	1.89			N/A	N/A
B - Yarnton Way	0.14	0.00	0.00	0.14	0.14			N/A	N/A
C - Harrow Manorway (S)	0.57	0.57	1.03	1.45	1.50			N/A	N/A
D - Eynsham Drive	0.02	0.00	0.00	0.02	0.02			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	2.29	0.05	0.51	6.20	10.00			N/A	N/A
B - Yarnton Way	0.19	0.00	0.00	0.19	0.19			N/A	N/A
C - Harrow Manorway (S)	0.79	0.08	0.84	1.30	1.30			N/A	N/A
D - Eynsham Drive	0.03	0.03	0.25	0.46	0.48			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	5.58	0.04	0.36	11.78	30.38			N/A	N/A
B - Yarnton Way	0.27	0.03	0.28	0.51	0.54			N/A	N/A
C - Harrow Manorway (S)	1.27	0.03	0.27	1.27	1.27			N/A	N/A
D - Eynsham Drive	0.04	0.03	0.25	0.46	0.48			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	5.86	0.03	0.31	5.86	23.09			N/A	N/A
B - Yarnton Way	0.28	0.03	0.29	0.53	0.56			N/A	N/A
C - Harrow Manorway (S)	1.27	0.03	0.27	1.27	1.27			N/A	N/A
D - Eynsham Drive	0.04	0.00	0.00	0.04	0.04			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	2.41	0.05	0.49	6.62	10.89			N/A	N/A
B - Yarnton Way	0.19	0.00	0.00	0.19	0.19			N/A	N/A
C - Harrow Manorway (S)	0.79	0.30	0.99	1.44	1.50			N/A	N/A
D - Eynsham Drive	0.03	0.00	0.00	0.03	0.03			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.44	0.04	0.36	3.46	7.31			N/A	N/A
B - Yarnton Way	0.14	0.00	0.00	0.14	0.14			N/A	N/A
C - Harrow Manorway (S)	0.56	0.06	0.61	1.36	1.46			N/A	N/A
D - Eynsham Drive	0.02	0.00	0.00	0.02	0.02			N/A	N/A

New Geometry - 2038 Local Plan Case - With LTC - Sensitivity Test, 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.

Junction Network

Junctions

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

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.85	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)	Run automatically
D13	2038 Local Plan Case - With LTC - Sensitivity Test	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Harrow Manorway (N)		ONE HOUR	✓	927	100.000
B - Yarnton Way		ONE HOUR	✓	148	100.000
C - Harrow Manorway (S)		ONE HOUR	✓	1032	100.000
D - Eynsham Drive		ONE HOUR	✓	26	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - Harrow Manorway (N)		
B - Yarnton Way		
C - Harrow Manorway (S)	[ONEHOUR]	85.00
D - Eynsham Drive		

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
From	A - Harrow Manorway (N)	0	91	693	143
	B - Yarnton Way	76	0	59	13
	C - Harrow Manorway (S)	890	122	0	20
	D - Eynsham Drive	0	5	21	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
A - Harrow Manorway (N)	0	17	8	2
B - Yarnton Way	35	0	22	14
C - Harrow Manorway (S)	5	9	0	0
D - Eynsham Drive	0	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Harrow Manorway (N)	0.64	6.86	1.9	3.0	A	851	1276
B - Yarnton Way	0.10	3.04	0.1	0.6	A	136	204
C - Harrow Manorway (S)	0.62	5.41	1.7	2.6	A	947	1420
D - Eynsham Drive	0.02	3.11	0.0	0.5	A	24	36

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	698	174	111		1621	0.431	695	725	0.0	0.8	4.178	A
B - Yarnton Way	111	28	642		1868	0.060	111	163	0.0	0.1	2.612	A
C - Harrow Manorway (S)	777	194	174	63.99	1881	0.413	774	579	0.0	0.7	3.418	A
D - Eynsham Drive	20	5	816		1418	0.014	20	132	0.0	0.0	2.588	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	833	208	133		1606	0.519	832	867	0.8	1.1	5.004	A
B - Yarnton Way	133	33	769		1786	0.074	133	196	0.1	0.1	2.776	A
C - Harrow Manorway (S)	928	232	208	76.41	1860	0.499	927	694	0.7	1.0	4.058	A
D - Eynsham Drive	23	6	977		1323	0.018	23	158	0.0	0.0	2.785	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1021	255	163		1587	0.643	1018	1061	1.1	1.9	6.783	A
B - Yarnton Way	163	41	941		1675	0.097	163	239	0.1	0.1	3.034	A
C - Harrow Manorway (S)	1136	284	255	93.59	1831	0.620	1134	849	1.0	1.7	5.414	A
D - Eynsham Drive	29	7	1195		1193	0.024	29	193	0.0	0.0	3.107	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1021	255	163		1587	0.643	1021	1064	1.9	1.9	6.855	A
B - Yarnton Way	163	41	944		1674	0.097	163	240	0.1	0.1	3.037	A
C - Harrow Manorway (S)	1136	284	255	93.59	1854	0.613	1136	851	1.7	1.7	5.286	A
D - Eynsham Drive	29	7	1198		1192	0.024	29	194	0.0	0.0	3.111	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	833	208	133		1606	0.519	836	871	1.9	1.2	5.062	A
B - Yarnton Way	133	33	773		1784	0.075	133	197	0.1	0.1	2.781	A
C - Harrow Manorway (S)	928	232	209	76.41	1888	0.491	930	697	1.7	1.0	3.971	A
D - Eynsham Drive	23	6	981		1320	0.018	23	159	0.0	0.0	2.793	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	698	174	112		1620	0.431	699	728	1.2	0.8	4.221	A
B - Yarnton Way	111	28	646		1865	0.060	112	164	0.1	0.1	2.619	A
C - Harrow Manorway (S)	777	194	175	63.99	1908	0.407	778	583	1.0	0.7	3.363	A
D - Eynsham Drive	20	5	820		1415	0.014	20	133	0.0	0.0	2.595	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	0.81	0.59	1.08	1.51	1.56			N/A	N/A
B - Yarnton Way	0.08	0.00	0.00	0.08	0.08			N/A	N/A
C - Harrow Manorway (S)	0.74	0.58	1.05	1.47	1.53			N/A	N/A
D - Eynsham Drive	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.15	0.07	0.92	2.10	2.95			N/A	N/A
B - Yarnton Way	0.10	0.03	0.32	0.58	0.62			N/A	N/A
C - Harrow Manorway (S)	1.04	0.07	0.85	1.90	2.58			N/A	N/A
D - Eynsham Drive	0.02	0.02	0.25	0.45	0.48			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.90	0.03	0.29	1.90	1.90			N/A	N/A
B - Yarnton Way	0.14	0.03	0.33	0.59	0.63			N/A	N/A
C - Harrow Manorway (S)	1.70	0.03	0.28	1.70	1.70			N/A	N/A
D - Eynsham Drive	0.02	0.00	0.00	0.02	0.02			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.92	0.03	0.29	1.92	1.92			N/A	N/A
B - Yarnton Way	0.14	0.00	0.00	0.14	0.14			N/A	N/A
C - Harrow Manorway (S)	1.68	0.03	0.28	1.68	1.68			N/A	N/A
D - Eynsham Drive	0.02	0.00	0.00	0.02	0.02			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.18	0.13	1.11	1.85	2.14			N/A	N/A
B - Yarnton Way	0.10	0.00	0.00	0.10	0.10			N/A	N/A
C - Harrow Manorway (S)	1.03	0.19	1.05	1.33	1.75			N/A	N/A
D - Eynsham Drive	0.02	0.00	0.00	0.02	0.02			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	0.82	0.06	0.71	1.30	1.85			N/A	N/A
B - Yarnton Way	0.08	0.00	0.00	0.08	0.08			N/A	N/A
C - Harrow Manorway (S)	0.73	0.07	0.74	1.11	1.11			N/A	N/A
D - Eynsham Drive	0.01	0.00	0.00	0.01	0.01			N/A	N/A

New Geometry - 2038 Local Plan Case - With LTC - Sensitivity Test, PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	HarrowManorway_YarntonWay	Standard Roundabout		A, B, C, D	10.87	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.87	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2038 Local Plan Case - With LTC - Sensitivity Test	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Harrow Manorway (N)		ONE HOUR	✓	1283	100.000
B - Yarnton Way		ONE HOUR	✓	246	100.000
C - Harrow Manorway (S)		ONE HOUR	✓	829	100.000
D - Eynsham Drive		ONE HOUR	✓	40	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - Harrow Manorway (N)		
B - Yarnton Way		
C - Harrow Manorway (S)	[ONEHOUR]	85.00
D - Eynsham Drive		

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
From	A - Harrow Manorway (N)	0	57	883	343
	B - Yarnton Way	105	0	82	59
	C - Harrow Manorway (S)	760	40	0	29
	D - Eynsham Drive	0	13	27	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Harrow Manorway (N)	B - Yarnton Way	C - Harrow Manorway (S)	D - Eynsham Drive
From	A - Harrow Manorway (N)	0	21	3	0
	B - Yarnton Way	14	0	13	3
	C - Harrow Manorway (S)	3	13	0	0
	D - Eynsham Drive	0	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Harrow Manorway (N)	0.86	16.28	6.1	31.8	C	1177	1766
B - Yarnton Way	0.19	3.55	0.3	0.5	A	226	339
C - Harrow Manorway (S)	0.55	5.05	1.3	1.5	A	761	1141
D - Eynsham Drive	0.03	2.88	0.0	0.5	A	37	55

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	966	241	60		1654	0.584	960	649	0.0	1.4	5.293	A
B - Yarnton Way	185	46	938		1677	0.110	185	82	0.0	0.1	2.673	A
C - Harrow Manorway (S)	624	156	380	63.99	1760	0.355	622	743	0.0	0.6	3.262	A
D - Eynsham Drive	30	8	679		1499	0.020	30	323	0.0	0.0	2.481	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1153	288	72		1646	0.701	1150	777	1.4	2.3	7.398	A
B - Yarnton Way	221	55	1123		1558	0.142	221	99	0.1	0.2	2.984	A
C - Harrow Manorway (S)	745	186	455	76.41	1710	0.436	744	889	0.6	0.8	3.849	A
D - Eynsham Drive	36	9	813		1420	0.025	36	386	0.0	0.0	2.633	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1413	353	88		1636	0.864	1399	950	2.3	5.8	14.809	B
B - Yarnton Way	271	68	1366		1401	0.193	271	120	0.2	0.3	3.529	A
C - Harrow Manorway (S)	913	228	554	93.59	1645	0.555	911	1083	0.8	1.3	5.053	A
D - Eynsham Drive	44	11	994		1312	0.034	44	471	0.0	0.0	2.874	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1413	353	88		1636	0.864	1411	952	5.8	6.1	16.277	C
B - Yarnton Way	271	68	1378		1393	0.194	271	121	0.3	0.3	3.554	A
C - Harrow Manorway (S)	913	228	558	93.59	1660	0.550	913	1091	1.3	1.3	4.977	A
D - Eynsham Drive	44	11	996		1311	0.034	44	474	0.0	0.0	2.876	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	1153	288	72		1646	0.701	1168	780	6.1	2.5	7.968	A
B - Yarnton Way	221	55	1140		1547	0.143	221	100	0.3	0.2	3.010	A
C - Harrow Manorway (S)	745	186	460	76.41	1729	0.431	747	902	1.3	0.8	3.799	A
D - Eynsham Drive	36	9	816		1418	0.025	36	392	0.0	0.0	2.637	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Harrow Manorway (N)	966	241	60		1654	0.584	970	652	2.5	1.5	5.444	A
B - Yarnton Way	185	46	947		1671	0.111	185	83	0.2	0.1	2.687	A
C - Harrow Manorway (S)	624	156	383	63.99	1779	0.351	625	750	0.8	0.6	3.226	A
D - Eynsham Drive	30	8	682		1497	0.020	30	326	0.0	0.0	2.485	A

Queue Variation Results for each time segment
16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.42	0.59	1.29	1.76	1.91			N/A	N/A
B - Yarnton Way	0.14	0.00	0.00	0.14	0.14			N/A	N/A
C - Harrow Manorway (S)	0.56	0.56	1.03	1.45	1.50			N/A	N/A
D - Eynsham Drive	0.02	0.00	0.00	0.02	0.02			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	2.34	0.05	0.51	6.38	10.26			N/A	N/A
B - Yarnton Way	0.18	0.00	0.00	0.18	0.18			N/A	N/A
C - Harrow Manorway (S)	0.79	0.09	0.84	1.28	1.28			N/A	N/A
D - Eynsham Drive	0.03	0.03	0.25	0.46	0.48			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	5.82	0.04	0.37	12.91	31.82			N/A	N/A
B - Yarnton Way	0.26	0.03	0.28	0.51	0.53			N/A	N/A
C - Harrow Manorway (S)	1.27	0.03	0.27	1.27	1.27			N/A	N/A
D - Eynsham Drive	0.04	0.00	0.00	0.04	0.04			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	6.13	0.03	0.31	6.13	25.49			N/A	N/A
B - Yarnton Way	0.27	0.03	0.29	0.52	0.55			N/A	N/A
C - Harrow Manorway (S)	1.27	0.03	0.27	1.27	1.29			N/A	N/A
D - Eynsham Drive	0.04	0.00	0.00	0.04	0.04			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	2.47	0.05	0.48	6.81	11.30			N/A	N/A
B - Yarnton Way	0.19	0.00	0.00	0.19	0.19			N/A	N/A
C - Harrow Manorway (S)	0.79	0.30	0.99	1.44	1.50			N/A	N/A
D - Eynsham Drive	0.03	0.00	0.00	0.03	0.03			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Harrow Manorway (N)	1.46	0.04	0.35	3.47	7.49			N/A	N/A
B - Yarnton Way	0.14	0.00	0.00	0.14	0.14			N/A	N/A
C - Harrow Manorway (S)	0.56	0.06	0.60	1.36	1.46			N/A	N/A
D - Eynsham Drive	0.02	0.00	0.00	0.02	0.02			N/A	N/A

Appendix D Picardy Manorway / Bronze Age Way Modelling Results

<h1>Junctions 10</h1>
<h2>ARCADY 10 - Roundabout Module</h2>
Version: 10.0.0.1499 © Copyright TRL Software Limited, 2021
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Filename: Picardy Manorway _ Bronze Age Way RBT.j10

Path: J:\50923 - GH - LB Bexley Local Plan\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10\2022 Modelling Update

Report generation date: 10/03/2022 12:17:33

-
- »Existing Layout - 2021 Baseline (unchanged), AM
 - »Existing Layout - 2021 Baseline (unchanged), PM
 - »Existing Layout - 2038 Reference Case - No LTC, AM
 - »Existing Layout - 2038 Reference Case - No LTC, PM
 - »Existing Layout - 2038 Reference Case - With LTC, AM
 - »Existing Layout - 2038 Reference Case - With LTC, PM
 - »Existing Layout - 2038 Local Plan Case - No LTC, AM
 - »Existing Layout - 2038 Local Plan Case - No LTC, PM
 - »Existing Layout - 2038 Local Plan Case - With LTC, AM
 - »Existing Layout - 2038 Local Plan Case - With LTC, PM
 - »Existing Layout - 2038 Local Plan Case - No LTC - Sensitivity Test, AM
 - »Existing Layout - 2038 Local Plan Case - No LTC - Sensitivity Test, PM
 - »Existing Layout - 2038 Local Plan Case - With LTC - Sensitivity Test, AM
 - »Existing Layout - 2038 Local Plan Case - With LTC - Sensitivity Test, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Existing Layout - 2021 Baseline (unchanged)						
1 - A2016 Picardy Manorway	0.9	2.79	0.45	1.6	3.57	0.61
2 - Anderson Way	0.2	2.06	0.13	0.3	2.71	0.24
3 - A2016 Bronze Age Way	1.4	3.48	0.56	0.9	3.03	0.46
4 - B253 Picardy Manorway	0.5	4.08	0.30	0.2	2.89	0.15
Existing Layout - 2038 Reference Case - No LTC						
1 - A2016 Picardy Manorway	1.0	2.89	0.46	1.2	3.05	0.53
2 - Anderson Way	0.1	2.35	0.08	0.2	2.48	0.18
3 - A2016 Bronze Age Way	1.4	3.33	0.55	1.2	3.00	0.52
4 - B253 Picardy Manorway	0.0	2.95	0.01	0.0	2.61	0.01
Existing Layout - 2038 Reference Case - With LTC						
1 - A2016 Picardy Manorway	1.0	2.91	0.47	1.2	3.07	0.54
2 - Anderson Way	0.1	2.38	0.07	0.2	2.49	0.18
3 - A2016 Bronze Age Way	1.5	3.45	0.57	1.2	3.02	0.52
4 - B253 Picardy Manorway	0.0	3.02	0.01	0.0	2.62	0.01
Existing Layout - 2038 Local Plan Case - No LTC						
1 - A2016 Picardy Manorway	1.3	3.37	0.54	1.5	3.42	0.58
2 - Anderson Way	0.2	2.48	0.12	0.3	2.71	0.24
3 - A2016 Bronze Age Way	2.1	4.20	0.65	1.8	3.83	0.62
4 - B253 Picardy Manorway	0.0	3.28	0.02	0.0	2.98	0.01
Existing Layout - 2038 Local Plan Case - With LTC						
1 - A2016 Picardy Manorway	1.4	3.46	0.55	1.5	3.49	0.58
2 - Anderson Way	0.2	2.52	0.12	0.3	2.77	0.25
3 - A2016 Bronze Age Way	2.2	4.41	0.67	1.8	3.86	0.63
4 - B253 Picardy Manorway	0.0	3.37	0.02	0.0	3.00	0.01
Existing Layout - 2038 Local Plan Case - No LTC - Sensitivity Test						
1 - A2016 Picardy Manorway	1.2	3.23	0.52	1.5	3.38	0.58
2 - Anderson Way	0.1	2.43	0.11	0.3	2.70	0.23
3 - A2016 Bronze Age Way	1.9	3.93	0.63	1.6	3.60	0.60
4 - B253 Picardy Manorway	0.0	3.19	0.02	0.0	2.88	0.01
Existing Layout - 2038 Local Plan Case - With LTC - Sensitivity Test						
1 - A2016 Picardy Manorway	1.2	3.29	0.52	1.5	3.43	0.58
2 - Anderson Way	0.1	2.45	0.11	0.3	2.74	0.24
3 - A2016 Bronze Age Way	2.0	4.14	0.64	1.7	3.66	0.61
4 - B253 Picardy Manorway	0.0	3.28	0.02	0.0	2.91	0.01

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

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

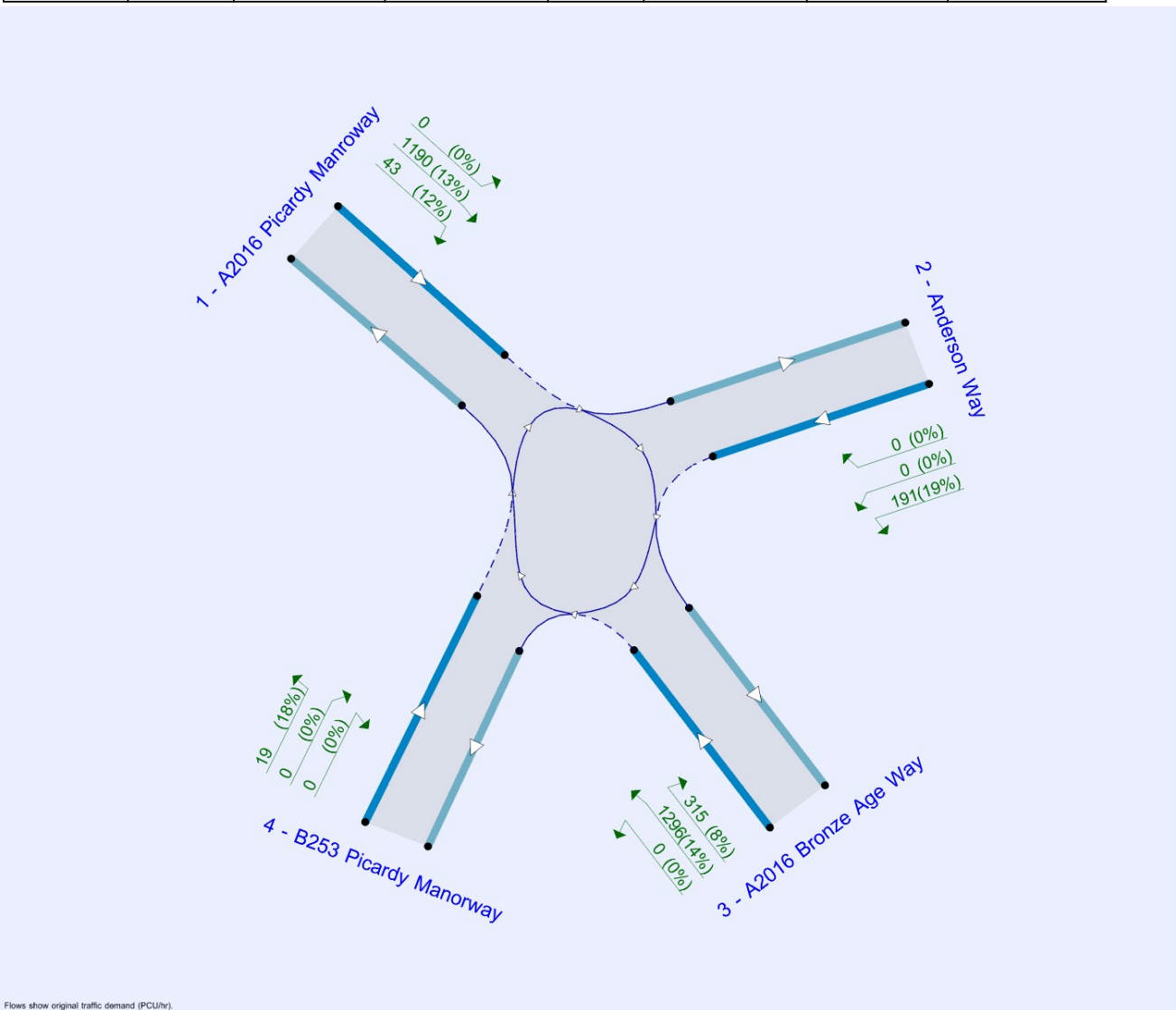
File summary

File Description

Title	
Location	
Site number	
Date	18/03/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SDGNT\dsabathier
Description	

Units

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



Analysis Options

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
D1	2021 Baseline (unchanged)	AM	ONE HOUR	07:45	09:15	15	✓
D2	2021 Baseline (unchanged)	PM	ONE HOUR	16:45	18:15	15	✓
D3	2038 Reference Case - No LTC	AM	ONE HOUR	07:45	09:15	15	✓
D4	2038 Reference Case - No LTC	PM	ONE HOUR	16:45	18:15	15	✓
D5	2038 Reference Case - With LTC	AM	ONE HOUR	07:45	09:15	15	✓
D6	2038 Reference Case - With LTC	PM	ONE HOUR	16:45	18:15	15	✓
D7	2038 Local Plan Case - No LTC	AM	ONE HOUR	07:45	09:15	15	✓
D8	2038 Local Plan Case - No LTC	PM	ONE HOUR	16:45	18:15	15	✓
D9	2038 Local Plan Case - With LTC	AM	ONE HOUR	07:45	09:15	15	✓
D10	2038 Local Plan Case - With LTC	PM	ONE HOUR	16:45	18:15	15	✓
D11	2038 Local Plan Case - No LTC - Sensitivity Test	AM	ONE HOUR	07:45	09:15	15	✓
D12	2038 Local Plan Case - No LTC - Sensitivity Test	PM	ONE HOUR	16:45	18:15	15	✓
D13	2038 Local Plan Case - With LTC - Sensitivity Test	AM	ONE HOUR	07:45	09:15	15	✓
D14	2038 Local Plan Case - With LTC - Sensitivity Test	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Existing Layout - 2021 Baseline (unchanged), 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.20	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.20	A

Arms

Arms

Arm	Name	Description	No give-way line
1	A2016 Picardy Manroway		
2	Anderson Way		
3	A2016 Bronze Age Way		
4	B253 Picardy Manorway		

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 - A2016 Picardy Manroway	7.70	10.50	4.9	35.0	62.0	11.5		
2 - Anderson Way	7.50	16.00	8.9	29.0	62.0	24.0		
3 - A2016 Bronze Age Way	7.50	10.50	6.7	35.0	62.0	20.5		
4 - B253 Picardy Manorway	4.50	10.30	30.0	28.6	62.0	20.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A2016 Picardy Manroway	0.764	2857
2 - Anderson Way	0.778	3012
3 - A2016 Bronze Age Way	0.745	2789
4 - B253 Picardy Manorway	0.706	2570

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021 Baseline (unchanged)	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2016 Picardy Manroway		ONE HOUR	✓	1063	100.000
2 - Anderson Way		ONE HOUR	✓	249	100.000
3 - A2016 Bronze Age Way		ONE HOUR	✓	1280	100.000
4 - B253 Picardy Manorway		ONE HOUR	✓	410	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A2016 Picardy Manroway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manorway
From	1 - A2016 Picardy Manroway	7	108	761	187
	2 - Anderson Way	100	0	116	33
	3 - A2016 Bronze Age Way	1055	171	26	28
	4 - B253 Picardy Manorway	292	75	41	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A2016 Picardy Manroway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manorway
From	1 - A2016 Picardy Manroway	0	0	9	24
	2 - Anderson Way	0	0	15	0
	3 - A2016 Bronze Age Way	8	6	0	0
	4 - B253 Picardy Manorway	31	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A2016 Picardy Manroway	0.45	2.79	0.9	2.0	A	975	1463
2 - Anderson Way	0.13	2.06	0.2	0.5	A	228	343
3 - A2016 Bronze Age Way	0.56	3.48	1.4	1.8	A	1175	1762
4 - B253 Picardy Manorway	0.30	4.08	0.5	1.8	A	376	564

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	800	200	236	2676	0.299	798	1092	0.0	0.5	2.112	A
2 - Anderson Way	187	47	769	2414	0.078	187	266	0.0	0.1	1.720	A
3 - A2016 Bronze Age Way	964	241	247	2605	0.370	961	709	0.0	0.6	2.349	A
4 - B253 Picardy Manorway	309	77	1021	1849	0.167	308	188	0.0	0.2	2.807	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	956	239	283	2641	0.362	955	1306	0.5	0.6	2.355	A
2 - Anderson Way	224	56	920	2296	0.097	224	318	0.1	0.1	1.848	A
3 - A2016 Bronze Age Way	1151	288	296	2569	0.448	1150	848	0.6	0.9	2.723	A
4 - B253 Picardy Manorway	369	92	1221	1708	0.216	368	225	0.2	0.3	3.232	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1170	293	346	2593	0.451	1169	1599	0.6	0.9	2.786	A
2 - Anderson Way	274	69	1126	2136	0.128	274	389	0.1	0.2	2.058	A
3 - A2016 Bronze Age Way	1409	352	362	2519	0.559	1407	1038	0.9	1.4	3.470	A
4 - B253 Picardy Manorway	451	113	1494	1515	0.298	451	275	0.3	0.5	4.067	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1170	293	347	2592	0.452	1170	1601	0.9	0.9	2.791	A
2 - Anderson Way	274	69	1127	2135	0.128	274	390	0.2	0.2	2.059	A
3 - A2016 Bronze Age Way	1409	352	362	2519	0.559	1409	1039	1.4	1.4	3.482	A
4 - B253 Picardy Manorway	451	113	1496	1513	0.298	451	275	0.5	0.5	4.077	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	956	239	284	2640	0.362	957	1309	0.9	0.6	2.360	A
2 - Anderson Way	224	56	922	2295	0.098	224	319	0.2	0.1	1.852	A
3 - A2016 Bronze Age Way	1151	288	296	2568	0.448	1153	850	1.4	0.9	2.735	A
4 - B253 Picardy Manorway	369	92	1224	1706	0.216	369	225	0.5	0.3	3.240	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	800	200	237	2676	0.299	801	1096	0.6	0.5	2.119	A
2 - Anderson Way	187	47	772	2412	0.078	188	267	0.1	0.1	1.722	A
3 - A2016 Bronze Age Way	964	241	248	2604	0.370	965	711	0.9	0.6	2.358	A
4 - B253 Picardy Manorway	309	77	1024	1847	0.167	309	188	0.3	0.2	2.817	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.47	0.00	0.00	0.47	0.47			N/A	N/A
2 - Anderson Way	0.09	0.00	0.00	0.09	0.09			N/A	N/A
3 - A2016 Bronze Age Way	0.63	0.59	1.07	1.50	1.56			N/A	N/A
4 - B253 Picardy Manorway	0.24	0.00	0.00	0.24	0.24			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.62	0.08	0.80	1.48	1.57			N/A	N/A
2 - Anderson Way	0.11	0.00	0.00	0.11	0.11			N/A	N/A
3 - A2016 Bronze Age Way	0.87	0.07	0.82	1.28	1.81			N/A	N/A
4 - B253 Picardy Manorway	0.33	0.00	0.00	0.33	0.33			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.90	0.03	0.28	0.90	0.90			N/A	N/A
2 - Anderson Way	0.16	0.03	0.27	0.49	0.52			N/A	N/A
3 - A2016 Bronze Age Way	1.35	0.03	0.28	1.35	1.35			N/A	N/A
4 - B253 Picardy Manorway	0.51	0.03	0.30	0.55	0.58			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.91	0.03	0.30	0.91	2.03			N/A	N/A
2 - Anderson Way	0.16	0.00	0.00	0.16	0.16			N/A	N/A
3 - A2016 Bronze Age Way	1.36	0.03	0.28	1.36	1.36			N/A	N/A
4 - B253 Picardy Manorway	0.51	0.04	0.40	1.62	1.83			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.63	0.61	1.10	1.54	1.60			N/A	N/A
2 - Anderson Way	0.12	0.00	0.00	0.12	0.12			N/A	N/A
3 - A2016 Bronze Age Way	0.88	0.58	1.07	1.50	1.56			N/A	N/A
4 - B253 Picardy Manorway	0.33	0.00	0.00	0.33	0.33			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.47	0.00	0.00	0.47	0.47			N/A	N/A
2 - Anderson Way	0.09	0.00	0.00	0.09	0.09			N/A	N/A
3 - A2016 Bronze Age Way	0.63	0.10	0.87	1.46	1.54			N/A	N/A
4 - B253 Picardy Manorway	0.24	0.00	0.00	0.24	0.24			N/A	N/A

Existing Layout - 2021 Baseline (unchanged), PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.23	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.23	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)	Run automatically
D2	2021 Baseline (unchanged)	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2016 Picardy Manroway		ONE HOUR	✓	1479	100.000
2 - Anderson Way		ONE HOUR	✓	394	100.000
3 - A2016 Bronze Age Way		ONE HOUR	✓	976	100.000
4 - B253 Picardy Manorway		ONE HOUR	✓	248	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A2016 Picardy Manroway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manorway
From	1 - A2016 Picardy Manroway	10	102	1018	349
	2 - Anderson Way	108	0	175	111
	3 - A2016 Bronze Age Way	756	103	40	77
	4 - B253 Picardy Manorway	191	34	23	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A2016 Picardy Manroway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manroway
From	1 - A2016 Picardy Manroway	0	0	5	7
	2 - Anderson Way	0	0	3	0
	3 - A2016 Bronze Age Way	5	6	0	0
	4 - B253 Picardy Manroway	29	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A2016 Picardy Manroway	0.61	3.57	1.6	2.7	A	1357	2036
2 - Anderson Way	0.24	2.71	0.3	1.3	A	362	542
3 - A2016 Bronze Age Way	0.46	3.03	0.9	1.9	A	896	1343
4 - B253 Picardy Manroway	0.15	2.89	0.2	0.6	A	228	341

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1113	278	150	2742	0.406	1111	800	0.0	0.7	2.314	A
2 - Anderson Way	297	74	1081	2171	0.137	296	179	0.0	0.2	1.945	A
3 - A2016 Bronze Age Way	735	184	434	2466	0.298	733	943	0.0	0.4	2.169	A
4 - B253 Picardy Manroway	187	47	764	2031	0.092	186	403	0.0	0.1	2.360	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1330	332	180	2720	0.489	1328	957	0.7	1.0	2.715	A
2 - Anderson Way	354	89	1293	2006	0.177	354	215	0.2	0.2	2.207	A
3 - A2016 Bronze Age Way	877	219	519	2402	0.365	877	1128	0.4	0.6	2.464	A
4 - B253 Picardy Manroway	223	56	914	1925	0.116	223	482	0.1	0.2	2.557	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1628	407	220	2689	0.606	1626	1171	1.0	1.6	3.551	A
2 - Anderson Way	434	108	1583	1780	0.244	433	263	0.2	0.3	2.707	A
3 - A2016 Bronze Age Way	1075	269	636	2316	0.464	1073	1381	0.6	0.9	3.025	A
4 - B253 Picardy Manroway	273	68	1118	1780	0.153	273	590	0.2	0.2	2.888	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1628	407	220	2689	0.606	1628	1173	1.6	1.6	3.565	A
2 - Anderson Way	434	108	1585	1779	0.244	434	263	0.3	0.3	2.711	A
3 - A2016 Bronze Age Way	1075	269	636	2315	0.464	1075	1383	0.9	0.9	3.031	A
4 - B253 Picardy Manorway	273	68	1120	1779	0.153	273	591	0.2	0.2	2.890	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1330	332	180	2720	0.489	1332	959	1.6	1.0	2.731	A
2 - Anderson Way	354	89	1297	2003	0.177	355	215	0.3	0.2	2.214	A
3 - A2016 Bronze Age Way	877	219	520	2401	0.365	879	1131	0.9	0.6	2.473	A
4 - B253 Picardy Manorway	223	56	915	1923	0.116	223	484	0.2	0.2	2.560	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1113	278	151	2742	0.406	1115	802	1.0	0.7	2.325	A
2 - Anderson Way	297	74	1085	2168	0.137	297	180	0.2	0.2	1.950	A
3 - A2016 Bronze Age Way	735	184	436	2464	0.298	735	947	0.6	0.4	2.177	A
4 - B253 Picardy Manorway	187	47	766	2029	0.092	187	405	0.2	0.1	2.365	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.72	0.58	1.05	1.47	1.52			N/A	N/A
2 - Anderson Way	0.16	0.00	0.00	0.16	0.16			N/A	N/A
3 - A2016 Bronze Age Way	0.44	0.00	0.00	0.44	0.44			N/A	N/A
4 - B253 Picardy Manorway	0.12	0.00	0.00	0.12	0.12			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	1.00	0.06	0.73	1.93	2.73			N/A	N/A
2 - Anderson Way	0.22	0.00	0.00	0.22	0.22			N/A	N/A
3 - A2016 Bronze Age Way	0.60	0.07	0.76	1.41	1.49			N/A	N/A
4 - B253 Picardy Manorway	0.16	0.00	0.00	0.16	0.16			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	1.60	0.03	0.27	1.60	1.60			N/A	N/A
2 - Anderson Way	0.33	0.03	0.26	0.46	0.49			N/A	N/A
3 - A2016 Bronze Age Way	0.90	0.03	0.26	0.90	0.90			N/A	N/A
4 - B253 Picardy Manorway	0.22	0.03	0.31	0.55	0.58			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	1.61	0.03	0.27	1.61	1.61			N/A	N/A
2 - Anderson Way	0.33	0.03	0.32	1.02	1.28			N/A	N/A
3 - A2016 Bronze Age Way	0.90	0.03	0.28	0.90	1.88			N/A	N/A
4 - B253 Picardy Manorway	0.22	0.03	0.30	0.54	0.57			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	1.01	0.56	1.06	1.50	1.56			N/A	N/A
2 - Anderson Way	0.22	0.00	0.00	0.22	0.22			N/A	N/A
3 - A2016 Bronze Age Way	0.60	0.57	1.04	1.46	1.51			N/A	N/A
4 - B253 Picardy Manorway	0.16	0.00	0.00	0.16	0.16			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.72	0.11	0.88	1.44	1.51			N/A	N/A
2 - Anderson Way	0.16	0.00	0.00	0.16	0.16			N/A	N/A
3 - A2016 Bronze Age Way	0.45	0.00	0.00	0.45	0.45			N/A	N/A
4 - B253 Picardy Manorway	0.12	0.00	0.00	0.12	0.12			N/A	N/A

Existing Layout - 2038 Reference Case - No LTC, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.09	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.09	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)	Run automatically
D3	2038 Reference Case - No LTC	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2016 Picardy Manroway		ONE HOUR	✓	1106	100.000
2 - Anderson Way		ONE HOUR	✓	152	100.000
3 - A2016 Bronze Age Way		ONE HOUR	✓	1383	100.000
4 - B253 Picardy Manorway		ONE HOUR	✓	17	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A2016 Picardy Manroway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manorway
From	1 - A2016 Picardy Manroway	0	0	1066	40
	2 - Anderson Way	0	0	152	0
	3 - A2016 Bronze Age Way	1136	247	0	0
	4 - B253 Picardy Manorway	17	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A2016 Picardy Manorway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manorway
From	1 - A2016 Picardy Manorway	0	0	15	13
	2 - Anderson Way	0	0	24	0
	3 - A2016 Bronze Age Way	15	10	0	0
	4 - B253 Picardy Manorway	21	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A2016 Picardy Manorway	0.46	2.89	1.0	1.9	A	1015	1522
2 - Anderson Way	0.08	2.35	0.1	0.6	A	139	209
3 - A2016 Bronze Age Way	0.55	3.33	1.4	1.9	A	1269	1904
4 - B253 Picardy Manorway	0.01	2.95	0.0	0.6	A	16	23

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manorway	833	208	185	2715	0.307	831	866	0.0	0.5	2.193	A
2 - Anderson Way	114	29	831	2366	0.048	114	185	0.0	0.1	1.982	A
3 - A2016 Bronze Age Way	1041	260	30	2766	0.376	1038	915	0.0	0.7	2.372	A
4 - B253 Picardy Manorway	13	3	1038	1837	0.007	13	30	0.0	0.0	2.387	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manorway	994	249	222	2688	0.370	994	1036	0.5	0.7	2.440	A
2 - Anderson Way	137	34	994	2239	0.061	137	222	0.1	0.1	2.122	A
3 - A2016 Bronze Age Way	1243	311	36	2762	0.450	1242	1094	0.7	0.9	2.701	A
4 - B253 Picardy Manorway	15	4	1242	1693	0.009	15	36	0.0	0.0	2.596	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manorway	1218	304	272	2650	0.460	1217	1268	0.7	1.0	2.884	A
2 - Anderson Way	167	42	1217	2066	0.081	167	272	0.1	0.1	2.351	A
3 - A2016 Bronze Age Way	1523	381	44	2756	0.553	1521	1340	0.9	1.4	3.321	A
4 - B253 Picardy Manorway	19	5	1521	1496	0.013	19	44	0.0	0.0	2.948	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1218	304	272	2649	0.460	1218	1269	1.0	1.0	2.889	A
2 - Anderson Way	167	42	1218	2065	0.081	167	272	0.1	0.1	2.352	A
3 - A2016 Bronze Age Way	1523	381	44	2756	0.553	1523	1341	1.4	1.4	3.328	A
4 - B253 Picardy Manorway	19	5	1523	1495	0.013	19	44	0.0	0.0	2.950	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	994	249	222	2687	0.370	995	1038	1.0	0.7	2.446	A
2 - Anderson Way	137	34	995	2238	0.061	137	222	0.1	0.1	2.126	A
3 - A2016 Bronze Age Way	1243	311	36	2762	0.450	1245	1096	1.4	0.9	2.710	A
4 - B253 Picardy Manorway	15	4	1245	1691	0.009	15	36	0.0	0.0	2.599	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	833	208	186	2715	0.307	833	869	0.7	0.5	2.199	A
2 - Anderson Way	114	29	833	2364	0.048	115	186	0.1	0.1	1.985	A
3 - A2016 Bronze Age Way	1041	260	30	2766	0.376	1042	918	0.9	0.7	2.382	A
4 - B253 Picardy Manorway	13	3	1042	1834	0.007	13	30	0.0	0.0	2.393	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.51	0.00	0.00	0.51	0.51			N/A	N/A
2 - Anderson Way	0.06	0.00	0.00	0.06	0.06			N/A	N/A
3 - A2016 Bronze Age Way	0.69	0.63	1.14	1.60	1.65			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.67	0.09	0.87	1.55	1.64			N/A	N/A
2 - Anderson Way	0.08	0.03	0.31	0.56	0.59			N/A	N/A
3 - A2016 Bronze Age Way	0.93	0.08	0.89	1.35	1.91			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.01	0.30	0.55	0.58			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.97	0.03	0.29	0.97	0.97			N/A	N/A
2 - Anderson Way	0.11	0.03	0.32	0.58	0.61			N/A	N/A
3 - A2016 Bronze Age Way	1.40	0.03	0.29	1.40	1.40			N/A	N/A
4 - B253 Picardy Manorway	0.02	0.02	0.31	0.55	0.58			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.97	0.03	0.31	0.97	1.87			N/A	N/A
2 - Anderson Way	0.11	0.00	0.00	0.11	0.11			N/A	N/A
3 - A2016 Bronze Age Way	1.40	0.03	0.30	1.40	1.40			N/A	N/A
4 - B253 Picardy Manorway	0.02	0.00	0.00	0.02	0.02			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.68	0.63	1.15	1.61	1.67			N/A	N/A
2 - Anderson Way	0.08	0.00	0.00	0.08	0.08			N/A	N/A
3 - A2016 Bronze Age Way	0.94	0.63	1.14	1.60	1.65			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.51	0.00	0.00	0.51	0.51			N/A	N/A
2 - Anderson Way	0.06	0.00	0.00	0.06	0.06			N/A	N/A
3 - A2016 Bronze Age Way	0.69	0.13	0.98	1.57	1.64			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

Existing Layout - 2038 Reference Case - No LTC, PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	2.96	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.96	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)	Run automatically
D4	2038 Reference Case - No LTC	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2016 Picardy Manroway		ONE HOUR	✓	1326	100.000
2 - Anderson Way		ONE HOUR	✓	306	100.000
3 - A2016 Bronze Age Way		ONE HOUR	✓	1276	100.000
4 - B253 Picardy Manorway		ONE HOUR	✓	16	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A2016 Picardy Manroway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manorway
From	1 - A2016 Picardy Manroway	0	0	1238	88
	2 - Anderson Way	0	0	306	0
	3 - A2016 Bronze Age Way	1139	137	0	0
	4 - B253 Picardy Manorway	16	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A2016 Picardy Manroway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manroway
From	1 - A2016 Picardy Manroway	0	0	9	4
	2 - Anderson Way	0	0	6	0
	3 - A2016 Bronze Age Way	9	11	0	0
	4 - B253 Picardy Manroway	13	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A2016 Picardy Manroway	0.53	3.05	1.2	1.6	A	1217	1825
2 - Anderson Way	0.18	2.48	0.2	0.5	A	281	421
3 - A2016 Bronze Age Way	0.52	3.00	1.2	1.6	A	1171	1756
4 - B253 Picardy Manroway	0.01	2.61	0.0	0.6	A	15	22

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	998	250	103	2779	0.359	996	867	0.0	0.6	2.191	A
2 - Anderson Way	230	58	996	2237	0.103	230	103	0.0	0.1	1.900	A
3 - A2016 Bronze Age Way	961	240	66	2740	0.351	958	1160	0.0	0.6	2.204	A
4 - B253 Picardy Manroway	12	3	958	1893	0.006	12	66	0.0	0.0	2.162	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1192	298	123	2763	0.431	1191	1038	0.6	0.8	2.487	A
2 - Anderson Way	275	69	1191	2085	0.132	275	123	0.1	0.2	2.107	A
3 - A2016 Bronze Age Way	1147	287	79	2730	0.420	1146	1387	0.6	0.8	2.481	A
4 - B253 Picardy Manroway	14	4	1146	1760	0.008	14	79	0.0	0.0	2.329	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1460	365	151	2742	0.532	1458	1270	0.8	1.2	3.042	A
2 - Anderson Way	337	84	1458	1877	0.179	337	151	0.2	0.2	2.476	A
3 - A2016 Bronze Age Way	1405	351	97	2717	0.517	1403	1698	0.8	1.2	2.991	A
4 - B253 Picardy Manroway	18	4	1403	1579	0.011	18	97	0.0	0.0	2.605	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1460	365	151	2742	0.532	1460	1272	1.2	1.2	3.050	A
2 - Anderson Way	337	84	1460	1876	0.180	337	151	0.2	0.2	2.478	A
3 - A2016 Bronze Age Way	1405	351	97	2717	0.517	1405	1700	1.2	1.2	2.996	A
4 - B253 Picardy Manorway	18	4	1405	1578	0.011	18	97	0.0	0.0	2.606	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1192	298	123	2763	0.431	1194	1040	1.2	0.8	2.496	A
2 - Anderson Way	275	69	1194	2083	0.132	275	123	0.2	0.2	2.110	A
3 - A2016 Bronze Age Way	1147	287	79	2730	0.420	1149	1390	1.2	0.8	2.488	A
4 - B253 Picardy Manorway	14	4	1149	1759	0.008	14	79	0.0	0.0	2.331	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	998	250	103	2778	0.359	999	870	0.8	0.6	2.199	A
2 - Anderson Way	230	58	999	2235	0.103	231	103	0.2	0.1	1.903	A
3 - A2016 Bronze Age Way	961	240	66	2739	0.351	961	1163	0.8	0.6	2.213	A
4 - B253 Picardy Manorway	12	3	961	1891	0.006	12	66	0.0	0.0	2.166	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.61	0.60	1.09	1.52	1.58			N/A	N/A
2 - Anderson Way	0.12	0.00	0.00	0.12	0.12			N/A	N/A
3 - A2016 Bronze Age Way	0.59	0.59	1.09	1.53	1.58			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.82	0.08	0.84	1.47	1.47			N/A	N/A
2 - Anderson Way	0.16	0.00	0.00	0.16	0.16			N/A	N/A
3 - A2016 Bronze Age Way	0.79	0.08	0.85	1.54	1.63			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.01	0.28	0.51	0.54			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	1.23	0.03	0.28	1.23	1.23			N/A	N/A
2 - Anderson Way	0.23	0.03	0.27	0.48	0.51			N/A	N/A
3 - A2016 Bronze Age Way	1.16	0.03	0.28	1.16	1.16			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.01	0.29	0.52	0.55			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	1.23	0.03	0.29	1.23	1.23			N/A	N/A
2 - Anderson Way	0.23	0.03	0.27	0.48	0.50			N/A	N/A
3 - A2016 Bronze Age Way	1.17	0.03	0.29	1.17	1.17			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.83	0.60	1.09	1.52	1.58			N/A	N/A
2 - Anderson Way	0.16	0.00	0.00	0.16	0.16			N/A	N/A
3 - A2016 Bronze Age Way	0.80	0.60	1.09	1.53	1.58			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.61	0.60	1.09	1.52	1.58			N/A	N/A
2 - Anderson Way	0.12	0.00	0.00	0.12	0.12			N/A	N/A
3 - A2016 Bronze Age Way	0.59	0.59	1.09	1.53	1.58			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

Existing Layout - 2038 Reference Case - With LTC, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.17	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.17	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)	Run automatically
D5	2038 Reference Case - With LTC	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2016 Picardy Manroway		ONE HOUR	✓	1116	100.000
2 - Anderson Way		ONE HOUR	✓	139	100.000
3 - A2016 Bronze Age Way		ONE HOUR	✓	1424	100.000
4 - B253 Picardy Manorway		ONE HOUR	✓	17	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A2016 Picardy Manroway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manorway
From	1 - A2016 Picardy Manroway	0	0	1076	40
	2 - Anderson Way	0	0	139	0
	3 - A2016 Bronze Age Way	1165	259	0	0
	4 - B253 Picardy Manorway	17	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A2016 Picardy Manorway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manorway
From	1 - A2016 Picardy Manorway	0	0	14	13
	2 - Anderson Way	0	0	26	0
	3 - A2016 Bronze Age Way	15	10	0	0
	4 - B253 Picardy Manorway	21	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A2016 Picardy Manorway	0.47	2.91	1.0	1.7	A	1024	1536
2 - Anderson Way	0.07	2.38	0.1	0.6	A	128	191
3 - A2016 Bronze Age Way	0.57	3.45	1.5	2.1	A	1307	1960
4 - B253 Picardy Manorway	0.01	3.02	0.0	0.6	A	16	23

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manorway	840	210	194	2709	0.310	838	887	0.0	0.5	2.192	A
2 - Anderson Way	105	26	838	2360	0.044	104	194	0.0	0.1	2.010	A
3 - A2016 Bronze Age Way	1072	268	30	2766	0.388	1069	913	0.0	0.7	2.415	A
4 - B253 Picardy Manorway	13	3	1069	1815	0.007	13	30	0.0	0.0	2.416	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manorway	1003	251	233	2679	0.374	1003	1062	0.5	0.7	2.445	A
2 - Anderson Way	125	31	1003	2232	0.056	125	233	0.1	0.1	2.152	A
3 - A2016 Bronze Age Way	1280	320	36	2762	0.463	1279	1092	0.7	1.0	2.768	A
4 - B253 Picardy Manorway	15	4	1279	1667	0.009	15	36	0.0	0.0	2.637	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manorway	1229	307	285	2640	0.466	1228	1300	0.7	1.0	2.902	A
2 - Anderson Way	153	38	1228	2057	0.074	153	285	0.1	0.1	2.381	A
3 - A2016 Bronze Age Way	1568	392	44	2756	0.569	1566	1336	1.0	1.5	3.444	A
4 - B253 Picardy Manorway	19	5	1566	1464	0.013	19	44	0.0	0.0	3.013	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1229	307	285	2639	0.466	1229	1301	1.0	1.0	2.907	A
2 - Anderson Way	153	38	1229	2056	0.074	153	285	0.1	0.1	2.383	A
3 - A2016 Bronze Age Way	1568	392	44	2756	0.569	1568	1338	1.5	1.5	3.454	A
4 - B253 Picardy Manorway	19	5	1568	1463	0.013	19	44	0.0	0.0	3.016	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1003	251	233	2679	0.374	1004	1064	1.0	0.7	2.453	A
2 - Anderson Way	125	31	1004	2231	0.056	125	233	0.1	0.1	2.155	A
3 - A2016 Bronze Age Way	1280	320	36	2762	0.463	1282	1094	1.5	1.0	2.780	A
4 - B253 Picardy Manorway	15	4	1282	1664	0.009	15	36	0.0	0.0	2.642	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	840	210	195	2708	0.310	841	891	0.7	0.5	2.197	A
2 - Anderson Way	105	26	841	2358	0.044	105	195	0.1	0.1	2.014	A
3 - A2016 Bronze Age Way	1072	268	30	2766	0.388	1073	915	1.0	0.7	2.427	A
4 - B253 Picardy Manorway	13	3	1073	1812	0.007	13	30	0.0	0.0	2.420	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.51	0.00	0.00	0.51	0.51			N/A	N/A
2 - Anderson Way	0.06	0.00	0.00	0.06	0.06			N/A	N/A
3 - A2016 Bronze Age Way	0.72	0.63	1.14	1.60	1.65			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.68	0.09	0.87	1.54	1.63			N/A	N/A
2 - Anderson Way	0.07	0.03	0.32	0.57	0.60			N/A	N/A
3 - A2016 Bronze Age Way	0.98	0.08	0.88	1.65	2.12			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.01	0.30	0.55	0.58			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.99	0.03	0.29	0.99	0.99			N/A	N/A
2 - Anderson Way	0.10	0.03	0.33	0.59	0.62			N/A	N/A
3 - A2016 Bronze Age Way	1.49	0.03	0.29	1.49	1.49			N/A	N/A
4 - B253 Picardy Manorway	0.02	0.02	0.31	0.55	0.58			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.99	0.03	0.31	0.99	1.70			N/A	N/A
2 - Anderson Way	0.10	0.00	0.00	0.10	0.10			N/A	N/A
3 - A2016 Bronze Age Way	1.50	0.03	0.30	1.50	1.50			N/A	N/A
4 - B253 Picardy Manorway	0.02	0.00	0.00	0.02	0.02			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.69	0.63	1.14	1.60	1.65			N/A	N/A
2 - Anderson Way	0.07	0.00	0.00	0.07	0.07			N/A	N/A
3 - A2016 Bronze Age Way	0.99	0.62	1.14	1.60	1.66			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.51	0.00	0.00	0.51	0.51			N/A	N/A
2 - Anderson Way	0.06	0.00	0.00	0.06	0.06			N/A	N/A
3 - A2016 Bronze Age Way	0.72	0.13	0.98	1.57	1.64			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

Existing Layout - 2038 Reference Case - With LTC, PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	2.98	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.98	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)	Run automatically
D6	2038 Reference Case - With LTC	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2016 Picardy Manroway		ONE HOUR	✓	1332	100.000
2 - Anderson Way		ONE HOUR	✓	308	100.000
3 - A2016 Bronze Age Way		ONE HOUR	✓	1286	100.000
4 - B253 Picardy Manorway		ONE HOUR	✓	16	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A2016 Picardy Manroway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manorway
From	1 - A2016 Picardy Manroway	0	0	1244	88
	2 - Anderson Way	0	0	308	0
	3 - A2016 Bronze Age Way	1148	138	0	0
	4 - B253 Picardy Manorway	16	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A2016 Picardy Manroway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manroway
From	1 - A2016 Picardy Manroway	0	0	9	4
	2 - Anderson Way	0	0	6	0
	3 - A2016 Bronze Age Way	9	11	0	0
	4 - B253 Picardy Manroway	13	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A2016 Picardy Manroway	0.54	3.07	1.2	1.6	A	1222	1833
2 - Anderson Way	0.18	2.49	0.2	0.5	A	283	424
3 - A2016 Bronze Age Way	0.52	3.02	1.2	1.6	A	1180	1770
4 - B253 Picardy Manroway	0.01	2.62	0.0	0.6	A	15	22

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1003	251	104	2778	0.361	1000	874	0.0	0.6	2.197	A
2 - Anderson Way	232	58	1000	2234	0.104	231	104	0.0	0.1	1.905	A
3 - A2016 Bronze Age Way	968	242	66	2740	0.353	966	1166	0.0	0.6	2.213	A
4 - B253 Picardy Manroway	12	3	966	1888	0.006	12	66	0.0	0.0	2.168	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1197	299	124	2762	0.433	1197	1046	0.6	0.8	2.496	A
2 - Anderson Way	277	69	1197	2081	0.133	277	124	0.1	0.2	2.114	A
3 - A2016 Bronze Age Way	1156	289	79	2730	0.423	1155	1394	0.6	0.8	2.495	A
4 - B253 Picardy Manroway	14	4	1155	1754	0.008	14	79	0.0	0.0	2.337	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1467	367	152	2741	0.535	1465	1280	0.8	1.2	3.060	A
2 - Anderson Way	339	85	1465	1872	0.181	339	152	0.2	0.2	2.488	A
3 - A2016 Bronze Age Way	1416	354	97	2717	0.521	1414	1707	0.8	1.2	3.014	A
4 - B253 Picardy Manroway	18	4	1414	1571	0.011	18	97	0.0	0.0	2.618	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1467	367	152	2741	0.535	1467	1282	1.2	1.2	3.068	A
2 - Anderson Way	339	85	1467	1871	0.181	339	152	0.2	0.2	2.490	A
3 - A2016 Bronze Age Way	1416	354	97	2717	0.521	1416	1709	1.2	1.2	3.021	A
4 - B253 Picardy Manorway	18	4	1416	1570	0.011	18	97	0.0	0.0	2.620	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1197	299	124	2762	0.433	1199	1048	1.2	0.8	2.506	A
2 - Anderson Way	277	69	1199	2079	0.133	277	124	0.2	0.2	2.117	A
3 - A2016 Bronze Age Way	1156	289	79	2730	0.424	1158	1397	1.2	0.8	2.502	A
4 - B253 Picardy Manorway	14	4	1158	1752	0.008	14	79	0.0	0.0	2.341	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1003	251	104	2778	0.361	1004	877	0.8	0.6	2.207	A
2 - Anderson Way	232	58	1004	2231	0.104	232	104	0.2	0.1	1.907	A
3 - A2016 Bronze Age Way	968	242	66	2739	0.353	969	1169	0.8	0.6	2.221	A
4 - B253 Picardy Manorway	12	3	969	1886	0.006	12	66	0.0	0.0	2.170	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.61	0.60	1.09	1.52	1.58			N/A	N/A
2 - Anderson Way	0.12	0.00	0.00	0.12	0.12			N/A	N/A
3 - A2016 Bronze Age Way	0.59	0.59	1.09	1.53	1.58			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.83	0.08	0.84	1.53	1.53			N/A	N/A
2 - Anderson Way	0.16	0.00	0.00	0.16	0.16			N/A	N/A
3 - A2016 Bronze Age Way	0.80	0.08	0.85	1.12	1.12			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.01	0.28	0.51	0.54			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	1.24	0.03	0.28	1.24	1.24			N/A	N/A
2 - Anderson Way	0.23	0.03	0.27	0.48	0.51			N/A	N/A
3 - A2016 Bronze Age Way	1.18	0.03	0.28	1.18	1.18			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.01	0.29	0.52	0.55			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	1.25	0.03	0.29	1.25	1.25			N/A	N/A
2 - Anderson Way	0.23	0.03	0.27	0.48	0.50			N/A	N/A
3 - A2016 Bronze Age Way	1.18	0.03	0.29	1.18	1.18			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.84	0.60	1.09	1.52	1.58			N/A	N/A
2 - Anderson Way	0.16	0.00	0.00	0.16	0.16			N/A	N/A
3 - A2016 Bronze Age Way	0.81	0.60	1.09	1.53	1.58			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.62	0.60	1.09	1.52	1.58			N/A	N/A
2 - Anderson Way	0.12	0.00	0.00	0.12	0.12			N/A	N/A
3 - A2016 Bronze Age Way	0.60	0.60	1.09	1.53	1.58			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

Existing Layout - 2038 Local Plan Case - No LTC, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.74	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.74	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)	Run automatically
D7	2038 Local Plan Case - No LTC	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2016 Picardy Manroway		ONE HOUR	✓	1263	100.000
2 - Anderson Way		ONE HOUR	✓	210	100.000
3 - A2016 Bronze Age Way		ONE HOUR	✓	1627	100.000
4 - B253 Picardy Manorway		ONE HOUR	✓	20	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A2016 Picardy Manroway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manorway
From	1 - A2016 Picardy Manroway	0	0	1218	45
	2 - Anderson Way	0	0	210	0
	3 - A2016 Bronze Age Way	1317	310	0	0
	4 - B253 Picardy Manorway	20	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A2016 Picardy Manorway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manorway
From	1 - A2016 Picardy Manorway	0	0	13	13
	2 - Anderson Way	0	0	17	0
	3 - A2016 Bronze Age Way	13	8	0	0
	4 - B253 Picardy Manorway	17	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A2016 Picardy Manorway	0.54	3.37	1.3	1.6	A	1159	1738
2 - Anderson Way	0.12	2.48	0.2	0.6	A	193	289
3 - A2016 Bronze Age Way	0.65	4.20	2.1	4.1	A	1493	2239
4 - B253 Picardy Manorway	0.02	3.28	0.0	0.6	A	18	28

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manorway	951	238	233	2679	0.355	948	1004	0.0	0.6	2.347	A
2 - Anderson Way	158	40	948	2274	0.070	158	233	0.0	0.1	1.990	A
3 - A2016 Bronze Age Way	1225	306	34	2764	0.443	1221	1072	0.0	0.9	2.609	A
4 - B253 Picardy Manorway	15	4	1221	1707	0.009	15	34	0.0	0.0	2.488	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manorway	1135	284	278	2644	0.429	1135	1201	0.6	0.8	2.693	A
2 - Anderson Way	189	47	1135	2129	0.089	189	278	0.1	0.1	2.170	A
3 - A2016 Bronze Age Way	1463	366	40	2759	0.530	1461	1283	0.9	1.3	3.105	A
4 - B253 Picardy Manorway	18	4	1461	1538	0.012	18	40	0.0	0.0	2.770	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manorway	1391	348	341	2597	0.536	1389	1469	0.8	1.3	3.363	A
2 - Anderson Way	231	58	1389	1932	0.120	231	341	0.1	0.2	2.476	A
3 - A2016 Bronze Age Way	1791	448	49	2752	0.651	1788	1570	1.3	2.1	4.169	A
4 - B253 Picardy Manorway	22	6	1788	1307	0.017	22	49	0.0	0.0	3.277	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1391	348	341	2596	0.536	1391	1472	1.3	1.3	3.372	A
2 - Anderson Way	231	58	1391	1930	0.120	231	341	0.2	0.2	2.478	A
3 - A2016 Bronze Age Way	1791	448	50	2752	0.651	1791	1572	2.1	2.1	4.197	A
4 - B253 Picardy Manorway	22	6	1791	1305	0.017	22	50	0.0	0.0	3.282	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1135	284	279	2644	0.429	1137	1205	1.3	0.9	2.702	A
2 - Anderson Way	189	47	1137	2127	0.089	189	279	0.2	0.1	2.174	A
3 - A2016 Bronze Age Way	1463	366	41	2759	0.530	1466	1286	2.1	1.3	3.128	A
4 - B253 Picardy Manorway	18	4	1466	1535	0.012	18	41	0.0	0.0	2.778	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	951	238	234	2679	0.355	952	1008	0.9	0.6	2.356	A
2 - Anderson Way	158	40	952	2272	0.070	158	234	0.1	0.1	1.994	A
3 - A2016 Bronze Age Way	1225	306	34	2764	0.443	1226	1076	1.3	0.9	2.627	A
4 - B253 Picardy Manorway	15	4	1226	1704	0.009	15	34	0.0	0.0	2.495	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.62	0.62	1.13	1.58	1.64			N/A	N/A
2 - Anderson Way	0.09	0.00	0.00	0.09	0.09			N/A	N/A
3 - A2016 Bronze Age Way	0.89	0.62	1.12	1.57	1.62			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.85	0.08	0.88	1.43	1.43			N/A	N/A
2 - Anderson Way	0.11	0.03	0.29	0.53	0.56			N/A	N/A
3 - A2016 Bronze Age Way	1.26	0.06	0.67	2.83	4.12			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.01	0.29	0.53	0.56			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	1.29	0.03	0.29	1.29	1.29			N/A	N/A
2 - Anderson Way	0.16	0.03	0.30	0.54	0.57			N/A	N/A
3 - A2016 Bronze Age Way	2.06	0.03	0.29	2.06	2.06			N/A	N/A
4 - B253 Picardy Manorway	0.02	0.00	0.00	0.02	0.02			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	1.30	0.03	0.30	1.30	1.30			N/A	N/A
2 - Anderson Way	0.16	0.00	0.00	0.16	0.16			N/A	N/A
3 - A2016 Bronze Age Way	2.08	0.03	0.29	2.08	2.08			N/A	N/A
4 - B253 Picardy Manorway	0.02	0.00	0.00	0.02	0.02			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.86	0.62	1.13	1.58	1.64			N/A	N/A
2 - Anderson Way	0.11	0.00	0.00	0.11	0.11			N/A	N/A
3 - A2016 Bronze Age Way	1.27	0.35	1.23	1.78	2.06			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.62	0.09	0.86	1.53	1.61			N/A	N/A
2 - Anderson Way	0.09	0.00	0.00	0.09	0.09			N/A	N/A
3 - A2016 Bronze Age Way	0.90	0.09	0.92	1.64	1.64			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

Existing Layout - 2038 Local Plan Case - No LTC, PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.53	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.53	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)	Run automatically
D8	2038 Local Plan Case - No LTC	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2016 Picardy Manroway		ONE HOUR	✓	1406	100.000
2 - Anderson Way		ONE HOUR	✓	387	100.000
3 - A2016 Bronze Age Way		ONE HOUR	✓	1525	100.000
4 - B253 Picardy Manorway		ONE HOUR	✓	17	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A2016 Picardy Manroway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manorway
From	1 - A2016 Picardy Manroway	0	0	1288	118
	2 - Anderson Way	0	0	387	0
	3 - A2016 Bronze Age Way	1324	201	0	0
	4 - B253 Picardy Manorway	17	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A2016 Picardy Manroway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manroway
From	1 - A2016 Picardy Manroway	0	0	9	3
	2 - Anderson Way	0	0	4	0
	3 - A2016 Bronze Age Way	8	7	0	0
	4 - B253 Picardy Manroway	13	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A2016 Picardy Manroway	0.58	3.42	1.5	2.1	A	1290	1935
2 - Anderson Way	0.24	2.71	0.3	1.3	A	355	533
3 - A2016 Bronze Age Way	0.62	3.83	1.8	3.2	A	1399	2099
4 - B253 Picardy Manroway	0.01	2.98	0.0	0.5	A	16	23

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1059	265	151	2742	0.386	1056	1007	0.0	0.7	2.312	A
2 - Anderson Way	291	73	1056	2191	0.133	291	151	0.0	0.2	1.970	A
3 - A2016 Bronze Age Way	1148	287	89	2723	0.422	1145	1258	0.0	0.8	2.455	A
4 - B253 Picardy Manroway	13	3	1145	1761	0.007	13	89	0.0	0.0	2.326	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1264	316	181	2719	0.465	1263	1204	0.7	0.9	2.680	A
2 - Anderson Way	348	87	1263	2030	0.171	348	181	0.2	0.2	2.226	A
3 - A2016 Bronze Age Way	1371	343	106	2710	0.506	1370	1505	0.8	1.1	2.895	A
4 - B253 Picardy Manroway	15	4	1370	1603	0.010	15	106	0.0	0.0	2.562	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1548	387	221	2688	0.576	1546	1474	0.9	1.5	3.412	A
2 - Anderson Way	426	107	1546	1809	0.236	426	221	0.2	0.3	2.706	A
3 - A2016 Bronze Age Way	1679	420	130	2692	0.624	1676	1842	1.1	1.8	3.813	A
4 - B253 Picardy Manroway	19	5	1676	1386	0.014	19	130	0.0	0.0	2.974	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1548	387	221	2688	0.576	1548	1476	1.5	1.5	3.424	A
2 - Anderson Way	426	107	1548	1808	0.236	426	221	0.3	0.3	2.709	A
3 - A2016 Bronze Age Way	1679	420	130	2692	0.624	1679	1844	1.8	1.8	3.832	A
4 - B253 Picardy Manorway	19	5	1679	1384	0.014	19	130	0.0	0.0	2.978	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1264	316	181	2719	0.465	1266	1208	1.5	0.9	2.693	A
2 - Anderson Way	348	87	1266	2027	0.172	348	181	0.3	0.2	2.230	A
3 - A2016 Bronze Age Way	1371	343	106	2710	0.506	1374	1508	1.8	1.1	2.911	A
4 - B253 Picardy Manorway	15	4	1374	1600	0.010	15	106	0.0	0.0	2.566	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1059	265	151	2741	0.386	1060	1011	0.9	0.7	2.322	A
2 - Anderson Way	291	73	1060	2188	0.133	292	151	0.2	0.2	1.976	A
3 - A2016 Bronze Age Way	1148	287	89	2723	0.422	1149	1262	1.1	0.8	2.469	A
4 - B253 Picardy Manorway	13	3	1149	1758	0.007	13	89	0.0	0.0	2.330	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.68	0.60	1.08	1.52	1.57			N/A	N/A
2 - Anderson Way	0.16	0.00	0.00	0.16	0.16			N/A	N/A
3 - A2016 Bronze Age Way	0.78	0.59	1.08	1.51	1.56			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.94	0.07	0.81	1.63	2.07			N/A	N/A
2 - Anderson Way	0.21	0.00	0.00	0.21	0.21			N/A	N/A
3 - A2016 Bronze Age Way	1.10	0.06	0.72	2.19	3.16			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.01	0.28	0.51	0.54			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	1.46	0.03	0.28	1.46	1.46			N/A	N/A
2 - Anderson Way	0.32	0.03	0.26	0.47	0.50			N/A	N/A
3 - A2016 Bronze Age Way	1.77	0.03	0.28	1.77	1.77			N/A	N/A
4 - B253 Picardy Manorway	0.02	0.02	0.28	0.51	0.54			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	1.47	0.03	0.28	1.47	1.47			N/A	N/A
2 - Anderson Way	0.32	0.03	0.31	0.96	1.27			N/A	N/A
3 - A2016 Bronze Age Way	1.78	0.03	0.28	1.78	1.78			N/A	N/A
4 - B253 Picardy Manorway	0.02	0.00	0.00	0.02	0.02			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.95	0.59	1.08	1.52	1.57			N/A	N/A
2 - Anderson Way	0.22	0.00	0.00	0.22	0.22			N/A	N/A
3 - A2016 Bronze Age Way	1.11	0.55	1.12	1.13	1.65			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.69	0.12	0.92	1.49	1.56			N/A	N/A
2 - Anderson Way	0.16	0.00	0.00	0.16	0.16			N/A	N/A
3 - A2016 Bronze Age Way	0.79	0.10	0.90	1.51	1.58			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

Existing Layout - 2038 Local Plan Case - With LTC, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.90	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.90	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)	Run automatically
D9	2038 Local Plan Case - With LTC	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2016 Picardy Manroway		ONE HOUR	✓	1287	100.000
2 - Anderson Way		ONE HOUR	✓	204	100.000
3 - A2016 Bronze Age Way		ONE HOUR	✓	1669	100.000
4 - B253 Picardy Manorway		ONE HOUR	✓	20	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A2016 Picardy Manroway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manorway
From	1 - A2016 Picardy Manroway	0	0	1242	45
	2 - Anderson Way	0	0	204	0
	3 - A2016 Bronze Age Way	1344	325	0	0
	4 - B253 Picardy Manorway	20	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A2016 Picardy Manorway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manorway
From	1 - A2016 Picardy Manorway	0	0	12	13
	2 - Anderson Way	0	0	18	0
	3 - A2016 Bronze Age Way	13	8	0	0
	4 - B253 Picardy Manorway	17	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A2016 Picardy Manorway	0.55	3.46	1.4	1.7	A	1181	1771
2 - Anderson Way	0.12	2.52	0.2	0.6	A	187	281
3 - A2016 Bronze Age Way	0.67	4.41	2.2	4.6	A	1532	2297
4 - B253 Picardy Manorway	0.02	3.37	0.0	0.6	A	18	28

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manorway	969	242	244	2671	0.363	966	1024	0.0	0.6	2.363	A
2 - Anderson Way	154	38	966	2260	0.068	153	244	0.0	0.1	2.016	A
3 - A2016 Bronze Age Way	1257	314	34	2764	0.455	1253	1086	0.0	0.9	2.661	A
4 - B253 Picardy Manorway	15	4	1253	1685	0.009	15	34	0.0	0.0	2.521	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manorway	1157	289	292	2634	0.439	1156	1225	0.6	0.9	2.727	A
2 - Anderson Way	183	46	1156	2113	0.087	183	292	0.1	0.1	2.201	A
3 - A2016 Bronze Age Way	1500	375	40	2759	0.544	1499	1299	0.9	1.3	3.195	A
4 - B253 Picardy Manorway	18	4	1499	1511	0.012	18	40	0.0	0.0	2.819	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manorway	1417	354	357	2584	0.548	1415	1499	0.9	1.3	3.443	A
2 - Anderson Way	225	56	1415	1911	0.118	224	357	0.1	0.2	2.518	A
3 - A2016 Bronze Age Way	1838	459	49	2752	0.668	1834	1590	1.3	2.2	4.378	A
4 - B253 Picardy Manorway	22	6	1834	1275	0.017	22	49	0.0	0.0	3.361	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1417	354	358	2584	0.548	1417	1502	1.3	1.4	3.456	A
2 - Anderson Way	225	56	1417	1910	0.118	225	358	0.2	0.2	2.520	A
3 - A2016 Bronze Age Way	1838	459	50	2752	0.668	1838	1592	2.2	2.2	4.409	A
4 - B253 Picardy Manorway	22	6	1838	1272	0.017	22	50	0.0	0.0	3.368	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1157	289	293	2633	0.439	1159	1229	1.4	0.9	2.738	A
2 - Anderson Way	183	46	1159	2110	0.087	184	293	0.2	0.1	2.204	A
3 - A2016 Bronze Age Way	1500	375	41	2759	0.544	1504	1302	2.2	1.3	3.221	A
4 - B253 Picardy Manorway	18	4	1504	1508	0.012	18	41	0.0	0.0	2.826	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	969	242	245	2670	0.363	970	1028	0.9	0.6	2.373	A
2 - Anderson Way	154	38	970	2258	0.068	154	245	0.1	0.1	2.020	A
3 - A2016 Bronze Age Way	1257	314	34	2764	0.455	1258	1090	1.3	0.9	2.680	A
4 - B253 Picardy Manorway	15	4	1258	1681	0.009	15	34	0.0	0.0	2.529	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.64	0.62	1.12	1.57	1.62			N/A	N/A
2 - Anderson Way	0.09	0.00	0.00	0.09	0.09			N/A	N/A
3 - A2016 Bronze Age Way	0.93	0.62	1.12	1.57	1.62			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.87	0.08	0.86	1.67	1.70			N/A	N/A
2 - Anderson Way	0.11	0.03	0.30	0.53	0.56			N/A	N/A
3 - A2016 Bronze Age Way	1.33	0.06	0.59	3.10	4.59			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.01	0.29	0.53	0.56			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	1.35	0.03	0.29	1.35	1.35			N/A	N/A
2 - Anderson Way	0.16	0.03	0.30	0.55	0.58			N/A	N/A
3 - A2016 Bronze Age Way	2.22	0.03	0.29	2.22	2.22			N/A	N/A
4 - B253 Picardy Manorway	0.02	0.00	0.00	0.02	0.02			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	1.35	0.03	0.30	1.35	1.35			N/A	N/A
2 - Anderson Way	0.16	0.00	0.00	0.16	0.16			N/A	N/A
3 - A2016 Bronze Age Way	2.23	0.03	0.29	2.23	2.23			N/A	N/A
4 - B253 Picardy Manorway	0.02	0.00	0.00	0.02	0.02			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.88	0.62	1.12	1.57	1.62			N/A	N/A
2 - Anderson Way	0.11	0.00	0.00	0.11	0.11			N/A	N/A
3 - A2016 Bronze Age Way	1.35	0.26	1.27	1.96	2.20			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.64	0.09	0.89	1.52	1.60			N/A	N/A
2 - Anderson Way	0.09	0.00	0.00	0.09	0.09			N/A	N/A
3 - A2016 Bronze Age Way	0.94	0.08	0.91	1.40	1.91			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

Existing Layout - 2038 Local Plan Case - With LTC, PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.57	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.57	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)	Run automatically
D10	2038 Local Plan Case - With LTC	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2016 Picardy Manroway		ONE HOUR	✓	1419	100.000
2 - Anderson Way		ONE HOUR	✓	405	100.000
3 - A2016 Bronze Age Way		ONE HOUR	✓	1536	100.000
4 - B253 Picardy Manorway		ONE HOUR	✓	17	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A2016 Picardy Manroway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manorway
From	1 - A2016 Picardy Manroway	0	0	1298	121
	2 - Anderson Way	0	0	405	0
	3 - A2016 Bronze Age Way	1326	210	0	0
	4 - B253 Picardy Manorway	17	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A2016 Picardy Manroway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manroway
From	1 - A2016 Picardy Manroway	0	0	9	3
	2 - Anderson Way	0	0	4	0
	3 - A2016 Bronze Age Way	7	7	0	0
	4 - B253 Picardy Manroway	13	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A2016 Picardy Manroway	0.58	3.49	1.5	2.1	A	1302	1953
2 - Anderson Way	0.25	2.77	0.3	1.3	A	372	557
3 - A2016 Bronze Age Way	0.63	3.86	1.8	3.3	A	1409	2114
4 - B253 Picardy Manroway	0.01	3.00	0.0	0.5	A	16	23

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1068	267	158	2737	0.390	1066	1008	0.0	0.7	2.332	A
2 - Anderson Way	305	76	1066	2183	0.140	304	158	0.0	0.2	1.993	A
3 - A2016 Bronze Age Way	1156	289	91	2721	0.425	1153	1279	0.0	0.8	2.451	A
4 - B253 Picardy Manroway	13	3	1153	1756	0.007	13	91	0.0	0.0	2.333	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1276	319	189	2713	0.470	1275	1206	0.7	1.0	2.713	A
2 - Anderson Way	364	91	1275	2020	0.180	364	189	0.2	0.2	2.260	A
3 - A2016 Bronze Age Way	1381	345	109	2708	0.510	1380	1530	0.8	1.1	2.897	A
4 - B253 Picardy Manroway	15	4	1380	1596	0.010	15	109	0.0	0.0	2.573	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1562	391	231	2681	0.583	1560	1476	1.0	1.5	3.479	A
2 - Anderson Way	446	111	1560	1798	0.248	445	231	0.2	0.3	2.767	A
3 - A2016 Bronze Age Way	1691	423	133	2690	0.629	1688	1873	1.1	1.8	3.836	A
4 - B253 Picardy Manroway	19	5	1688	1377	0.014	19	133	0.0	0.0	2.993	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1562	391	231	2681	0.583	1562	1479	1.5	1.5	3.491	A
2 - Anderson Way	446	111	1562	1797	0.248	446	231	0.3	0.3	2.771	A
3 - A2016 Bronze Age Way	1691	423	133	2690	0.629	1691	1875	1.8	1.8	3.857	A
4 - B253 Picardy Manorway	19	5	1691	1376	0.014	19	133	0.0	0.0	2.997	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1276	319	189	2713	0.470	1278	1210	1.5	1.0	2.724	A
2 - Anderson Way	364	91	1278	2018	0.180	365	189	0.3	0.2	2.264	A
3 - A2016 Bronze Age Way	1381	345	109	2708	0.510	1384	1533	1.8	1.1	2.914	A
4 - B253 Picardy Manorway	15	4	1384	1593	0.010	15	109	0.0	0.0	2.578	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1068	267	158	2736	0.390	1069	1012	1.0	0.7	2.345	A
2 - Anderson Way	305	76	1069	2180	0.140	305	158	0.2	0.2	1.996	A
3 - A2016 Bronze Age Way	1156	289	91	2721	0.425	1158	1283	1.1	0.8	2.465	A
4 - B253 Picardy Manorway	13	3	1158	1752	0.007	13	91	0.0	0.0	2.338	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.69	0.60	1.08	1.52	1.57			N/A	N/A
2 - Anderson Way	0.17	0.00	0.00	0.17	0.17			N/A	N/A
3 - A2016 Bronze Age Way	0.79	0.59	1.07	1.50	1.55			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.96	0.07	0.81	1.72	2.15			N/A	N/A
2 - Anderson Way	0.23	0.00	0.00	0.23	0.23			N/A	N/A
3 - A2016 Bronze Age Way	1.11	0.06	0.69	2.29	3.26			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.01	0.28	0.51	0.54			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	1.50	0.03	0.28	1.50	1.50			N/A	N/A
2 - Anderson Way	0.34	0.03	0.26	0.47	0.50			N/A	N/A
3 - A2016 Bronze Age Way	1.79	0.03	0.28	1.79	1.79			N/A	N/A
4 - B253 Picardy Manorway	0.02	0.02	0.28	0.51	0.54			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	1.51	0.03	0.28	1.51	1.51			N/A	N/A
2 - Anderson Way	0.34	0.03	0.33	1.09	1.34			N/A	N/A
3 - A2016 Bronze Age Way	1.80	0.03	0.28	1.80	1.80			N/A	N/A
4 - B253 Picardy Manorway	0.02	0.00	0.00	0.02	0.02			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.97	0.58	1.08	1.52	1.58			N/A	N/A
2 - Anderson Way	0.23	0.00	0.00	0.23	0.23			N/A	N/A
3 - A2016 Bronze Age Way	1.12	0.54	1.12	1.27	1.71			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.70	0.11	0.92	1.49	1.56			N/A	N/A
2 - Anderson Way	0.17	0.00	0.00	0.17	0.17			N/A	N/A
3 - A2016 Bronze Age Way	0.79	0.10	0.89	1.50	1.58			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

Existing Layout - 2038 Local Plan Case - No LTC - Sensitivity Test, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.54	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.54	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)	Run automatically
D11	2038 Local Plan Case - No LTC - Sensitivity Test	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2016 Picardy Manorway		ONE HOUR	✓	1221	100.000
2 - Anderson Way		ONE HOUR	✓	197	100.000
3 - A2016 Bronze Age Way		ONE HOUR	✓	1568	100.000
4 - B253 Picardy Manorway		ONE HOUR	✓	19	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A2016 Picardy Manorway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manorway
From	1 - A2016 Picardy Manorway	0	0	1177	44
	2 - Anderson Way	0	0	197	0
	3 - A2016 Bronze Age Way	1267	301	0	0
	4 - B253 Picardy Manorway	19	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A2016 Picardy Manorway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manorway
From	1 - A2016 Picardy Manorway	0	0	13	13
	2 - Anderson Way	0	0	18	0
	3 - A2016 Bronze Age Way	13	8	0	0
	4 - B253 Picardy Manorway	18	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A2016 Picardy Manorway	0.52	3.23	1.2	1.7	A	1120	1681
2 - Anderson Way	0.11	2.43	0.1	0.6	A	181	271
3 - A2016 Bronze Age Way	0.63	3.93	1.9	3.4	A	1439	2158
4 - B253 Picardy Manorway	0.02	3.19	0.0	0.6	A	17	26

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manorway	919	230	226	2685	0.342	917	965	0.0	0.6	2.298	A
2 - Anderson Way	148	37	917	2299	0.065	148	226	0.0	0.1	1.975	A
3 - A2016 Bronze Age Way	1180	295	33	2764	0.427	1177	1032	0.0	0.8	2.535	A
4 - B253 Picardy Manorway	14	4	1177	1739	0.008	14	33	0.0	0.0	2.463	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manorway	1098	274	270	2651	0.414	1097	1155	0.6	0.8	2.616	A
2 - Anderson Way	177	44	1097	2159	0.082	177	270	0.1	0.1	2.143	A
3 - A2016 Bronze Age Way	1410	352	40	2759	0.511	1408	1234	0.8	1.2	2.981	A
4 - B253 Picardy Manorway	17	4	1408	1575	0.011	17	40	0.0	0.0	2.725	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manorway	1344	336	331	2604	0.516	1343	1414	0.8	1.2	3.220	A
2 - Anderson Way	217	54	1343	1967	0.110	217	331	0.1	0.1	2.426	A
3 - A2016 Bronze Age Way	1726	432	48	2753	0.627	1724	1511	1.2	1.9	3.905	A
4 - B253 Picardy Manorway	21	5	1724	1353	0.015	21	48	0.0	0.0	3.189	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1344	336	331	2604	0.516	1344	1416	1.2	1.2	3.228	A
2 - Anderson Way	217	54	1344	1966	0.110	217	331	0.1	0.1	2.427	A
3 - A2016 Bronze Age Way	1726	432	48	2753	0.627	1726	1513	1.9	1.9	3.928	A
4 - B253 Picardy Manorway	21	5	1726	1351	0.015	21	48	0.0	0.0	3.193	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1098	274	271	2650	0.414	1099	1158	1.2	0.8	2.627	A
2 - Anderson Way	177	44	1099	2157	0.082	177	271	0.1	0.1	2.145	A
3 - A2016 Bronze Age Way	1410	352	40	2759	0.511	1412	1237	1.9	1.2	2.999	A
4 - B253 Picardy Manorway	17	4	1412	1572	0.011	17	40	0.0	0.0	2.730	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	919	230	227	2684	0.343	920	969	0.8	0.6	2.308	A
2 - Anderson Way	148	37	920	2296	0.065	148	227	0.1	0.1	1.979	A
3 - A2016 Bronze Age Way	1180	295	33	2764	0.427	1182	1035	1.2	0.8	2.551	A
4 - B253 Picardy Manorway	14	4	1182	1735	0.008	14	33	0.0	0.0	2.467	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.59	0.59	1.13	1.58	1.64			N/A	N/A
2 - Anderson Way	0.08	0.00	0.00	0.08	0.08			N/A	N/A
3 - A2016 Bronze Age Way	0.83	0.62	1.12	1.57	1.62			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.79	0.09	0.88	1.57	1.66			N/A	N/A
2 - Anderson Way	0.11	0.03	0.30	0.55	0.58			N/A	N/A
3 - A2016 Bronze Age Way	1.16	0.06	0.75	2.38	3.36			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.01	0.30	0.53	0.56			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	1.20	0.03	0.29	1.20	1.20			N/A	N/A
2 - Anderson Way	0.15	0.03	0.30	0.55	0.58			N/A	N/A
3 - A2016 Bronze Age Way	1.86	0.03	0.29	1.86	1.86			N/A	N/A
4 - B253 Picardy Manorway	0.02	0.02	0.30	0.53	0.56			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	1.20	0.03	0.30	1.20	1.20			N/A	N/A
2 - Anderson Way	0.15	0.00	0.00	0.15	0.15			N/A	N/A
3 - A2016 Bronze Age Way	1.87	0.03	0.29	1.87	1.87			N/A	N/A
4 - B253 Picardy Manorway	0.02	0.00	0.00	0.02	0.02			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.80	0.62	1.13	1.58	1.64			N/A	N/A
2 - Anderson Way	0.11	0.00	0.00	0.11	0.11			N/A	N/A
3 - A2016 Bronze Age Way	1.18	0.56	1.17	1.37	1.81			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.59	0.59	1.13	1.58	1.64			N/A	N/A
2 - Anderson Way	0.08	0.00	0.00	0.08	0.08			N/A	N/A
3 - A2016 Bronze Age Way	0.84	0.10	0.94	1.58	1.66			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

Existing Layout - 2038 Local Plan Case - No LTC - Sensitivity Test, PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.40	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.40	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)	Run automatically
D12	2038 Local Plan Case - No LTC - Sensitivity Test	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2016 Picardy Manroway		ONE HOUR	✓	1410	100.000
2 - Anderson Way		ONE HOUR	✓	370	100.000
3 - A2016 Bronze Age Way		ONE HOUR	✓	1468	100.000
4 - B253 Picardy Manorway		ONE HOUR	✓	17	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A2016 Picardy Manroway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manorway
From	1 - A2016 Picardy Manroway	0	0	1297	113
	2 - Anderson Way	0	0	370	0
	3 - A2016 Bronze Age Way	1279	189	0	0
	4 - B253 Picardy Manorway	17	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A2016 Picardy Manroway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manroway
From	1 - A2016 Picardy Manroway	0	0	8	3
	2 - Anderson Way	0	0	5	0
	3 - A2016 Bronze Age Way	8	8	0	0
	4 - B253 Picardy Manroway	13	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A2016 Picardy Manroway	0.58	3.38	1.5	2.1	A	1294	1941
2 - Anderson Way	0.23	2.70	0.3	1.2	A	340	509
3 - A2016 Bronze Age Way	0.60	3.60	1.6	2.7	A	1347	2021
4 - B253 Picardy Manroway	0.01	2.88	0.0	0.5	A	16	23

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1062	265	142	2749	0.386	1059	973	0.0	0.7	2.287	A
2 - Anderson Way	279	70	1059	2188	0.127	278	142	0.0	0.2	1.979	A
3 - A2016 Bronze Age Way	1105	276	85	2726	0.405	1102	1252	0.0	0.7	2.391	A
4 - B253 Picardy Manroway	13	3	1102	1792	0.007	13	85	0.0	0.0	2.286	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1268	317	170	2727	0.465	1267	1164	0.7	0.9	2.650	A
2 - Anderson Way	333	83	1267	2027	0.164	332	170	0.2	0.2	2.230	A
3 - A2016 Bronze Age Way	1320	330	102	2713	0.486	1319	1497	0.7	1.0	2.785	A
4 - B253 Picardy Manroway	15	4	1319	1639	0.009	15	102	0.0	0.0	2.505	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1552	388	208	2698	0.575	1550	1425	0.9	1.4	3.368	A
2 - Anderson Way	407	102	1550	1806	0.226	407	208	0.2	0.3	2.702	A
3 - A2016 Bronze Age Way	1616	404	124	2696	0.599	1614	1833	1.0	1.6	3.585	A
4 - B253 Picardy Manroway	19	5	1614	1430	0.013	19	124	0.0	0.0	2.881	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1552	388	208	2698	0.575	1552	1427	1.4	1.5	3.379	A
2 - Anderson Way	407	102	1552	1804	0.226	407	208	0.3	0.3	2.705	A
3 - A2016 Bronze Age Way	1616	404	124	2696	0.599	1616	1835	1.6	1.6	3.599	A
4 - B253 Picardy Manorway	19	5	1616	1428	0.013	19	124	0.0	0.0	2.885	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1268	317	170	2727	0.465	1270	1167	1.5	0.9	2.662	A
2 - Anderson Way	333	83	1270	2024	0.164	333	170	0.3	0.2	2.235	A
3 - A2016 Bronze Age Way	1320	330	102	2713	0.486	1322	1501	1.6	1.0	2.801	A
4 - B253 Picardy Manorway	15	4	1322	1636	0.009	15	102	0.0	0.0	2.511	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1062	265	142	2748	0.386	1063	977	0.9	0.7	2.298	A
2 - Anderson Way	279	70	1063	2185	0.127	279	142	0.2	0.2	1.984	A
3 - A2016 Bronze Age Way	1105	276	85	2725	0.406	1106	1256	1.0	0.7	2.402	A
4 - B253 Picardy Manorway	13	3	1106	1789	0.007	13	85	0.0	0.0	2.290	A

Queue Variation Results for each time segment
16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.67	0.59	1.08	1.51	1.56			N/A	N/A
2 - Anderson Way	0.15	0.00	0.00	0.15	0.15			N/A	N/A
3 - A2016 Bronze Age Way	0.73	0.59	1.08	1.51	1.57			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.93	0.07	0.80	1.62	2.06			N/A	N/A
2 - Anderson Way	0.21	0.00	0.00	0.21	0.21			N/A	N/A
3 - A2016 Bronze Age Way	1.02	0.06	0.78	1.93	2.66			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.01	0.28	0.51	0.54			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	1.44	0.03	0.28	1.44	1.44			N/A	N/A
2 - Anderson Way	0.30	0.03	0.27	0.48	0.50			N/A	N/A
3 - A2016 Bronze Age Way	1.60	0.03	0.28	1.60	1.60			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.01	0.29	0.51	0.54			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	1.45	0.03	0.28	1.45	1.45			N/A	N/A
2 - Anderson Way	0.31	0.03	0.30	0.78	1.18			N/A	N/A
3 - A2016 Bronze Age Way	1.61	0.03	0.28	1.61	1.61			N/A	N/A
4 - B253 Picardy Manorway	0.02	0.00	0.00	0.02	0.02			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.94	0.58	1.07	1.51	1.56			N/A	N/A
2 - Anderson Way	0.21	0.00	0.00	0.21	0.21			N/A	N/A
3 - A2016 Bronze Age Way	1.03	0.57	1.09	1.54	1.60			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.68	0.12	0.92	1.47	1.54			N/A	N/A
2 - Anderson Way	0.15	0.00	0.00	0.15	0.15			N/A	N/A
3 - A2016 Bronze Age Way	0.74	0.11	0.92	1.48	1.55			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

Existing Layout - 2038 Local Plan Case - With LTC - Sensitivity Test, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.69	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.69	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)	Run automatically
D13	2038 Local Plan Case - With LTC - Sensitivity Test	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2016 Picardy Manroway		ONE HOUR	✓	1233	100.000
2 - Anderson Way		ONE HOUR	✓	191	100.000
3 - A2016 Bronze Age Way		ONE HOUR	✓	1611	100.000
4 - B253 Picardy Manorway		ONE HOUR	✓	19	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A2016 Picardy Manroway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manorway
From	1 - A2016 Picardy Manroway	0	0	1190	43
	2 - Anderson Way	0	0	191	0
	3 - A2016 Bronze Age Way	1296	315	0	0
	4 - B253 Picardy Manorway	19	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A2016 Picardy Manorway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manorway
From	1 - A2016 Picardy Manorway	0	0	13	12
	2 - Anderson Way	0	0	19	0
	3 - A2016 Bronze Age Way	14	8	0	0
	4 - B253 Picardy Manorway	18	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A2016 Picardy Manorway	0.52	3.29	1.2	1.7	A	1131	1697
2 - Anderson Way	0.11	2.45	0.1	0.6	A	175	263
3 - A2016 Bronze Age Way	0.64	4.14	2.0	3.9	A	1478	2217
4 - B253 Picardy Manorway	0.02	3.28	0.0	0.6	A	17	26

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manorway	928	232	236	2677	0.347	926	987	0.0	0.6	2.320	A
2 - Anderson Way	144	36	926	2292	0.063	143	236	0.0	0.1	1.994	A
3 - A2016 Bronze Age Way	1213	303	32	2765	0.439	1209	1037	0.0	0.9	2.605	A
4 - B253 Picardy Manorway	14	4	1209	1716	0.008	14	32	0.0	0.0	2.496	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manorway	1108	277	283	2641	0.420	1108	1181	0.6	0.8	2.650	A
2 - Anderson Way	172	43	1108	2150	0.080	172	283	0.1	0.1	2.164	A
3 - A2016 Bronze Age Way	1448	362	39	2760	0.525	1447	1241	0.9	1.2	3.089	A
4 - B253 Picardy Manorway	17	4	1447	1548	0.011	17	39	0.0	0.0	2.773	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manorway	1358	339	346	2593	0.524	1356	1445	0.8	1.2	3.284	A
2 - Anderson Way	210	53	1356	1957	0.107	210	346	0.1	0.1	2.451	A
3 - A2016 Bronze Age Way	1774	443	47	2754	0.644	1771	1519	1.2	2.0	4.117	A
4 - B253 Picardy Manorway	21	5	1771	1319	0.016	21	47	0.0	0.0	3.270	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1358	339	347	2592	0.524	1358	1448	1.2	1.2	3.293	A
2 - Anderson Way	210	53	1358	1956	0.108	210	347	0.1	0.1	2.453	A
3 - A2016 Bronze Age Way	1774	443	47	2754	0.644	1774	1520	2.0	2.0	4.143	A
4 - B253 Picardy Manorway	21	5	1774	1317	0.016	21	47	0.0	0.0	3.276	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1108	277	284	2640	0.420	1110	1185	1.2	0.8	2.662	A
2 - Anderson Way	172	43	1110	2148	0.080	172	284	0.1	0.1	2.168	A
3 - A2016 Bronze Age Way	1448	362	39	2760	0.525	1451	1243	2.0	1.3	3.111	A
4 - B253 Picardy Manorway	17	4	1451	1545	0.011	17	39	0.0	0.0	2.782	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	928	232	237	2676	0.347	929	991	0.8	0.6	2.330	A
2 - Anderson Way	144	36	929	2289	0.063	144	237	0.1	0.1	1.998	A
3 - A2016 Bronze Age Way	1213	303	32	2765	0.439	1214	1041	1.3	0.9	2.620	A
4 - B253 Picardy Manorway	14	4	1214	1712	0.008	14	32	0.0	0.0	2.501	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.60	0.60	1.13	1.58	1.64			N/A	N/A
2 - Anderson Way	0.08	0.00	0.00	0.08	0.08			N/A	N/A
3 - A2016 Bronze Age Way	0.88	0.62	1.13	1.58	1.64			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.81	0.09	0.88	1.59	1.68			N/A	N/A
2 - Anderson Way	0.10	0.03	0.31	0.56	0.59			N/A	N/A
3 - A2016 Bronze Age Way	1.24	0.06	0.70	2.73	3.94			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.01	0.30	0.53	0.56			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	1.23	0.03	0.29	1.23	1.23			N/A	N/A
2 - Anderson Way	0.14	0.03	0.31	0.55	0.58			N/A	N/A
3 - A2016 Bronze Age Way	2.02	0.03	0.29	2.02	2.02			N/A	N/A
4 - B253 Picardy Manorway	0.02	0.02	0.30	0.53	0.56			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	1.24	0.03	0.30	1.24	1.24			N/A	N/A
2 - Anderson Way	0.14	0.00	0.00	0.14	0.14			N/A	N/A
3 - A2016 Bronze Age Way	2.03	0.03	0.29	2.03	2.03			N/A	N/A
4 - B253 Picardy Manorway	0.02	0.00	0.00	0.02	0.02			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.82	0.62	1.13	1.58	1.64			N/A	N/A
2 - Anderson Way	0.10	0.00	0.00	0.10	0.10			N/A	N/A
3 - A2016 Bronze Age Way	1.25	0.39	1.22	1.71	2.02			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.60	0.60	1.13	1.58	1.64			N/A	N/A
2 - Anderson Way	0.08	0.00	0.00	0.08	0.08			N/A	N/A
3 - A2016 Bronze Age Way	0.89	0.10	0.93	1.51	1.51			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

Existing Layout - 2038 Local Plan Case - With LTC - Sensitivity Test, PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.45	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.45	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)	Run automatically
D14	2038 Local Plan Case - With LTC - Sensitivity Test	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2016 Picardy Manroway		ONE HOUR	✓	1411	100.000
2 - Anderson Way		ONE HOUR	✓	386	100.000
3 - A2016 Bronze Age Way		ONE HOUR	✓	1484	100.000
4 - B253 Picardy Manorway		ONE HOUR	✓	17	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A2016 Picardy Manroway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manorway
From	1 - A2016 Picardy Manroway	0	0	1299	112
	2 - Anderson Way	0	0	386	0
	3 - A2016 Bronze Age Way	1286	198	0	0
	4 - B253 Picardy Manorway	17	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A2016 Picardy Manroway	2 - Anderson Way	3 - A2016 Bronze Age Way	4 - B253 Picardy Manroway
From	1 - A2016 Picardy Manroway	0	0	9	3
	2 - Anderson Way	0	0	5	0
	3 - A2016 Bronze Age Way	8	8	0	0
	4 - B253 Picardy Manroway	13	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A2016 Picardy Manroway	0.58	3.43	1.5	2.1	A	1295	1942
2 - Anderson Way	0.24	2.74	0.3	1.3	A	354	531
3 - A2016 Bronze Age Way	0.61	3.66	1.7	2.8	A	1362	2043
4 - B253 Picardy Manroway	0.01	2.91	0.0	0.5	A	16	23

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1062	266	149	2744	0.387	1060	978	0.0	0.7	2.315	A
2 - Anderson Way	291	73	1060	2188	0.133	290	149	0.0	0.2	1.992	A
3 - A2016 Bronze Age Way	1117	279	84	2726	0.410	1114	1265	0.0	0.7	2.408	A
4 - B253 Picardy Manroway	13	3	1114	1783	0.007	13	84	0.0	0.0	2.297	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1268	317	178	2721	0.466	1267	1170	0.7	0.9	2.685	A
2 - Anderson Way	347	87	1267	2026	0.171	347	178	0.2	0.2	2.250	A
3 - A2016 Bronze Age Way	1334	334	101	2714	0.492	1333	1514	0.7	1.0	2.812	A
4 - B253 Picardy Manroway	15	4	1333	1629	0.009	15	101	0.0	0.0	2.521	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1554	388	218	2691	0.577	1551	1433	0.9	1.5	3.422	A
2 - Anderson Way	425	106	1551	1805	0.235	425	218	0.2	0.3	2.738	A
3 - A2016 Bronze Age Way	1634	408	123	2697	0.606	1631	1853	1.0	1.6	3.641	A
4 - B253 Picardy Manroway	19	5	1631	1418	0.013	19	123	0.0	0.0	2.907	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1554	388	218	2691	0.577	1554	1435	1.5	1.5	3.434	A
2 - Anderson Way	425	106	1554	1803	0.236	425	218	0.3	0.3	2.741	A
3 - A2016 Bronze Age Way	1634	408	123	2697	0.606	1634	1855	1.6	1.7	3.656	A
4 - B253 Picardy Manorway	19	5	1634	1416	0.013	19	123	0.0	0.0	2.910	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1268	317	178	2721	0.466	1271	1173	1.5	1.0	2.696	A
2 - Anderson Way	347	87	1271	2024	0.171	347	178	0.3	0.2	2.257	A
3 - A2016 Bronze Age Way	1334	334	101	2714	0.492	1336	1517	1.7	1.1	2.827	A
4 - B253 Picardy Manorway	15	4	1336	1626	0.009	15	101	0.0	0.0	2.525	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A2016 Picardy Manroway	1062	266	149	2743	0.387	1063	982	1.0	0.7	2.326	A
2 - Anderson Way	291	73	1063	2185	0.133	291	149	0.2	0.2	1.997	A
3 - A2016 Bronze Age Way	1117	279	84	2726	0.410	1118	1270	1.1	0.8	2.419	A
4 - B253 Picardy Manorway	13	3	1118	1780	0.007	13	84	0.0	0.0	2.301	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.68	0.60	1.08	1.52	1.57			N/A	N/A
2 - Anderson Way	0.16	0.00	0.00	0.16	0.16			N/A	N/A
3 - A2016 Bronze Age Way	0.75	0.59	1.08	1.51	1.57			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.94	0.07	0.81	1.66	2.09			N/A	N/A
2 - Anderson Way	0.22	0.00	0.00	0.22	0.22			N/A	N/A
3 - A2016 Bronze Age Way	1.04	0.06	0.77	1.99	2.81			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.01	0.28	0.51	0.54			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	1.47	0.03	0.28	1.47	1.47			N/A	N/A
2 - Anderson Way	0.32	0.03	0.27	0.48	0.50			N/A	N/A
3 - A2016 Bronze Age Way	1.64	0.03	0.28	1.64	1.64			N/A	N/A
4 - B253 Picardy Manorway	0.02	0.02	0.29	0.51	0.54			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	1.48	0.03	0.28	1.48	1.48			N/A	N/A
2 - Anderson Way	0.32	0.03	0.32	0.97	1.28			N/A	N/A
3 - A2016 Bronze Age Way	1.65	0.03	0.28	1.65	1.65			N/A	N/A
4 - B253 Picardy Manorway	0.02	0.00	0.00	0.02	0.02			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.95	0.59	1.08	1.52	1.58			N/A	N/A
2 - Anderson Way	0.22	0.00	0.00	0.22	0.22			N/A	N/A
3 - A2016 Bronze Age Way	1.05	0.57	1.09	1.56	1.62			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A2016 Picardy Manroway	0.69	0.12	0.92	1.49	1.56			N/A	N/A
2 - Anderson Way	0.16	0.00	0.00	0.16	0.16			N/A	N/A
3 - A2016 Bronze Age Way	0.75	0.11	0.91	1.49	1.56			N/A	N/A
4 - B253 Picardy Manorway	0.01	0.00	0.00	0.01	0.01			N/A	N/A

Appendix E **Queens Road / Bexley Road Modelling Results**

<h1>Junctions 10</h1>
<h2>ARCADY 10 - Roundabout Module</h2>
Version: 10.0.4.1693 © Copyright TRL Software Limited, 2021
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Filename: Queens Road _ Bexley Road RBT v03.j10

Path: J:\50923 - GH - LB Bexley Local Plan\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10\2022 Modelling Update

Report generation date: 30/03/2022 11:45:24

-
- »Existing Layout - 2021 Baseline (unchanged), AM
 - »Existing Layout - 2021 Baseline (unchanged), PM
 - »Existing Layout - 2038 Reference Case - No LTC, AM
 - »Existing Layout - 2038 Reference Case - No LTC, PM
 - »Existing Layout - 2038 Reference Case - With LTC, AM
 - »Existing Layout - 2038 Reference Case - With LTC, PM
 - »Existing Layout - 2038 Local Plan Case - No LTC, AM
 - »Existing Layout - 2038 Local Plan Case - No LTC, PM
 - »Existing Layout - 2038 Local Plan Case - With LTC, AM
 - »Existing Layout - 2038 Local Plan Case - With LTC, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Existing Layout - 2021 Baseline (unchanged)						
1 - Bronze Age Way	1.4	5.11	0.57	1.9	5.87	0.65
3 - Bexley Road (E)	0.9	10.19	0.47	2.0	17.07	0.68
4 - Queens Road	3.2	7.06	0.76	1.8	5.09	0.63
5 - Bexley Road (W)	49.2	207.58	1.17	3.1	16.35	0.76
Existing Layout - 2038 Reference Case - No LTC						
1 - Bronze Age Way	2.0	6.36	0.64	3.3	8.15	0.76
3 - Bexley Road (E)	2.7	20.75	0.72	11.3	72.53	1.01
4 - Queens Road	3.0	6.97	0.73	1.6	4.90	0.59
5 - Bexley Road (W)	44.9	230.24	1.20	2.3	16.44	0.70
Existing Layout - 2038 Reference Case - With LTC						
1 - Bronze Age Way	2.0	6.19	0.63	3.2	7.87	0.75
3 - Bexley Road (E)	2.6	19.59	0.71	11.5	71.86	1.01
4 - Queens Road	3.5	7.82	0.76	1.6	4.83	0.59
5 - Bexley Road (W)	83.0	422.21	1.37	2.3	16.54	0.70
Existing Layout - 2038 Local Plan Case - No LTC						
1 - Bronze Age Way	3.1	8.55	0.74	3.9	10.07	0.79
3 - Bexley Road (E)	22.0	126.83	1.07	133.7	713.03	1.52
4 - Queens Road	5.1	11.38	0.83	1.9	5.51	0.64
5 - Bexley Road (W)	156.1	924.58	1.67	17.9	100.15	1.04
Existing Layout - 2038 Local Plan Case - With LTC						
1 - Bronze Age Way	3.2	8.70	0.75	4.0	10.21	0.80
3 - Bexley Road (E)	49.8	249.60	1.19	137.3	715.61	1.53
4 - Queens Road	6.2	13.68	0.86	1.9	5.49	0.64
5 - Bexley Road (W)	177.8	1132.05	1.78	10.2	58.74	0.97

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

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

File summary

File Description

Title	
Location	
Site number	
Date	20/03/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SDGNT\dsabathier
Description	

Units

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



Flows show original traffic demand (PCU/hr).

The junction diagram reflects the last run of Junctions.

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
D1	2021 Baseline (unchanged)	AM	ONE HOUR	07:45	09:15	10	✓
D2	2021 Baseline (unchanged)	PM	ONE HOUR	16:45	18:15	10	✓
D3	2038 Reference Case - No LTC	AM	ONE HOUR	07:45	09:15	10	✓
D4	2038 Reference Case - No LTC	PM	ONE HOUR	16:45	18:15	10	✓
D5	2038 Reference Case - With LTC	AM	ONE HOUR	07:45	09:15	10	✓
D6	2038 Reference Case - With LTC	PM	ONE HOUR	16:45	18:15	10	✓
D7	2038 Local Plan Case - No LTC	AM	ONE HOUR	07:45	09:15	10	✓
D8	2038 Local Plan Case - No LTC	PM	ONE HOUR	16:45	18:15	10	✓
D9	2038 Local Plan Case - With LTC	AM	ONE HOUR	07:45	09:15	10	✓
D10	2038 Local Plan Case - With LTC	PM	ONE HOUR	16:45	18:15	10	✓

Analysis Set Details

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

Existing Layout - 2021 Baseline (unchanged), 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	51.41	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	51.41	F

Arms

Arms

Arm	Name	Description	No give-way line
1	Bronze Age Way		
2	Walnut Tree Avenue		
3	Bexley Road (E)		
4	Queens Road		
5	Bexley Road (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 - Bronze Age Way	7.13	9.12	25.5	12.2	49.1	51.3		
2 - Walnut Tree Avenue								✓
3 - Bexley Road (E)	4.03	6.43	10.5	9.2	49.3	37.4	✓	
4 - Queens Road	7.43	9.71	9.3	24.0	49.4	21.8		
5 - Bexley Road (W)	4.76	7.90	3.3	11.1	49.4	34.9		

Bypass

Arm	Arm has bypass	Bypass utilisation (%)
1 - Bronze Age Way		
2 - Walnut Tree Avenue		
3 - Bexley Road (E)	✓	100
4 - Queens Road		
5 - Bexley Road (W)		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Bronze Age Way	0.709	2365
2 - Walnut Tree Avenue		
3 - Bexley Road (E)	0.551	1506
4 - Queens Road	0.819	2736
5 - Bexley Road (W)	0.573	1584

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021 Baseline (unchanged)	AM	ONE HOUR	07:45	09:15	10	✓

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 (PCU/hr)	Scaling Factor (%)
1 - Bronze Age Way		ONE HOUR	✓	1014	100.000
2 - Walnut Tree Avenue					
3 - Bexley Road (E)		ONE HOUR	✓	389	100.000
4 - Queens Road		ONE HOUR	✓	1647	100.000
5 - Bexley Road (W)		ONE HOUR	✓	871	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
From	1 - Bronze Age Way	2	18	0	818	176
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	113	43	0	59	174
	4 - Queens Road	1094	170	0	4	379
	5 - Bexley Road (W)	207	175	0	336	153

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
From	1 - Bronze Age Way	0	0	0	12	4
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	4	12	0	0	10
	4 - Queens Road	6	14	0	0	5
	5 - Bexley Road (W)	2	17	0	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bronze Age Way	0.57	5.11	1.4	3.7	A	828	1243
2 - Walnut Tree Avenue							
3 - Bexley Road (E)	0.47	10.19	0.9	4.2	B	318	404
4 - Queens Road	0.76	7.06	3.2	12.8	A	1345	2018
5 - Bexley Road (W)	1.17	207.58	49.2	95.2	F	712	1067

Main Results for each time segment

07:45 - 07:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	686	686	114	0	0	589	1947	0.352	682	951	0.0	0.6	3.128	
2 - Walnut Tree Avenue						999				272				
3 - Bexley Road (E)	263	223	37	40	0	999	956	0.234	221	0	0.0	0.3	5.286	
4 - Queens Road	1114	1114	186	0	40	443	2373	0.469	1108	777	0.0	0.9	3.018	
5 - Bexley Road (W)	589	589	98	0	0	959	1035	0.569	581	592	0.0	1.4	8.262	

07:55 - 08:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	686	686	114	0	0	596	1942	0.353	686	957	0.6	0.6	3.157	
2 - Walnut Tree Avenue						1007				274				
3 - Bexley Road (E)	263	223	37	40	0	1007	951	0.235	223	0	0.3	0.3	5.345	
4 - Queens Road	1114	1114	186	0	40	447	2370	0.470	1114	783	0.9	0.9	3.052	
5 - Bexley Road (W)	589	589	98	0	0	964	1032	0.571	589	596	1.4	1.4	8.601	

08:05 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	859	859	143	0	0	733	1845	0.465	857	1192	0.6	0.9	4.008	
2 - Walnut Tree Avenue						1250				340				
3 - Bexley Road (E)	329	280	47	50	0	1250	817	0.342	278	0	0.3	0.6	7.201	
4 - Queens Road	1395	1395	233	0	50	555	2281	0.612	1391	973	0.9	1.6	4.287	
5 - Bexley Road (W)	738	738	123	0	0	1204	894	0.825	721	742	1.4	4.2	20.308	

08:15 - 08:25

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	983	983	164	0	0	792	1803	0.545	981	1349	0.9	1.3	4.814	
2 - Walnut Tree Avenue						1396				377				
3 - Bexley Road (E)	377	320	53	57	0	1396	737	0.434	318	0	0.6	0.8	9.271	
4 - Queens Road	1597	1597	266	0	57	625	2224	0.718	1591	1090	1.6	2.6	6.002	
5 - Bexley Road (W)	845	845	141	0	0	1377	795	1.062	764	838	4.2	17.7	65.012	

08:25 - 08:35

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1028	1028	171	0	0	793	1803	0.571	1028	1402	1.3	1.4	5.114	
2 - Walnut Tree Avenue						1436				385				
3 - Bexley Road (E)	395	335	56	60	0	1436	715	0.468	334	0	0.8	0.9	10.191	
4 - Queens Road	1671	1671	278	0	60	646	2206	0.757	1667	1123	2.6	3.2	7.058	
5 - Bexley Road (W)	883	883	147	0	0	1443	757	1.167	752	870	17.7	39.6	147.976	

08:35 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	983	983	164	0	0	810	1790	0.549	984	1361	1.4	1.4	4.927
2 - Walnut Tree Avenue						1412				382			
3 - Bexley Road (E)	377	320	53	57	0	1412	728	0.439	320	0	0.9	0.9	9.556
4 - Queens Road	1597	1597	266	0	57	631	2219	0.720	1599	1101	3.2	2.8	6.219
5 - Bexley Road (W)	845	845	141	0	0	1385	791	1.068	787	846	39.6	49.2	207.577

08:45 - 08:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	859	859	143	0	0	848	1764	0.487	861	1236	1.4	1.1	4.407
2 - Walnut Tree Avenue						1337				371			
3 - Bexley Road (E)	329	280	47	50	0	1337	769	0.363	281	0	0.9	0.6	7.997
4 - Queens Road	1395	1395	233	0	50	585	2257	0.618	1401	1033	2.8	1.8	4.517
5 - Bexley Road (W)	738	738	123	0	0	1213	889	0.830	870	773	49.2	27.2	158.928

08:55 - 09:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	686	686	114	0	0	714	1859	0.369	688	998	1.1	0.7	3.400	
2 - Walnut Tree Avenue						1096				306				
3 - Bexley Road (E)	263	223	37	40	0	1096	902	0.247	225	0	0.6	0.4	5.758	
4 - Queens Road	1114	1114	186	0	40	476	2346	0.475	1118	844	1.8	1.0	3.137	
5 - Bexley Road (W)	589	589	98	0	0	969	1029	0.572	743	626	27.2	1.5	21.685	

09:05 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	686	686	114	0	0	596	1942	0.353	686	958	0.7	0.6	3.159	
2 - Walnut Tree Avenue						1007				275				
3 - Bexley Road (E)	263	223	37	40	0	1007	951	0.235	223	0	0.4	0.3	5.352	
4 - Queens Road	1114	1114	186	0	40	447	2369	0.470	1114	783	1.0	1.0	3.056	
5 - Bexley Road (W)	589	589	98	0	0	964	1032	0.571	589	597	1.5	1.4	8.632	

Queue Variation Results for each time segment

07:45 - 07:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.59	0.59	1.10	1.54	1.60			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.33	0.00	0.00	0.33	0.33			N/A	N/A
4 - Queens Road	0.93	0.59	1.07	1.49	1.54			N/A	N/A
5 - Bexley Road (W)	1.36	0.60	1.24	1.72	1.92			N/A	N/A

07:55 - 08:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.60	0.60	1.10	1.54	1.60			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.33	0.00	0.00	0.33	0.33			N/A	N/A
4 - Queens Road	0.94	0.59	1.07	1.49	1.54			N/A	N/A
5 - Bexley Road (W)	1.38	0.16	1.24	2.12	2.84			N/A	N/A

08:05 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.95	0.48	1.08	1.55	1.61			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.55	0.55	1.08	1.51	1.57			N/A	N/A
4 - Queens Road	1.65	0.10	1.24	3.22	4.34			N/A	N/A
5 - Bexley Road (W)	4.18	0.28	2.55	8.80	11.43			N/A	N/A

08:15 - 08:25

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.30	0.03	0.31	1.30	3.71			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.81	0.03	0.29	0.81	1.73			N/A	N/A
4 - Queens Road	2.62	0.03	0.33	3.56	12.84			N/A	N/A
5 - Bexley Road (W)	17.65	3.75	14.98	31.64	37.87			N/A	N/A

08:25 - 08:35

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.44	0.03	0.28	1.44	1.44			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.93	0.03	0.28	0.93	0.93			N/A	N/A
4 - Queens Road	3.19	0.03	0.29	3.19	3.19			N/A	N/A
5 - Bexley Road (W)	39.59	12.78	35.75	65.93	76.74			N/A	N/A

08:35 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.36	0.03	0.30	1.36	3.48			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.87	0.03	0.34	1.82	4.20			N/A	N/A
4 - Queens Road	2.82	0.03	0.29	2.82	3.10			N/A	N/A
5 - Bexley Road (W)	49.22	16.14	44.62	81.90	95.21			N/A	N/A

08:45 - 08:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.06	0.10	1.01	1.70	2.07			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.63	0.07	0.73	1.45	1.53			N/A	N/A
4 - Queens Road	1.76	0.05	0.47	4.66	7.70			N/A	N/A
5 - Bexley Road (W)	27.17	8.10	24.19	45.78	53.58			N/A	N/A

08:55 - 09:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.65	0.61	1.10	1.54	1.60			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.36	0.00	0.00	0.36	0.36			N/A	N/A
4 - Queens Road	0.97	0.10	0.95	1.50	1.90			N/A	N/A
5 - Bexley Road (W)	1.49	0.03	0.33	2.39	7.49			N/A	N/A

09:05 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.61	0.09	0.84	1.49	1.57			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.33	0.00	0.00	0.33	0.33			N/A	N/A
4 - Queens Road	0.95	0.09	0.92	1.46	1.89			N/A	N/A
5 - Bexley Road (W)	1.44	0.03	0.32	2.10	7.14			N/A	N/A

Existing Layout - 2021 Baseline (unchanged), PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	9.18	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.18	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)	Run automatically
D2	2021 Baseline (unchanged)	PM	ONE HOUR	16:45	18:15	10	✓

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 (PCU/hr)	Scaling Factor (%)
1 - Bronze Age Way		ONE HOUR	✓	1169	100.000
2 - Walnut Tree Avenue					
3 - Bexley Road (E)		ONE HOUR	✓	516	100.000
4 - Queens Road		ONE HOUR	✓	1293	100.000
5 - Bexley Road (W)		ONE HOUR	✓	708	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
From	1 - Bronze Age Way	1	7	0	890	271
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	142	72	0	76	226
	4 - Queens Road	768	119	0	1	405
	5 - Bexley Road (W)	144	201	0	269	94

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
	1 - Bronze Age Way	0	0	0	6	1
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	0	1	0	0	4
	4 - Queens Road	4	22	0	0	11
	5 - Bexley Road (W)	1	20	0	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bronze Age Way	0.65	5.87	1.9	6.4	A	955	1432
2 - Walnut Tree Avenue							
3 - Bexley Road (E)	0.68	17.07	2.0	8.7	C	422	539
4 - Queens Road	0.63	5.09	1.8	5.2	A	1056	1584
5 - Bexley Road (W)	0.76	16.35	3.1	12.5	C	578	868

Main Results for each time segment

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	790	790	132	0	0	507	2005	0.394	786	709	0.0	0.7	3.083	
2 - Walnut Tree Avenue						1026				268				
3 - Bexley Road (E)	349	298	50	51	0	1026	941	0.316	295	0	0.0	0.5	5.670	
4 - Queens Road	874	874	146	0	51	541	2293	0.381	870	780	0.0	0.7	2.714	
5 - Bexley Road (W)	479	479	80	0	0	742	1159	0.413	474	669	0.0	0.7	5.602	

16:55 - 17:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	790	790	132	0	0	511	2002	0.395	790	713	0.7	0.7	3.111	
2 - Walnut Tree Avenue						1032				270				
3 - Bexley Road (E)	349	298	50	51	0	1032	937	0.317	297	0	0.5	0.5	5.748	
4 - Queens Road	874	874	146	0	51	545	2289	0.382	874	784	0.7	0.7	2.736	
5 - Bexley Road (W)	479	479	80	0	0	746	1157	0.414	479	673	0.7	0.8	5.692	

17:05 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	990	990	165	0	0	637	1913	0.518	988	891	0.7	1.1	4.062	
2 - Walnut Tree Avenue						1288				336				
3 - Bexley Road (E)	437	373	62	64	0	1288	796	0.468	370	0	0.5	0.9	8.586	
4 - Queens Road	1095	1095	183	0	64	679	2180	0.503	1093	979	0.7	1.1	3.556	
5 - Bexley Road (W)	600	600	100	0	0	931	1050	0.571	596	841	0.8	1.4	8.422	

17:15 - 17:25

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1133	1133	189	0	0	727	1849	0.613	1130	1019	1.1	1.6	5.223	
2 - Walnut Tree Avenue						1473				384				
3 - Bexley Road (E)	500	427	71	74	0	1473	694	0.615	423	0	0.9	1.5	13.346	
4 - Queens Road	1254	1254	209	0	74	776	2100	0.597	1251	1120	1.1	1.6	4.541	
5 - Bexley Road (W)	686	686	114	0	0	1066	974	0.705	680	961	1.4	2.4	12.890	

17:25 - 17:35

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1186	1186	198	0	0	763	1824	0.650	1184	1067	1.6	1.9	5.875	
2 - Walnut Tree Avenue						1544				403				
3 - Bexley Road (E)	523	446	74	77	0	1544	655	0.681	443	0	1.5	2.0	17.069	
4 - Queens Road	1311	1311	219	0	77	814	2069	0.634	1310	1174	1.6	1.8	5.087	
5 - Bexley Road (W)	718	718	120	0	0	1116	945	0.760	714	1007	2.4	3.1	16.345	

17:35 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1133	1133	189	0	0	735	1844	0.615	1135	1025	1.9	1.7	5.330	
2 - Walnut Tree Avenue						1482				388				
3 - Bexley Road (E)	500	427	71	74	0	1482	689	0.619	428	0	2.0	1.7	14.209	
4 - Queens Road	1254	1254	209	0	74	784	2094	0.599	1255	1127	1.8	1.6	4.623	
5 - Bexley Road (W)	686	686	114	0	0	1071	970	0.707	689	968	3.1	2.7	13.865	

17:45 - 17:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	990	990	165	0	0	647	1906	0.520	994	899	1.7	1.1	4.148	
2 - Walnut Tree Avenue						1300				341				
3 - Bexley Road (E)	437	373	62	64	0	1300	790	0.472	377	0	1.7	0.9	9.021	
4 - Queens Road	1095	1095	183	0	64	689	2171	0.504	1098	988	1.6	1.1	3.622	
5 - Bexley Road (W)	600	600	100	0	0	939	1046	0.573	607	849	2.7	1.5	8.938	

17:55 - 18:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	790	790	132	0	0	515	1999	0.395	793	717	1.1	0.7	3.135	
2 - Walnut Tree Avenue						1037				272				
3 - Bexley Road (E)	349	298	50	51	0	1037	935	0.318	300	0	0.9	0.5	5.822	
4 - Queens Road	874	874	146	0	51	549	2286	0.382	877	788	1.1	0.7	2.754	
5 - Bexley Road (W)	479	479	80	0	0	749	1155	0.415	483	677	1.5	0.8	5.782	

18:05 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	790	790	132	0	0	511	2002	0.395	791	713	0.7	0.7	3.114	
2 - Walnut Tree Avenue						1032				270				
3 - Bexley Road (E)	349	298	50	51	0	1032	937	0.317	298	0	0.5	0.5	5.749	
4 - Queens Road	874	874	146	0	51	545	2289	0.382	874	784	0.7	0.7	2.736	
5 - Bexley Road (W)	479	479	80	0	0	746	1157	0.414	479	674	0.8	0.8	5.696	

Queue Variation Results for each time segment

16:45 - 16:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.68	0.58	1.05	1.47	1.52			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.47	0.00	0.00	0.47	0.47			N/A	N/A
4 - Queens Road	0.66	0.59	1.08	1.51	1.56			N/A	N/A
5 - Bexley Road (W)	0.74	0.59	1.07	1.50	1.55			N/A	N/A

16:55 - 17:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.68	0.58	1.05	1.47	1.52			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.47	0.00	0.00	0.47	0.47			N/A	N/A
4 - Queens Road	0.66	0.59	1.08	1.51	1.56			N/A	N/A
5 - Bexley Road (W)	0.75	0.59	1.07	1.50	1.55			N/A	N/A

17:05 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.11	0.20	1.09	1.58	1.89			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.88	0.54	1.01	1.43	1.48			N/A	N/A
4 - Queens Road	1.07	0.20	1.08	1.43	1.82			N/A	N/A
5 - Bexley Road (W)	1.38	0.29	1.28	1.98	2.36			N/A	N/A

17:15 - 17:25

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.62	0.03	0.30	1.62	6.40			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.54	0.03	0.34	3.46	7.96			N/A	N/A
4 - Queens Road	1.56	0.03	0.30	1.56	5.17			N/A	N/A
5 - Bexley Road (W)	2.40	0.04	0.39	6.10	12.53			N/A	N/A

17:25 - 17:35

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.90	0.03	0.27	1.90	1.90			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	2.03	0.03	0.28	2.03	4.97			N/A	N/A
4 - Queens Road	1.82	0.03	0.28	1.82	1.82			N/A	N/A
5 - Bexley Road (W)	3.12	0.03	0.31	3.12	10.83			N/A	N/A

17:35 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.71	0.03	0.28	1.71	2.76			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.74	0.03	0.31	2.63	8.70			N/A	N/A
4 - Queens Road	1.63	0.03	0.29	1.63	2.60			N/A	N/A
5 - Bexley Road (W)	2.74	0.03	0.32	2.74	11.82			N/A	N/A

17:45 - 17:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.15	0.06	0.78	2.38	3.33			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.94	0.05	0.56	1.91	2.79			N/A	N/A
4 - Queens Road	1.11	0.07	0.89	2.04	2.84			N/A	N/A
5 - Bexley Road (W)	1.49	0.05	0.46	3.87	6.37			N/A	N/A

17:55 - 18:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.69	0.11	0.89	1.44	1.50			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.48	0.04	0.42	1.28	1.41			N/A	N/A
4 - Queens Road	0.67	0.13	0.94	1.48	1.55			N/A	N/A
5 - Bexley Road (W)	0.77	0.06	0.58	1.28	1.86			N/A	N/A

18:05 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.69	0.11	0.89	1.44	1.50			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.48	0.04	0.41	1.27	1.41			N/A	N/A
4 - Queens Road	0.67	0.13	0.93	1.48	1.55			N/A	N/A
5 - Bexley Road (W)	0.76	0.05	0.56	1.26	1.86			N/A	N/A

Existing Layout - 2038 Reference Case - No LTC, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	49.37	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	49.37	E

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2038 Reference Case - No LTC	AM	ONE HOUR	07:45	09:15	10	✓

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 (PCU/hr)	Scaling Factor (%)
1 - Bronze Age Way		ONE HOUR	✓	1149	100.000
2 - Walnut Tree Avenue					
3 - Bexley Road (E)		ONE HOUR	✓	490	100.000
4 - Queens Road		ONE HOUR	✓	1558	100.000
5 - Bexley Road (W)		ONE HOUR	✓	716	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
From	1 - Bronze Age Way	0	0	0	942	207
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	287	19	0	0	184
	4 - Queens Road	1092	287	0	0	179
	5 - Bexley Road (W)	183	150	0	383	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
	1 - Bronze Age Way	0	0	0	20	7
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	14	20	0	0	14
	4 - Queens Road	11	27	0	0	10
	5 - Bexley Road (W)	3	27	0	11	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bronze Age Way	0.64	6.36	2.0	7.6	A	939	1408
2 - Walnut Tree Avenue							
3 - Bexley Road (E)	0.72	20.75	2.7	12.9	C	400	600
4 - Queens Road	0.73	6.97	3.0	11.7	A	1273	1909
5 - Bexley Road (W)	1.20	230.24	44.9	86.7	F	585	877

Main Results for each time segment

07:45 - 07:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	777	777	129	0	0	561	1967	0.395	772	1048	0.0	0.8	3.526	
2 - Walnut Tree Avenue						1028				306				
3 - Bexley Road (E)	331	331	55	0	0	1028	940	0.353	328	0	0.0	0.6	6.677	
4 - Queens Road	1054	1054	176	0	0	467	2353	0.448	1048	888	0.0	0.9	3.118	
5 - Bexley Road (W)	484	484	81	0	0	1132	935	0.518	477	383	0.0	1.2	8.655	

07:55 - 08:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	777	777	129	0	0	567	1963	0.396	777	1056	0.8	0.8	3.564	
2 - Walnut Tree Avenue						1036				308				
3 - Bexley Road (E)	331	331	55	0	0	1036	935	0.354	331	0	0.6	0.6	6.808	
4 - Queens Road	1054	1054	176	0	0	471	2350	0.448	1053	896	0.9	0.9	3.151	
5 - Bexley Road (W)	484	484	81	0	0	1139	931	0.520	484	385	1.2	1.2	8.987	

08:05 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	973	973	162	0	0	699	1869	0.521	970	1315	0.8	1.3	4.689	
2 - Walnut Tree Avenue						1287				382				
3 - Bexley Road (E)	415	415	69	0	0	1287	797	0.521	412	0	0.6	1.2	10.579	
4 - Queens Road	1320	1320	220	0	0	586	2256	0.585	1316	1112	0.9	1.6	4.330	
5 - Bexley Road (W)	606	606	101	0	0	1422	770	0.788	592	481	1.2	3.6	21.193	

08:15 - 08:25

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1114	1114	186	0	0	758	1827	0.610	1111	1489	1.3	1.8	5.873	
2 - Walnut Tree Avenue						1443				426				
3 - Bexley Road (E)	475	475	79	0	0	1443	711	0.668	469	0	1.2	2.1	16.648	
4 - Queens Road	1511	1511	252	0	0	670	2187	0.691	1505	1243	1.6	2.5	5.943	
5 - Bexley Road (W)	694	694	116	0	0	1626	653	1.064	621	549	3.6	15.7	71.482	

08:25 - 08:35

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1165	1165	194	0	0	758	1827	0.638	1164	1548	1.8	2.0	6.358	
2 - Walnut Tree Avenue						1486				436				
3 - Bexley Road (E)	497	497	83	0	0	1486	687	0.723	493	0	2.1	2.7	20.752	
4 - Queens Road	1580	1580	263	0	0	703	2160	0.732	1577	1277	2.5	3.0	6.967	
5 - Bexley Road (W)	726	726	121	0	0	1704	608	1.195	603	576	15.7	36.3	167.569	

08:35 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1114	1114	186	0	0	775	1815	0.614	1115	1504	2.0	1.9	6.045	
2 - Walnut Tree Avenue						1458				432				
3 - Bexley Road (E)	475	475	79	0	0	1458	702	0.676	476	0	2.7	2.5	18.365	
4 - Queens Road	1511	1511	252	0	0	677	2181	0.693	1513	1258	3.0	2.6	6.140	
5 - Bexley Road (W)	694	694	116	0	0	1636	646	1.074	643	554	36.3	44.9	230.240	

08:45 - 08:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	973	973	162	0	0	813	1788	0.544	976	1366	1.9	1.4	5.224	
2 - Walnut Tree Avenue						1373				416				
3 - Bexley Road (E)	415	415	69	0	0	1373	749	0.554	421	0	2.5	1.5	12.762	
4 - Queens Road	1320	1320	220	0	0	597	2247	0.587	1326	1197	2.6	1.6	4.466	
5 - Bexley Road (W)	606	606	101	0	0	1436	761	0.797	743	486	44.9	22.2	163.956	

08:55 - 09:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	777	777	129	0	0	662	1896	0.410	781	1094	1.4	0.8	3.802	
2 - Walnut Tree Avenue						1107				336				
3 - Bexley Road (E)	331	331	55	0	0	1107	896	0.370	336	0	1.5	0.7	7.401	
4 - Queens Road	1054	1054	176	0	0	477	2345	0.449	1058	966	1.6	0.9	3.183	
5 - Bexley Road (W)	484	484	81	0	0	1146	927	0.522	610	388	22.2	1.3	18.288	

09:05 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	777	777	129	0	0	568	1962	0.396	777	1056	0.8	0.8	3.567	
2 - Walnut Tree Avenue						1036				308				
3 - Bexley Road (E)	331	331	55	0	0	1036	935	0.354	332	0	0.7	0.6	6.821	
4 - Queens Road	1054	1054	176	0	0	472	2349	0.448	1054	896	0.9	0.9	3.155	
5 - Bexley Road (W)	484	484	81	0	0	1140	931	0.520	484	386	1.3	1.2	9.012	

Queue Variation Results for each time segment

07:45 - 07:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.76	0.65	1.17	1.64	1.70			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.61	0.61	1.14	1.60	1.66			N/A	N/A
4 - Queens Road	0.91	0.62	1.14	1.59	1.65			N/A	N/A
5 - Bexley Road (W)	1.16	0.61	1.14	1.60	1.66			N/A	N/A

07:55 - 08:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.77	0.65	1.17	1.64	1.70			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.62	0.62	1.14	1.60	1.66			N/A	N/A
4 - Queens Road	0.92	0.62	1.14	1.59	1.65			N/A	N/A
5 - Bexley Road (W)	1.19	0.17	1.15	1.78	2.09			N/A	N/A

08:05 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.26	0.28	1.24	1.74	2.09			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.20	0.60	1.17	1.20	1.73			N/A	N/A
4 - Queens Road	1.57	0.13	1.31	2.86	3.65			N/A	N/A
5 - Bexley Road (W)	3.56	0.27	2.12	7.26	9.38			N/A	N/A

08:15 - 08:25

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.79	0.03	0.34	1.79	7.62			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	2.14	0.04	0.43	5.56	10.66			N/A	N/A
4 - Queens Road	2.46	0.03	0.34	2.98	11.67			N/A	N/A
5 - Bexley Road (W)	15.69	3.26	13.22	28.03	33.55			N/A	N/A

08:25 - 08:35

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.02	0.03	0.30	2.02	2.02			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	2.72	0.03	0.33	2.72	9.98			N/A	N/A
4 - Queens Road	2.98	0.03	0.30	2.98	2.98			N/A	N/A
5 - Bexley Road (W)	36.27	11.53	32.65	60.46	70.43			N/A	N/A

08:35 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.90	0.03	0.32	1.90	3.53			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	2.52	0.04	0.36	4.17	12.94			N/A	N/A
4 - Queens Road	2.63	0.03	0.31	2.63	3.22			N/A	N/A
5 - Bexley Road (W)	44.89	14.69	40.64	74.57	86.71			N/A	N/A

08:45 - 08:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.43	0.08	1.01	2.98	4.13			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.48	0.06	0.72	3.42	5.15			N/A	N/A
4 - Queens Road	1.64	0.05	0.52	4.23	6.69			N/A	N/A
5 - Bexley Road (W)	22.20	5.93	19.43	38.15	44.99			N/A	N/A

08:55 - 09:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.82	0.15	1.03	1.62	1.69			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.68	0.05	0.55	1.27	1.27			N/A	N/A
4 - Queens Road	0.93	0.10	0.97	1.67	1.67			N/A	N/A
5 - Bexley Road (W)	1.27	0.03	0.34	1.86	6.25			N/A	N/A

09:05 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.78	0.11	0.96	1.61	1.69			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.64	0.05	0.50	1.17	1.17			N/A	N/A
4 - Queens Road	0.93	0.10	0.97	1.66	1.66			N/A	N/A
5 - Bexley Road (W)	1.23	0.03	0.33	1.66	5.94			N/A	N/A

Existing Layout - 2038 Reference Case - No LTC, PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	17.75	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	17.75	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2038 Reference Case - No LTC	PM	ONE HOUR	16:45	18:15	10	✓

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 (PCU/hr)	Scaling Factor (%)
1 - Bronze Age Way		ONE HOUR	✓	1479	100.000
2 - Walnut Tree Avenue					
3 - Bexley Road (E)		ONE HOUR	✓	543	100.000
4 - Queens Road		ONE HOUR	✓	1157	100.000
5 - Bexley Road (W)		ONE HOUR	✓	521	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
From	1 - Bronze Age Way	0	0	0	1086	393
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	337	9	0	0	197
	4 - Queens Road	912	189	0	0	56
	5 - Bexley Road (W)	169	111	0	241	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
	1 - Bronze Age Way	0	0	0	11	2
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	3	24	0	0	8
	4 - Queens Road	8	34	0	0	0
	5 - Bexley Road (W)	1	17	0	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bronze Age Way	0.76	8.15	3.3	13.9	A	1208	1812
2 - Walnut Tree Avenue							
3 - Bexley Road (E)	1.01	72.53	11.3	42.1	F	444	665
4 - Queens Road	0.59	4.90	1.6	3.8	A	945	1418
5 - Bexley Road (W)	0.70	16.44	2.3	10.1	C	426	638

Main Results for each time segment

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	1000	1000	167	0	0	369	2103	0.476	994	952	0.0	1.0	3.503	
2 - Walnut Tree Avenue						1156				208				
3 - Bexley Road (E)	367	367	61	0	0	1156	869	0.422	363	0	0.0	0.8	7.403	
4 - Queens Road	782	782	130	0	0	627	2222	0.352	779	891	0.0	0.6	2.763	
5 - Bexley Road (W)	352	352	59	0	0	972	1027	0.343	349	433	0.0	0.6	5.672	

16:55 - 17:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	1000	1000	167	0	0	372	2101	0.476	1000	959	1.0	1.0	3.545	
2 - Walnut Tree Avenue						1163				209				
3 - Bexley Road (E)	367	367	61	0	0	1163	865	0.424	367	0	0.8	0.8	7.591	
4 - Queens Road	782	782	130	0	0	633	2217	0.353	782	897	0.6	0.6	2.786	
5 - Bexley Road (W)	352	352	59	0	0	978	1024	0.344	352	437	0.6	0.6	5.756	

17:05 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	1253	1253	209	0	0	463	2036	0.615	1248	1194	1.0	1.7	4.929	
2 - Walnut Tree Avenue						1451				261				
3 - Bexley Road (E)	460	460	77	0	0	1451	706	0.651	454	0	0.8	1.8	14.602	
4 - Queens Road	980	980	163	0	0	785	2093	0.468	978	1120	0.6	1.0	3.579	
5 - Bexley Road (W)	441	441	74	0	0	1219	885	0.498	438	544	0.6	1.0	8.591	

17:15 - 17:25

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1434	1434	239	0	0	529	1989	0.721	1428	1358	1.7	2.7	6.879	
2 - Walnut Tree Avenue						1660				298				
3 - Bexley Road (E)	527	527	88	0	0	1660	592	0.890	505	0	1.8	5.5	36.742	
4 - Queens Road	1122	1122	187	0	0	884	2012	0.558	1119	1280	1.0	1.4	4.469	
5 - Bexley Road (W)	505	505	84	0	0	1387	789	0.640	501	617	1.0	1.8	13.161	

17:25 - 17:35

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1500	1500	250	0	0	555	1971	0.761	1497	1415	2.7	3.3	8.146	
2 - Walnut Tree Avenue						1740				312				
3 - Bexley Road (E)	551	551	92	0	0	1740	548	1.006	516	0	5.5	11.3	72.535	
4 - Queens Road	1174	1174	196	0	0	913	1988	0.590	1172	1342	1.4	1.6	4.896	
5 - Bexley Road (W)	528	528	88	0	0	1444	757	0.698	525	642	1.8	2.3	16.440	

17:35 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1434	1434	239	0	0	534	1986	0.722	1436	1377	3.3	2.9	7.146	
2 - Walnut Tree Avenue						1671				300				
3 - Bexley Road (E)	527	527	88	0	0	1671	586	0.899	528	0	11.3	11.0	71.862	
4 - Queens Road	1122	1122	187	0	0	910	1991	0.564	1123	1289	1.6	1.5	4.612	
5 - Bexley Road (W)	505	505	84	0	0	1405	779	0.648	507	628	2.3	2.1	14.289	

17:45 - 17:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1253	1253	209	0	0	471	2031	0.617	1260	1237	2.9	1.8	5.105	
2 - Walnut Tree Avenue						1466				264				
3 - Bexley Road (E)	460	460	77	0	0	1466	698	0.659	512	0	11.0	2.2	24.889	
4 - Queens Road	980	980	163	0	0	847	2042	0.480	983	1132	1.5	1.0	3.782	
5 - Bexley Road (W)	441	441	74	0	0	1262	861	0.512	447	568	2.1	1.2	9.442	

17:55 - 18:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	1000	1000	167	0	0	375	2099	0.476	1005	967	1.8	1.0	3.585	
2 - Walnut Tree Avenue						1169				210				
3 - Bexley Road (E)	367	367	61	0	0	1169	862	0.426	376	0	2.2	0.8	7.912	
4 - Queens Road	782	782	130	0	0	643	2209	0.354	785	902	1.0	0.6	2.813	
5 - Bexley Road (W)	352	352	59	0	0	986	1019	0.346	356	441	1.2	0.6	5.858	

18:05 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	1000	1000	167	0	0	372	2101	0.476	1000	959	1.0	1.0	3.546	
2 - Walnut Tree Avenue						1163				209				
3 - Bexley Road (E)	367	367	61	0	0	1163	865	0.424	367	0	0.8	0.8	7.599	
4 - Queens Road	782	782	130	0	0	633	2217	0.353	782	897	0.6	0.6	2.786	
5 - Bexley Road (W)	352	352	59	0	0	979	1023	0.344	352	437	0.6	0.6	5.758	

Queue Variation Results for each time segment

16:45 - 16:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.97	0.60	1.08	1.52	1.57			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.75	0.58	1.05	1.47	1.52			N/A	N/A
4 - Queens Road	0.60	0.60	1.11	1.56	1.61			N/A	N/A
5 - Bexley Road (W)	0.55	0.55	1.07	1.50	1.56			N/A	N/A

16:55 - 17:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.98	0.60	1.08	1.52	1.57			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.76	0.58	1.05	1.47	1.52			N/A	N/A
4 - Queens Road	0.60	0.60	1.11	1.56	1.61			N/A	N/A
5 - Bexley Road (W)	0.56	0.56	1.07	1.50	1.56			N/A	N/A

17:05 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.70	0.11	1.32	3.24	4.30			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.84	0.23	1.54	3.08	3.93			N/A	N/A
4 - Queens Road	0.97	0.34	1.08	1.58	1.64			N/A	N/A
5 - Bexley Road (W)	1.04	0.56	1.08	1.55	1.61			N/A	N/A

17:15 - 17:25

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.70	0.03	0.34	4.42	13.85			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	5.45	0.15	2.60	13.31	18.34			N/A	N/A
4 - Queens Road	1.38	0.03	0.31	1.38	3.76			N/A	N/A
5 - Bexley Road (W)	1.80	0.04	0.37	4.22	9.36			N/A	N/A

17:25 - 17:35

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.30	0.03	0.29	3.30	3.30			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	11.27	0.17	4.90	29.58	41.82			N/A	N/A
4 - Queens Road	1.57	0.03	0.29	1.57	1.57			N/A	N/A
5 - Bexley Road (W)	2.31	0.03	0.30	2.31	5.71			N/A	N/A

17:35 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.91	0.03	0.30	2.91	4.26			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	10.96	0.14	4.30	29.33	42.07			N/A	N/A
4 - Queens Road	1.46	0.03	0.31	1.46	3.69			N/A	N/A
5 - Bexley Road (W)	2.07	0.03	0.33	2.73	10.05			N/A	N/A

17:45 - 17:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.78	0.05	0.45	4.76	8.17			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	2.21	0.04	0.41	5.88	11.01			N/A	N/A
4 - Queens Road	1.04	0.10	0.99	1.66	2.06			N/A	N/A
5 - Bexley Road (W)	1.16	0.06	0.60	2.61	3.82			N/A	N/A

17:55 - 18:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.00	0.08	0.92	1.67	2.07			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.80	0.04	0.36	1.86	3.58			N/A	N/A
4 - Queens Road	0.61	0.61	1.11	1.56	1.61			N/A	N/A
5 - Bexley Road (W)	0.58	0.05	0.49	1.41	1.53			N/A	N/A

18:05 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.99	0.08	0.91	1.66	2.06			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.78	0.04	0.36	1.83	3.54			N/A	N/A
4 - Queens Road	0.61	0.61	1.11	1.56	1.61			N/A	N/A
5 - Bexley Road (W)	0.57	0.05	0.49	1.40	1.53			N/A	N/A

Existing Layout - 2038 Reference Case - With LTC, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	85.37	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	85.37	F

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	2038 Reference Case - With LTC	AM	ONE HOUR	07:45	09:15	10	✓

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 (PCU/hr)	Scaling Factor (%)
1 - Bronze Age Way		ONE HOUR	✓	1144	100.000
2 - Walnut Tree Avenue					
3 - Bexley Road (E)		ONE HOUR	✓	490	100.000
4 - Queens Road		ONE HOUR	✓	1622	100.000
5 - Bexley Road (W)		ONE HOUR	✓	738	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
From	1 - Bronze Age Way	0	0	0	939	205
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	284	20	0	0	186
	4 - Queens Road	1186	301	0	0	135
	5 - Bexley Road (W)	177	147	0	414	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
	1 - Bronze Age Way	0	0	0	20	7
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	13	20	0	0	14
	4 - Queens Road	11	27	0	0	16
	5 - Bexley Road (W)	3	17	0	16	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bronze Age Way	0.63	6.19	2.0	7.4	A	935	1402
2 - Walnut Tree Avenue							
3 - Bexley Road (E)	0.71	19.59	2.6	11.8	C	400	600
4 - Queens Road	0.76	7.82	3.5	14.2	A	1325	1988
5 - Bexley Road (W)	1.37	422.21	83.0	125.4	F	603	904

Main Results for each time segment

07:45 - 07:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	774	774	129	0	0	589	1947	0.397	769	1105	0.0	0.8	3.576	
2 - Walnut Tree Avenue						1044				314				
3 - Bexley Road (E)	331	331	55	0	0	1044	931	0.356	328	0	0.0	0.6	6.747	
4 - Queens Road	1097	1097	183	0	0	465	2355	0.466	1091	907	0.0	1.0	3.236	
5 - Bexley Road (W)	499	499	83	0	0	1203	895	0.558	491	353	0.0	1.4	9.867	

07:55 - 08:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	774	774	129	0	0	596	1942	0.398	774	1114	0.8	0.8	3.617	
2 - Walnut Tree Avenue						1053				316				
3 - Bexley Road (E)	331	331	55	0	0	1053	926	0.358	331	0	0.6	0.6	6.884	
4 - Queens Road	1097	1097	183	0	0	470	2351	0.467	1097	915	1.0	1.0	3.273	
5 - Bexley Road (W)	499	499	83	0	0	1211	890	0.561	499	356	1.4	1.4	10.359	

08:05 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	969	969	162	0	0	728	1849	0.524	966	1384	0.8	1.3	4.774	
2 - Walnut Tree Avenue						1303				391				
3 - Bexley Road (E)	415	415	69	0	0	1303	788	0.527	411	0	0.6	1.2	10.803	
4 - Queens Road	1374	1374	229	0	0	585	2257	0.609	1369	1130	1.0	1.7	4.604	
5 - Bexley Road (W)	625	625	104	0	0	1511	719	0.870	601	443	1.4	5.4	30.072	

08:15 - 08:25

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1109	1109	185	0	0	753	1831	0.606	1106	1557	1.3	1.8	5.807
2 - Walnut Tree Avenue						1433				426			
3 - Bexley Road (E)	475	475	79	0	0	1433	716	0.663	470	0	1.2	2.1	16.247
4 - Queens Road	1573	1573	262	0	0	668	2189	0.719	1566	1235	1.7	2.8	6.529
5 - Bexley Road (W)	716	716	119	0	0	1727	594	1.204	582	507	5.4	27.6	119.938

08:25 - 08:35

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1160	1160	193	0	0	739	1841	0.630	1159	1617	1.8	2.0	6.189
2 - Walnut Tree Avenue						1465				433			
3 - Bexley Road (E)	497	497	83	0	0	1465	699	0.711	494	0	2.1	2.6	19.593
4 - Queens Road	1645	1645	274	0	0	702	2161	0.761	1641	1257	2.8	3.5	7.825
5 - Bexley Road (W)	749	749	125	0	0	1811	546	1.370	545	532	27.6	61.5	299.935

08:35 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1109	1109	185	0	0	758	1828	0.607	1110	1569	2.0	1.8	5.900
2 - Walnut Tree Avenue						1439				429			
3 - Bexley Road (E)	475	475	79	0	0	1439	713	0.666	476	0	2.6	2.4	17.420
4 - Queens Road	1573	1573	262	0	0	675	2183	0.720	1575	1240	3.5	3.0	6.798
5 - Bexley Road (W)	716	716	119	0	0	1740	587	1.218	587	511	61.5	83.0	422.208

08:45 - 08:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	969	969	162	0	0	805	1794	0.540	972	1422	1.8	1.4	5.161
2 - Walnut Tree Avenue						1364				413			
3 - Bexley Road (E)	415	415	69	0	0	1364	754	0.550	421	0	2.4	1.4	12.458
4 - Queens Road	1374	1374	229	0	0	595	2249	0.611	1381	1190	3.0	1.8	4.772
5 - Bexley Road (W)	625	625	104	0	0	1527	709	0.882	700	449	83.0	70.5	371.246

08:55 - 09:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	774	774	129	0	0	881	1740	0.445	776	1209	1.4	1.0	4.399
2 - Walnut Tree Avenue						1266				392			
3 - Bexley Road (E)	331	331	55	0	0	1266	809	0.410	335	0	1.4	0.8	8.710
4 - Queens Road	1097	1097	183	0	0	474	2347	0.467	1102	1127	1.8	1.0	3.311
5 - Bexley Road (W)	499	499	83	0	0	1218	886	0.563	872	358	70.5	8.3	168.229

09:05 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	774	774	129	0	0	628	1920	0.403	774	1124	1.0	0.8	3.693
2 - Walnut Tree Avenue						1077				325			
3 - Bexley Road (E)	331	331	55	0	0	1077	912	0.363	332	0	0.8	0.7	7.064
4 - Queens Road	1097	1097	183	0	0	471	2350	0.467	1097	939	1.0	1.0	3.276
5 - Bexley Road (W)	499	499	83	0	0	1212	890	0.561	540	356	8.3	1.5	12.872

Queue Variation Results for each time segment

07:45 - 07:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.77	0.65	1.17	1.64	1.70			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.62	0.62	1.14	1.59	1.65			N/A	N/A
4 - Queens Road	0.98	0.63	1.14	1.60	1.65			N/A	N/A
5 - Bexley Road (W)	1.37	0.36	1.30	1.94	2.18			N/A	N/A

07:55 - 08:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.77	0.65	1.17	1.64	1.70			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.63	0.63	1.14	1.59	1.65			N/A	N/A
4 - Queens Road	0.99	0.63	1.14	1.60	1.65			N/A	N/A
5 - Bexley Road (W)	1.41	0.09	1.10	2.76	3.69			N/A	N/A

08:05 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.27	0.30	1.25	1.77	2.10			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.22	0.60	1.20	1.30	1.79			N/A	N/A
4 - Queens Road	1.74	0.12	1.35	3.33	4.44			N/A	N/A
5 - Bexley Road (W)	5.38	0.53	3.59	10.95	13.96			N/A	N/A

08:15 - 08:25

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.76	0.03	0.34	1.76	7.37			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	2.08	0.04	0.42	5.38	10.48			N/A	N/A
4 - Queens Road	2.81	0.04	0.36	4.34	14.23			N/A	N/A
5 - Bexley Road (W)	27.57	11.61	25.54	41.83	47.41			N/A	N/A

08:25 - 08:35

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.96	0.03	0.30	1.96	1.96			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	2.58	0.03	0.32	2.58	8.51			N/A	N/A
4 - Queens Road	3.48	0.03	0.31	3.48	3.48			N/A	N/A
5 - Bexley Road (W)	61.47	33.06	58.92	86.45	95.53			N/A	N/A

08:35 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.85	0.03	0.32	1.85	3.02			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	2.39	0.04	0.35	3.37	11.82			N/A	N/A
4 - Queens Road	3.04	0.03	0.31	3.04	4.36			N/A	N/A
5 - Bexley Road (W)	82.96	47.24	80.10	114.26	125.43			N/A	N/A

08:45 - 08:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.40	0.07	0.96	2.97	4.15			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.45	0.06	0.63	3.39	5.16			N/A	N/A
4 - Queens Road	1.83	0.05	0.49	4.84	8.11			N/A	N/A
5 - Bexley Road (W)	70.55	44.53	68.63	92.46	100.09			N/A	N/A

08:55 - 09:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.95	0.37	1.13	1.64	1.71			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.81	0.07	0.78	1.53	1.53			N/A	N/A
4 - Queens Road	1.01	0.09	0.96	1.60	2.05			N/A	N/A
5 - Bexley Road (W)	8.33	0.47	5.33	18.46	24.09			N/A	N/A

09:05 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.80	0.12	0.99	1.61	1.69			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.66	0.05	0.52	1.27	1.27			N/A	N/A
4 - Queens Road	1.00	0.09	0.96	1.59	2.05			N/A	N/A
5 - Bexley Road (W)	1.50	0.03	0.32	1.50	5.56			N/A	N/A

Existing Layout - 2038 Reference Case - With LTC, PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	17.77	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	17.77	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	2038 Reference Case - With LTC	PM	ONE HOUR	16:45	18:15	10	✓

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 (PCU/hr)	Scaling Factor (%)
1 - Bronze Age Way		ONE HOUR	✓	1461	100.000
2 - Walnut Tree Avenue					
3 - Bexley Road (E)		ONE HOUR	✓	556	100.000
4 - Queens Road		ONE HOUR	✓	1158	100.000
5 - Bexley Road (W)		ONE HOUR	✓	514	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
From	1 - Bronze Age Way	0	0	0	1096	365
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	343	11	0	0	202
	4 - Queens Road	918	188	0	0	52
	5 - Bexley Road (W)	167	111	0	236	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
	1 - Bronze Age Way	0	0	0	12	2
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	2	21	0	0	8
	4 - Queens Road	8	34	0	0	1
	5 - Bexley Road (W)	1	17	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bronze Age Way	0.75	7.87	3.2	13.1	A	1194	1790
2 - Walnut Tree Avenue							
3 - Bexley Road (E)	1.01	71.86	11.5	42.9	F	454	681
4 - Queens Road	0.59	4.83	1.6	3.7	A	946	1419
5 - Bexley Road (W)	0.70	16.54	2.3	10.0	C	420	630

Main Results for each time segment

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	988	988	165	0	0	366	2105	0.469	982	959	0.0	1.0	3.489	
2 - Walnut Tree Avenue						1140				208				
3 - Bexley Road (E)	376	376	63	0	0	1140	878	0.428	371	0	0.0	0.8	7.360	
4 - Queens Road	783	783	131	0	0	617	2231	0.351	779	895	0.0	0.6	2.750	
5 - Bexley Road (W)	348	348	58	0	0	981	1022	0.340	344	415	0.0	0.5	5.699	

16:55 - 17:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	988	988	165	0	0	369	2103	0.470	988	966	1.0	1.0	3.528	
2 - Walnut Tree Avenue						1147				210				
3 - Bexley Road (E)	376	376	63	0	0	1147	874	0.430	376	0	0.8	0.8	7.549	
4 - Queens Road	783	783	131	0	0	623	2226	0.352	783	901	0.6	0.6	2.772	
5 - Bexley Road (W)	348	348	58	0	0	987	1018	0.341	348	419	0.5	0.6	5.784	

17:05 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	1238	1238	206	0	0	460	2039	0.607	1233	1203	1.0	1.7	4.862	
2 - Walnut Tree Avenue						1432				261				
3 - Bexley Road (E)	471	471	78	0	0	1432	717	0.657	464	0	0.8	1.9	14.523	
4 - Queens Road	981	981	163	0	0	773	2103	0.466	979	1124	0.6	1.0	3.553	
5 - Bexley Road (W)	435	435	73	0	0	1230	879	0.495	433	521	0.6	1.0	8.636	

17:15 - 17:25

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1417	1417	236	0	0	526	1992	0.711	1411	1368	1.7	2.6	6.703	
2 - Walnut Tree Avenue						1638				299				
3 - Bexley Road (E)	539	539	90	0	0	1638	604	0.893	517	0	1.9	5.6	36.488	
4 - Queens Road	1123	1123	187	0	0	870	2024	0.555	1120	1285	1.0	1.4	4.418	
5 - Bexley Road (W)	498	498	83	0	0	1399	782	0.637	494	591	1.0	1.8	13.236	

17:25 - 17:35

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1482	1482	247	0	0	551	1974	0.751	1479	1425	2.6	3.2	7.873	
2 - Walnut Tree Avenue						1717				313				
3 - Bexley Road (E)	564	564	94	0	0	1717	560	1.007	529	0	5.6	11.5	71.863	
4 - Queens Road	1175	1175	196	0	0	898	2000	0.587	1173	1347	1.4	1.6	4.831	
5 - Bexley Road (W)	521	521	87	0	0	1457	749	0.696	518	614	1.8	2.3	16.538	

17:35 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1417	1417	236	0	0	531	1989	0.712	1419	1387	3.2	2.8	6.939	
2 - Walnut Tree Avenue						1648				301				
3 - Bexley Road (E)	539	539	90	0	0	1648	598	0.902	541	0	11.5	11.2	71.501	
4 - Queens Road	1123	1123	187	0	0	895	2003	0.561	1124	1294	1.6	1.4	4.558	
5 - Bexley Road (W)	498	498	83	0	0	1417	772	0.646	500	601	2.3	2.1	14.370	

17:45 - 17:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1238	1238	206	0	0	468	2033	0.609	1244	1246	2.8	1.7	5.027	
2 - Walnut Tree Avenue						1446				265				
3 - Bexley Road (E)	471	471	78	0	0	1446	709	0.664	524	0	11.2	2.2	24.946	
4 - Queens Road	981	981	163	0	0	835	2052	0.478	983	1136	1.4	1.0	3.752	
5 - Bexley Road (W)	435	435	73	0	0	1273	855	0.509	441	545	2.1	1.2	9.495	

17:55 - 18:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	988	988	165	0	0	372	2101	0.470	992	974	1.7	1.0	3.566	
2 - Walnut Tree Avenue						1154				211				
3 - Bexley Road (E)	376	376	63	0	0	1154	870	0.432	385	0	2.2	0.8	7.870	
4 - Queens Road	783	783	131	0	0	633	2218	0.353	786	906	1.0	0.6	2.798	
5 - Bexley Road (W)	348	348	58	0	0	995	1014	0.343	351	423	1.2	0.6	5.887	

18:05 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	988	988	165	0	0	369	2103	0.470	988	966	1.0	1.0	3.532	
2 - Walnut Tree Avenue						1148				210				
3 - Bexley Road (E)	376	376	63	0	0	1148	874	0.430	376	0	0.8	0.8	7.557	
4 - Queens Road	783	783	131	0	0	623	2226	0.352	783	901	0.6	0.6	2.775	
5 - Bexley Road (W)	348	348	58	0	0	987	1018	0.341	348	419	0.6	0.6	5.788	

Queue Variation Results for each time segment

16:45 - 16:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.96	0.60	1.09	1.53	1.59			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.77	0.57	1.04	1.46	1.51			N/A	N/A
4 - Queens Road	0.60	0.60	1.11	1.56	1.61			N/A	N/A
5 - Bexley Road (W)	0.55	0.55	1.08	1.51	1.56			N/A	N/A

16:55 - 17:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.96	0.60	1.09	1.53	1.59			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.78	0.57	1.04	1.46	1.51			N/A	N/A
4 - Queens Road	0.60	0.60	1.11	1.56	1.61			N/A	N/A
5 - Bexley Road (W)	0.55	0.55	1.08	1.51	1.56			N/A	N/A

17:05 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.66	0.12	1.32	3.12	4.12			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.87	0.23	1.56	3.16	4.04			N/A	N/A
4 - Queens Road	0.96	0.35	1.08	1.58	1.64			N/A	N/A
5 - Bexley Road (W)	1.03	0.56	1.08	1.55	1.61			N/A	N/A

17:15 - 17:25

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.60	0.03	0.34	4.02	13.13			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	5.55	0.16	2.67	13.54	18.65			N/A	N/A
4 - Queens Road	1.36	0.03	0.31	1.36	3.59			N/A	N/A
5 - Bexley Road (W)	1.79	0.04	0.37	4.18	9.28			N/A	N/A

17:25 - 17:35

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.15	0.03	0.29	3.15	3.15			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	11.45	0.17	5.04	29.96	42.27			N/A	N/A
4 - Queens Road	1.55	0.03	0.29	1.55	1.55			N/A	N/A
5 - Bexley Road (W)	2.30	0.03	0.30	2.30	5.64			N/A	N/A

17:35 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.79	0.03	0.30	2.79	3.89			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	11.16	0.14	4.39	29.88	42.87			N/A	N/A
4 - Queens Road	1.44	0.03	0.31	1.44	3.66			N/A	N/A
5 - Bexley Road (W)	2.06	0.03	0.33	2.78	10.03			N/A	N/A

17:45 - 17:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.73	0.05	0.46	4.59	7.73			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	2.25	0.04	0.41	5.98	11.26			N/A	N/A
4 - Queens Road	1.03	0.10	0.99	1.63	2.03			N/A	N/A
5 - Bexley Road (W)	1.15	0.06	0.61	2.56	3.74			N/A	N/A

17:55 - 18:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.98	0.09	0.93	1.57	1.99			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.81	0.04	0.36	1.90	3.68			N/A	N/A
4 - Queens Road	0.61	0.61	1.11	1.56	1.61			N/A	N/A
5 - Bexley Road (W)	0.57	0.05	0.49	1.41	1.53			N/A	N/A

18:05 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.97	0.09	0.92	1.56	1.99			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.80	0.04	0.35	1.86	3.63			N/A	N/A
4 - Queens Road	0.61	0.61	1.11	1.56	1.61			N/A	N/A
5 - Bexley Road (W)	0.56	0.05	0.48	1.40	1.53			N/A	N/A

Existing Layout - 2038 Local Plan Case - No LTC, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	187.96	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	187.96	F

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	2038 Local Plan Case - No LTC	AM	ONE HOUR	07:45	09:15	10	✓

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 (PCU/hr)	Scaling Factor (%)
1 - Bronze Age Way		ONE HOUR	✓	1335	100.000
2 - Walnut Tree Avenue					
3 - Bexley Road (E)		ONE HOUR	✓	666	100.000
4 - Queens Road		ONE HOUR	✓	1642	100.000
5 - Bexley Road (W)		ONE HOUR	✓	774	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
From	1 - Bronze Age Way	0	0	0	1063	272
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	383	20	0	0	263
	4 - Queens Road	1173	382	0	0	87
	5 - Bexley Road (W)	190	197	0	387	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
	1 - Bronze Age Way	0	0	0	17	5
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	11	20	0	0	10
	4 - Queens Road	10	20	0	0	21
	5 - Bexley Road (W)	3	13	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bronze Age Way	0.74	8.55	3.1	14.2	A	1091	1636
2 - Walnut Tree Avenue							
3 - Bexley Road (E)	1.07	126.83	22.0	63.7	F	544	816
4 - Queens Road	0.83	11.38	5.1	20.9	B	1341	2012
5 - Bexley Road (W)	1.67	924.58	156.1	205.3	F	632	948

Main Results for each time segment

07:45 - 07:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	903	903	150	0	0	657	1899	0.475	897	1169	0.0	1.0	4.083	
2 - Walnut Tree Avenue						1153				401				
3 - Bexley Road (E)	450	450	75	0	0	1153	871	0.517	443	0	0.0	1.2	9.201	
4 - Queens Road	1110	1110	185	0	0	626	2223	0.499	1104	970	0.0	1.1	3.606	
5 - Bexley Road (W)	523	523	87	0	0	1314	832	0.629	513	416	0.0	1.7	11.897	

07:55 - 08:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	903	903	150	0	0	666	1892	0.477	903	1180	1.0	1.0	4.159	
2 - Walnut Tree Avenue						1164				405				
3 - Bexley Road (E)	450	450	75	0	0	1164	865	0.521	450	0	1.2	1.2	9.621	
4 - Queens Road	1110	1110	185	0	0	634	2216	0.501	1110	980	1.1	1.1	3.667	
5 - Bexley Road (W)	523	523	87	0	0	1324	826	0.634	523	421	1.7	1.8	12.865	

08:05 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1131	1131	188	0	0	788	1806	0.626	1126	1452	1.0	1.9	6.007	
2 - Walnut Tree Avenue						1424				490				
3 - Bexley Road (E)	564	564	94	0	0	1424	722	0.782	551	0	1.2	3.4	22.021	
4 - Queens Road	1391	1391	232	0	0	780	2097	0.663	1385	1194	1.1	2.2	5.648	
5 - Bexley Road (W)	656	656	109	0	0	1645	642	1.021	596	520	1.8	11.8	56.540	

08:15 - 08:25

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1294	1294	216	0	0	774	1816	0.713	1289	1604	1.9	2.7	7.734
2 - Walnut Tree Avenue						1546				517			
3 - Bexley Road (E)	646	646	108	0	0	1546	654	0.987	604	0	3.4	10.4	54.713
4 - Queens Road	1592	1592	265	0	0	867	2026	0.786	1582	1284	2.2	3.9	8.924
5 - Bexley Road (W)	750	750	125	0	0	1863	516	1.453	514	585	11.8	51.2	242.911

08:25 - 08:35

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1354	1354	226	0	0	759	1826	0.741	1352	1654	2.7	3.1	8.551
2 - Walnut Tree Avenue						1587				524			
3 - Bexley Road (E)	676	676	113	0	0	1587	632	1.069	616	0	10.4	20.3	103.949
4 - Queens Road	1665	1665	278	0	0	891	2006	0.830	1658	1311	3.9	5.1	11.383
5 - Bexley Road (W)	785	785	131	0	0	1943	471	1.668	471	606	51.2	103.6	584.020

08:35 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1294	1294	216	0	0	766	1822	0.711	1296	1627	3.1	2.9	7.863
2 - Walnut Tree Avenue						1545				517			
3 - Bexley Road (E)	646	646	108	0	0	1545	655	0.986	636	0	20.3	22.0	126.830
4 - Queens Road	1592	1592	265	0	0	900	1999	0.796	1595	1281	5.1	4.6	10.139
5 - Bexley Road (W)	750	750	125	0	0	1895	499	1.505	498	599	103.6	145.6	910.269

08:45 - 08:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1131	1131	188	0	0	793	1802	0.627	1136	1529	2.9	2.0	6.234
2 - Walnut Tree Avenue						1433				497			
3 - Bexley Road (E)	564	564	94	0	0	1433	717	0.787	663	0	22.0	5.5	74.738
4 - Queens Road	1391	1391	232	0	0	895	2003	0.694	1403	1201	4.6	2.6	6.890
5 - Bexley Road (W)	656	656	109	0	0	1730	593	1.106	593	568	145.6	156.1	924.579

08:55 - 09:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	903	903	150	0	0	883	1738	0.519	907	1270	2.0	1.3	4.975
2 - Walnut Tree Avenue						1311				480			
3 - Bexley Road (E)	450	450	75	0	0	1311	784	0.574	474	0	5.5	1.6	13.743
4 - Queens Road	1110	1110	185	0	0	659	2196	0.506	1119	1126	2.6	1.2	3.796
5 - Bexley Road (W)	523	523	87	0	0	1347	813	0.644	807	431	156.1	108.9	592.285

09:05 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	903	903	150	0	0	888	1735	0.520	903	1253	1.3	1.2	4.948
2 - Walnut Tree Avenue						1311				480			
3 - Bexley Road (E)	450	450	75	0	0	1311	783	0.575	451	0	1.6	1.5	12.007
4 - Queens Road	1110	1110	185	0	0	634	2216	0.501	1110	1127	1.2	1.1	3.670
5 - Bexley Road (W)	523	523	87	0	0	1324	825	0.634	817	421	108.9	59.9	373.584

Queue Variation Results for each time segment

07:45 - 07:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.02	0.63	1.14	1.60	1.66			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.15	0.61	1.11	1.55	1.61			N/A	N/A
4 - Queens Road	1.11	0.62	1.13	1.58	1.63			N/A	N/A
5 - Bexley Road (W)	1.75	0.05	0.50	4.57	7.39			N/A	N/A

07:55 - 08:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.03	0.63	1.14	1.60	1.66			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.18	0.34	1.17	1.57	1.92			N/A	N/A
4 - Queens Road	1.12	0.62	1.13	1.58	1.64			N/A	N/A
5 - Bexley Road (W)	1.82	0.04	0.40	4.68	9.02			N/A	N/A

08:05 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.87	0.16	1.51	3.37	4.40			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	3.41	0.39	2.17	6.49	8.24			N/A	N/A
4 - Queens Road	2.16	0.11	1.45	4.65	6.38			N/A	N/A
5 - Bexley Road (W)	11.79	1.22	9.13	23.09	28.59			N/A	N/A

08:15 - 08:25

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.72	0.04	0.37	4.91	14.25			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	10.37	1.04	7.48	21.48	27.18			N/A	N/A
4 - Queens Road	3.88	0.04	0.40	9.21	20.85			N/A	N/A
5 - Bexley Road (W)	51.19	29.26	49.28	70.00	76.76			N/A	N/A

08:25 - 08:35

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.14	0.03	0.31	3.14	3.14			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	20.32	1.44	15.06	42.87	54.24			N/A	N/A
4 - Queens Road	5.06	0.03	0.33	5.06	18.19			N/A	N/A
5 - Bexley Road (W)	103.62	71.26	101.68	130.60	139.68			N/A	N/A

08:35 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.90	0.03	0.31	2.90	4.21			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	22.03	1.37	15.21	49.24	63.74			N/A	N/A
4 - Queens Road	4.64	0.03	0.32	4.64	15.46			N/A	N/A
5 - Bexley Road (W)	145.63	104.94	143.54	179.49	190.69			N/A	N/A

08:45 - 08:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.98	0.05	0.47	5.29	9.17			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	5.48	0.06	0.91	15.71	25.94			N/A	N/A
4 - Queens Road	2.65	0.05	0.49	7.27	12.64			N/A	N/A
5 - Bexley Road (W)	156.12	>199	>199	>199	>199			N/A	N/A

08:55 - 09:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.26	0.12	1.14	2.06	2.63			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.57	0.04	0.39	3.84	7.92			N/A	N/A
4 - Queens Road	1.17	0.06	0.78	2.34	3.33			N/A	N/A
5 - Bexley Road (W)	108.86	71.36	106.49	140.72	151.60			N/A	N/A

09:05 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.25	0.11	1.13	2.06	2.62			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.53	0.04	0.38	3.69	7.77			N/A	N/A
4 - Queens Road	1.14	0.06	0.74	2.29	3.31			N/A	N/A
5 - Bexley Road (W)	59.89	35.87	57.96	80.36	87.61			N/A	N/A

Existing Layout - 2038 Local Plan Case - No LTC, PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	161.49	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	161.49	F

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	2038 Local Plan Case - No LTC	PM	ONE HOUR	16:45	18:15	10	✓

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 (PCU/hr)	Scaling Factor (%)
1 - Bronze Age Way		ONE HOUR	✓	1418	100.000
2 - Walnut Tree Avenue					
3 - Bexley Road (E)		ONE HOUR	✓	823	100.000
4 - Queens Road		ONE HOUR	✓	1263	100.000
5 - Bexley Road (W)		ONE HOUR	✓	688	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
From	1 - Bronze Age Way	0	0	0	1079	339
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	499	17	0	0	307
	4 - Queens Road	947	285	0	0	31
	5 - Bexley Road (W)	186	184	0	318	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
	1 - Bronze Age Way	0	0	0	11	2
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	2	0	0	0	5
	4 - Queens Road	8	23	0	0	10
	5 - Bexley Road (W)	1	10	0	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bronze Age Way	0.79	10.07	3.9	16.6	B	1158	1738
2 - Walnut Tree Avenue							
3 - Bexley Road (E)	1.52	713.03	133.7	180.6	F	672	1009
4 - Queens Road	0.64	5.51	1.9	6.9	A	1032	1548
5 - Bexley Road (W)	1.04	100.15	17.9	59.3	F	562	843

Main Results for each time segment

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	959	959	160	0	0	538	1983	0.483	953	1092	0.0	1.0	3.776	
2 - Walnut Tree Avenue						1165				326				
3 - Bexley Road (E)	557	557	93	0	0	1165	864	0.644	546	0	0.0	1.8	11.322	
4 - Queens Road	854	854	142	0	0	774	2102	0.406	850	937	0.0	0.8	3.181	
5 - Bexley Road (W)	465	465	78	0	0	1171	913	0.509	459	452	0.0	1.1	8.258	

16:55 - 17:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	959	959	160	0	0	544	1979	0.484	959	1103	1.0	1.0	3.833	
2 - Walnut Tree Avenue						1174				329				
3 - Bexley Road (E)	557	557	93	0	0	1174	859	0.648	556	0	1.8	1.8	12.202	
4 - Queens Road	854	854	142	0	0	785	2093	0.408	854	945	0.8	0.8	3.228	
5 - Bexley Road (W)	465	465	78	0	0	1182	907	0.513	465	458	1.1	1.1	8.597	

17:05 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1201	1201	200	0	0	670	1889	0.636	1196	1346	1.0	1.9	5.604	
2 - Walnut Tree Avenue						1460				407				
3 - Bexley Road (E)	697	697	116	0	0	1460	702	0.994	646	0	1.8	10.3	47.210	
4 - Queens Road	1070	1070	178	0	0	932	1972	0.542	1067	1174	0.8	1.3	4.400	
5 - Bexley Road (W)	583	583	97	0	0	1446	756	0.771	571	553	1.1	3.1	19.388	

17:15 - 17:25

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1375	1375	229	0	0	748	1834	0.750	1367	1444	1.9	3.1	8.248
2 - Walnut Tree Avenue						1659				457			
3 - Bexley Road (E)	798	798	133	0	0	1659	592	1.348	588	0	10.3	45.2	187.457
4 - Queens Road	1225	1225	204	0	0	915	1986	0.617	1222	1332	1.3	1.7	5.214
5 - Bexley Road (W)	667	667	111	0	0	1561	690	0.967	631	576	3.1	9.1	47.117

17:25 - 17:35

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1438	1438	240	0	0	774	1816	0.792	1434	1469	3.1	3.9	10.074
2 - Walnut Tree Avenue						1734				474			
3 - Bexley Road (E)	835	835	139	0	0	1734	551	1.516	550	0	45.2	92.6	451.573
4 - Queens Road	1281	1281	214	0	0	893	2004	0.639	1280	1391	1.7	1.9	5.512
5 - Bexley Road (W)	698	698	116	0	0	1594	671	1.040	650	579	9.1	17.2	86.097

17:35 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1375	1375	229	0	0	772	1817	0.757	1377	1449	3.9	3.5	8.955
2 - Walnut Tree Avenue						1683				466			
3 - Bexley Road (E)	798	798	133	0	0	1683	578	1.379	578	0	92.6	129.3	643.025
4 - Queens Road	1225	1225	204	0	0	908	1993	0.615	1225	1354	1.9	1.8	5.222
5 - Bexley Road (W)	667	667	111	0	0	1558	691	0.965	663	575	17.2	17.9	100.149

17:45 - 17:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1201	1201	200	0	0	739	1841	0.652	1210	1389	3.5	2.1	6.281
2 - Walnut Tree Avenue						1516				433			
3 - Bexley Road (E)	697	697	116	0	0	1516	671	1.039	670	0	129.3	133.7	713.032
4 - Queens Road	1070	1070	178	0	0	959	1950	0.549	1072	1226	1.8	1.4	4.570
5 - Bexley Road (W)	583	583	97	0	0	1466	744	0.783	662	566	17.9	4.7	54.686

17:55 - 18:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	959	959	160	0	0	564	1965	0.488	965	1285	2.1	1.0	3.938
2 - Walnut Tree Avenue						1189				340			
3 - Bexley Road (E)	557	557	93	0	0	1189	851	0.654	844	0	133.7	85.8	467.619
4 - Queens Road	854	854	142	0	0	1075	1855	0.460	857	958	1.4	1.0	4.014
5 - Bexley Road (W)	465	465	78	0	0	1365	802	0.580	484	567	4.7	1.5	12.613

18:05 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	959	959	160	0	0	550	1975	0.486	959	1281	1.0	1.0	3.853
2 - Walnut Tree Avenue						1174				335			
3 - Bexley Road (E)	557	557	93	0	0	1174	859	0.648	849	0	85.8	37.0	263.017
4 - Queens Road	854	854	142	0	0	1078	1853	0.461	854	945	1.0	1.0	4.004
5 - Bexley Road (W)	465	465	78	0	0	1365	802	0.580	465	567	1.5	1.5	11.320

Queue Variation Results for each time segment

16:45 - 16:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.00	0.60	1.09	1.52	1.58			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.77	0.07	1.04	4.07	5.83			N/A	N/A
4 - Queens Road	0.75	0.61	1.11	1.56	1.61			N/A	N/A
5 - Bexley Road (W)	1.07	0.58	1.06	1.48	1.53			N/A	N/A

16:55 - 17:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.01	0.60	1.09	1.52	1.58			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.84	0.05	0.47	4.90	7.98			N/A	N/A
4 - Queens Road	0.76	0.61	1.11	1.56	1.61			N/A	N/A
5 - Bexley Road (W)	1.09	0.35	1.10	1.35	1.75			N/A	N/A

17:05 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.85	0.12	1.38	3.71	4.93			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	10.31	1.15	8.03	19.89	24.52			N/A	N/A
4 - Queens Road	1.30	0.23	1.23	1.91	2.16			N/A	N/A
5 - Bexley Road (W)	3.12	0.32	1.96	6.02	7.63			N/A	N/A

17:15 - 17:25

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.09	0.04	0.37	6.53	16.59			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	45.24	24.98	43.40	62.75	69.12			N/A	N/A
4 - Queens Road	1.75	0.03	0.32	1.75	6.90			N/A	N/A
5 - Bexley Road (W)	9.13	0.62	6.11	19.93	25.79			N/A	N/A

17:25 - 17:35

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.88	0.03	0.30	3.88	9.03			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	92.64	61.34	90.64	119.03	128.04			N/A	N/A
4 - Queens Road	1.93	0.03	0.29	1.93	1.93			N/A	N/A
5 - Bexley Road (W)	17.18	0.84	11.28	39.29	51.44			N/A	N/A

17:35 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.52	0.03	0.30	3.52	8.90			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	129.25	89.55	127.05	162.65	173.84			N/A	N/A
4 - Queens Road	1.80	0.03	0.30	1.80	1.80			N/A	N/A
5 - Bexley Road (W)	17.89	0.41	10.21	43.86	59.29			N/A	N/A

17:45 - 17:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.10	0.05	0.46	5.66	9.80			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	133.74	92.05	131.41	168.86	180.64			N/A	N/A
4 - Queens Road	1.37	0.06	0.83	3.04	4.32			N/A	N/A
5 - Bexley Road (W)	4.71	0.05	0.52	13.41	22.95			N/A	N/A

17:55 - 18:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.05	0.07	0.84	1.95	2.66			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	85.77	57.65	83.98	109.31	117.33			N/A	N/A
4 - Queens Road	0.96	0.48	1.09	1.57	1.63			N/A	N/A
5 - Bexley Road (W)	1.52	0.04	0.39	3.90	7.42			N/A	N/A

18:05 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.03	0.07	0.82	1.93	2.63			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	37.04	17.60	34.94	54.39	60.95			N/A	N/A
4 - Queens Road	0.96	0.46	1.08	1.57	1.63			N/A	N/A
5 - Bexley Road (W)	1.49	0.04	0.38	3.78	7.30			N/A	N/A

Existing Layout - 2038 Local Plan Case - With LTC, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	237.48	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	237.48	F

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	2038 Local Plan Case - With LTC	AM	ONE HOUR	07:45	09:15	10	✓

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 (PCU/hr)	Scaling Factor (%)
1 - Bronze Age Way		ONE HOUR	✓	1350	100.000
2 - Walnut Tree Avenue					
3 - Bexley Road (E)		ONE HOUR	✓	741	100.000
4 - Queens Road		ONE HOUR	✓	1690	100.000
5 - Bexley Road (W)		ONE HOUR	✓	758	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
From	1 - Bronze Age Way	0	0	0	1076	274
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	453	20	0	0	268
	4 - Queens Road	1195	398	0	0	97
	5 - Bexley Road (W)	185	195	0	378	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
	1 - Bronze Age Way	0	0	0	17	5
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	9	20	0	0	10
	4 - Queens Road	11	20	0	0	22
	5 - Bexley Road (W)	3	13	0	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bronze Age Way	0.75	8.70	3.2	14.5	A	1103	1654
2 - Walnut Tree Avenue							
3 - Bexley Road (E)	1.19	249.60	49.8	92.8	F	605	908
4 - Queens Road	0.86	13.68	6.2	29.1	B	1381	2071
5 - Bexley Road (W)	1.78	1132.05	177.8	201.1	F	619	929

Main Results for each time segment

07:45 - 07:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	913	913	152	0	0	659	1897	0.481	907	1226	0.0	1.0	4.130	
2 - Walnut Tree Avenue						1156				410				
3 - Bexley Road (E)	501	501	84	0	0	1156	869	0.577	492	0	0.0	1.4	10.272	
4 - Queens Road	1143	1143	190	0	0	676	2182	0.524	1135	972	0.0	1.2	3.881	
5 - Bexley Road (W)	513	513	85	0	0	1385	791	0.648	501	427	0.0	1.9	13.303	

07:55 - 08:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	913	913	152	0	0	670	1890	0.483	913	1239	1.0	1.1	4.212	
2 - Walnut Tree Avenue						1168				414				
3 - Bexley Road (E)	501	501	84	0	0	1168	862	0.581	501	0	1.4	1.5	10.896	
4 - Queens Road	1143	1143	190	0	0	686	2174	0.526	1143	983	1.2	1.2	3.965	
5 - Bexley Road (W)	513	513	85	0	0	1397	784	0.654	512	432	1.9	2.0	14.611	

08:05 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1144	1144	191	0	0	776	1814	0.630	1138	1514	1.1	1.9	6.044	
2 - Walnut Tree Avenue						1419				496				
3 - Bexley Road (E)	628	628	105	0	0	1419	724	0.867	605	0	1.5	5.2	29.046	
4 - Queens Road	1431	1431	239	0	0	837	2051	0.698	1424	1188	1.2	2.5	6.443	
5 - Bexley Road (W)	642	642	107	0	0	1729	594	1.081	562	532	2.0	15.4	73.496	

08:15 - 08:25

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1309	1309	218	0	0	757	1828	0.716	1304	1653	1.9	2.8	7.768
2 - Walnut Tree Avenue						1539				521			
3 - Bexley Road (E)	718	718	120	0	0	1539	658	1.092	636	0	5.2	18.9	83.894
4 - Queens Road	1639	1639	273	0	0	901	1998	0.820	1625	1275	2.5	4.7	10.591
5 - Bexley Road (W)	735	735	122	0	0	1938	474	1.552	472	588	15.4	59.2	310.178

08:25 - 08:35

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1369	1369	228	0	0	746	1836	0.746	1367	1697	2.8	3.2	8.699
2 - Walnut Tree Avenue						1582				530			
3 - Bexley Road (E)	752	752	125	0	0	1582	634	1.185	630	0	18.9	39.2	178.290
4 - Queens Road	1714	1714	286	0	0	907	1993	0.860	1705	1305	4.7	6.2	13.678
5 - Bexley Road (W)	769	769	128	0	0	2010	433	1.777	433	603	59.2	115.2	705.903

08:35 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1309	1309	218	0	0	750	1833	0.714	1311	1673	3.2	3.0	7.919
2 - Walnut Tree Avenue						1539				522			
3 - Bexley Road (E)	718	718	120	0	0	1539	658	1.092	655	0	39.2	49.8	249.600
4 - Queens Road	1639	1639	273	0	0	921	1981	0.827	1641	1273	6.2	5.8	12.198
5 - Bexley Road (W)	735	735	122	0	0	1965	458	1.604	458	597	115.2	161.4	1097.844

08:45 - 08:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1144	1144	191	0	0	771	1818	0.629	1149	1589	3.0	2.0	6.208
2 - Walnut Tree Avenue						1420				500			
3 - Bexley Road (E)	628	628	105	0	0	1420	723	0.868	708	0	49.8	36.4	217.524
4 - Queens Road	1431	1431	239	0	0	941	1965	0.728	1447	1187	5.8	3.2	8.116
5 - Bexley Road (W)	642	642	107	0	0	1816	544	1.181	544	572	161.4	177.8	1132.045

08:55 - 09:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	913	913	152	0	0	819	1784	0.512	917	1418	2.0	1.2	4.773
2 - Walnut Tree Avenue						1266				470			
3 - Bexley Road (E)	501	501	84	0	0	1266	809	0.620	707	0	36.4	2.0	73.042
4 - Queens Road	1143	1143	190	0	0	894	2004	0.570	1153	1080	3.2	1.5	4.856
5 - Bexley Road (W)	513	513	85	0	0	1538	703	0.729	699	508	177.8	146.8	812.974

09:05 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	913	913	152	0	0	870	1748	0.522	913	1305	1.2	1.2	4.927
2 - Walnut Tree Avenue						1300				483			
3 - Bexley Road (E)	501	501	84	0	0	1300	790	0.635	502	0	2.0	2.0	13.747
4 - Queens Road	1143	1143	190	0	0	687	2173	0.526	1144	1115	1.5	1.3	3.981
5 - Bexley Road (W)	513	513	85	0	0	1399	783	0.655	777	432	146.8	102.8	579.431

Queue Variation Results for each time segment

07:45 - 07:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.05	0.63	1.14	1.60	1.66			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.43	0.61	1.33	1.88	2.07			N/A	N/A
4 - Queens Road	1.23	0.62	1.14	1.59	1.65			N/A	N/A
5 - Bexley Road (W)	1.92	0.04	0.39	4.59	9.94			N/A	N/A

07:55 - 08:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.06	0.63	1.14	1.60	1.66			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.48	0.14	1.28	2.54	3.19			N/A	N/A
4 - Queens Road	1.25	0.63	1.19	1.60	1.60			N/A	N/A
5 - Bexley Road (W)	2.01	0.04	0.36	3.82	10.53			N/A	N/A

08:05 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.90	0.15	1.51	3.45	4.51			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	5.18	0.66	3.63	10.09	12.69			N/A	N/A
4 - Queens Road	2.54	0.11	1.58	5.69	7.85			N/A	N/A
5 - Bexley Road (W)	15.39	1.68	12.02	30.41	37.65			N/A	N/A

08:15 - 08:25

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.77	0.04	0.37	5.04	14.50			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	18.95	5.03	16.53	32.39	38.16			N/A	N/A
4 - Queens Road	4.74	0.05	0.45	12.66	25.19			N/A	N/A
5 - Bexley Road (W)	59.18	33.85	57.03	81.03	88.87			N/A	N/A

08:25 - 08:35

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.21	0.03	0.31	3.21	3.21			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	39.22	13.80	35.77	63.63	73.48			N/A	N/A
4 - Queens Road	6.21	0.04	0.35	6.95	29.06			N/A	N/A
5 - Bexley Road (W)	115.22	80.48	113.23	144.14	153.82			N/A	N/A

08:35 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.95	0.03	0.31	2.95	4.27			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	49.78	17.96	45.64	80.52	92.80			N/A	N/A
4 - Queens Road	5.78	0.03	0.34	5.78	23.87			N/A	N/A
5 - Bexley Road (W)	161.38	160.80	161.30	161.74	161.80			N/A	N/A

08:45 - 08:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.99	0.05	0.46	5.31	9.38			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	36.43	13.86	33.51	57.61	66.02			N/A	N/A
4 - Queens Road	3.18	0.05	0.48	8.75	15.91			N/A	N/A
5 - Bexley Road (W)	177.79	176.32	176.82	177.79	177.79			N/A	N/A

08:55 - 09:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.22	0.10	1.08	2.07	2.70			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	2.04	0.04	0.36	4.31	10.76			N/A	N/A
4 - Queens Road	1.53	0.07	0.96	3.35	4.82			N/A	N/A
5 - Bexley Road (W)	146.80	>199	>199	>199	>199			N/A	N/A

09:05 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.24	0.10	1.10	2.09	2.72			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.97	0.04	0.36	3.95	10.34			N/A	N/A
4 - Queens Road	1.28	0.06	0.55	3.01	4.47			N/A	N/A
5 - Bexley Road (W)	102.76	61.75	99.80	138.44	150.95			N/A	N/A

Existing Layout - 2038 Local Plan Case - With LTC, PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	157.18	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	157.18	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2038 Local Plan Case - With LTC	PM	ONE HOUR	16:45	18:15	10	✓

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 (PCU/hr)	Scaling Factor (%)
1 - Bronze Age Way		ONE HOUR	✓	1441	100.000
2 - Walnut Tree Avenue					
3 - Bexley Road (E)		ONE HOUR	✓	837	100.000
4 - Queens Road		ONE HOUR	✓	1273	100.000
5 - Bexley Road (W)		ONE HOUR	✓	635	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
From	1 - Bronze Age Way	0	0	0	1120	321
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	507	20	0	0	310
	4 - Queens Road	951	287	0	0	35
	5 - Bexley Road (W)	179	178	0	278	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
	1 - Bronze Age Way	0	0	0	11	2
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	0	0	0	0	5
	4 - Queens Road	8	23	0	0	9
	5 - Bexley Road (W)	1	11	0	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bronze Age Way	0.80	10.21	4.0	16.9	B	1177	1766
2 - Walnut Tree Avenue							
3 - Bexley Road (E)	1.53	715.61	137.3	185.1	F	684	1026
4 - Queens Road	0.64	5.49	1.9	7.0	A	1040	1560
5 - Bexley Road (W)	0.97	58.74	10.2	45.7	F	519	778

Main Results for each time segment

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	974	974	162	0	0	511	2003	0.487	968	1095	0.0	1.0	3.768	
2 - Walnut Tree Avenue						1154				325				
3 - Bexley Road (E)	566	566	94	0	0	1154	870	0.650	555	0	0.0	1.8	11.284	
4 - Queens Road	861	861	143	0	0	771	2104	0.409	856	938	0.0	0.8	3.192	
5 - Bexley Road (W)	429	429	72	0	0	1182	907	0.474	424	445	0.0	0.9	7.868	

16:55 - 17:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	974	974	162	0	0	516	1999	0.487	974	1107	1.0	1.0	3.823	
2 - Walnut Tree Avenue						1162				328				
3 - Bexley Road (E)	566	566	94	0	0	1162	866	0.654	566	0	1.8	1.9	12.177	
4 - Queens Road	861	861	143	0	0	783	2095	0.411	861	945	0.8	0.8	3.239	
5 - Bexley Road (W)	429	429	72	0	0	1193	900	0.477	429	450	0.9	1.0	8.149	

17:05 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1221	1221	203	0	0	638	1913	0.638	1216	1349	1.0	1.9	5.580	
2 - Walnut Tree Avenue						1447				406				
3 - Bexley Road (E)	709	709	118	0	0	1447	709	1.000	656	0	1.9	10.7	47.962	
4 - Queens Road	1078	1078	180	0	0	927	1977	0.545	1075	1176	0.8	1.3	4.417	
5 - Bexley Road (W)	538	538	90	0	0	1458	749	0.719	529	543	1.0	2.5	16.827	

17:15 - 17:25

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1397	1397	233	0	0	718	1856	0.753	1390	1447	1.9	3.2	8.269
2 - Walnut Tree Avenue						1649				458			
3 - Bexley Road (E)	812	812	135	0	0	1649	597	1.359	594	0	10.7	47.0	192.422
4 - Queens Road	1234	1234	206	0	0	904	1996	0.618	1232	1340	1.3	1.8	5.213
5 - Bexley Road (W)	616	616	103	0	0	1572	684	0.901	594	563	2.5	6.1	35.894

17:25 - 17:35

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1462	1462	244	0	0	749	1834	0.797	1457	1474	3.2	4.0	10.214
2 - Walnut Tree Avenue						1728				478			
3 - Bexley Road (E)	849	849	141	0	0	1728	554	1.532	554	0	47.0	96.2	463.807
4 - Queens Road	1291	1291	215	0	0	878	2017	0.640	1290	1403	1.8	1.9	5.495
5 - Bexley Road (W)	644	644	107	0	0	1603	665	0.968	620	565	6.1	10.2	58.742

17:35 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1397	1397	233	0	0	735	1844	0.758	1400	1451	4.0	3.6	8.901
2 - Walnut Tree Avenue						1670				465			
3 - Bexley Road (E)	812	812	135	0	0	1670	586	1.385	586	0	96.2	133.8	651.760
4 - Queens Road	1234	1234	206	0	0	898	2001	0.617	1235	1358	1.9	1.8	5.232
5 - Bexley Road (W)	616	616	103	0	0	1570	685	0.899	616	563	10.2	10.2	58.173

17:45 - 17:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1221	1221	203	0	0	676	1885	0.647	1230	1387	3.6	2.1	6.054
2 - Walnut Tree Avenue						1483				422			
3 - Bexley Road (E)	709	709	118	0	0	1483	689	1.029	688	0	133.8	137.3	715.606
4 - Queens Road	1078	1078	180	0	0	962	1948	0.553	1081	1209	1.8	1.4	4.624
5 - Bexley Road (W)	538	538	90	0	0	1484	734	0.733	579	558	10.2	3.3	29.095

17:55 - 18:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	974	974	162	0	0	532	1988	0.490	980	1286	2.1	1.1	3.914
2 - Walnut Tree Avenue						1174				339			
3 - Bexley Road (E)	566	566	94	0	0	1174	859	0.659	853	0	137.3	89.5	478.470
4 - Queens Road	861	861	143	0	0	1071	1858	0.463	863	955	1.4	1.0	4.030
5 - Bexley Road (W)	429	429	72	0	0	1377	795	0.540	441	558	3.3	1.3	11.194

18:05 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	974	974	162	0	0	523	1994	0.489	974	1282	1.1	1.0	3.845
2 - Walnut Tree Avenue						1163				335			
3 - Bexley Road (E)	566	566	94	0	0	1163	865	0.654	856	0	89.5	41.2	277.182
4 - Queens Road	861	861	143	0	0	1073	1857	0.463	861	945	1.0	1.0	4.013
5 - Bexley Road (W)	429	429	72	0	0	1376	796	0.540	430	558	1.3	1.3	10.501

Queue Variation Results for each time segment

16:45 - 16:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.02	0.60	1.09	1.52	1.58			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.79	0.07	0.96	4.30	6.21			N/A	N/A
4 - Queens Road	0.76	0.61	1.11	1.56	1.61			N/A	N/A
5 - Bexley Road (W)	0.94	0.59	1.07	1.49	1.55			N/A	N/A

16:55 - 17:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.03	0.60	1.09	1.52	1.58			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.86	0.05	0.45	4.99	8.32			N/A	N/A
4 - Queens Road	0.77	0.61	1.11	1.56	1.61			N/A	N/A
5 - Bexley Road (W)	0.96	0.57	1.06	1.50	1.56			N/A	N/A

17:05 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.87	0.11	1.38	3.80	5.05			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	10.73	1.22	8.40	20.71	25.51			N/A	N/A
4 - Queens Road	1.31	0.23	1.24	1.93	2.19			N/A	N/A
5 - Bexley Road (W)	2.48	0.31	1.55	4.47	5.63			N/A	N/A

17:15 - 17:25

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.15	0.04	0.37	6.73	16.93			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	46.99	26.31	45.14	64.82	71.25			N/A	N/A
4 - Queens Road	1.76	0.03	0.32	1.76	6.98			N/A	N/A
5 - Bexley Road (W)	6.15	0.16	2.88	15.23	21.07			N/A	N/A

17:25 - 17:35

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	4.00	0.03	0.31	4.00	9.93			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	96.20	64.55	94.23	122.81	131.84			N/A	N/A
4 - Queens Road	1.94	0.03	0.29	1.94	1.94			N/A	N/A
5 - Bexley Road (W)	10.23	0.10	2.91	28.58	42.70			N/A	N/A

17:35 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.56	0.03	0.30	3.56	8.77			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	133.79	93.71	131.62	167.42	178.64			N/A	N/A
4 - Queens Road	1.82	0.03	0.30	1.82	1.82			N/A	N/A
5 - Bexley Road (W)	10.18	0.08	1.88	29.29	45.72			N/A	N/A

17:45 - 17:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.05	0.04	0.44	5.49	9.81			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	137.30	94.81	134.96	173.12	185.11			N/A	N/A
4 - Queens Road	1.40	0.06	0.84	3.11	4.42			N/A	N/A
5 - Bexley Road (W)	3.29	0.05	0.46	9.14	16.49			N/A	N/A

17:55 - 18:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.06	0.07	0.84	1.98	2.73			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	89.47	59.23	87.53	114.95	123.66			N/A	N/A
4 - Queens Road	0.97	0.48	1.09	1.57	1.63			N/A	N/A
5 - Bexley Road (W)	1.30	0.04	0.42	3.31	5.76			N/A	N/A

18:05 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.05	0.07	0.82	1.97	2.72			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	41.18	20.90	39.15	59.03	65.67			N/A	N/A
4 - Queens Road	0.97	0.46	1.09	1.57	1.63			N/A	N/A
5 - Bexley Road (W)	1.27	0.04	0.42	3.23	5.69			N/A	N/A



Junctions 10
ARCADY 10 - Roundabout Module
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Filename: Queens Road _ Bexley Road RBT (Sens) v03.j10
Path: J:\50923 - GH - LB Bexley Local Plan\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10\2022 Modelling Update
Report generation date: 21/03/2022 12:07:23

- » Existing Layout - 2038 Local Plan Case - No LTC (Sensitivity), AM
- » Existing Layout - 2038 Local Plan Case - No LTC (Sensitivity), PM
- » Existing Layout - 2038 Local Plan Case - With LTC (Sensitivity), AM
- » Existing Layout - 2038 Local Plan Case - With LTC (Sensitivity), PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Existing Layout - 2038 Local Plan Case - No LTC (Sensitivity)						
1 - Bronze Age Way	2.9	8.05	0.72	3.9	9.93	0.79
3 - Bexley Road (E)	10.7	62.88	0.97	113.1	601.48	1.48
4 - Queens Road	4.6	10.37	0.81	1.9	5.47	0.63
5 - Bexley Road (W)	128.1	760.42	1.58	9.0	51.39	0.95
Existing Layout - 2038 Local Plan Case - With LTC (Sensitivity)						
1 - Bronze Age Way	2.8	7.92	0.72	3.9	9.89	0.79
3 - Bexley Road (E)	17.9	102.73	1.04	117.8	624.07	1.49
4 - Queens Road	5.9	12.96	0.85	1.9	5.50	0.63
5 - Bexley Road (W)	164.6	1020.27	1.75	7.9	46.85	0.93

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

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

File summary

File Description

Title	
Location	
Site number	
Date	20/03/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SDGNT\dsabathier
Description	

Units

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



Flows show original traffic demand (PCU/hr).

The junction diagram reflects the last run of Junctions.

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
D11	2038 Local Plan Case - No LTC (Sensitivity)	AM	ONE HOUR	07:45	09:15	10	✓
D12	2038 Local Plan Case - No LTC (Sensitivity)	PM	ONE HOUR	16:45	18:15	10	✓
D13	2038 Local Plan Case - With LTC (Sensitivity)	AM	ONE HOUR	07:45	09:15	10	✓
D14	2038 Local Plan Case - With LTC (Sensitivity)	PM	ONE HOUR	16:45	18:15	10	✓

Analysis Set Details

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

Existing Layout - 2038 Local Plan Case - No LTC (Sensitivity), 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	149.67	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	149.67	F

Arms

Arms

Arm	Name	Description	No give-way line
1	Bronze Age Way		
2	Walnut Tree Avenue		
3	Bexley Road (E)		
4	Queens Road		
5	Bexley Road (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 - Bronze Age Way	7.13	9.12	25.5	12.2	49.1	51.3		
2 - Walnut Tree Avenue								✓
3 - Bexley Road (E)	4.03	6.43	10.5	9.2	49.3	37.4	✓	
4 - Queens Road	7.43	9.71	9.3	24.0	49.4	21.8		
5 - Bexley Road (W)	4.76	7.90	3.3	11.1	49.4	34.9		

Bypass

Arm	Arm has bypass	Bypass utilisation (%)
1 - Bronze Age Way		
2 - Walnut Tree Avenue		
3 - Bexley Road (E)	✓	100
4 - Queens Road		
5 - Bexley Road (W)		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Bronze Age Way	0.709	2365
2 - Walnut Tree Avenue		
3 - Bexley Road (E)	0.551	1506
4 - Queens Road	0.819	2736
5 - Bexley Road (W)	0.573	1584

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
D11	2038 Local Plan Case - No LTC (Sensitivity)	AM	ONE HOUR	07:45	09:15	10	✓

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 (PCU/hr)	Scaling Factor (%)
1 - Bronze Age Way		ONE HOUR	✓	1299	100.000
2 - Walnut Tree Avenue					
3 - Bexley Road (E)		ONE HOUR	✓	617	100.000
4 - Queens Road		ONE HOUR	✓	1627	100.000
5 - Bexley Road (W)		ONE HOUR	✓	760	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
From	1 - Bronze Age Way	0	0	0	1039	260
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	355	20	0	0	242
	4 - Queens Road	1167	368	0	0	92
	5 - Bexley Road (W)	187	183	0	390	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
From	1 - Bronze Age Way	0	0	0	18	6
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	12	20	0	0	11
	4 - Queens Road	10	21	0	0	20
	5 - Bexley Road (W)	3	14	0	10	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bronze Age Way	0.72	8.05	2.9	12.8	A	1061	1592
2 - Walnut Tree Avenue							
3 - Bexley Road (E)	0.97	62.88	10.7	46.7	F	504	756
4 - Queens Road	0.81	10.37	4.6	18.9	B	1329	1994
5 - Bexley Road (W)	1.58	760.42	128.1	171.2	F	621	931

Main Results for each time segment

07:45 - 07:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	878	878	146	0	0	641	1910	0.460	873	1145	0.0	1.0	3.971	
2 - Walnut Tree Avenue						1131				382				
3 - Bexley Road (E)	417	417	70	0	0	1131	883	0.473	411	0	0.0	1.0	8.450	
4 - Queens Road	1100	1100	183	0	0	586	2256	0.488	1094	957	0.0	1.1	3.489	
5 - Bexley Road (W)	514	514	86	0	0	1282	850	0.605	504	398	0.0	1.6	11.094	

07:55 - 08:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	878	878	146	0	0	650	1904	0.461	878	1155	1.0	1.0	4.039	
2 - Walnut Tree Avenue						1142				386				
3 - Bexley Road (E)	417	417	70	0	0	1142	877	0.476	417	0	1.0	1.0	8.758	
4 - Queens Road	1100	1100	183	0	0	593	2250	0.489	1100	966	1.1	1.1	3.542	
5 - Bexley Road (W)	514	514	86	0	0	1291	844	0.609	514	402	1.6	1.7	11.852	

08:05 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1100	1100	183	0	0	779	1812	0.607	1096	1427	1.0	1.7	5.746	
2 - Walnut Tree Avenue						1403				471				
3 - Bexley Road (E)	523	523	87	0	0	1403	733	0.713	513	0	1.0	2.5	17.677	
4 - Queens Road	1378	1378	230	0	0	733	2136	0.645	1373	1184	1.1	2.0	5.301	
5 - Bexley Road (W)	644	644	107	0	0	1607	663	0.970	600	498	1.7	9.0	45.255	

08:15 - 08:25

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1260	1260	210	0	0	774	1816	0.694	1255	1587	1.7	2.5	7.325	
2 - Walnut Tree Avenue						1528				502				
3 - Bexley Road (E)	598	598	100	0	0	1528	664	0.901	576	0	2.5	6.3	37.941	
4 - Queens Road	1578	1578	263	0	0	827	2059	0.766	1569	1277	2.0	3.5	8.159	
5 - Bexley Road (W)	737	737	123	0	0	1830	536	1.375	532	566	9.0	43.2	197.572	

08:25 - 08:35

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1318	1318	220	0	0	758	1827	0.721	1315	1644	2.5	2.9	8.048
2 - Walnut Tree Avenue						1565				508			
3 - Bexley Road (E)	626	626	104	0	0	1565	644	0.972	600	0	6.3	10.7	62.881
4 - Queens Road	1650	1650	275	0	0	863	2029	0.813	1644	1302	3.5	4.6	10.367
5 - Bexley Road (W)	771	771	128	0	0	1915	487	1.584	486	591	43.2	90.6	491.111

08:35 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1260	1260	210	0	0	770	1819	0.692	1261	1606	2.9	2.7	7.449
2 - Walnut Tree Avenue						1528				502			
3 - Bexley Road (E)	598	598	100	0	0	1528	664	0.901	598	0	10.7	10.6	62.847
4 - Queens Road	1578	1578	263	0	0	851	2039	0.774	1581	1276	4.6	4.1	8.977
5 - Bexley Road (W)	737	737	123	0	0	1855	521	1.414	521	576	90.6	126.6	760.422

08:45 - 08:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1100	1100	183	0	0	811	1790	0.615	1105	1478	2.7	1.9	6.092
2 - Walnut Tree Avenue						1431				485			
3 - Bexley Road (E)	523	523	87	0	0	1431	718	0.728	566	0	10.6	3.4	31.265
4 - Queens Road	1378	1378	230	0	0	787	2091	0.659	1389	1209	4.1	2.2	5.893
5 - Bexley Road (W)	644	644	107	0	0	1655	636	1.012	635	522	126.6	128.1	728.680

08:55 - 09:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	878	878	146	0	0	889	1734	0.506	882	1245	1.9	1.2	4.887
2 - Walnut Tree Avenue						1308				464			
3 - Bexley Road (E)	417	417	70	0	0	1308	785	0.531	430	0	3.4	1.3	11.685
4 - Queens Road	1100	1100	183	0	0	606	2239	0.491	1107	1131	2.2	1.1	3.622
5 - Bexley Road (W)	514	514	86	0	0	1306	836	0.615	829	408	128.1	75.6	442.575

09:05 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	878	878	146	0	0	890	1734	0.507	878	1234	1.2	1.2	4.845
2 - Walnut Tree Avenue						1305				463			
3 - Bexley Road (E)	417	417	70	0	0	1305	787	0.530	417	0	1.3	1.3	10.920
4 - Queens Road	1100	1100	183	0	0	593	2250	0.489	1100	1130	1.1	1.1	3.544
5 - Bexley Road (W)	514	514	86	0	0	1292	844	0.609	832	402	75.6	22.6	216.262

Queue Variation Results for each time segment
07:45 - 07:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.97	0.63	1.15	1.61	1.67			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.98	0.62	1.12	1.57	1.62			N/A	N/A
4 - Queens Road	1.07	0.62	1.13	1.58	1.64			N/A	N/A
5 - Bexley Road (W)	1.59	0.08	1.09	3.38	4.74			N/A	N/A

07:55 - 08:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.98	0.63	1.15	1.61	1.67			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.00	0.60	1.11	1.57	1.63			N/A	N/A
4 - Queens Road	1.08	0.62	1.13	1.58	1.64			N/A	N/A
5 - Bexley Road (W)	1.65	0.05	0.51	4.25	6.79			N/A	N/A

08:05 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.74	0.17	1.46	3.05	3.85			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	2.53	0.34	1.59	4.44	5.57			N/A	N/A
4 - Queens Road	2.01	0.11	1.41	4.23	5.65			N/A	N/A
5 - Bexley Road (W)	9.02	1.26	6.82	17.63	21.89			N/A	N/A

08:15 - 08:25

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.51	0.04	0.36	4.08	12.84			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	6.31	0.17	3.05	15.44	21.24			N/A	N/A
4 - Queens Road	3.52	0.04	0.39	7.68	18.94			N/A	N/A
5 - Bexley Road (W)	43.18	23.75	41.36	59.88	65.99			N/A	N/A

08:25 - 08:35

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.87	0.03	0.31	2.87	2.87			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	10.66	0.12	3.33	29.39	43.34			N/A	N/A
4 - Queens Road	4.58	0.03	0.32	4.58	13.18			N/A	N/A
5 - Bexley Road (W)	90.61	59.90	88.61	116.46	125.29			N/A	N/A

08:35 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.67	0.03	0.31	2.67	3.65			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	10.64	0.09	2.29	30.37	46.71			N/A	N/A
4 - Queens Road	4.05	0.03	0.32	4.05	10.96			N/A	N/A
5 - Bexley Road (W)	126.58	87.70	124.38	159.17	170.09			N/A	N/A

08:45 - 08:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.88	0.05	0.51	4.99	8.21			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	3.38	0.05	0.48	9.39	16.86			N/A	N/A
4 - Queens Road	2.25	0.05	0.46	6.07	10.79			N/A	N/A
5 - Bexley Road (W)	128.12	89.50	125.96	160.40	171.17			N/A	N/A

08:55 - 09:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.20	0.14	1.15	1.87	2.21			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.32	0.04	0.43	3.33	5.89			N/A	N/A
4 - Queens Road	1.11	0.07	0.85	2.09	2.92			N/A	N/A
5 - Bexley Road (W)	75.60	54.70	74.29	92.44	98.06			N/A	N/A

09:05 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.19	0.13	1.14	1.86	2.20			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.29	0.04	0.43	3.25	5.80			N/A	N/A
4 - Queens Road	1.09	0.07	0.83	2.08	2.90			N/A	N/A
5 - Bexley Road (W)	22.59	5.89	19.73	39.10	46.20			N/A	N/A

Existing Layout - 2038 Local Plan Case - No LTC (Sensitivity), PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	128.40	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	128.40	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2038 Local Plan Case - No LTC (Sensitivity)	PM	ONE HOUR	16:45	18:15	10	✓

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 (PCU/hr)	Scaling Factor (%)
1 - Bronze Age Way		ONE HOUR	✓	1440	100.000
2 - Walnut Tree Avenue					
3 - Bexley Road (E)		ONE HOUR	✓	787	100.000
4 - Queens Road		ONE HOUR	✓	1237	100.000
5 - Bexley Road (W)		ONE HOUR	✓	645	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
From	1 - Bronze Age Way	0	0	0	1069	371
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	468	17	0	0	302
	4 - Queens Road	945	266	0	0	26
	5 - Bexley Road (W)	182	162	0	301	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
	1 - Bronze Age Way	0	0	0	11	2
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	2	0	0	0	5
	4 - Queens Road	8	25	0	0	12
	5 - Bexley Road (W)	1	12	0	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bronze Age Way	0.79	9.93	3.9	16.5	A	1176	1765
2 - Walnut Tree Avenue							
3 - Bexley Road (E)	1.48	601.48	113.1	155.8	F	643	964
4 - Queens Road	0.63	5.47	1.9	6.6	A	1011	1516
5 - Bexley Road (W)	0.95	51.39	9.0	42.5	F	527	790

Main Results for each time segment

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	974	974	162	0	0	499	2011	0.484	968	1068	0.0	1.0	3.724	
2 - Walnut Tree Avenue						1169				298				
3 - Bexley Road (E)	532	532	89	0	0	1169	862	0.617	523	0	0.0	1.6	10.662	
4 - Queens Road	836	836	139	0	0	772	2104	0.398	832	919	0.0	0.7	3.149	
5 - Bexley Road (W)	436	436	73	0	0	1137	933	0.468	431	467	0.0	0.9	7.544	

16:55 - 17:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	974	974	162	0	0	504	2007	0.485	974	1078	1.0	1.0	3.778	
2 - Walnut Tree Avenue						1177				301				
3 - Bexley Road (E)	532	532	89	0	0	1177	857	0.621	532	0	1.6	1.6	11.375	
4 - Queens Road	836	836	139	0	0	783	2095	0.399	836	926	0.7	0.7	3.191	
5 - Bexley Road (W)	436	436	73	0	0	1147	927	0.470	436	473	0.9	0.9	7.789	

17:05 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1220	1220	203	0	0	624	1922	0.635	1215	1323	1.0	1.8	5.484	
2 - Walnut Tree Avenue						1466				373				
3 - Bexley Road (E)	667	667	111	0	0	1466	698	0.955	628	0	1.6	8.1	40.004	
4 - Queens Road	1048	1048	175	0	0	941	1965	0.533	1045	1153	0.7	1.3	4.347	
5 - Bexley Road (W)	546	546	91	0	0	1410	776	0.704	538	576	0.9	2.3	15.524	

17:15 - 17:25

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1396	1396	233	0	0	705	1865	0.749	1389	1430	1.8	3.1	8.071
2 - Walnut Tree Avenue						1672				422			
3 - Bexley Road (E)	763	763	127	0	0	1672	585	1.304	580	0	8.1	38.7	162.838
4 - Queens Road	1199	1199	200	0	0	938	1968	0.610	1197	1314	1.3	1.7	5.190
5 - Bexley Road (W)	625	625	104	0	0	1529	708	0.883	606	606	2.3	5.6	32.333

17:25 - 17:35

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1461	1461	243	0	0	736	1843	0.793	1456	1458	3.1	3.9	9.932
2 - Walnut Tree Avenue						1751				440			
3 - Bexley Road (E)	798	798	133	0	0	1751	541	1.475	541	0	38.7	81.6	401.692
4 - Queens Road	1255	1255	209	0	0	916	1986	0.632	1254	1376	1.7	1.9	5.474
5 - Bexley Road (W)	654	654	109	0	0	1560	690	0.948	634	609	5.6	9.0	51.394

17:35 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1396	1396	233	0	0	720	1854	0.753	1399	1435	3.9	3.5	8.646
2 - Walnut Tree Avenue						1691				428			
3 - Bexley Road (E)	763	763	127	0	0	1691	574	1.329	574	0	81.6	113.1	569.774
4 - Queens Road	1199	1199	200	0	0	934	1971	0.609	1200	1331	1.9	1.8	5.221
5 - Bexley Road (W)	625	625	104	0	0	1529	708	0.883	626	606	9.0	8.8	49.021

17:45 - 17:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1220	1220	203	0	0	657	1899	0.642	1228	1367	3.5	2.0	5.901
2 - Walnut Tree Avenue						1500				386			
3 - Bexley Road (E)	667	667	111	0	0	1500	680	0.981	674	0	113.1	112.0	601.484
4 - Queens Road	1048	1048	175	0	0	990	1925	0.544	1050	1183	1.8	1.4	4.605
5 - Bexley Road (W)	546	546	91	0	0	1443	757	0.722	581	597	8.8	3.0	24.758

17:55 - 18:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	974	974	162	0	0	519	1996	0.488	979	1269	2.0	1.0	3.863
2 - Walnut Tree Avenue						1188				311			
3 - Bexley Road (E)	532	532	89	0	0	1188	851	0.625	844	0	112.0	60.0	368.216
4 - Queens Road	836	836	139	0	0	1096	1838	0.455	839	936	1.4	0.9	4.028
5 - Bexley Road (W)	436	436	73	0	0	1341	816	0.535	447	594	3.0	1.3	10.652

18:05 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	974	974	162	0	0	511	2002	0.486	974	1263	1.0	1.0	3.797
2 - Walnut Tree Avenue						1177				308			
3 - Bexley Road (E)	532	532	89	0	0	1177	857	0.621	843	0	60.0	8.3	151.327
4 - Queens Road	836	836	139	0	0	1094	1840	0.455	836	927	0.9	0.9	4.002
5 - Bexley Road (W)	436	436	73	0	0	1338	817	0.534	436	592	1.3	1.2	10.051

Queue Variation Results for each time segment

16:45 - 16:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.01	0.60	1.09	1.52	1.57			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.59	0.12	1.28	2.92	3.83			N/A	N/A
4 - Queens Road	0.73	0.61	1.12	1.56	1.62			N/A	N/A
5 - Bexley Road (W)	0.91	0.58	1.06	1.49	1.54			N/A	N/A

16:55 - 17:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.02	0.60	1.09	1.52	1.57			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.64	0.06	0.80	3.97	5.87			N/A	N/A
4 - Queens Road	0.74	0.61	1.12	1.56	1.62			N/A	N/A
5 - Bexley Road (W)	0.93	0.57	1.06	1.49	1.54			N/A	N/A

17:05 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.84	0.11	1.37	3.71	4.94			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	8.13	1.20	6.17	15.72	19.44			N/A	N/A
4 - Queens Road	1.25	0.25	1.21	1.81	2.09			N/A	N/A
5 - Bexley Road (W)	2.32	0.29	1.43	4.14	5.21			N/A	N/A

17:15 - 17:25

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.08	0.04	0.36	6.38	16.47			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	38.65	20.40	36.85	54.45	60.28			N/A	N/A
4 - Queens Road	1.71	0.03	0.32	1.71	6.61			N/A	N/A
5 - Bexley Road (W)	5.59	0.12	2.20	14.33	20.28			N/A	N/A

17:25 - 17:35

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.89	0.03	0.30	3.89	8.86			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	81.61	51.83	79.55	106.94	115.71			N/A	N/A
4 - Queens Road	1.88	0.03	0.29	1.88	1.88			N/A	N/A
5 - Bexley Road (W)	8.98	0.08	1.50	25.89	40.73			N/A	N/A

17:35 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.45	0.03	0.30	3.45	8.05			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	113.12	75.53	110.85	144.97	155.76			N/A	N/A
4 - Queens Road	1.77	0.03	0.30	1.77	1.99			N/A	N/A
5 - Bexley Road (W)	8.83	0.06	1.34	25.75	42.54			N/A	N/A

17:45 - 17:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.00	0.04	0.44	5.35	9.51			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	111.96	78.10	110.03	140.17	149.61			N/A	N/A
4 - Queens Road	1.35	0.07	0.91	2.90	4.06			N/A	N/A
5 - Bexley Road (W)	3.05	0.04	0.45	8.40	15.23			N/A	N/A

17:55 - 18:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.05	0.07	0.85	1.93	2.61			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	60.05	42.63	58.86	74.00	78.72			N/A	N/A
4 - Queens Road	0.94	0.56	1.09	1.57	1.62			N/A	N/A
5 - Bexley Road (W)	1.26	0.04	0.44	3.17	5.31			N/A	N/A

18:05 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.03	0.07	0.83	1.92	2.60			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	8.28	0.15	3.68	21.31	29.90			N/A	N/A
4 - Queens Road	0.94	0.55	1.09	1.56	1.62			N/A	N/A
5 - Bexley Road (W)	1.24	0.04	0.43	3.12	5.25			N/A	N/A

Existing Layout - 2038 Local Plan Case - With LTC (Sensitivity), 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	197.58	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	197.58	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2038 Local Plan Case - With LTC (Sensitivity)	AM	ONE HOUR	07:45	09:15	10	✓

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 (PCU/hr)	Scaling Factor (%)
1 - Bronze Age Way		ONE HOUR	✓	1303	100.000
2 - Walnut Tree Avenue					
3 - Bexley Road (E)		ONE HOUR	✓	670	100.000
4 - Queens Road		ONE HOUR	✓	1686	100.000
5 - Bexley Road (W)		ONE HOUR	✓	756	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
From	1 - Bronze Age Way	0	0	0	1046	257
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	403	20	0	0	247
	4 - Queens Road	1203	384	0	0	99
	5 - Bexley Road (W)	181	182	0	393	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
	1 - Bronze Age Way	0	0	0	18	6
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	10	20	0	0	11
	4 - Queens Road	11	21	0	0	21
	5 - Bexley Road (W)	3	14	0	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bronze Age Way	0.72	7.92	2.8	12.6	A	1064	1597
2 - Walnut Tree Avenue							
3 - Bexley Road (E)	1.04	102.73	17.9	59.6	F	547	821
4 - Queens Road	0.85	12.96	5.9	26.1	B	1377	2066
5 - Bexley Road (W)	1.75	1020.27	164.6	214.8	F	618	926

Main Results for each time segment

07:45 - 07:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	881	881	147	0	0	652	1902	0.463	875	1197	0.0	1.0	4.010	
2 - Walnut Tree Avenue						1135				392				
3 - Bexley Road (E)	453	453	76	0	0	1135	880	0.515	446	0	0.0	1.1	9.066	
4 - Queens Road	1140	1140	190	0	0	619	2229	0.511	1133	963	0.0	1.2	3.713	
5 - Bexley Road (W)	511	511	85	0	0	1348	812	0.630	501	404	0.0	1.8	12.429	

07:55 - 08:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	881	881	147	0	0	662	1896	0.465	881	1208	1.0	1.0	4.081	
2 - Walnut Tree Avenue						1147				396				
3 - Bexley Road (E)	453	453	76	0	0	1147	874	0.518	453	0	1.1	1.2	9.470	
4 - Queens Road	1140	1140	190	0	0	627	2223	0.513	1140	973	1.2	1.2	3.782	
5 - Bexley Road (W)	511	511	85	0	0	1359	805	0.635	511	408	1.8	1.9	13.478	

08:05 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1104	1104	184	0	0	778	1813	0.609	1099	1486	1.0	1.7	5.762	
2 - Walnut Tree Avenue						1398				479				
3 - Bexley Road (E)	568	568	95	0	0	1398	736	0.772	555	0	1.2	3.3	20.828	
4 - Queens Road	1428	1428	238	0	0	772	2104	0.679	1421	1181	1.2	2.3	5.940	
5 - Bexley Road (W)	640	640	107	0	0	1688	617	1.038	575	505	1.9	12.7	62.048	

08:15 - 08:25

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1263	1263	211	0	0	757	1828	0.691	1259	1643	1.7	2.5	7.216
2 - Walnut Tree Avenue						1511				505			
3 - Bexley Road (E)	650	650	108	0	0	1511	673	0.965	614	0	3.3	9.2	49.111
4 - Queens Road	1635	1635	272	0	0	862	2030	0.805	1623	1263	2.3	4.4	9.769
5 - Bexley Road (W)	733	733	122	0	0	1915	487	1.505	485	570	12.7	54.0	273.473

08:25 - 08:35

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1322	1322	220	0	0	739	1840	0.718	1320	1698	2.5	2.8	7.920
2 - Walnut Tree Avenue						1547				512			
3 - Bexley Road (E)	680	680	113	0	0	1547	653	1.040	631	0	9.2	17.2	89.010
4 - Queens Road	1710	1710	285	0	0	892	2005	0.853	1701	1287	4.4	5.9	12.960
5 - Bexley Road (W)	767	767	128	0	0	2000	438	1.749	438	593	54.0	108.8	651.729

08:35 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1263	1263	211	0	0	748	1835	0.689	1265	1669	2.8	2.6	7.288
2 - Walnut Tree Avenue						1507				505			
3 - Bexley Road (E)	650	650	108	0	0	1507	675	0.962	646	0	17.2	17.9	102.728
4 - Queens Road	1635	1635	272	0	0	895	2003	0.816	1638	1258	5.9	5.4	11.389
5 - Bexley Road (W)	733	733	122	0	0	1949	467	1.569	467	584	108.8	153.1	1020.269

08:45 - 08:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1104	1104	184	0	0	783	1810	0.610	1108	1556	2.6	1.8	5.945
2 - Walnut Tree Avenue						1405				486			
3 - Bexley Road (E)	568	568	95	0	0	1405	732	0.776	646	0	17.9	4.7	55.589
4 - Queens Road	1428	1428	238	0	0	865	2027	0.704	1443	1187	5.4	2.8	7.190
5 - Bexley Road (W)	640	640	107	0	0	1767	572	1.120	572	542	153.1	164.6	1009.211

08:55 - 09:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	881	881	147	0	0	875	1744	0.505	885	1293	1.8	1.2	4.841
2 - Walnut Tree Avenue						1295				466			
3 - Bexley Road (E)	453	453	76	0	0	1295	793	0.572	472	0	4.7	1.5	13.128
4 - Queens Road	1140	1140	190	0	0	647	2206	0.517	1150	1120	2.8	1.2	3.909
5 - Bexley Road (W)	511	511	85	0	0	1380	793	0.644	788	416	164.6	118.5	646.900

09:05 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	881	881	147	0	0	880	1741	0.506	881	1277	1.2	1.2	4.819
2 - Walnut Tree Avenue						1296				465			
3 - Bexley Road (E)	453	453	76	0	0	1296	792	0.572	453	0	1.5	1.5	11.808
4 - Queens Road	1140	1140	190	0	0	627	2222	0.513	1140	1122	1.2	1.2	3.785
5 - Bexley Road (W)	511	511	85	0	0	1359	805	0.635	798	408	118.5	70.7	428.530

Queue Variation Results for each time segment

07:45 - 07:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.98	0.63	1.15	1.61	1.67			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.14	0.61	1.11	1.55	1.61			N/A	N/A
4 - Queens Road	1.18	0.63	1.14	1.59	1.65			N/A	N/A
5 - Bexley Road (W)	1.78	0.05	0.45	4.73	8.26			N/A	N/A

07:55 - 08:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.99	0.63	1.15	1.61	1.67			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.17	0.48	1.17	1.43	1.84			N/A	N/A
4 - Queens Road	1.19	0.63	1.16	1.63	1.68			N/A	N/A
5 - Bexley Road (W)	1.86	0.04	0.39	4.48	9.62			N/A	N/A

08:05 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.75	0.17	1.47	3.07	3.89			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	3.26	0.38	2.08	6.18	7.75			N/A	N/A
4 - Queens Road	2.33	0.10	1.50	5.21	7.14			N/A	N/A
5 - Bexley Road (W)	12.70	1.27	9.80	25.07	31.09			N/A	N/A

08:15 - 08:25

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.48	0.04	0.36	3.89	12.58			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	9.20	0.63	6.13	20.04	25.95			N/A	N/A
4 - Queens Road	4.36	0.04	0.43	11.17	23.42			N/A	N/A
5 - Bexley Road (W)	54.04	31.10	52.07	73.72	80.76			N/A	N/A

08:25 - 08:35

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.83	0.03	0.31	2.83	2.83			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	17.21	0.83	11.24	39.41	51.64			N/A	N/A
4 - Queens Road	5.90	0.03	0.35	5.90	26.08			N/A	N/A
5 - Bexley Road (W)	108.82	75.77	106.89	136.32	145.56			N/A	N/A

08:35 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.62	0.03	0.31	2.62	3.20			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	17.87	0.40	10.08	43.98	59.59			N/A	N/A
4 - Queens Road	5.37	0.03	0.34	5.37	21.05			N/A	N/A
5 - Bexley Road (W)	153.14	151.77	152.26	153.14	153.14			N/A	N/A

08:45 - 08:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.84	0.05	0.49	4.87	8.13			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	4.72	0.05	0.53	13.40	23.33			N/A	N/A
4 - Queens Road	2.81	0.05	0.47	7.66	13.99			N/A	N/A
5 - Bexley Road (W)	164.61	>199	>199	>199	>199			N/A	N/A

08:55 - 09:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.19	0.13	1.14	1.87	2.21			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.55	0.04	0.40	3.89	7.64			N/A	N/A
4 - Queens Road	1.23	0.06	0.68	2.73	3.97			N/A	N/A
5 - Bexley Road (W)	118.47	77.19	115.88	153.71	165.78			N/A	N/A

09:05 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.19	0.13	1.13	1.86	2.20			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.52	0.04	0.39	3.77	7.54			N/A	N/A
4 - Queens Road	1.21	0.06	0.63	2.69	3.94			N/A	N/A
5 - Bexley Road (W)	70.71	42.99	68.59	94.39	102.71			N/A	N/A

Existing Layout - 2038 Local Plan Case - With LTC (Sensitivity), PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	133.44	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	133.44	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2038 Local Plan Case - With LTC (Sensitivity)	PM	ONE HOUR	16:45	18:15	10	✓

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 (PCU/hr)	Scaling Factor (%)
1 - Bronze Age Way		ONE HOUR	✓	1440	100.000
2 - Walnut Tree Avenue					
3 - Bexley Road (E)		ONE HOUR	✓	799	100.000
4 - Queens Road		ONE HOUR	✓	1249	100.000
5 - Bexley Road (W)		ONE HOUR	✓	627	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
From	1 - Bronze Age Way	0	0	0	1084	356
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	469	20	0	0	310
	4 - Queens Road	954	267	0	0	28
	5 - Bexley Road (W)	175	158	0	294	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
	1 - Bronze Age Way	0	0	0	12	2
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	1	0	0	0	5
	4 - Queens Road	9	25	0	0	11
	5 - Bexley Road (W)	1	12	0	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bronze Age Way	0.79	9.89	3.9	16.4	A	1176	1765
2 - Walnut Tree Avenue							
3 - Bexley Road (E)	1.49	624.07	117.8	160.8	F	653	979
4 - Queens Road	0.63	5.50	1.9	6.8	A	1020	1531
5 - Bexley Road (W)	0.93	46.85	7.9	38.5	E	512	768

Main Results for each time segment

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	974	974	162	0	0	495	2014	0.483	968	1070	0.0	1.0	3.734	
2 - Walnut Tree Avenue						1164				298				
3 - Bexley Road (E)	540	540	90	0	0	1164	865	0.625	531	0	0.0	1.6	10.709	
4 - Queens Road	845	845	141	0	0	770	2105	0.401	840	925	0.0	0.7	3.169	
5 - Bexley Road (W)	424	424	71	0	0	1146	927	0.457	419	464	0.0	0.9	7.471	

16:55 - 17:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	974	974	162	0	0	500	2011	0.484	974	1080	1.0	1.0	3.788	
2 - Walnut Tree Avenue						1172				301				
3 - Bexley Road (E)	540	540	90	0	0	1172	860	0.628	540	0	1.6	1.7	11.448	
4 - Queens Road	845	845	141	0	0	781	2096	0.403	845	932	0.7	0.7	3.211	
5 - Bexley Road (W)	424	424	71	0	0	1156	922	0.460	424	469	0.9	0.9	7.707	

17:05 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1220	1220	203	0	0	619	1926	0.633	1215	1325	1.0	1.8	5.485	
2 - Walnut Tree Avenue						1460				373				
3 - Bexley Road (E)	677	677	113	0	0	1460	701	0.965	635	0	1.7	8.6	41.314	
4 - Queens Road	1058	1058	176	0	0	935	1970	0.537	1055	1160	0.7	1.3	4.381	
5 - Bexley Road (W)	531	531	89	0	0	1420	771	0.689	523	570	0.9	2.2	15.074	

17:15 - 17:25

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1396	1396	233	0	0	699	1869	0.747	1389	1430	1.8	3.1	8.049
2 - Walnut Tree Avenue						1666				422			
3 - Bexley Road (E)	775	775	129	0	0	1666	588	1.317	584	0	8.6	40.5	168.897
4 - Queens Road	1211	1211	202	0	0	927	1977	0.613	1208	1323	1.3	1.7	5.215
5 - Bexley Road (W)	608	608	101	0	0	1538	703	0.865	591	597	2.2	5.1	30.318

17:25 - 17:35

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1461	1461	243	0	0	730	1847	0.791	1456	1459	3.1	3.9	9.889
2 - Walnut Tree Avenue						1746				440			
3 - Bexley Road (E)	810	810	135	0	0	1746	544	1.490	544	0	40.5	84.9	415.465
4 - Queens Road	1267	1267	211	0	0	903	1996	0.635	1266	1386	1.7	1.9	5.498
5 - Bexley Road (W)	636	636	106	0	0	1570	684	0.929	619	599	5.1	7.9	46.854

17:35 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1396	1396	233	0	0	713	1859	0.751	1399	1435	3.9	3.4	8.599
2 - Walnut Tree Avenue						1685				427			
3 - Bexley Road (E)	775	775	129	0	0	1685	578	1.341	578	0	84.9	117.8	587.341
4 - Queens Road	1211	1211	202	0	0	923	1980	0.612	1212	1339	1.9	1.8	5.245
5 - Bexley Road (W)	608	608	101	0	0	1538	703	0.865	609	597	7.9	7.6	43.218

17:45 - 17:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1220	1220	203	0	0	647	1906	0.640	1228	1364	3.4	2.0	5.871
2 - Walnut Tree Avenue						1491				385			
3 - Bexley Road (E)	677	677	113	0	0	1491	684	0.989	678	0	117.8	117.7	624.075
4 - Queens Road	1058	1058	176	0	0	981	1932	0.548	1060	1187	1.8	1.4	4.626
5 - Bexley Road (W)	531	531	89	0	0	1451	753	0.706	560	590	7.6	2.8	22.215

17:55 - 18:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	974	974	162	0	0	515	2000	0.487	979	1265	2.0	1.0	3.872
2 - Walnut Tree Avenue						1183				312			
3 - Bexley Road (E)	540	540	90	0	0	1183	854	0.632	847	0	117.7	66.5	392.402
4 - Queens Road	845	845	141	0	0	1089	1844	0.458	847	941	1.4	1.0	4.046
5 - Bexley Road (W)	424	424	71	0	0	1346	813	0.522	434	590	2.8	1.2	10.364

18:05 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	974	974	162	0	0	507	2005	0.486	974	1261	1.0	1.0	3.809
2 - Walnut Tree Avenue						1173				309			
3 - Bexley Road (E)	540	540	90	0	0	1173	860	0.628	847	0	66.5	15.4	178.538
4 - Queens Road	845	845	141	0	0	1088	1845	0.458	845	932	1.0	0.9	4.021
5 - Bexley Road (W)	424	424	71	0	0	1344	814	0.521	424	588	1.2	1.2	9.852

Queue Variation Results for each time segment

16:45 - 16:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.01	0.60	1.09	1.53	1.58			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.62	0.10	1.23	3.16	4.23			N/A	N/A
4 - Queens Road	0.74	0.61	1.12	1.56	1.62			N/A	N/A
5 - Bexley Road (W)	0.88	0.59	1.07	1.49	1.55			N/A	N/A

16:55 - 17:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.02	0.60	1.09	1.53	1.58			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.68	0.05	0.67	4.19	6.36			N/A	N/A
4 - Queens Road	0.75	0.61	1.12	1.56	1.62			N/A	N/A
5 - Bexley Road (W)	0.90	0.58	1.06	1.49	1.55			N/A	N/A

17:05 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.84	0.11	1.38	3.69	4.92			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	8.61	1.30	6.59	16.67	20.62			N/A	N/A
4 - Queens Road	1.28	0.24	1.22	1.86	2.13			N/A	N/A
5 - Bexley Road (W)	2.19	0.30	1.34	3.84	4.80			N/A	N/A

17:15 - 17:25

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.07	0.04	0.37	6.34	16.41			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	40.46	21.75	38.67	56.65	62.59			N/A	N/A
4 - Queens Road	1.73	0.03	0.32	1.73	6.77			N/A	N/A
5 - Bexley Road (W)	5.06	0.10	1.71	13.28	19.18			N/A	N/A

17:25 - 17:35

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.87	0.03	0.30	3.87	8.62			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	84.94	54.85	82.92	110.44	119.21			N/A	N/A
4 - Queens Road	1.90	0.03	0.29	1.90	1.90			N/A	N/A
5 - Bexley Road (W)	7.88	0.06	1.18	22.91	38.03			N/A	N/A

17:35 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.43	0.03	0.30	3.43	7.87			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	117.79	79.71	115.56	149.96	160.84			N/A	N/A
4 - Queens Road	1.79	0.03	0.30	1.79	1.92			N/A	N/A
5 - Bexley Road (W)	7.63	0.05	0.66	22.04	38.53			N/A	N/A

17:45 - 17:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.99	0.04	0.44	5.32	9.47			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	117.65	81.41	115.60	148.07	158.29			N/A	N/A
4 - Queens Road	1.37	0.07	0.89	2.98	4.19			N/A	N/A
5 - Bexley Road (W)	2.80	0.04	0.44	7.68	13.91			N/A	N/A

17:55 - 18:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.05	0.07	0.86	1.93	2.60			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	66.54	65.36	65.82	66.54	66.54			N/A	N/A
4 - Queens Road	0.96	0.56	1.09	1.57	1.63			N/A	N/A
5 - Bexley Road (W)	1.20	0.04	0.45	2.99	4.88			N/A	N/A

18:05 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.04	0.07	0.84	1.92	2.58			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	15.44	1.85	12.18	30.33	37.44			N/A	N/A
4 - Queens Road	0.95	0.52	1.09	1.57	1.63			N/A	N/A
5 - Bexley Road (W)	1.18	0.04	0.44	2.95	4.85			N/A	N/A



Junctions 10
ARCADY 10 - Roundabout Module
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Filename: Queens Road _ Bexley Road RBT MIT v02.j10
Path: J:\50923 - GH - LB Bexley Local Plan\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10\2022 Modelling Update
Report generation date: 21/03/2022 11:15:21

- » Existing Layout - 2038 Local Plan Case - No LTC, AM
- » Existing Layout - 2038 Local Plan Case - No LTC, PM
- » Existing Layout - 2038 Local Plan Case - With LTC, AM
- » Existing Layout - 2038 Local Plan Case - With LTC, PM
- » Existing Layout - 2038 Local Plan Case - No LTC (Sensitivity), AM
- » Existing Layout - 2038 Local Plan Case - No LTC (Sensitivity), PM
- » Existing Layout - 2038 Local Plan Case - With LTC (Sensitivity), AM
- » Existing Layout - 2038 Local Plan Case - With LTC (Sensitivity), PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Existing Layout - 2038 Local Plan Case - No LTC						
1 - Bronze Age Way	3.9	10.91	0.79	4.1	10.66	0.80
3 - Bexley Road (E)	3.3	18.53	0.77	13.3	55.68	1.00
4 - Queens Road	5.7	12.81	0.85	2.6	7.53	0.71
5 - Bexley Road (W)	40.4	191.43	1.17	4.9	26.74	0.85
Existing Layout - 2038 Local Plan Case - With LTC						
1 - Bronze Age Way	3.9	10.75	0.79	4.1	10.55	0.80
3 - Bexley Road (E)	4.9	25.03	0.84	13.8	56.40	1.01
4 - Queens Road	8.4	18.33	0.90	2.7	7.60	0.71
5 - Bexley Road (W)	61.3	293.85	1.26	3.7	21.52	0.80
Existing Layout - 2038 Local Plan Case - No LTC (Sensitivity)						
1 - Bronze Age Way	3.6	10.08	0.77	4.0	10.20	0.80
3 - Bexley Road (E)	2.5	14.80	0.70	10.0	45.16	0.96
4 - Queens Road	4.8	10.84	0.82	2.5	7.30	0.70
5 - Bexley Road (W)	25.6	127.18	1.10	3.2	18.72	0.77
Existing Layout - 2038 Local Plan Case - With LTC (Sensitivity)						
1 - Bronze Age Way	3.5	9.85	0.76	4.0	10.13	0.80
3 - Bexley Road (E)	3.1	17.14	0.75	10.7	47.09	0.97
4 - Queens Road	6.5	14.36	0.87	2.5	7.41	0.70
5 - Bexley Road (W)	46.2	222.53	1.20	3.0	17.98	0.76

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

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

File summary

File Description

Title	
Location	
Site number	
Date	20/03/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SDGNT\dsabathier
Description	

Units

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



Flows show original traffic demand (PCU/hr).

The junction diagram reflects the last run of Junctions.

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	2038 Local Plan Case - No LTC	AM	ONE HOUR	07:45	09:15	10	✓
D8	2038 Local Plan Case - No LTC	PM	ONE HOUR	16:45	18:15	10	✓
D9	2038 Local Plan Case - With LTC	AM	ONE HOUR	07:45	09:15	10	✓
D10	2038 Local Plan Case - With LTC	PM	ONE HOUR	16:45	18:15	10	✓
D11	2038 Local Plan Case - No LTC (Sensitivity)	AM	ONE HOUR	07:45	09:15	10	✓
D12	2038 Local Plan Case - No LTC (Sensitivity)	PM	ONE HOUR	16:45	18:15	10	✓
D13	2038 Local Plan Case - With LTC (Sensitivity)	AM	ONE HOUR	07:45	09:15	10	✓
D14	2038 Local Plan Case - With LTC (Sensitivity)	PM	ONE HOUR	16:45	18:15	10	✓

Analysis Set Details

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

Existing Layout - 2038 Local Plan Case - No LTC, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	44.40	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	44.40	E

Arms

Arms

Arm	Name	Description	No give-way line
1	Bronze Age Way		
2	Walnut Tree Avenue		
3	Bexley Road (E)		
4	Queens Road		
5	Bexley Road (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 - Bronze Age Way	7.13	9.12	25.5	12.2	49.1	51.3		
2 - Walnut Tree Avenue								✓
3 - Bexley Road (E)	4.03	10.00	14.5	31.0	49.3	34.2	✓	
4 - Queens Road	7.43	9.71	9.3	24.0	49.4	21.8		
5 - Bexley Road (W)	4.75	9.79	10.9	11.4	49.4	36.4		

Bypass

Arm	Arm has bypass	Bypass utilisation (%)
1 - Bronze Age Way		
2 - Walnut Tree Avenue		
3 - Bexley Road (E)	✓	100
4 - Queens Road		
5 - Bexley Road (W)		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Bronze Age Way	0.709	2365
2 - Walnut Tree Avenue		
3 - Bexley Road (E)	0.671	2009
4 - Queens Road	0.819	2736
5 - Bexley Road (W)	0.638	1931

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	2038 Local Plan Case - No LTC	AM	ONE HOUR	07:45	09:15	10	✓

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 (PCU/hr)	Scaling Factor (%)
1 - Bronze Age Way		ONE HOUR	✓	1335	100.000
2 - Walnut Tree Avenue					
3 - Bexley Road (E)		ONE HOUR	✓	666	100.000
4 - Queens Road		ONE HOUR	✓	1642	100.000
5 - Bexley Road (W)		ONE HOUR	✓	774	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
From	1 - Bronze Age Way	0	0	0	1063	272
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	383	20	0	0	263
	4 - Queens Road	1173	382	0	0	87
	5 - Bexley Road (W)	190	197	0	387	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
From	1 - Bronze Age Way	0	0	0	17	5
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	11	20	0	0	10
	4 - Queens Road	10	20	0	0	21
	5 - Bexley Road (W)	3	13	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bronze Age Way	0.79	10.91	3.9	17.5	B	1091	1636
2 - Walnut Tree Avenue							
3 - Bexley Road (E)	0.77	18.53	3.3	15.1	C	544	816
4 - Queens Road	0.85	12.81	5.7	24.6	B	1341	2012
5 - Bexley Road (W)	1.17	191.43	40.4	82.7	F	632	948

Main Results for each time segment

07:45 - 07:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	903	903	150	0	0	661	1896	0.476	897	1172	0.0	1.0	4.093	
2 - Walnut Tree Avenue						1155				402				
3 - Bexley Road (E)	450	450	75	0	0	1155	1233	0.365	447	0	0.0	0.6	5.049	
4 - Queens Road	1110	1110	185	0	0	629	2220	0.500	1104	973	0.0	1.1	3.611	
5 - Bexley Road (W)	523	523	87	0	0	1315	1092	0.479	518	417	0.0	1.0	6.735	

07:55 - 08:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	903	903	150	0	0	667	1892	0.477	903	1181	1.0	1.0	4.159	
2 - Walnut Tree Avenue						1164				405				
3 - Bexley Road (E)	450	450	75	0	0	1164	1227	0.367	450	0	0.6	0.6	5.136	
4 - Queens Road	1110	1110	185	0	0	634	2216	0.501	1110	980	1.1	1.1	3.668	
5 - Bexley Road (W)	523	523	87	0	0	1324	1086	0.482	523	421	1.0	1.0	6.933	

08:05 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1131	1131	188	0	0	825	1780	0.635	1125	1469	1.0	1.9	6.236	
2 - Walnut Tree Avenue						1447				503				
3 - Bexley Road (E)	564	564	94	0	0	1447	1037	0.544	560	0	0.6	1.3	8.301	
4 - Queens Road	1391	1391	232	0	0	790	2089	0.666	1384	1218	1.1	2.2	5.708	
5 - Bexley Road (W)	656	656	109	0	0	1650	878	0.747	644	524	1.0	2.9	15.986	

08:15 - 08:25

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1294	1294	216	0	0	905	1723	0.751	1286	1665	1.9	3.3	9.252	
2 - Walnut Tree Avenue						1630				562				
3 - Bexley Road (E)	646	646	108	0	0	1630	915	0.706	639	0	1.3	2.5	14.088	
4 - Queens Road	1592	1592	265	0	0	901	1998	0.797	1581	1368	2.2	4.1	9.453	
5 - Bexley Road (W)	750	750	125	0	0	1883	729	1.029	687	598	2.9	13.5	57.073	

08:25 - 08:35

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1354	1354	226	0	0	907	1722	0.786	1350	1732	3.3	3.9	10.908
2 - Walnut Tree Avenue						1682				575			
3 - Bexley Road (E)	676	676	113	0	0	1682	880	0.768	670	0	2.5	3.3	18.528
4 - Queens Road	1665	1665	278	0	0	946	1961	0.849	1656	1407	4.1	5.7	12.809
5 - Bexley Road (W)	785	785	131	0	0	1974	671	1.169	665	628	13.5	33.6	139.951

08:35 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1294	1294	216	0	0	927	1708	0.758	1296	1688	3.9	3.7	10.050
2 - Walnut Tree Avenue						1651				572			
3 - Bexley Road (E)	646	646	108	0	0	1651	901	0.717	648	0	3.3	3.0	15.969
4 - Queens Road	1592	1592	265	0	0	912	1989	0.800	1597	1387	5.7	4.8	10.538
5 - Bexley Road (W)	750	750	125	0	0	1905	716	1.049	710	604	33.6	40.4	191.426

08:45 - 08:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)
1 - Bronze Age Way	1131	1131	188	0	0	977	1672	0.676	1138	1539	3.7	2.5	7.814
2 - Walnut Tree Avenue						1557				557			
3 - Bexley Road (E)	564	564	94	0	0	1557	963	0.586	572	0	3.0	1.6	10.401
4 - Queens Road	1391	1391	232	0	0	804	2077	0.670	1406	1325	4.8	2.3	6.170
5 - Bexley Road (W)	656	656	109	0	0	1677	861	0.762	838	532	40.4	10.0	113.498

08:55 - 09:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	903	903	150	0	0	709	1862	0.485	911	1202	2.5	1.1	4.366	
2 - Walnut Tree Avenue						1200				421				
3 - Bexley Road (E)	450	450	75	0	0	1200	1204	0.374	456	0	1.6	0.7	5.378	
4 - Queens Road	1110	1110	185	0	0	642	2210	0.502	1118	1014	2.3	1.2	3.736	
5 - Bexley Road (W)	523	523	87	0	0	1334	1079	0.485	577	425	10.0	1.0	8.598	

09:05 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	903	903	150	0	0	667	1892	0.477	903	1181	1.1	1.1	4.162	
2 - Walnut Tree Avenue						1165				405				
3 - Bexley Road (E)	450	450	75	0	0	1165	1227	0.367	450	0	0.7	0.6	5.142	
4 - Queens Road	1110	1110	185	0	0	634	2216	0.501	1110	981	1.2	1.1	3.672	
5 - Bexley Road (W)	523	523	87	0	0	1324	1086	0.482	524	421	1.0	1.0	6.945	

Queue Variation Results for each time segment
07:45 - 07:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.03	0.63	1.14	1.60	1.66			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.63	0.61	1.11	1.55	1.61			N/A	N/A
4 - Queens Road	1.11	0.62	1.13	1.58	1.63			N/A	N/A
5 - Bexley Road (W)	0.98	0.60	1.08	1.52	1.57			N/A	N/A

07:55 - 08:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.04	0.63	1.14	1.60	1.66			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.64	0.61	1.11	1.55	1.61			N/A	N/A
4 - Queens Road	1.12	0.62	1.13	1.59	1.64			N/A	N/A
5 - Bexley Road (W)	1.00	0.17	1.04	1.12	1.67			N/A	N/A

08:05 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.94	0.14	1.50	3.71	4.86			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.28	0.38	1.23	1.79	2.06			N/A	N/A
4 - Queens Road	2.18	0.10	1.44	4.77	6.53			N/A	N/A
5 - Bexley Road (W)	2.89	0.18	1.58	6.04	7.92			N/A	N/A

08:15 - 08:25

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.26	0.04	0.40	7.48	17.48			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	2.47	0.04	0.42	6.47	12.66			N/A	N/A
4 - Queens Road	4.12	0.04	0.42	10.29	22.10			N/A	N/A
5 - Bexley Road (W)	13.54	1.91	10.88	25.66	31.34			N/A	N/A

08:25 - 08:35

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.95	0.03	0.32	3.95	9.96			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	3.32	0.03	0.32	3.32	13.01			N/A	N/A
4 - Queens Road	5.69	0.03	0.34	5.69	24.56			N/A	N/A
5 - Bexley Road (W)	33.61	8.90	29.55	58.68	69.37			N/A	N/A

08:35 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.73	0.03	0.32	3.73	11.21			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	2.98	0.03	0.35	4.55	15.06			N/A	N/A
4 - Queens Road	4.81	0.03	0.33	4.81	16.80			N/A	N/A
5 - Bexley Road (W)	40.41	11.14	35.78	70.15	82.73			N/A	N/A

08:45 - 08:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.47	0.05	0.55	6.71	10.95			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.63	0.06	0.76	3.94	5.83			N/A	N/A
4 - Queens Road	2.35	0.04	0.43	6.16	11.89			N/A	N/A
5 - Bexley Road (W)	10.00	0.46	6.28	22.75	29.93			N/A	N/A

08:55 - 09:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.09	0.07	0.84	2.07	2.87			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.67	0.05	0.52	1.43	1.43			N/A	N/A
4 - Queens Road	1.15	0.06	0.70	2.40	3.44			N/A	N/A
5 - Bexley Road (W)	1.05	0.03	0.33	1.75	5.20			N/A	N/A

09:05 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.05	0.07	0.78	2.03	2.83			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.65	0.05	0.50	1.39	1.39			N/A	N/A
4 - Queens Road	1.14	0.06	0.67	2.37	3.41			N/A	N/A
5 - Bexley Road (W)	1.02	0.03	0.33	1.63	5.05			N/A	N/A

Existing Layout - 2038 Local Plan Case - No LTC, PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	21.19	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	21.19	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	2038 Local Plan Case - No LTC	PM	ONE HOUR	16:45	18:15	10	✓

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 (PCU/hr)	Scaling Factor (%)
1 - Bronze Age Way		ONE HOUR	✓	1418	100.000
2 - Walnut Tree Avenue					
3 - Bexley Road (E)		ONE HOUR	✓	823	100.000
4 - Queens Road		ONE HOUR	✓	1263	100.000
5 - Bexley Road (W)		ONE HOUR	✓	688	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
From	1 - Bronze Age Way	0	0	0	1079	339
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	499	17	0	0	307
	4 - Queens Road	947	285	0	0	31
	5 - Bexley Road (W)	186	184	0	318	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
	1 - Bronze Age Way	0	0	0	11	2
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	2	0	0	0	5
	4 - Queens Road	8	23	0	0	10
	5 - Bexley Road (W)	1	10	0	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bronze Age Way	0.80	10.66	4.1	17.2	B	1158	1738
2 - Walnut Tree Avenue							
3 - Bexley Road (E)	1.00	55.68	13.3	52.2	F	672	1009
4 - Queens Road	0.71	7.53	2.6	10.4	A	1032	1548
5 - Bexley Road (W)	0.85	26.74	4.9	26.8	D	562	843

Main Results for each time segment

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	959	959	160	0	0	540	1982	0.484	953	1096	0.0	1.0	3.781	
2 - Walnut Tree Avenue						1166				326				
3 - Bexley Road (E)	557	557	93	0	0	1166	1226	0.454	551	0	0.0	0.8	5.460	
4 - Queens Road	854	854	142	0	0	779	2098	0.407	850	938	0.0	0.8	3.193	
5 - Bexley Road (W)	465	465	78	0	0	1174	1181	0.394	461	454	0.0	0.7	5.249	

16:55 - 17:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	959	959	160	0	0	544	1979	0.484	959	1103	1.0	1.0	3.833	
2 - Walnut Tree Avenue						1174				329				
3 - Bexley Road (E)	557	557	93	0	0	1174	1221	0.456	556	0	0.8	0.9	5.584	
4 - Queens Road	854	854	142	0	0	786	2092	0.408	854	945	0.8	0.8	3.229	
5 - Bexley Road (W)	465	465	78	0	0	1182	1177	0.395	465	458	0.7	0.7	5.343	

17:05 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	1201	1201	200	0	0	677	1885	0.637	1196	1374	1.0	1.9	5.638	
2 - Walnut Tree Avenue						1463				409				
3 - Bexley Road (E)	697	697	116	0	0	1463	1027	0.679	690	0	0.9	2.1	10.791	
4 - Queens Road	1070	1070	178	0	0	976	1937	0.552	1066	1177	0.8	1.3	4.577	
5 - Bexley Road (W)	583	583	97	0	0	1473	991	0.588	578	569	0.7	1.5	9.104	

17:15 - 17:25

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1375	1375	229	0	0	770	1819	0.756	1367	1561	1.9	3.2	8.508	
2 - Walnut Tree Avenue						1670				467				
3 - Bexley Road (E)	798	798	133	0	0	1670	888	0.899	773	0	2.1	6.3	27.649	
4 - Queens Road	1225	1225	204	0	0	1099	1835	0.667	1220	1344	1.3	2.2	6.445	
5 - Bexley Road (W)	667	667	111	0	0	1674	863	0.773	657	645	1.5	3.2	17.611	

17:25 - 17:35

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1438	1438	240	0	0	806	1793	0.802	1433	1625	3.2	4.1	10.660	
2 - Walnut Tree Avenue						1751				489				
3 - Bexley Road (E)	835	835	139	0	0	1751	834	1.001	792	0	6.3	13.3	55.678	
4 - Queens Road	1281	1281	214	0	0	1135	1806	0.709	1278	1408	2.2	2.6	7.526	
5 - Bexley Road (W)	698	698	116	0	0	1744	818	0.853	687	669	3.2	4.9	26.743	

17:35 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1375	1375	229	0	0	783	1810	0.760	1378	1587	4.1	3.6	9.148	
2 - Walnut Tree Avenue						1688				473				
3 - Bexley Road (E)	798	798	133	0	0	1688	876	0.911	802	0	13.3	12.7	55.207	
4 - Queens Road	1225	1225	204	0	0	1131	1809	0.677	1226	1359	2.6	2.4	6.880	
5 - Bexley Road (W)	667	667	111	0	0	1699	847	0.788	671	659	4.9	4.3	22.250	

17:45 - 17:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1201	1201	200	0	0	695	1872	0.642	1211	1428	3.6	2.0	5.999	
2 - Walnut Tree Avenue						1487				418				
3 - Bexley Road (E)	697	697	116	0	0	1487	1010	0.690	759	0	12.7	2.5	17.795	
4 - Queens Road	1070	1070	178	0	0	1048	1878	0.570	1075	1198	2.4	1.5	5.019	
5 - Bexley Road (W)	583	583	97	0	0	1524	958	0.608	598	599	4.3	1.7	10.983	

17:55 - 18:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	959	959	160	0	0	549	1975	0.485	965	1114	2.0	1.0	3.894	
2 - Walnut Tree Avenue						1182				331				
3 - Bexley Road (E)	557	557	93	0	0	1182	1215	0.458	566	0	2.5	0.9	5.794	
4 - Queens Road	854	854	142	0	0	797	2083	0.410	858	952	1.5	0.8	3.275	
5 - Bexley Road (W)	465	465	78	0	0	1192	1170	0.398	471	463	1.7	0.7	5.484	

18:05 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	959	959	160	0	0	544	1979	0.484	959	1104	1.0	1.0	3.837	
2 - Walnut Tree Avenue						1174				329				
3 - Bexley Road (E)	557	557	93	0	0	1174	1221	0.456	557	0	0.9	0.9	5.587	
4 - Queens Road	854	854	142	0	0	786	2092	0.408	854	945	0.8	0.8	3.232	
5 - Bexley Road (W)	465	465	78	0	0	1182	1177	0.395	465	458	0.7	0.7	5.345	

Queue Variation Results for each time segment

16:45 - 16:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.01	0.60	1.09	1.52	1.58			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.84	0.57	1.03	1.44	1.49			N/A	N/A
4 - Queens Road	0.76	0.61	1.11	1.56	1.61			N/A	N/A
5 - Bexley Road (W)	0.68	0.58	1.06	1.48	1.53			N/A	N/A

16:55 - 17:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.01	0.60	1.09	1.52	1.58			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.85	0.54	1.02	1.44	1.49			N/A	N/A
4 - Queens Road	0.76	0.61	1.11	1.56	1.61			N/A	N/A
5 - Bexley Road (W)	0.68	0.58	1.06	1.48	1.53			N/A	N/A

17:05 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.86	0.11	1.38	3.77	5.01			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	2.07	0.15	1.54	4.03	5.27			N/A	N/A
4 - Queens Road	1.35	0.17	1.24	2.07	2.61			N/A	N/A
5 - Bexley Road (W)	1.45	0.23	1.31	2.12	2.80			N/A	N/A

17:15 - 17:25

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.19	0.04	0.37	7.02	17.16			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	6.28	0.12	2.55	16.21	22.97			N/A	N/A
4 - Queens Road	2.16	0.03	0.34	2.80	10.43			N/A	N/A
5 - Bexley Road (W)	3.21	0.05	0.49	8.99	15.26			N/A	N/A

17:25 - 17:35

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	4.10	0.03	0.31	4.10	11.29			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	13.35	0.16	5.37	35.85	51.39			N/A	N/A
4 - Queens Road	2.61	0.03	0.29	2.61	2.61			N/A	N/A
5 - Bexley Road (W)	4.93	0.04	0.37	10.37	26.75			N/A	N/A

17:35 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.60	0.03	0.31	3.60	9.44			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	12.70	0.12	4.02	35.31	52.20			N/A	N/A
4 - Queens Road	2.39	0.03	0.31	2.39	5.50			N/A	N/A
5 - Bexley Road (W)	4.31	0.04	0.37	9.76	23.39			N/A	N/A

17:45 - 17:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.00	0.04	0.43	5.33	9.65			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	2.46	0.04	0.40	6.48	12.58			N/A	N/A
4 - Queens Road	1.50	0.06	0.75	3.50	5.19			N/A	N/A
5 - Bexley Road (W)	1.71	0.05	0.46	4.52	7.47			N/A	N/A

17:55 - 18:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.04	0.07	0.80	1.96	2.71			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.89	0.04	0.36	2.08	3.95			N/A	N/A
4 - Queens Road	0.78	0.09	0.87	1.54	1.63			N/A	N/A
5 - Bexley Road (W)	0.71	0.04	0.45	1.41	2.04			N/A	N/A

18:05 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.03	0.07	0.79	1.95	2.70			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.87	0.04	0.36	2.04	3.92			N/A	N/A
4 - Queens Road	0.77	0.09	0.86	1.54	1.63			N/A	N/A
5 - Bexley Road (W)	0.70	0.04	0.44	1.39	2.04			N/A	N/A

Existing Layout - 2038 Local Plan Case - With LTC, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	63.18	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	63.18	F

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	2038 Local Plan Case - With LTC	AM	ONE HOUR	07:45	09:15	10	✓

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 (PCU/hr)	Scaling Factor (%)
1 - Bronze Age Way		ONE HOUR	✓	1350	100.000
2 - Walnut Tree Avenue					
3 - Bexley Road (E)		ONE HOUR	✓	741	100.000
4 - Queens Road		ONE HOUR	✓	1690	100.000
5 - Bexley Road (W)		ONE HOUR	✓	758	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
From	1 - Bronze Age Way	0	0	0	1076	274
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	453	20	0	0	268
	4 - Queens Road	1195	398	0	0	97
	5 - Bexley Road (W)	185	195	0	378	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
	1 - Bronze Age Way	0	0	0	17	5
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	9	20	0	0	10
	4 - Queens Road	11	20	0	0	22
	5 - Bexley Road (W)	3	13	0	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bronze Age Way	0.79	10.75	3.9	17.7	B	1103	1654
2 - Walnut Tree Avenue							
3 - Bexley Road (E)	0.84	25.03	4.9	26.5	D	605	908
4 - Queens Road	0.90	18.33	8.4	46.0	C	1381	2071
5 - Bexley Road (W)	1.26	293.85	61.3	103.6	F	619	929

Main Results for each time segment

07:45 - 07:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	913	913	152	0	0	664	1894	0.482	907	1230	0.0	1.0	4.116	
2 - Walnut Tree Avenue						1159				411				
3 - Bexley Road (E)	501	501	84	0	0	1159	1231	0.407	497	0	0.0	0.7	5.345	
4 - Queens Road	1143	1143	190	0	0	681	2178	0.525	1135	975	0.0	1.2	3.894	
5 - Bexley Road (W)	513	513	85	0	0	1387	1046	0.490	506	429	0.0	1.0	7.317	

07:55 - 08:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	913	913	152	0	0	670	1890	0.483	913	1239	1.0	1.1	4.213	
2 - Walnut Tree Avenue						1168				414				
3 - Bexley Road (E)	501	501	84	0	0	1168	1224	0.409	501	0	0.7	0.8	5.455	
4 - Queens Road	1143	1143	190	0	0	686	2174	0.526	1143	983	1.2	1.2	3.966	
5 - Bexley Road (W)	513	513	85	0	0	1397	1040	0.493	512	432	1.0	1.1	7.566	

08:05 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	1144	1144	191	0	0	827	1779	0.643	1138	1540	1.1	2.0	6.367	
2 - Walnut Tree Avenue						1451				513				
3 - Bexley Road (E)	628	628	105	0	0	1451	1035	0.607	622	0	0.8	1.6	9.451	
4 - Queens Road	1431	1431	239	0	0	853	2037	0.703	1423	1220	1.2	2.6	6.579	
5 - Bexley Road (W)	642	642	107	0	0	1739	821	0.782	628	538	1.1	3.5	19.363	

08:15 - 08:25

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1309	1309	218	0	0	886	1736	0.754	1301	1736	2.0	3.3	9.282	
2 - Walnut Tree Avenue						1621				566				
3 - Bexley Road (E)	718	718	120	0	0	1621	920	0.781	707	0	1.6	3.5	17.657	
4 - Queens Road	1639	1639	273	0	0	972	1940	0.845	1621	1357	2.6	5.5	12.197	
5 - Bexley Road (W)	735	735	122	0	0	1980	668	1.101	642	613	3.5	19.0	78.839	

08:25 - 08:35

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1369	1369	228	0	0	877	1743	0.786	1366	1802	3.3	3.9	10.752	
2 - Walnut Tree Avenue						1667				575				
3 - Bexley Road (E)	752	752	125	0	0	1667	890	0.845	743	0	3.5	4.9	25.028	
4 - Queens Road	1714	1714	286	0	0	1020	1901	0.902	1697	1390	5.5	8.4	18.329	
5 - Bexley Road (W)	769	769	128	0	0	2074	608	1.265	605	643	19.0	46.3	204.502	

08:35 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1309	1309	218	0	0	895	1730	0.756	1310	1763	3.9	3.7	9.864	
2 - Walnut Tree Avenue						1632				573				
3 - Bexley Road (E)	718	718	120	0	0	1632	913	0.787	722	0	4.9	4.4	21.147	
4 - Queens Road	1639	1639	273	0	0	988	1927	0.850	1646	1366	8.4	7.1	15.084	
5 - Bexley Road (W)	735	735	122	0	0	2012	647	1.136	645	621	46.3	61.3	293.852	

08:45 - 08:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1144	1144	191	0	0	949	1692	0.676	1151	1613	3.7	2.5	7.715	
2 - Walnut Tree Avenue						1539				561				
3 - Bexley Road (E)	628	628	105	0	0	1539	975	0.643	642	0	4.4	2.1	12.272	
4 - Queens Road	1431	1431	239	0	0	875	2019	0.709	1457	1306	7.1	2.9	7.578	
5 - Bexley Road (W)	642	642	107	0	0	1783	793	0.809	779	549	61.3	38.4	224.893	

08:55 - 09:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	913	913	152	0	0	842	1768	0.516	920	1305	2.5	1.2	4.897	
2 - Walnut Tree Avenue						1287				474				
3 - Bexley Road (E)	501	501	84	0	0	1287	1145	0.438	508	0	2.1	0.9	6.269	
4 - Queens Road	1143	1143	190	0	0	695	2167	0.527	1152	1101	2.9	1.3	4.068	
5 - Bexley Road (W)	513	513	85	0	0	1411	1031	0.497	736	437	38.4	1.1	28.268	

09:05 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	913	913	152	0	0	670	1889	0.483	914	1240	1.2	1.1	4.225	
2 - Walnut Tree Avenue						1170				415				
3 - Bexley Road (E)	501	501	84	0	0	1170	1224	0.409	502	0	0.9	0.8	5.470	
4 - Queens Road	1143	1143	190	0	0	687	2173	0.526	1143	984	1.3	1.3	3.971	
5 - Bexley Road (W)	513	513	85	0	0	1397	1039	0.493	513	433	1.1	1.1	7.588	

Queue Variation Results for each time segment

07:45 - 07:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.05	0.63	1.14	1.60	1.66			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.74	0.60	1.10	1.53	1.59			N/A	N/A
4 - Queens Road	1.24	0.62	1.14	1.59	1.65			N/A	N/A
5 - Bexley Road (W)	1.04	0.59	1.11	1.57	1.63			N/A	N/A

07:55 - 08:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.06	0.63	1.14	1.60	1.66			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.75	0.60	1.10	1.53	1.59			N/A	N/A
4 - Queens Road	1.25	0.62	1.20	1.25	1.76			N/A	N/A
5 - Bexley Road (W)	1.06	0.11	1.03	1.66	2.05			N/A	N/A

08:05 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.00	0.14	1.53	3.90	5.12			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.63	0.24	1.43	2.61	3.17			N/A	N/A
4 - Queens Road	2.59	0.10	1.55	5.97	8.27			N/A	N/A
5 - Bexley Road (W)	3.46	0.21	1.95	7.31	9.59			N/A	N/A

08:15 - 08:25

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.31	0.04	0.40	7.59	17.73			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	3.46	0.05	0.52	9.70	16.44			N/A	N/A
4 - Queens Road	5.49	0.05	0.52	15.50	28.05			N/A	N/A
5 - Bexley Road (W)	18.95	5.41	16.67	31.83	37.31			N/A	N/A

08:25 - 08:35

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.94	0.03	0.32	3.94	9.71			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	4.95	0.04	0.37	9.60	26.51			N/A	N/A
4 - Queens Road	8.37	0.04	0.41	18.53	45.97			N/A	N/A
5 - Bexley Road (W)	46.27	19.28	43.11	71.39	81.15			N/A	N/A

08:35 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.70	0.03	0.32	3.70	10.29			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	4.42	0.04	0.37	9.10	23.83			N/A	N/A
4 - Queens Road	7.11	0.04	0.37	10.12	35.41			N/A	N/A
5 - Bexley Road (W)	61.25	27.94	57.76	91.94	103.58			N/A	N/A

08:45 - 08:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.47	0.05	0.52	6.73	11.22			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	2.08	0.05	0.52	5.54	8.97			N/A	N/A
4 - Queens Road	2.87	0.04	0.42	7.32	15.14			N/A	N/A
5 - Bexley Road (W)	38.40	20.06	36.55	54.26	60.15			N/A	N/A

08:55 - 09:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.24	0.08	1.01	2.24	3.13			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.87	0.05	0.52	1.79	2.57			N/A	N/A
4 - Queens Road	1.29	0.05	0.52	3.12	4.85			N/A	N/A
5 - Bexley Road (W)	1.14	0.03	0.32	1.66	5.18			N/A	N/A

09:05 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.08	0.07	0.77	2.11	2.99			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.77	0.05	0.46	1.64	2.42			N/A	N/A
4 - Queens Road	1.27	0.05	0.51	3.10	4.82			N/A	N/A
5 - Bexley Road (W)	1.10	0.03	0.32	1.51	4.80			N/A	N/A

Existing Layout - 2038 Local Plan Case - With LTC, PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	20.48	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	20.48	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2038 Local Plan Case - With LTC	PM	ONE HOUR	16:45	18:15	10	✓

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 (PCU/hr)	Scaling Factor (%)
1 - Bronze Age Way		ONE HOUR	✓	1441	100.000
2 - Walnut Tree Avenue					
3 - Bexley Road (E)		ONE HOUR	✓	837	100.000
4 - Queens Road		ONE HOUR	✓	1273	100.000
5 - Bexley Road (W)		ONE HOUR	✓	635	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
From	1 - Bronze Age Way	0	0	0	1120	321
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	507	20	0	0	310
	4 - Queens Road	951	287	0	0	35
	5 - Bexley Road (W)	179	178	0	278	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
	1 - Bronze Age Way	0	0	0	11	2
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	0	0	0	0	5
	4 - Queens Road	8	23	0	0	9
	5 - Bexley Road (W)	1	11	0	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bronze Age Way	0.80	10.55	4.1	17.3	B	1177	1766
2 - Walnut Tree Avenue							
3 - Bexley Road (E)	1.01	56.40	13.8	53.4	F	684	1026
4 - Queens Road	0.71	7.60	2.7	10.7	A	1040	1560
5 - Bexley Road (W)	0.80	21.52	3.7	17.1	C	519	778

Main Results for each time segment

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	974	974	162	0	0	512	2002	0.487	968	1099	0.0	1.0	3.772	
2 - Walnut Tree Avenue						1155				326				
3 - Bexley Road (E)	566	566	94	0	0	1155	1234	0.459	561	0	0.0	0.8	5.408	
4 - Queens Road	861	861	143	0	0	777	2100	0.410	856	939	0.0	0.8	3.204	
5 - Bexley Road (W)	429	429	72	0	0	1186	1174	0.366	426	447	0.0	0.6	5.109	

16:55 - 17:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	974	974	162	0	0	516	1999	0.487	974	1107	1.0	1.0	3.824	
2 - Walnut Tree Avenue						1162				328				
3 - Bexley Road (E)	566	566	94	0	0	1162	1229	0.461	566	0	0.8	0.9	5.530	
4 - Queens Road	861	861	143	0	0	783	2095	0.411	861	945	0.8	0.8	3.240	
5 - Bexley Road (W)	429	429	72	0	0	1193	1169	0.367	429	450	0.6	0.6	5.191	

17:05 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	1221	1221	203	0	0	643	1909	0.639	1215	1378	1.0	1.9	5.608	
2 - Walnut Tree Avenue						1449				409				
3 - Bexley Road (E)	709	709	118	0	0	1449	1036	0.684	702	0	0.9	2.1	10.731	
4 - Queens Road	1078	1078	180	0	0	972	1940	0.556	1075	1178	0.8	1.4	4.604	
5 - Bexley Road (W)	538	538	90	0	0	1487	982	0.548	534	560	0.6	1.3	8.503	

17:15 - 17:25

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1397	1397	233	0	0	732	1845	0.757	1389	1566	1.9	3.2	8.436	
2 - Walnut Tree Avenue						1655				466				
3 - Bexley Road (E)	812	812	135	0	0	1655	898	0.904	785	0	2.1	6.4	27.783	
4 - Queens Road	1234	1234	206	0	0	1095	1839	0.671	1229	1346	1.4	2.2	6.502	
5 - Bexley Road (W)	616	616	103	0	0	1690	852	0.722	608	634	1.3	2.6	15.236	

17:25 - 17:35

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1462	1462	244	0	0	767	1821	0.803	1456	1630	3.2	4.1	10.550	
2 - Walnut Tree Avenue						1735				488				
3 - Bexley Road (E)	849	849	141	0	0	1735	844	1.006	805	0	6.4	13.8	56.398	
4 - Queens Road	1291	1291	215	0	0	1129	1811	0.713	1288	1411	2.2	2.7	7.599	
5 - Bexley Road (W)	644	644	107	0	0	1760	808	0.797	637	658	2.6	3.7	21.520	

17:35 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1397	1397	233	0	0	742	1839	0.760	1400	1591	4.1	3.6	9.028	
2 - Walnut Tree Avenue						1671				471				
3 - Bexley Road (E)	812	812	135	0	0	1671	887	0.915	815	0	13.8	13.2	56.387	
4 - Queens Road	1234	1234	206	0	0	1127	1813	0.681	1236	1359	2.7	2.4	6.956	
5 - Bexley Road (W)	616	616	103	0	0	1715	836	0.736	619	648	3.7	3.2	17.949	

17:45 - 17:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1221	1221	203	0	0	657	1899	0.643	1230	1433	3.6	2.0	5.940	
2 - Walnut Tree Avenue						1470				417				
3 - Bexley Road (E)	709	709	118	0	0	1470	1022	0.694	773	0	13.2	2.5	17.980	
4 - Queens Road	1078	1078	180	0	0	1047	1878	0.574	1084	1196	2.4	1.5	5.067	
5 - Bexley Road (W)	538	538	90	0	0	1541	948	0.568	548	590	3.2	1.4	9.857	

17:55 - 18:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	974	974	162	0	0	521	1996	0.488	980	1117	2.0	1.1	3.882	
2 - Walnut Tree Avenue						1170				331				
3 - Bexley Road (E)	566	566	94	0	0	1170	1223	0.463	575	0	2.5	0.9	5.736	
4 - Queens Road	861	861	143	0	0	794	2086	0.413	865	952	1.5	0.8	3.290	
5 - Bexley Road (W)	429	429	72	0	0	1204	1163	0.369	434	455	1.4	0.6	5.308	

18:05 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	974	974	162	0	0	516	1999	0.487	974	1107	1.1	1.0	3.824	
2 - Walnut Tree Avenue						1162				328				
3 - Bexley Road (E)	566	566	94	0	0	1162	1228	0.461	566	0	0.9	0.9	5.535	
4 - Queens Road	861	861	143	0	0	783	2094	0.411	861	945	0.8	0.8	3.243	
5 - Bexley Road (W)	429	429	72	0	0	1194	1169	0.367	429	450	0.6	0.6	5.195	

Queue Variation Results for each time segment

16:45 - 16:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.02	0.60	1.09	1.52	1.58			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.85	0.56	1.02	1.43	1.48			N/A	N/A
4 - Queens Road	0.76	0.61	1.11	1.56	1.61			N/A	N/A
5 - Bexley Road (W)	0.61	0.59	1.07	1.49	1.55			N/A	N/A

16:55 - 17:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.03	0.60	1.09	1.52	1.58			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.86	0.53	1.00	1.43	1.48			N/A	N/A
4 - Queens Road	0.77	0.61	1.11	1.56	1.61			N/A	N/A
5 - Bexley Road (W)	0.61	0.59	1.07	1.49	1.55			N/A	N/A

17:05 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.88	0.11	1.38	3.84	5.12			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	2.09	0.14	1.03	4.13	5.48			N/A	N/A
4 - Queens Road	1.37	0.17	1.25	2.10	2.72			N/A	N/A
5 - Bexley Road (W)	1.25	0.32	1.20	1.77	2.02			N/A	N/A

17:15 - 17:25

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.22	0.04	0.37	7.04	17.29			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	6.44	0.13	2.71	16.53	23.30			N/A	N/A
4 - Queens Road	2.20	0.03	0.34	2.94	10.70			N/A	N/A
5 - Bexley Road (W)	2.55	0.04	0.43	6.89	12.79			N/A	N/A

17:25 - 17:35

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	4.13	0.03	0.31	4.13	11.26			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	13.83	0.17	5.94	36.67	52.06			N/A	N/A
4 - Queens Road	2.66	0.03	0.29	2.66	2.66			N/A	N/A
5 - Bexley Road (W)	3.67	0.03	0.33	4.07	17.09			N/A	N/A

17:35 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.61	0.03	0.31	3.61	9.14			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	13.18	0.13	4.48	36.39	53.40			N/A	N/A
4 - Queens Road	2.44	0.03	0.31	2.44	5.60			N/A	N/A
5 - Bexley Road (W)	3.20	0.03	0.35	5.94	16.88			N/A	N/A

17:45 - 17:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.01	0.04	0.43	5.35	9.76			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	2.47	0.04	0.39	6.49	12.76			N/A	N/A
4 - Queens Road	1.53	0.06	0.74	3.62	5.35			N/A	N/A
5 - Bexley Road (W)	1.45	0.05	0.50	3.64	5.67			N/A	N/A

17:55 - 18:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.05	0.07	0.81	1.99	2.76			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.89	0.04	0.36	2.11	4.01			N/A	N/A
4 - Queens Road	0.79	0.09	0.87	1.55	1.64			N/A	N/A
5 - Bexley Road (W)	0.63	0.05	0.48	1.50	1.50			N/A	N/A

18:05 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.04	0.07	0.80	1.98	2.75			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.88	0.04	0.36	2.06	3.98			N/A	N/A
4 - Queens Road	0.78	0.09	0.86	1.55	1.63			N/A	N/A
5 - Bexley Road (W)	0.62	0.05	0.47	1.49	1.49			N/A	N/A

Existing Layout - 2038 Local Plan Case - No LTC (Sensitivity), 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	31.72	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	31.72	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
D11	2038 Local Plan Case - No LTC (Sensitivity)	AM	ONE HOUR	07:45	09:15	10	✓

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 (PCU/hr)	Scaling Factor (%)
1 - Bronze Age Way		ONE HOUR	✓	1299	100.000
2 - Walnut Tree Avenue					
3 - Bexley Road (E)		ONE HOUR	✓	617	100.000
4 - Queens Road		ONE HOUR	✓	1627	100.000
5 - Bexley Road (W)		ONE HOUR	✓	760	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
From	1 - Bronze Age Way	0	0	0	1039	260
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	355	20	0	0	242
	4 - Queens Road	1167	368	0	0	92
	5 - Bexley Road (W)	187	183	0	390	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
	1 - Bronze Age Way	0	0	0	18	6
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	12	20	0	0	11
	4 - Queens Road	10	21	0	0	20
	5 - Bexley Road (W)	3	14	0	10	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bronze Age Way	0.77	10.08	3.6	15.7	B	1061	1592
2 - Walnut Tree Avenue							
3 - Bexley Road (E)	0.70	14.80	2.5	10.8	B	504	756
4 - Queens Road	0.82	10.84	4.8	19.5	B	1329	1994
5 - Bexley Road (W)	1.10	127.18	25.6	67.2	F	621	931

Main Results for each time segment

07:45 - 07:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	878	878	146	0	0	644	1908	0.460	873	1148	0.0	1.0	3.980	
2 - Walnut Tree Avenue						1133				383				
3 - Bexley Road (E)	417	417	70	0	0	1133	1248	0.334	414	0	0.0	0.6	4.811	
4 - Queens Road	1100	1100	183	0	0	589	2254	0.488	1094	959	0.0	1.1	3.495	
5 - Bexley Road (W)	514	514	86	0	0	1283	1112	0.462	508	399	0.0	0.9	6.452	

07:55 - 08:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	878	878	146	0	0	650	1904	0.461	878	1156	1.0	1.0	4.039	
2 - Walnut Tree Avenue						1142				386				
3 - Bexley Road (E)	417	417	70	0	0	1142	1242	0.336	417	0	0.6	0.6	4.882	
4 - Queens Road	1100	1100	183	0	0	593	2250	0.489	1100	966	1.1	1.1	3.542	
5 - Bexley Road (W)	514	514	86	0	0	1291	1107	0.464	514	402	0.9	0.9	6.621	

08:05 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	1100	1100	183	0	0	806	1794	0.613	1095	1439	1.0	1.8	5.894	
2 - Walnut Tree Avenue						1421				480				
3 - Bexley Road (E)	523	523	87	0	0	1421	1055	0.495	520	0	0.6	1.1	7.481	
4 - Queens Road	1378	1378	230	0	0	739	2131	0.647	1372	1202	1.1	2.0	5.333	
5 - Bexley Road (W)	644	644	107	0	0	1611	903	0.713	634	501	0.9	2.5	14.146	

08:15 - 08:25

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1260	1260	210	0	0	896	1729	0.728	1253	1636	1.8	2.9	8.561	
2 - Walnut Tree Avenue						1608				541				
3 - Bexley Road (E)	598	598	100	0	0	1608	929	0.644	593	0	1.1	1.9	11.800	
4 - Queens Road	1578	1578	263	0	0	844	2045	0.772	1568	1357	2.0	3.6	8.379	
5 - Bexley Road (W)	737	737	123	0	0	1840	757	0.974	693	572	2.5	9.9	44.490	

08:25 - 08:35

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1318	1318	220	0	0	909	1720	0.766	1314	1706	2.9	3.6	10.076	
2 - Walnut Tree Avenue						1666				557				
3 - Bexley Road (E)	626	626	104	0	0	1666	890	0.703	622	0	1.9	2.5	14.803	
4 - Queens Road	1650	1650	275	0	0	885	2011	0.821	1643	1403	3.6	4.8	10.836	
5 - Bexley Road (W)	771	771	128	0	0	1929	700	1.101	686	600	9.9	24.0	102.130	

08:35 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1260	1260	210	0	0	926	1709	0.737	1261	1659	3.6	3.3	9.304	
2 - Walnut Tree Avenue						1634				552				
3 - Bexley Road (E)	598	598	100	0	0	1634	912	0.656	600	0	2.5	2.2	12.995	
4 - Queens Road	1578	1578	263	0	0	852	2038	0.774	1582	1382	4.8	4.1	9.040	
5 - Bexley Road (W)	737	737	123	0	0	1857	746	0.988	727	577	24.0	25.6	127.182	

08:45 - 08:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1100	1100	183	0	0	917	1714	0.642	1108	1492	3.3	2.1	6.910	
2 - Walnut Tree Avenue						1506				519				
3 - Bexley Road (E)	523	523	87	0	0	1506	998	0.524	528	0	2.2	1.3	8.687	
4 - Queens Road	1378	1378	230	0	0	750	2121	0.650	1390	1285	4.1	2.2	5.652	
5 - Bexley Road (W)	644	644	107	0	0	1632	889	0.724	777	508	25.6	3.3	50.995	

08:55 - 09:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	878	878	146	0	0	662	1895	0.463	885	1166	2.1	1.0	4.128	
2 - Walnut Tree Avenue						1156				391				
3 - Bexley Road (E)	417	417	70	0	0	1156	1233	0.338	421	0	1.3	0.6	4.990	
4 - Queens Road	1100	1100	183	0	0	598	2246	0.490	1106	979	2.2	1.1	3.598	
5 - Bexley Road (W)	514	514	86	0	0	1300	1101	0.467	528	405	3.3	1.0	7.011	

09:05 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	878	878	146	0	0	650	1904	0.461	878	1156	1.0	1.0	4.041	
2 - Walnut Tree Avenue						1142				386				
3 - Bexley Road (E)	417	417	70	0	0	1142	1242	0.336	417	0	0.6	0.6	4.886	
4 - Queens Road	1100	1100	183	0	0	593	2250	0.489	1100	966	1.1	1.1	3.543	
5 - Bexley Road (W)	514	514	86	0	0	1292	1107	0.464	514	402	1.0	1.0	6.628	

Queue Variation Results for each time segment

07:45 - 07:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.97	0.63	1.15	1.61	1.67			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.56	0.00	0.00	0.56	0.56			N/A	N/A
4 - Queens Road	1.07	0.62	1.13	1.58	1.64			N/A	N/A
5 - Bexley Road (W)	0.92	0.60	1.09	1.53	1.58			N/A	N/A

07:55 - 08:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.98	0.63	1.15	1.61	1.67			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.56	0.56	1.12	1.57	1.62			N/A	N/A
4 - Queens Road	1.08	0.62	1.13	1.58	1.64			N/A	N/A
5 - Bexley Road (W)	0.93	0.29	1.05	1.55	1.61			N/A	N/A

08:05 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.78	0.15	1.45	3.24	4.22			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.07	0.57	1.13	1.20	1.20			N/A	N/A
4 - Queens Road	2.02	0.11	1.41	4.27	5.74			N/A	N/A
5 - Bexley Road (W)	2.50	0.17	1.34	5.04	6.51			N/A	N/A

08:15 - 08:25

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.94	0.04	0.39	6.17	15.71			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.92	0.04	0.38	4.29	10.00			N/A	N/A
4 - Queens Road	3.61	0.04	0.39	8.12	19.47			N/A	N/A
5 - Bexley Road (W)	9.88	0.79	6.84	21.11	27.06			N/A	N/A

08:25 - 08:35

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.56	0.03	0.32	3.56	6.42			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	2.48	0.03	0.31	2.48	5.24			N/A	N/A
4 - Queens Road	4.78	0.03	0.33	4.78	15.32			N/A	N/A
5 - Bexley Road (W)	23.97	2.59	18.69	48.59	60.50			N/A	N/A

08:35 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.35	0.03	0.32	3.35	9.29			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	2.23	0.03	0.34	2.95	10.82			N/A	N/A
4 - Queens Road	4.08	0.03	0.32	4.08	10.95			N/A	N/A
5 - Bexley Road (W)	25.56	2.22	19.37	53.38	67.21			N/A	N/A

08:45 - 08:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.12	0.05	0.54	5.66	9.19			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.27	0.07	0.82	2.70	3.81			N/A	N/A
4 - Queens Road	2.15	0.04	0.44	5.71	10.60			N/A	N/A
5 - Bexley Road (W)	3.33	0.04	0.45	9.05	16.98			N/A	N/A

08:55 - 09:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.01	0.07	0.86	1.79	2.25			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.58	0.05	0.51	1.44	1.57			N/A	N/A
4 - Queens Road	1.10	0.07	0.82	2.11	2.97			N/A	N/A
5 - Bexley Road (W)	0.97	0.03	0.35	2.01	4.81			N/A	N/A

09:05 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.99	0.07	0.84	1.77	2.24			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.57	0.05	0.50	1.44	1.57			N/A	N/A
4 - Queens Road	1.09	0.07	0.80	2.10	2.96			N/A	N/A
5 - Bexley Road (W)	0.96	0.03	0.35	1.94	4.71			N/A	N/A

Existing Layout - 2038 Local Plan Case - No LTC (Sensitivity), PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	17.36	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	17.36	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
D12	2038 Local Plan Case - No LTC (Sensitivity)	PM	ONE HOUR	16:45	18:15	10	✓

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 (PCU/hr)	Scaling Factor (%)
1 - Bronze Age Way		ONE HOUR	✓	1440	100.000
2 - Walnut Tree Avenue					
3 - Bexley Road (E)		ONE HOUR	✓	787	100.000
4 - Queens Road		ONE HOUR	✓	1237	100.000
5 - Bexley Road (W)		ONE HOUR	✓	645	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
From	1 - Bronze Age Way	0	0	0	1069	371
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	468	17	0	0	302
	4 - Queens Road	945	266	0	0	26
	5 - Bexley Road (W)	182	162	0	301	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
	1 - Bronze Age Way	0	0	0	11	2
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	2	0	0	0	5
	4 - Queens Road	8	25	0	0	12
	5 - Bexley Road (W)	1	12	0	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bronze Age Way	0.80	10.20	4.0	16.8	B	1176	1765
2 - Walnut Tree Avenue							
3 - Bexley Road (E)	0.96	45.16	10.0	45.6	E	643	964
4 - Queens Road	0.70	7.30	2.5	9.6	A	1011	1516
5 - Bexley Road (W)	0.77	18.72	3.2	14.2	C	527	790

Main Results for each time segment

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	974	974	162	0	0	501	2010	0.485	968	1071	0.0	1.0	3.728	
2 - Walnut Tree Avenue						1170				299				
3 - Bexley Road (E)	532	532	89	0	0	1170	1224	0.435	527	0	0.0	0.8	5.297	
4 - Queens Road	836	836	139	0	0	777	2100	0.398	832	920	0.0	0.7	3.159	
5 - Bexley Road (W)	436	436	73	0	0	1140	1204	0.362	433	469	0.0	0.6	4.939	

16:55 - 17:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	974	974	162	0	0	504	2007	0.485	974	1078	1.0	1.0	3.778	
2 - Walnut Tree Avenue						1177				301				
3 - Bexley Road (E)	532	532	89	0	0	1177	1219	0.437	532	0	0.8	0.8	5.406	
4 - Queens Road	836	836	139	0	0	783	2095	0.399	836	926	0.7	0.7	3.191	
5 - Bexley Road (W)	436	436	73	0	0	1147	1199	0.364	436	473	0.6	0.6	5.014	

17:05 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	1220	1220	203	0	0	628	1919	0.636	1215	1344	1.0	1.8	5.505	
2 - Walnut Tree Avenue						1468				375				
3 - Bexley Road (E)	667	667	111	0	0	1468	1023	0.651	660	0	0.8	1.8	10.054	
4 - Queens Road	1048	1048	175	0	0	973	1939	0.540	1044	1155	0.7	1.3	4.474	
5 - Bexley Road (W)	546	546	91	0	0	1429	1019	0.536	543	588	0.6	1.2	7.980	

17:15 - 17:25

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1396	1396	233	0	0	717	1856	0.752	1389	1530	1.8	3.1	8.210	
2 - Walnut Tree Avenue						1677				428				
3 - Bexley Road (E)	763	763	127	0	0	1677	883	0.864	744	0	1.8	5.1	23.851	
4 - Queens Road	1199	1199	200	0	0	1101	1834	0.654	1195	1320	1.3	2.0	6.240	
5 - Bexley Road (W)	625	625	104	0	0	1628	892	0.701	619	668	1.2	2.3	13.657	

17:25 - 17:35

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1461	1461	243	0	0	751	1832	0.797	1455	1597	3.1	4.0	10.196	
2 - Walnut Tree Avenue						1758				449				
3 - Bexley Road (E)	798	798	133	0	0	1758	829	0.963	769	0	5.1	10.0	45.161	
4 - Queens Road	1255	1255	209	0	0	1144	1799	0.697	1252	1383	2.0	2.5	7.300	
5 - Bexley Road (W)	654	654	109	0	0	1699	846	0.773	649	696	2.3	3.2	18.716	

17:35 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1396	1396	233	0	0	726	1850	0.755	1399	1553	4.0	3.5	8.740	
2 - Walnut Tree Avenue						1692				433				
3 - Bexley Road (E)	763	763	127	0	0	1692	873	0.874	771	0	10.0	8.6	39.852	
4 - Queens Road	1199	1199	200	0	0	1132	1809	0.663	1201	1332	2.5	2.3	6.627	
5 - Bexley Road (W)	625	625	104	0	0	1651	877	0.713	628	682	3.2	2.8	15.566	

17:45 - 17:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1220	1220	203	0	0	640	1911	0.638	1229	1381	3.5	2.0	5.803	
2 - Walnut Tree Avenue						1488				381				
3 - Bexley Road (E)	667	667	111	0	0	1488	1010	0.660	706	0	8.6	2.1	13.587	
4 - Queens Road	1048	1048	175	0	0	1022	1899	0.552	1053	1171	2.3	1.4	4.777	
5 - Bexley Road (W)	546	546	91	0	0	1466	996	0.549	555	610	2.8	1.3	8.851	

17:55 - 18:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	974	974	162	0	0	509	2004	0.486	979	1087	2.0	1.0	3.833	
2 - Walnut Tree Avenue						1185				303				
3 - Bexley Road (E)	532	532	89	0	0	1185	1213	0.439	540	0	2.1	0.8	5.571	
4 - Queens Road	836	836	139	0	0	792	2087	0.401	840	933	1.4	0.8	3.233	
5 - Bexley Road (W)	436	436	73	0	0	1155	1194	0.365	440	477	1.3	0.6	5.109	

18:05 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	974	974	162	0	0	504	2007	0.485	974	1079	1.0	1.0	3.779	
2 - Walnut Tree Avenue						1177				301				
3 - Bexley Road (E)	532	532	89	0	0	1177	1218	0.437	532	0	0.8	0.8	5.411	
4 - Queens Road	836	836	139	0	0	783	2094	0.399	836	926	0.8	0.7	3.195	
5 - Bexley Road (W)	436	436	73	0	0	1147	1199	0.364	436	473	0.6	0.6	5.017	

Queue Variation Results for each time segment

16:45 - 16:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.01	0.60	1.09	1.52	1.57			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.78	0.57	1.03	1.44	1.49			N/A	N/A
4 - Queens Road	0.73	0.61	1.12	1.56	1.62			N/A	N/A
5 - Bexley Road (W)	0.60	0.58	1.06	1.49	1.54			N/A	N/A

16:55 - 17:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.02	0.60	1.09	1.52	1.57			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.79	0.57	1.03	1.44	1.49			N/A	N/A
4 - Queens Road	0.74	0.61	1.12	1.56	1.62			N/A	N/A
5 - Bexley Road (W)	0.60	0.58	1.06	1.49	1.54			N/A	N/A

17:05 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.85	0.11	1.37	3.74	4.98			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.84	0.15	1.46	3.42	4.40			N/A	N/A
4 - Queens Road	1.29	0.18	1.22	1.95	2.22			N/A	N/A
5 - Bexley Road (W)	1.20	0.35	1.16	1.65	1.93			N/A	N/A

17:15 - 17:25

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.13	0.04	0.37	6.64	16.80			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	5.09	0.08	1.36	13.79	20.45			N/A	N/A
4 - Queens Road	2.05	0.03	0.33	2.34	9.61			N/A	N/A
5 - Bexley Road (W)	2.32	0.04	0.40	6.03	11.97			N/A	N/A

17:25 - 17:35

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.99	0.03	0.30	3.99	9.87			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	10.01	0.08	1.72	28.95	45.58			N/A	N/A
4 - Queens Road	2.48	0.03	0.29	2.48	2.48			N/A	N/A
5 - Bexley Road (W)	3.25	0.03	0.31	3.25	13.07			N/A	N/A

17:35 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.49	0.03	0.30	3.49	8.28			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	8.63	0.06	1.16	25.16	42.15			N/A	N/A
4 - Queens Road	2.25	0.03	0.31	2.25	5.24			N/A	N/A
5 - Bexley Road (W)	2.80	0.03	0.33	4.28	14.19			N/A	N/A

17:45 - 17:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.96	0.04	0.43	5.24	9.48			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	2.11	0.04	0.40	5.57	10.58			N/A	N/A
4 - Queens Road	1.40	0.06	0.77	3.17	4.60			N/A	N/A
5 - Bexley Road (W)	1.33	0.05	0.50	3.23	5.06			N/A	N/A

17:55 - 18:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.04	0.07	0.83	1.93	2.64			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.82	0.04	0.38	1.92	3.32			N/A	N/A
4 - Queens Road	0.75	0.09	0.87	1.53	1.61			N/A	N/A
5 - Bexley Road (W)	0.62	0.05	0.49	1.17	1.17			N/A	N/A

18:05 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.03	0.07	0.81	1.93	2.63			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.81	0.04	0.38	1.90	3.28			N/A	N/A
4 - Queens Road	0.75	0.09	0.86	1.53	1.61			N/A	N/A
5 - Bexley Road (W)	0.61	0.05	0.48	1.15	1.15			N/A	N/A

Existing Layout - 2038 Local Plan Case - With LTC (Sensitivity), 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	49.10	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	49.10	E

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2038 Local Plan Case - With LTC (Sensitivity)	AM	ONE HOUR	07:45	09:15	10	✓

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 (PCU/hr)	Scaling Factor (%)
1 - Bronze Age Way		ONE HOUR	✓	1303	100.000
2 - Walnut Tree Avenue					
3 - Bexley Road (E)		ONE HOUR	✓	670	100.000
4 - Queens Road		ONE HOUR	✓	1686	100.000
5 - Bexley Road (W)		ONE HOUR	✓	756	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
From	1 - Bronze Age Way	0	0	0	1046	257
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	403	20	0	0	247
	4 - Queens Road	1203	384	0	0	99
	5 - Bexley Road (W)	181	182	0	393	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
	1 - Bronze Age Way	0	0	0	18	6
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	10	20	0	0	11
	4 - Queens Road	11	21	0	0	21
	5 - Bexley Road (W)	3	14	0	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bronze Age Way	0.76	9.85	3.5	15.8	A	1064	1597
2 - Walnut Tree Avenue							
3 - Bexley Road (E)	0.75	17.14	3.1	13.6	C	547	821
4 - Queens Road	0.87	14.36	6.5	31.8	B	1377	2066
5 - Bexley Road (W)	1.20	222.53	46.2	88.3	F	618	926

Main Results for each time segment

07:45 - 07:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	881	881	147	0	0	656	1900	0.464	875	1200	0.0	1.0	4.020	
2 - Walnut Tree Avenue						1138				393				
3 - Bexley Road (E)	453	453	76	0	0	1138	1245	0.364	449	0	0.0	0.6	4.998	
4 - Queens Road	1140	1140	190	0	0	622	2226	0.512	1133	965	0.0	1.2	3.722	
5 - Bexley Road (W)	511	511	85	0	0	1350	1069	0.478	505	405	0.0	1.0	6.996	

07:55 - 08:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	881	881	147	0	0	662	1895	0.465	881	1208	1.0	1.0	4.082	
2 - Walnut Tree Avenue						1147				396				
3 - Bexley Road (E)	453	453	76	0	0	1147	1239	0.366	453	0	0.6	0.6	5.081	
4 - Queens Road	1140	1140	190	0	0	627	2222	0.513	1140	973	1.2	1.2	3.783	
5 - Bexley Road (W)	511	511	85	0	0	1359	1064	0.481	511	408	1.0	1.0	7.212	

08:05 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	1104	1104	184	0	0	818	1785	0.618	1099	1503	1.0	1.8	5.996	
2 - Walnut Tree Avenue						1425				492				
3 - Bexley Road (E)	568	568	95	0	0	1425	1052	0.539	564	0	0.6	1.3	8.118	
4 - Queens Road	1428	1428	238	0	0	780	2097	0.681	1421	1209	1.2	2.4	6.001	
5 - Bexley Road (W)	640	640	107	0	0	1694	850	0.753	628	508	1.0	3.0	17.113	

08:15 - 08:25

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1263	1263	211	0	0	891	1733	0.729	1257	1702	1.8	3.0	8.570	
2 - Walnut Tree Avenue						1600				548				
3 - Bexley Road (E)	650	650	108	0	0	1600	935	0.695	643	0	1.3	2.4	13.399	
4 - Queens Road	1635	1635	272	0	0	891	2006	0.815	1621	1353	2.4	4.6	10.285	
5 - Bexley Road (W)	733	733	122	0	0	1932	698	1.050	661	580	3.0	15.0	63.919	

08:25 - 08:35

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1322	1322	220	0	0	889	1735	0.762	1318	1770	3.0	3.5	9.846	
2 - Walnut Tree Avenue						1648				560				
3 - Bexley Road (E)	680	680	113	0	0	1648	903	0.753	675	0	2.4	3.1	17.141	
4 - Queens Road	1710	1710	285	0	0	935	1970	0.868	1699	1388	4.6	6.5	14.360	
5 - Bexley Road (W)	767	767	128	0	0	2025	639	1.201	634	609	15.0	37.2	160.108	

08:35 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1263	1263	211	0	0	910	1720	0.735	1265	1725	3.5	3.3	9.137	
2 - Walnut Tree Avenue						1617				557				
3 - Bexley Road (E)	650	650	108	0	0	1617	923	0.704	651	0	3.1	2.8	14.865	
4 - Queens Road	1635	1635	272	0	0	901	1998	0.818	1641	1368	6.5	5.5	11.726	
5 - Bexley Road (W)	733	733	122	0	0	1956	683	1.074	679	586	37.2	46.2	222.526	

08:45 - 08:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1104	1104	184	0	0	964	1682	0.656	1110	1572	3.3	2.3	7.321	
2 - Walnut Tree Avenue						1532				542				
3 - Bexley Road (E)	568	568	95	0	0	1532	981	0.579	575	0	2.8	1.6	10.007	
4 - Queens Road	1428	1428	238	0	0	794	2086	0.685	1446	1313	5.5	2.5	6.568	
5 - Bexley Road (W)	640	640	107	0	0	1724	831	0.771	812	516	46.2	17.7	144.443	

08:55 - 09:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	881	881	147	0	0	740	1840	0.479	888	1241	2.3	1.1	4.382	
2 - Walnut Tree Avenue						1206				422				
3 - Bexley Road (E)	453	453	76	0	0	1206	1199	0.378	458	0	1.6	0.7	5.430	
4 - Queens Road	1140	1140	190	0	0	634	2217	0.514	1148	1031	2.5	1.2	3.859	
5 - Bexley Road (W)	511	511	85	0	0	1370	1057	0.484	611	412	17.7	1.1	11.103	

09:05 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	881	881	147	0	0	662	1895	0.465	881	1209	1.1	1.0	4.086	
2 - Walnut Tree Avenue						1147				396				
3 - Bexley Road (E)	453	453	76	0	0	1147	1239	0.366	453	0	0.7	0.6	5.089	
4 - Queens Road	1140	1140	190	0	0	627	2222	0.513	1140	973	1.2	1.2	3.784	
5 - Bexley Road (W)	511	511	85	0	0	1359	1063	0.481	511	408	1.1	1.0	7.223	

Queue Variation Results for each time segment

07:45 - 07:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.98	0.63	1.15	1.61	1.67			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.63	0.61	1.11	1.55	1.61			N/A	N/A
4 - Queens Road	1.18	0.63	1.14	1.59	1.65			N/A	N/A
5 - Bexley Road (W)	0.99	0.61	1.11	1.55	1.61			N/A	N/A

07:55 - 08:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	0.99	0.63	1.15	1.61	1.67			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.63	0.61	1.11	1.55	1.61			N/A	N/A
4 - Queens Road	1.19	0.63	1.16	1.63	1.69			N/A	N/A
5 - Bexley Road (W)	1.01	0.15	1.05	1.24	1.76			N/A	N/A

08:05 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.82	0.15	1.47	3.30	4.31			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.26	0.40	1.22	1.74	2.02			N/A	N/A
4 - Queens Road	2.36	0.10	1.49	5.30	7.30			N/A	N/A
5 - Bexley Road (W)	3.03	0.19	1.68	6.30	8.27			N/A	N/A

08:15 - 08:25

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.95	0.04	0.38	6.19	15.76			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	2.37	0.04	0.41	6.06	12.24			N/A	N/A
4 - Queens Road	4.60	0.04	0.45	12.19	24.54			N/A	N/A
5 - Bexley Road (W)	14.97	2.78	12.46	27.24	32.81			N/A	N/A

08:25 - 08:35

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.49	0.03	0.32	3.49	5.75			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	3.09	0.03	0.32	3.09	10.63			N/A	N/A
4 - Queens Road	6.53	0.04	0.36	8.52	31.78			N/A	N/A
5 - Bexley Road (W)	37.18	11.70	33.44	62.18	72.51			N/A	N/A

08:35 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.30	0.03	0.32	3.30	8.46			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	2.78	0.03	0.34	3.74	13.59			N/A	N/A
4 - Queens Road	5.50	0.03	0.34	5.50	22.05			N/A	N/A
5 - Bexley Road (W)	46.21	15.61	42.00	76.12	88.27			N/A	N/A

08:45 - 08:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	2.27	0.06	0.56	6.05	9.64			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.58	0.06	0.77	3.77	5.52			N/A	N/A
5 - Bexley Road (W)	17.68	3.79	15.01	31.56	37.71			N/A	N/A

08:55 - 09:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.07	0.08	0.93	1.89	2.33			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.68	0.05	0.55	1.29	1.29			N/A	N/A
4 - Queens Road	1.22	0.06	0.59	2.77	4.08			N/A	N/A
5 - Bexley Road (W)	1.07	0.03	0.33	1.57	5.21			N/A	N/A

09:05 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.01	0.07	0.84	1.83	2.28			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.65	0.05	0.51	1.23	1.23			N/A	N/A
4 - Queens Road	1.21	0.06	0.57	2.74	4.06			N/A	N/A
5 - Bexley Road (W)	1.04	0.03	0.33	1.40	5.01			N/A	N/A

Existing Layout - 2038 Local Plan Case - With LTC (Sensitivity), PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	17.68	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	17.68	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2038 Local Plan Case - With LTC (Sensitivity)	PM	ONE HOUR	16:45	18:15	10	✓

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 (PCU/hr)	Scaling Factor (%)
1 - Bronze Age Way		ONE HOUR	✓	1440	100.000
2 - Walnut Tree Avenue					
3 - Bexley Road (E)		ONE HOUR	✓	799	100.000
4 - Queens Road		ONE HOUR	✓	1249	100.000
5 - Bexley Road (W)		ONE HOUR	✓	627	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
From	1 - Bronze Age Way	0	0	0	1084	356
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	469	20	0	0	310
	4 - Queens Road	954	267	0	0	28
	5 - Bexley Road (W)	175	158	0	294	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1 - Bronze Age Way	2 - Walnut Tree Avenue	3 - Bexley Road (E)	4 - Queens Road	5 - Bexley Road (W)
	1 - Bronze Age Way	0	0	0	12	2
	2 - Walnut Tree Avenue	0	0	0	0	0
	3 - Bexley Road (E)	1	0	0	0	5
	4 - Queens Road	9	25	0	0	11
	5 - Bexley Road (W)	1	12	0	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bronze Age Way	0.80	10.13	4.0	16.7	B	1176	1765
2 - Walnut Tree Avenue							
3 - Bexley Road (E)	0.97	47.09	10.7	46.9	E	653	979
4 - Queens Road	0.70	7.41	2.5	9.9	A	1020	1531
5 - Bexley Road (W)	0.76	17.98	3.0	13.2	C	512	768

Main Results for each time segment

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	974	974	162	0	0	496	2013	0.484	968	1073	0.0	1.0	3.738	
2 - Walnut Tree Avenue						1165				299				
3 - Bexley Road (E)	540	540	90	0	0	1165	1227	0.440	536	0	0.0	0.8	5.279	
4 - Queens Road	845	845	141	0	0	775	2101	0.402	840	926	0.0	0.7	3.179	
5 - Bexley Road (W)	424	424	71	0	0	1149	1198	0.354	421	466	0.0	0.6	4.918	

16:55 - 17:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	974	974	162	0	0	500	2010	0.484	974	1080	1.0	1.0	3.788	
2 - Walnut Tree Avenue						1172				301				
3 - Bexley Road (E)	540	540	90	0	0	1172	1222	0.442	540	0	0.8	0.8	5.390	
4 - Queens Road	845	845	141	0	0	781	2096	0.403	845	932	0.7	0.7	3.212	
5 - Bexley Road (W)	424	424	71	0	0	1156	1193	0.355	424	469	0.6	0.6	4.990	

17:05 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	1220	1220	203	0	0	623	1923	0.634	1215	1346	1.0	1.8	5.507	
2 - Walnut Tree Avenue						1462				375				
3 - Bexley Road (E)	677	677	113	0	0	1462	1027	0.659	670	0	0.8	1.9	10.117	
4 - Queens Road	1058	1058	176	0	0	971	1941	0.545	1055	1162	0.7	1.3	4.520	
5 - Bexley Road (W)	531	531	89	0	0	1441	1011	0.525	528	584	0.6	1.1	7.883	

17:15 - 17:25

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1396	1396	233	0	0	710	1861	0.750	1389	1532	1.8	3.1	8.179	
2 - Walnut Tree Avenue						1671				428				
3 - Bexley Road (E)	775	775	129	0	0	1671	887	0.873	754	0	1.9	5.3	24.463	
4 - Queens Road	1211	1211	202	0	0	1097	1837	0.659	1206	1327	1.3	2.1	6.327	
5 - Bexley Road (W)	608	608	101	0	0	1641	884	0.688	602	663	1.1	2.2	13.347	

17:25 - 17:35

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1461	1461	243	0	0	745	1837	0.795	1455	1599	3.1	4.0	10.130	
2 - Walnut Tree Avenue						1751				449				
3 - Bexley Road (E)	810	810	135	0	0	1751	833	0.973	778	0	5.3	10.7	47.090	
4 - Queens Road	1267	1267	211	0	0	1138	1804	0.702	1264	1392	2.1	2.5	7.406	
5 - Bexley Road (W)	636	636	106	0	0	1712	838	0.759	631	690	2.2	3.0	17.981	

17:35 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1396	1396	233	0	0	719	1855	0.753	1399	1556	4.0	3.5	8.694	
2 - Walnut Tree Avenue						1685				433				
3 - Bexley Road (E)	775	775	129	0	0	1685	877	0.883	783	0	10.7	9.3	42.476	
4 - Queens Road	1211	1211	202	0	0	1129	1811	0.669	1212	1340	2.5	2.3	6.736	
5 - Bexley Road (W)	608	608	101	0	0	1664	869	0.700	610	677	3.0	2.6	15.042	

17:45 - 17:55

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	U
1 - Bronze Age Way	1220	1220	203	0	0	634	1915	0.637	1229	1385	3.5	2.0	5.797	
2 - Walnut Tree Avenue						1482				381				
3 - Bexley Road (E)	677	677	113	0	0	1482	1014	0.667	720	0	9.3	2.2	14.083	
4 - Queens Road	1058	1058	176	0	0	1024	1898	0.558	1063	1178	2.3	1.4	4.850	
5 - Bexley Road (W)	531	531	89	0	0	1480	987	0.538	539	607	2.6	1.3	8.728	

17:55 - 18:05

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	974	974	162	0	0	504	2008	0.485	979	1089	2.0	1.0	3.840	
2 - Walnut Tree Avenue						1180				303				
3 - Bexley Road (E)	540	540	90	0	0	1180	1217	0.444	548	0	2.2	0.8	5.561	
4 - Queens Road	845	845	141	0	0	790	2088	0.404	849	938	1.4	0.8	3.253	
5 - Bexley Road (W)	424	424	71	0	0	1165	1187	0.357	428	474	1.3	0.6	5.083	

18:05 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Un
1 - Bronze Age Way	974	974	162	0	0	500	2010	0.484	974	1081	1.0	1.0	3.789	
2 - Walnut Tree Avenue						1173				301				
3 - Bexley Road (E)	540	540	90	0	0	1173	1222	0.442	540	0	0.8	0.8	5.392	
4 - Queens Road	845	845	141	0	0	781	2096	0.403	845	932	0.8	0.8	3.213	
5 - Bexley Road (W)	424	424	71	0	0	1156	1193	0.355	424	469	0.6	0.6	4.992	

Queue Variation Results for each time segment

16:45 - 16:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.01	0.60	1.09	1.53	1.58			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.79	0.56	1.02	1.43	1.48			N/A	N/A
4 - Queens Road	0.74	0.61	1.12	1.56	1.62			N/A	N/A
5 - Bexley Road (W)	0.58	0.58	1.07	1.49	1.55			N/A	N/A

16:55 - 17:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.02	0.60	1.09	1.53	1.58			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.80	0.55	1.01	1.43	1.48			N/A	N/A
4 - Queens Road	0.75	0.61	1.12	1.56	1.62			N/A	N/A
5 - Bexley Road (W)	0.58	0.58	1.07	1.49	1.55			N/A	N/A

17:05 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.85	0.11	1.37	3.72	4.96			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	1.88	0.15	1.46	3.58	4.64			N/A	N/A
4 - Queens Road	1.32	0.18	1.23	2.00	2.37			N/A	N/A
5 - Bexley Road (W)	1.15	0.39	1.13	1.50	1.84			N/A	N/A

17:15 - 17:25

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.12	0.04	0.37	6.56	16.72			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	5.32	0.09	1.59	14.30	21.05			N/A	N/A
4 - Queens Road	2.10	0.03	0.34	2.54	9.94			N/A	N/A
5 - Bexley Road (W)	2.20	0.04	0.39	5.58	11.42			N/A	N/A

17:25 - 17:35

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.97	0.03	0.31	3.97	9.54			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	10.69	0.09	2.39	30.55	46.93			N/A	N/A
4 - Queens Road	2.54	0.03	0.30	2.54	2.54			N/A	N/A
5 - Bexley Road (W)	3.04	0.03	0.31	3.04	11.18			N/A	N/A

17:35 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	3.47	0.03	0.30	3.47	8.13			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	9.34	0.07	1.51	27.20	44.26			N/A	N/A
4 - Queens Road	2.31	0.03	0.31	2.31	5.37			N/A	N/A
5 - Bexley Road (W)	2.63	0.03	0.33	3.96	13.23			N/A	N/A

17:45 - 17:55

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.96	0.04	0.43	5.24	9.45			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	2.16	0.04	0.39	5.69	10.93			N/A	N/A
4 - Queens Road	1.43	0.06	0.75	3.28	4.85			N/A	N/A
5 - Bexley Road (W)	1.28	0.05	0.52	3.05	4.66			N/A	N/A

17:55 - 18:05

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.04	0.07	0.83	1.93	2.63			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.83	0.04	0.38	1.95	3.46			N/A	N/A
4 - Queens Road	0.77	0.09	0.87	1.54	1.62			N/A	N/A
5 - Bexley Road (W)	0.60	0.05	0.49	1.44	1.57			N/A	N/A

18:05 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - Bronze Age Way	1.03	0.07	0.82	1.92	2.62			N/A	N/A
2 - Walnut Tree Avenue									
3 - Bexley Road (E)	0.82	0.04	0.37	1.93	3.44			N/A	N/A
4 - Queens Road	0.76	0.09	0.86	1.54	1.62			N/A	N/A
5 - Bexley Road (W)	0.59	0.05	0.48	1.44	1.57			N/A	N/A



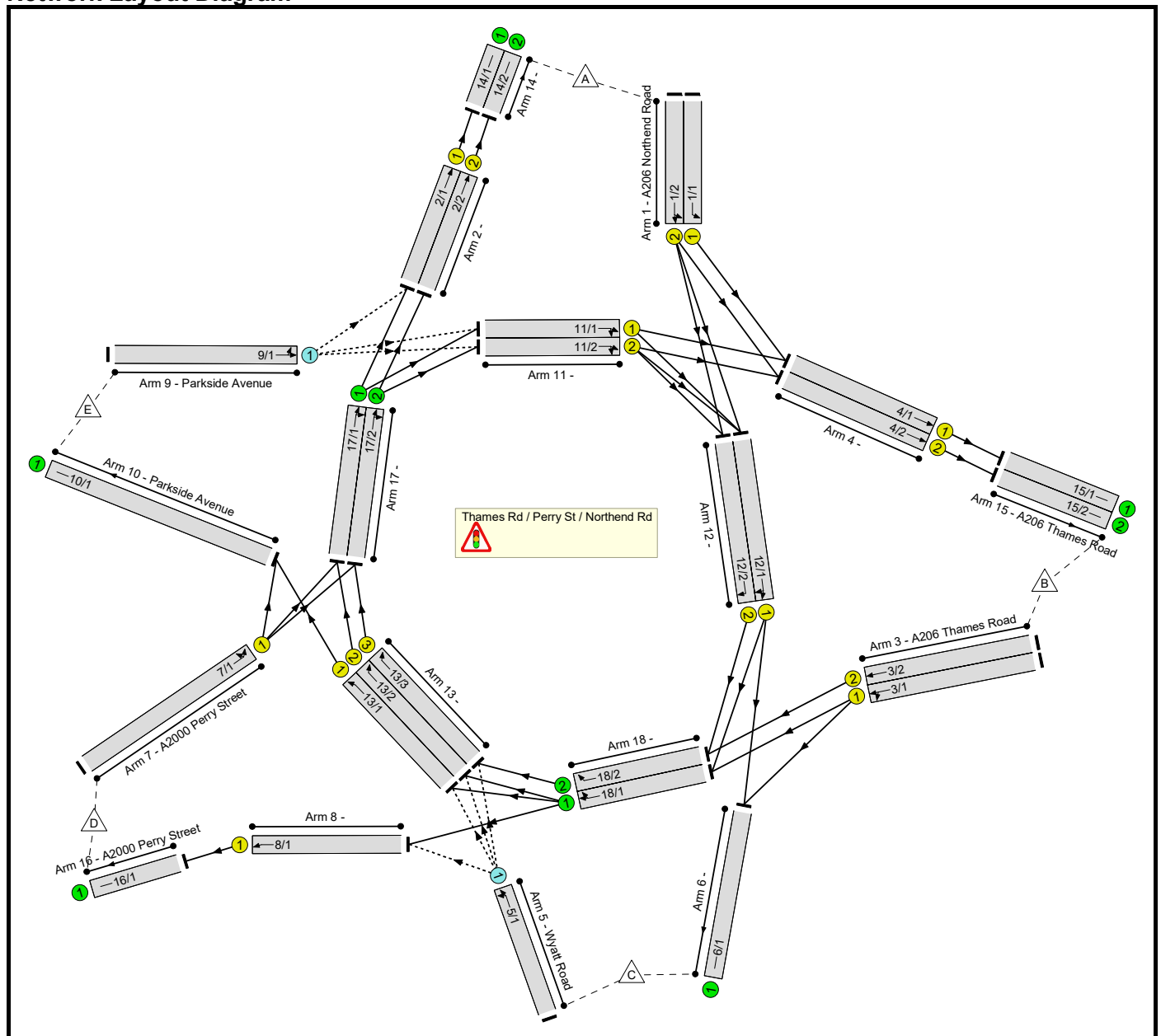
Appendix F Thames Road / Perry Street Modelling Results

Full Input Data And Results
Full Input Data And Results

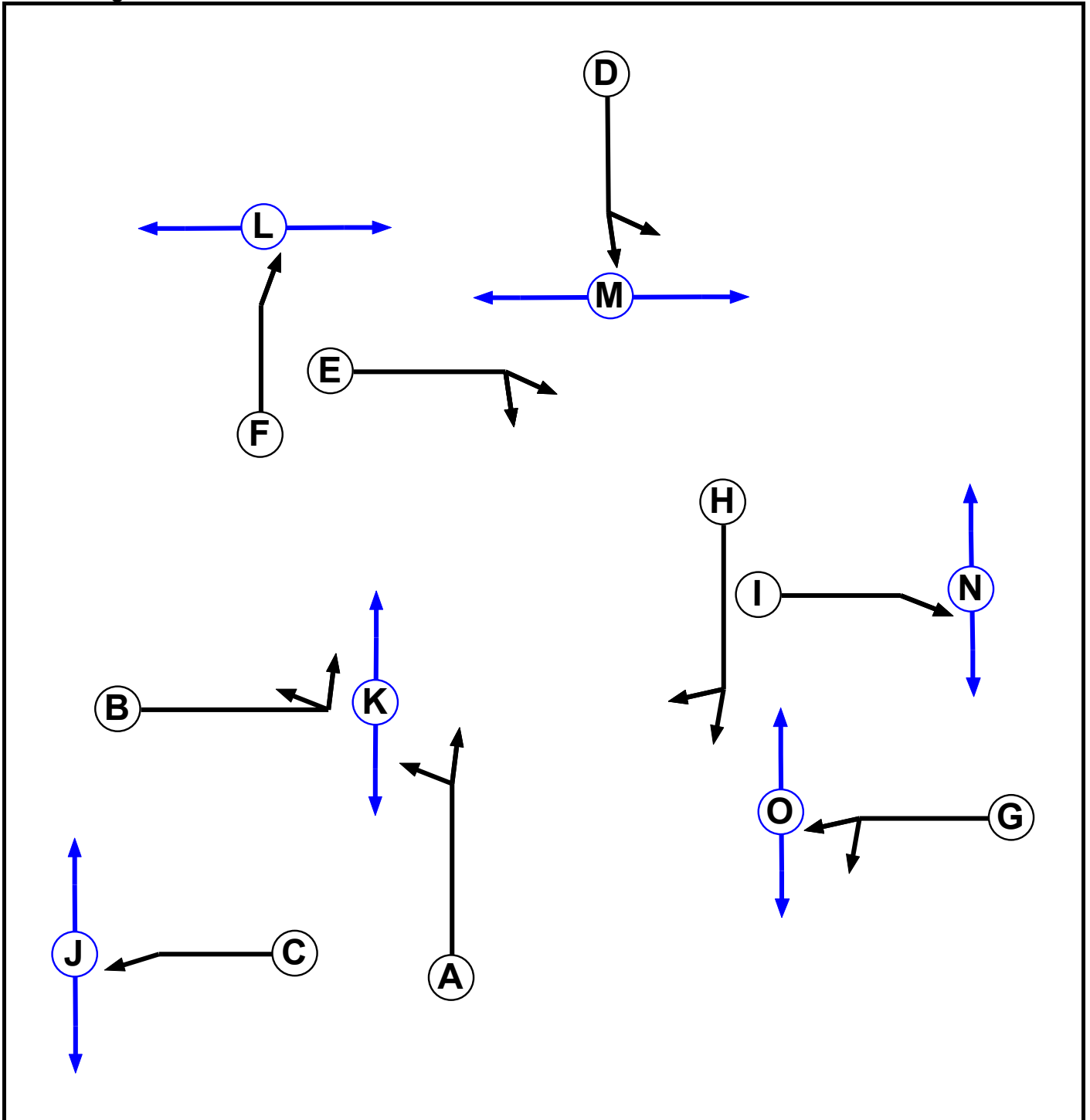
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	Thames Road _ Perry Street - Optimisation v04.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	4
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Traffic	3		7	7
E	Traffic	3		7	4
F	Traffic	4		7	7
G	Traffic	5		7	7
H	Traffic	5		7	4
I	Traffic	6		7	7
J	Pedestrian	2		6	6
K	Pedestrian	1		6	6
L	Pedestrian	4		6	6
M	Pedestrian	3		6	6
N	Pedestrian	6		6	6
O	Pedestrian	5		6	6

Phase Intergrens Matrix

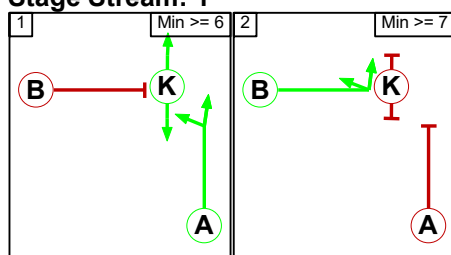
		Starting Phase														
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Terminating Phase	A		5	-	-	-	-	-	-	-	-	-	-	-	-	-
	B	5		-	-	-	-	-	-	-	-	5	-	-	-	-
	C	-	-		-	-	-	-	-	-	5	-	-	-	-	-
	D	-	-	-		5	-	-	-	-	-	-	-	5	-	-
	E	-	-	-	5		-	-	-	-	-	-	-	-	-	-
	F	-	-	-	-	-		-	-	-	-	-	5	-	-	-
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	M	-	-	-	8	-	-	-	-	-	-	-	-		-	-
	N	-	-	-	-	-	-	-	-	8	-	-	-	-		-
	O	-	-	-	-	-	-	8	-	-	-	-	-	-	-	

Phases in Stage

Stream	Stage No.	Phases in Stage
1	1	A K
1	2	B
2	1	C
2	2	J
3	1	D
3	2	E M
4	1	F
4	2	L
5	1	G
5	2	H O
6	1	I
6	2	N

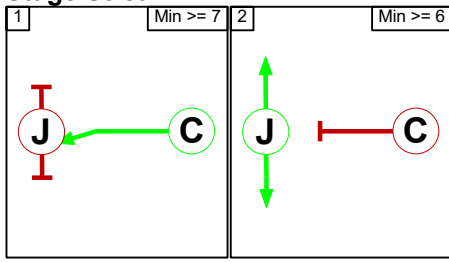
Stage Diagram

Stage Stream: 1

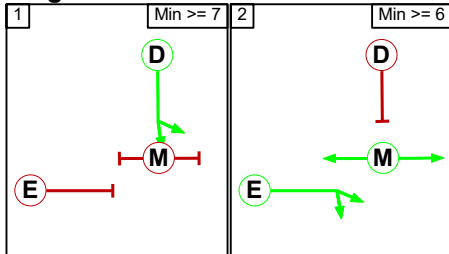


Full Input Data And Results

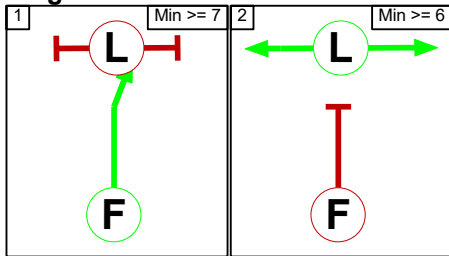
Stage Stream: 2



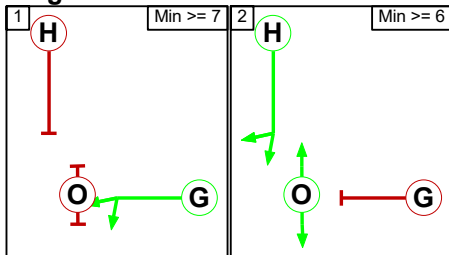
Stage Stream: 3



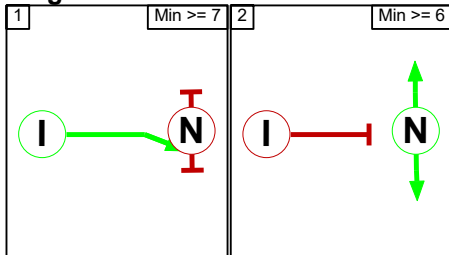
Stage Stream: 4



Stage Stream: 5



Stage Stream: 6



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
1	2	A	Losing	3	3

Stage Stream: 2

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Full Input Data And Results

Stage Stream: 3

Term. Stage	Start Stage	Phase	Type	Value	Cont value
2	1	E	Losing	3	3

Stage Stream: 4

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 5

Term. Stage	Start Stage	Phase	Type	Value	Cont value
2	1	H	Losing	3	3

Stage Stream: 6

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

Stage Stream: 1

		To Stage	
		1	2
From Stage	1	8	
	2	5	

Stage Stream: 2

		To Stage	
		1	2
From Stage	1	5	
	2	8	

Stage Stream: 3

		To Stage	
		1	2
From Stage	1	5	
	2	8	

Stage Stream: 4

		To Stage	
		1	2
From Stage	1	5	
	2	8	

Stage Stream: 5

		To Stage	
		1	2
From Stage	1	5	
	2	8	

Full Input Data And Results

Stage Stream: 6

		To Stage	
		1	2
From Stage	1		5
	2	8	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Thames Rd / Perry St / Northend Rd											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
5/1 (Wyatt Road)	8/1 (Left)	715	0	18/1	0.22	All	-	-	-	-	-
	13/1 (Ahead)	715	0	18/1	0.22	All					
				18/2	0.22	All					
	13/2 (Ahead)	715	0	18/1	0.22	All					
				18/2	0.22	All					
13/3 (Ahead)	715	0	18/1	0.22	All						
			18/2	0.22	All						
9/1 (Parkside Avenue)	2/1 (Left)	715	0	17/1	0.22	All	-	-	-	-	-
				17/2	0.22	All					
	11/1 (Ahead)	715	0	17/1	0.22	All					
				17/2	0.22	All					
	11/2 (Ahead)	1439	0	17/1	0.22	All					
				17/2	0.22	All					

Full Input Data And Results

Lane Input Data

Junction: Thames Rd / Perry St / Northend Rd												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A206 Northend Road)	U	D	2	3	60.0	Geom	-	3.63	0.00	Y	Arm 4 Left	Inf
1/2 (A206 Northend Road)	U	D	2	3	60.0	Geom	-	3.59	0.00	N	Arm 4 Left Arm 12 Ahead	Inf Inf
2/1	U	F	2	3	21.0	Geom	-	3.69	0.00	Y	Arm 14 Ahead	Inf
2/2	U	F	2	3	21.0	Geom	-	3.57	0.00	N	Arm 14 Ahead	Inf
3/1 (A206 Thames Road)	U	G	2	3	60.0	Geom	-	3.56	0.00	Y	Arm 6 Left Arm 18 Ahead	27.00 27.00
3/2 (A206 Thames Road)	U	G	2	3	60.0	Geom	-	3.65	0.00	N	Arm 18 Ahead	27.00
4/1	U	I	2	3	10.8	Geom	-	3.22	0.00	Y	Arm 15 Ahead	Inf
4/2	U	I	2	3	10.8	Geom	-	3.81	0.00	N	Arm 15 Ahead	Inf
5/1 (Wyatt Road)	O		2	3	60.0	Geom	-	4.17	0.00	Y	Arm 8 Left Arm 13 Ahead	8.00 12.00
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (A2000 Perry Street)	U	B	2	3	60.0	Geom	-	4.43	0.00	Y	Arm 10 Left Arm 17 Left	23.00 23.00
8/1	U	C	2	3	5.7	Geom	-	3.33	0.00	Y	Arm 16 Ahead	Inf
9/1 (Parkside Avenue)	O		2	3	60.0	Geom	-	3.77	0.00	Y	Arm 2 Left Arm 11 Ahead	12.00 Inf
10/1 (Parkside Avenue)	U		2	3	60.0	Inf	-	-	-	-	-	-
11/1	U	E	2	3	5.7	Geom	-	4.17	0.00	Y	Arm 4 Ahead Arm 12 Right	26.00 26.00
11/2	U	E	2	3	5.7	Geom	-	4.17	0.00	N	Arm 4 Ahead	26.00

Full Input Data And Results

												Arm 12 Right	26.00
12/1	U	H	2	3	10.8	Geom	-	3.71	0.00	Y	Arm 6 Ahead	Inf	
											Arm 18 Right	26.00	
12/2	U	H	2	3	10.8	Geom	-	3.55	0.00	N	Arm 18 Right	26.00	
13/1	U	A	2	3	11.3	Geom	-	3.74	0.00	Y	Arm 10 Ahead	26.00	
13/2	U	A	2	3	11.3	Geom	-	3.70	0.00	Y	Arm 17 Right	26.00	
13/3	U	A	2	3	11.3	Geom	-	3.55	0.00	N	Arm 17 Right	26.00	
14/1	U		2	3	60.0	Inf	-	-	-	-	-	-	
14/2	U		2	3	60.0	Inf	-	-	-	-	-	-	
15/1 (A206 Thames Road)	U		2	3	60.0	Inf	-	-	-	-	-	-	
15/2 (A206 Thames Road)	U		2	3	60.0	Inf	-	-	-	-	-	-	
16/1 (A2000 Perry Street)	U		2	3	60.0	Inf	-	-	-	-	-	-	
17/1	U		2	3	5.7	Geom	-	3.69	0.00	Y	Arm 2 Ahead	Inf	
											Arm 11 Right	Inf	
17/2	U		2	3	5.7	Geom	-	3.57	0.00	N	Arm 2 Ahead	Inf	
											Arm 11 Right	Inf	
18/1	U		2	3	7.1	Geom	-	5.00	0.00	Y	Arm 8 Ahead	Inf	
											Arm 13 Right	Inf	
18/2	U		2	3	7.1	Geom	-	5.00	0.00	N	Arm 13 Right	Inf	

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2021 Baseline AM (unchanged)'	08:00	09:00	01:00	
2: '2021 Baseline PM (unchanged)'	17:00	18:00	01:00	
3: '2038 Reference Case AM - No LTC'	08:00	09:00	01:00	
4: '2038 Reference Case PM - No LTC'	17:00	18:00	01:00	
5: '2038 Reference Case AM - With LTC'	08:00	09:00	01:00	
6: '2038 Reference Case PM - With LTC'	17:00	18:00	01:00	
7: '2038 Local Plan Case AM - No LTC'	08:00	09:00	01:00	
8: '2038 Local Plan Case PM - No LTC'	17:00	18:00	01:00	
9: '2038 Local Plan Case AM - With LTC'	08:00	09:00	01:00	
10: '2038 Local Plan Case PM - With LTC'	17:00	18:00	01:00	
11: '2038 Local Plan Case AM - No LTC - Sensitivity Test'	08:00	09:00	01:00	
12: '2038 Local Plan Case PM - No LTC - Sensitivity Test'	17:00	18:00	01:00	
13: '2038 Local Plan Case AM - With LTC - Sensitivity Test'	08:00	09:00	01:00	
14: '2038 Local Plan Case PM - With LTC - Sensitivity Test'	17:00	18:00	01:00	

Scenario 1: '2021 Baseline AM (unchanged)' (FG1: '2021 Baseline AM (unchanged)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						Tot.
	A	B	C	D	E		
Origin	A	126	1068	24	297	32	1547
	B	1307	7	25	69	96	1504
	C	28	22	0	41	37	128
	D	393	133	23	2	12	563
	E	7	270	5	6	0	288
	Tot.	1861	1500	77	415	177	4030

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2021 Baseline AM (unchanged)
Junction: Thames Rd / Perry St / Northend Rd	
1/1	700
1/2	847
2/1	889
2/2	972
3/1	827
3/2	677
4/1	891
4/2	609
5/1	128
6/1	77
7/1	563
8/1	415
9/1	288
10/1	177
11/1	226
11/2	242
12/1	389
12/2	126
13/1	165
13/2	687
13/3	803
14/1	889
14/2	972
15/1	891
15/2	609
16/1	415
17/1	992
17/2	1049
18/1	1139
18/2	803

Full Input Data And Results

Lane Saturation Flows

Junction: Thames Rd / Perry St / Northend Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A206 Northend Road)	3.63	0.00	Y	Arm 4 Left	Inf	100.0 %	1978	1978
1/2 (A206 Northend Road)	3.59	0.00	N	Arm 4 Left Arm 12 Ahead	Inf Inf	43.4 % 56.6 %	2114	2114
2/1	3.69	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1984	1984
2/2	3.57	0.00	N	Arm 14 Ahead	Inf	100.0 %	2112	2112
3/1 (A206 Thames Road)	3.56	0.00	Y	Arm 6 Left Arm 18 Ahead	27.00 27.00	3.0 % 97.0 %	1867	1867
3/2 (A206 Thames Road)	3.65	0.00	N	Arm 18 Ahead	27.00	100.0 %	2008	2008
4/1	3.22	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1937	1937
4/2	3.81	0.00	N	Arm 15 Ahead	Inf	100.0 %	2136	2136
5/1 (Wyatt Road)	4.17	0.00	Y	Arm 8 Left Arm 13 Ahead	8.00 12.00	32.0 % 68.0 %	1775	1775
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (A2000 Perry Street)	4.43	0.00	Y	Arm 10 Left Arm 17 Left	23.00 23.00	2.1 % 97.9 %	1932	1932
8/1	3.33	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1948	1948
9/1 (Parkside Avenue)	3.77	0.00	Y	Arm 2 Left Arm 11 Ahead	12.00 Inf	2.4 % 97.6 %	1986	1986
10/1 (Parkside Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
11/1	4.17	0.00	Y	Arm 4 Ahead Arm 12 Right	26.00 26.00	84.5 % 15.5 %	1921	1921
11/2	4.17	0.00	N	Arm 4 Ahead Arm 12 Right	26.00 26.00	99.6 % 0.4 %	2054	2054
12/1	3.71	0.00	Y	Arm 6 Ahead Arm 18 Right	Inf 26.00	13.4 % 86.6 %	1891	1891
12/2	3.55	0.00	N	Arm 18 Right	26.00	100.0 %	1995	1995
13/1	3.74	0.00	Y	Arm 10 Ahead	26.00	100.0 %	1881	1881
13/2	3.70	0.00	Y	Arm 17 Right	26.00	100.0 %	1877	1877
13/3	3.55	0.00	N	Arm 17 Right	26.00	100.0 %	1995	1995
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
15/1 (A206 Thames Road Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A206 Thames Road Lane 2)	Infinite Saturation Flow						Inf	Inf
16/1 (A2000 Perry Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

17/1	3.69	0.00	Y	Arm 2 Ahead	Inf	88.9 %	1984	1984
				Arm 11 Right	Inf	11.1 %		
17/2	3.57	0.00	N	Arm 2 Ahead	Inf	92.7 %	2112	2112
				Arm 11 Right	Inf	7.3 %		
18/1	5.00	0.00	Y	Arm 8 Ahead	Inf	32.8 %	2115	2115
				Arm 13 Right	Inf	67.2 %		
18/2	5.00	0.00	N	Arm 13 Right	Inf	100.0 %	2255	2255

Scenario 2: '2021 Baseline PM (unchanged)' (FG2: '2021 Baseline PM (unchanged)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						Tot.
	A	B	C	D	E		
Origin	A	112	1146	33	356	18	1665
	B	1186	5	25	103	136	1455
	C	36	21	0	61	13	131
	D	326	67	42	1	13	449
	E	14	208	18	9	0	249
	Tot.	1674	1447	118	530	180	3949

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2021 Baseline PM (unchanged)
Junction: Thames Rd / Perry St / Northend Rd	
1/1	750
1/2	915
2/1	757
2/2	917
3/1	772
3/2	683
4/1	857
4/2	590
5/1	131
6/1	118
7/1	449
8/1	530
9/1	249
10/1	180
11/1	176
11/2	195
12/1	477
12/2	112
13/1	167
13/2	564
13/3	796
14/1	757
14/2	917
15/1	857
15/2	590
16/1	530
17/1	831
17/2	965
18/1	1131
18/2	795

Full Input Data And Results

Lane Saturation Flows

Junction: Thames Rd / Perry St / Northend Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A206 Northend Road)	3.63	0.00	Y	Arm 4 Left	Inf	100.0 %	1978	1978
1/2 (A206 Northend Road)	3.59	0.00	N	Arm 4 Left Arm 12 Ahead	Inf Inf	43.3 % 56.7 %	2114	2114
2/1	3.69	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1984	1984
2/2	3.57	0.00	N	Arm 14 Ahead	Inf	100.0 %	2112	2112
3/1 (A206 Thames Road)	3.56	0.00	Y	Arm 6 Left Arm 18 Ahead	27.00 27.00	3.2 % 96.8 %	1867	1867
3/2 (A206 Thames Road)	3.65	0.00	N	Arm 18 Ahead	27.00	100.0 %	2008	2008
4/1	3.22	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1937	1937
4/2	3.81	0.00	N	Arm 15 Ahead	Inf	100.0 %	2136	2136
5/1 (Wyatt Road)	4.17	0.00	Y	Arm 8 Left Arm 13 Ahead	8.00 12.00	46.6 % 53.4 %	1761	1761
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (A2000 Perry Street)	4.43	0.00	Y	Arm 10 Left Arm 17 Left	23.00 23.00	2.9 % 97.1 %	1932	1932
8/1	3.33	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1948	1948
9/1 (Parkside Avenue)	3.77	0.00	Y	Arm 2 Left Arm 11 Ahead	12.00 Inf	5.6 % 94.4 %	1978	1978
10/1 (Parkside Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
11/1	4.17	0.00	Y	Arm 4 Ahead Arm 12 Right	26.00 26.00	60.8 % 39.2 %	1921	1921
11/2	4.17	0.00	N	Arm 4 Ahead Arm 12 Right	26.00 26.00	99.5 % 0.5 %	2054	2054
12/1	3.71	0.00	Y	Arm 6 Ahead Arm 18 Right	Inf 26.00	19.5 % 80.5 %	1898	1898
12/2	3.55	0.00	N	Arm 18 Right	26.00	100.0 %	1995	1995
13/1	3.74	0.00	Y	Arm 10 Ahead	26.00	100.0 %	1881	1881
13/2	3.70	0.00	Y	Arm 17 Right	26.00	100.0 %	1877	1877
13/3	3.55	0.00	N	Arm 17 Right	26.00	100.0 %	1995	1995
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
15/1 (A206 Thames Road Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A206 Thames Road Lane 2)	Infinite Saturation Flow						Inf	Inf
16/1 (A2000 Perry Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

17/1	3.69	0.00	Y	Arm 2 Ahead	Inf	89.4 %	1984	1984
				Arm 11 Right	Inf	10.6 %		
17/2	3.57	0.00	N	Arm 2 Ahead	Inf	95.0 %	2112	2112
				Arm 11 Right	Inf	5.0 %		
18/1	5.00	0.00	Y	Arm 8 Ahead	Inf	41.5 %	2115	2115
				Arm 13 Right	Inf	58.5 %		
18/2	5.00	0.00	N	Arm 13 Right	Inf	100.0 %	2255	2255

Scenario 3: '2038 Reference Case AM - No LTC' (FG3: '2038 Reference Case AM - No LTC', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						Tot.
	A	B	C	D	E		
Origin	A	153	1332	49	129	1	1664
	B	1454	0	56	13	29	1552
	C	46	28	0	67	0	141
	D	473	6	50	0	20	549
	E	0	384	7	0	0	391
	Tot.	2126	1750	162	209	50	4297

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: 2038 Reference Case AM - No LTC
Junction: Thames Rd / Perry St / Northend Rd	
1/1	772
1/2	892
2/1	1059
2/2	1067
3/1	844
3/2	708
4/1	948
4/2	802
5/1	141
6/1	162
7/1	549
8/1	209
9/1	391
10/1	50
11/1	232
11/2	243
12/1	248
12/2	141
13/1	30
13/2	830
13/3	851
14/1	1059
14/2	1067
15/1	948
15/2	802
16/1	209
17/1	1138
17/2	1072
18/1	930
18/2	849

Full Input Data And Results

Lane Saturation Flows

Junction: Thames Rd / Perry St / Northend Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A206 Northend Road)	3.63	0.00	Y	Arm 4 Left	Inf	100.0 %	1978	1978
1/2 (A206 Northend Road)	3.59	0.00	N	Arm 4 Left Arm 12 Ahead	Inf Inf	62.8 % 37.2 %	2114	2114
2/1	3.69	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1984	1984
2/2	3.57	0.00	N	Arm 14 Ahead	Inf	100.0 %	2112	2112
3/1 (A206 Thames Road)	3.56	0.00	Y	Arm 6 Left Arm 18 Ahead	27.00 27.00	6.6 % 93.4 %	1867	1867
3/2 (A206 Thames Road)	3.65	0.00	N	Arm 18 Ahead	27.00	100.0 %	2008	2008
4/1	3.22	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1937	1937
4/2	3.81	0.00	N	Arm 15 Ahead	Inf	100.0 %	2136	2136
5/1 (Wyatt Road)	4.17	0.00	Y	Arm 8 Left Arm 13 Ahead	8.00 12.00	47.5 % 52.5 %	1760	1760
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (A2000 Perry Street)	4.43	0.00	Y	Arm 10 Left Arm 17 Left	23.00 23.00	3.6 % 96.4 %	1932	1932
8/1	3.33	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1948	1948
9/1 (Parkside Avenue)	3.77	0.00	Y	Arm 2 Left Arm 11 Ahead	12.00 Inf	0.0 % 100.0 %	1992	1992
10/1 (Parkside Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
11/1	4.17	0.00	Y	Arm 4 Ahead Arm 12 Right	26.00 26.00	75.9 % 24.1 %	1921	1921
11/2	4.17	0.00	N	Arm 4 Ahead Arm 12 Right	26.00 26.00	99.6 % 0.4 %	2054	2054
12/1	3.71	0.00	Y	Arm 6 Ahead Arm 18 Right	Inf 26.00	42.7 % 57.3 %	1922	1922
12/2	3.55	0.00	N	Arm 18 Right	26.00	100.0 %	1995	1995
13/1	3.74	0.00	Y	Arm 10 Ahead	26.00	100.0 %	1881	1881
13/2	3.70	0.00	Y	Arm 17 Right	26.00	100.0 %	1877	1877
13/3	3.55	0.00	N	Arm 17 Right	26.00	100.0 %	1995	1995
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
15/1 (A206 Thames Road Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A206 Thames Road Lane 2)	Infinite Saturation Flow						Inf	Inf
16/1 (A2000 Perry Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

17/1	3.69	0.00	Y	Arm 2 Ahead	Inf	93.1 %	1984	1984
				Arm 11 Right	Inf	6.9 %		
17/2	3.57	0.00	N	Arm 2 Ahead	Inf	99.5 %	2112	2112
				Arm 11 Right	Inf	0.5 %		
18/1	5.00	0.00	Y	Arm 8 Ahead	Inf	15.3 %	2115	2115
				Arm 13 Right	Inf	84.7 %		
18/2	5.00	0.00	N	Arm 13 Right	Inf	100.0 %	2255	2255

Scenario 4: '2038 Reference Case PM - No LTC' (FG4: '2038 Reference Case PM - No LTC', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						Tot.
	A	B	C	D	E		
Origin	A	128	1345	41	272	2	1788
B	1395	0	37	12	47	1491	
C	68	39	0	138	0	245	
D	468	0	38	0	19	525	
E	0	271	7	14	0	292	
Tot.	2059	1655	123	436	68	4341	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2038 Reference Case PM - No LTC
Junction: Thames Rd / Perry St / Northend Rd	
1/1	838
1/2	950
2/1	1010
2/2	1049
3/1	787
3/2	704
4/1	956
4/2	699
5/1	245
6/1	123
7/1	525
8/1	436
9/1	292
10/1	68
11/1	173
11/2	196
12/1	374
12/2	128
13/1	49
13/2	790
13/3	840
14/1	1010
14/2	1049
15/1	956
15/2	699
16/1	436
17/1	1076
17/2	1060
18/1	1038
18/2	832

Full Input Data And Results

Lane Saturation Flows

Junction: Thames Rd / Perry St / Northend Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A206 Northend Road)	3.63	0.00	Y	Arm 4 Left	Inf	100.0 %	1978	1978
1/2 (A206 Northend Road)	3.59	0.00	N	Arm 4 Left Arm 12 Ahead	Inf Inf	53.4 % 46.6 %	2114	2114
2/1	3.69	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1984	1984
2/2	3.57	0.00	N	Arm 14 Ahead	Inf	100.0 %	2112	2112
3/1 (A206 Thames Road)	3.56	0.00	Y	Arm 6 Left Arm 18 Ahead	27.00 27.00	4.7 % 95.3 %	1867	1867
3/2 (A206 Thames Road)	3.65	0.00	N	Arm 18 Ahead	27.00	100.0 %	2008	2008
4/1	3.22	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1937	1937
4/2	3.81	0.00	N	Arm 15 Ahead	Inf	100.0 %	2136	2136
5/1 (Wyatt Road)	4.17	0.00	Y	Arm 8 Left Arm 13 Ahead	8.00 12.00	56.3 % 43.7 %	1751	1751
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (A2000 Perry Street)	4.43	0.00	Y	Arm 10 Left Arm 17 Left	23.00 23.00	3.6 % 96.4 %	1932	1932
8/1	3.33	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1948	1948
9/1 (Parkside Avenue)	3.77	0.00	Y	Arm 2 Left Arm 11 Ahead	12.00 Inf	0.0 % 100.0 %	1992	1992
10/1 (Parkside Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
11/1	4.17	0.00	Y	Arm 4 Ahead Arm 12 Right	26.00 26.00	68.2 % 31.8 %	1921	1921
11/2	4.17	0.00	N	Arm 4 Ahead Arm 12 Right	26.00 26.00	98.0 % 2.0 %	2054	2054
12/1	3.71	0.00	Y	Arm 6 Ahead Arm 18 Right	Inf 26.00	23.0 % 77.0 %	1902	1902
12/2	3.55	0.00	N	Arm 18 Right	26.00	100.0 %	1995	1995
13/1	3.74	0.00	Y	Arm 10 Ahead	26.00	100.0 %	1881	1881
13/2	3.70	0.00	Y	Arm 17 Right	26.00	100.0 %	1877	1877
13/3	3.55	0.00	N	Arm 17 Right	26.00	100.0 %	1995	1995
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
15/1 (A206 Thames Road Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A206 Thames Road Lane 2)	Infinite Saturation Flow						Inf	Inf
16/1 (A2000 Perry Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

17/1	3.69	0.00	Y	Arm 2 Ahead	Inf	93.9 %	1984	1984
				Arm 11 Right	Inf	6.1 %		
17/2	3.57	0.00	N	Arm 2 Ahead	Inf	99.0 %	2112	2112
				Arm 11 Right	Inf	1.0 %		
18/1	5.00	0.00	Y	Arm 8 Ahead	Inf	28.7 %	2115	2115
				Arm 13 Right	Inf	71.3 %		
18/2	5.00	0.00	N	Arm 13 Right	Inf	100.0 %	2255	2255

Scenario 5: '2038 Reference Case AM - With LTC' (FG5: '2038 Reference Case AM - With LTC', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						Tot.
	A	B	C	D	E		
Origin	A	154	1349	47	125	1	1676
	B	1567	0	57	13	29	1666
	C	46	30	0	64	0	140
	D	448	46	51	0	19	564
	E	0	355	7	0	0	362
	Tot.	2215	1780	162	202	49	4408

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: 2038 Reference Case AM - With LTC
Junction: Thames Rd / Perry St / Northend Rd	
1/1	828
1/2	848
2/1	1098
2/2	1117
3/1	873
3/2	793
4/1	993
4/2	787
5/1	140
6/1	162
7/1	564
8/1	202
9/1	362
10/1	49
11/1	209
11/2	280
12/1	263
12/2	122
13/1	30
13/2	880
13/3	917
14/1	1098
14/2	1117
15/1	993
15/2	787
16/1	202
17/1	1185
17/2	1157
18/1	974
18/2	915

Full Input Data And Results

Lane Saturation Flows

Junction: Thames Rd / Perry St / Northend Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A206 Northend Road)	3.63	0.00	Y	Arm 4 Left	Inf	100.0 %	1978	1978
1/2 (A206 Northend Road)	3.59	0.00	N	Arm 4 Left Arm 12 Ahead	Inf Inf	61.4 % 38.6 %	2114	2114
2/1	3.69	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1984	1984
2/2	3.57	0.00	N	Arm 14 Ahead	Inf	100.0 %	2112	2112
3/1 (A206 Thames Road)	3.56	0.00	Y	Arm 6 Left Arm 18 Ahead	27.00 27.00	6.5 % 93.5 %	1867	1867
3/2 (A206 Thames Road)	3.65	0.00	N	Arm 18 Ahead	27.00	100.0 %	2008	2008
4/1	3.22	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1937	1937
4/2	3.81	0.00	N	Arm 15 Ahead	Inf	100.0 %	2136	2136
5/1 (Wyatt Road)	4.17	0.00	Y	Arm 8 Left Arm 13 Ahead	8.00 12.00	45.7 % 54.3 %	1761	1761
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (A2000 Perry Street)	4.43	0.00	Y	Arm 10 Left Arm 17 Left	23.00 23.00	3.4 % 96.6 %	1932	1932
8/1	3.33	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1948	1948
9/1 (Parkside Avenue)	3.77	0.00	Y	Arm 2 Left Arm 11 Ahead	12.00 Inf	0.0 % 100.0 %	1992	1992
10/1 (Parkside Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
11/1	4.17	0.00	Y	Arm 4 Ahead Arm 12 Right	26.00 26.00	78.9 % 21.1 %	1921	1921
11/2	4.17	0.00	N	Arm 4 Ahead Arm 12 Right	26.00 26.00	95.0 % 5.0 %	2054	2054
12/1	3.71	0.00	Y	Arm 6 Ahead Arm 18 Right	Inf 26.00	39.9 % 60.1 %	1919	1919
12/2	3.55	0.00	N	Arm 18 Right	26.00	100.0 %	1995	1995
13/1	3.74	0.00	Y	Arm 10 Ahead	26.00	100.0 %	1881	1881
13/2	3.70	0.00	Y	Arm 17 Right	26.00	100.0 %	1877	1877
13/3	3.55	0.00	N	Arm 17 Right	26.00	100.0 %	1995	1995
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
15/1 (A206 Thames Road Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A206 Thames Road Lane 2)	Infinite Saturation Flow						Inf	Inf
16/1 (A2000 Perry Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

17/1	3.69	0.00	Y	Arm 2 Ahead	Inf	92.7 %	1984	1984
				Arm 11 Right	Inf	7.3 %		
17/2	3.57	0.00	N	Arm 2 Ahead	Inf	96.5 %	2112	2112
				Arm 11 Right	Inf	3.5 %		
18/1	5.00	0.00	Y	Arm 8 Ahead	Inf	14.2 %	2115	2115
				Arm 13 Right	Inf	85.8 %		
18/2	5.00	0.00	N	Arm 13 Right	Inf	100.0 %	2255	2255

Scenario 6: '2038 Reference Case PM - With LTC' (FG6: '2038 Reference Case PM - With LTC', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						Tot.
	A	B	C	D	E		
Origin	A	122	1369	40	265	2	1798
	B	1431	0	38	12	47	1528
	C	70	40	0	135	0	245
	D	469	0	38	0	22	529
	E	0	263	7	18	0	288
	Tot.	2092	1672	123	430	71	4388

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 2038 Reference Case PM - With LTC
Junction: Thames Rd / Perry St / Northend Rd	
1/1	844
1/2	954
2/1	1029
2/2	1063
3/1	806
3/2	722
4/1	958
4/2	714
5/1	245
6/1	123
7/1	529
8/1	430
9/1	288
10/1	71
11/1	173
11/2	193
12/1	370
12/2	122
13/1	49
13/2	811
13/3	852
14/1	1029
14/2	1063
15/1	958
15/2	714
16/1	430
17/1	1096
17/2	1074
18/1	1053
18/2	844

Full Input Data And Results

Lane Saturation Flows

Junction: Thames Rd / Perry St / Northend Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A206 Northend Road)	3.63	0.00	Y	Arm 4 Left	Inf	100.0 %	1978	1978
1/2 (A206 Northend Road)	3.59	0.00	N	Arm 4 Left Arm 12 Ahead	Inf Inf	55.0 % 45.0 %	2114	2114
2/1	3.69	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1984	1984
2/2	3.57	0.00	N	Arm 14 Ahead	Inf	100.0 %	2112	2112
3/1 (A206 Thames Road)	3.56	0.00	Y	Arm 6 Left Arm 18 Ahead	27.00 27.00	4.7 % 95.3 %	1867	1867
3/2 (A206 Thames Road)	3.65	0.00	N	Arm 18 Ahead	27.00	100.0 %	2008	2008
4/1	3.22	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1937	1937
4/2	3.81	0.00	N	Arm 15 Ahead	Inf	100.0 %	2136	2136
5/1 (Wyatt Road)	4.17	0.00	Y	Arm 8 Left Arm 13 Ahead	8.00 12.00	55.1 % 44.9 %	1753	1753
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (A2000 Perry Street)	4.43	0.00	Y	Arm 10 Left Arm 17 Left	23.00 23.00	4.2 % 95.8 %	1932	1932
8/1	3.33	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1948	1948
9/1 (Parkside Avenue)	3.77	0.00	Y	Arm 2 Left Arm 11 Ahead	12.00 Inf	0.0 % 100.0 %	1992	1992
10/1 (Parkside Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
11/1	4.17	0.00	Y	Arm 4 Ahead Arm 12 Right	26.00 26.00	65.9 % 34.1 %	1921	1921
11/2	4.17	0.00	N	Arm 4 Ahead Arm 12 Right	26.00 26.00	97.9 % 2.1 %	2054	2054
12/1	3.71	0.00	Y	Arm 6 Ahead Arm 18 Right	Inf 26.00	23.0 % 77.0 %	1901	1901
12/2	3.55	0.00	N	Arm 18 Right	26.00	100.0 %	1995	1995
13/1	3.74	0.00	Y	Arm 10 Ahead	26.00	100.0 %	1881	1881
13/2	3.70	0.00	Y	Arm 17 Right	26.00	100.0 %	1877	1877
13/3	3.55	0.00	N	Arm 17 Right	26.00	100.0 %	1995	1995
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
15/1 (A206 Thames Road Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A206 Thames Road Lane 2)	Infinite Saturation Flow						Inf	Inf
16/1 (A2000 Perry Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

17/1	3.69	0.00	Y	Arm 2 Ahead	Inf	93.9 %	1984	1984
				Arm 11 Right	Inf	6.1 %		
17/2	3.57	0.00	N	Arm 2 Ahead	Inf	99.0 %	2112	2112
				Arm 11 Right	Inf	1.0 %		
18/1	5.00	0.00	Y	Arm 8 Ahead	Inf	28.0 %	2115	2115
				Arm 13 Right	Inf	72.0 %		
18/2	5.00	0.00	N	Arm 13 Right	Inf	100.0 %	2255	2255

Scenario 7: '2038 Local Plan Case AM - No LTC' (FG7: '2038 Local Plan Case AM - No LTC', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						Tot.
	A	B	C	D	E		
Origin	A	117	1398	55	142	2	1714
	B	1574	0	42	12	40	1668
	C	53	26	0	63	0	142
	D	454	93	61	0	6	614
	E	0	340	5	0	0	345
	Tot.	2198	1857	163	217	48	4483

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: 2038 Local Plan Case AM - No LTC
Junction: Thames Rd / Perry St / Northend Rd	
1/1	767
1/2	947
2/1	1040
2/2	1158
3/1	820
3/2	848
4/1	949
4/2	908
5/1	142
6/1	163
7/1	614
8/1	217
9/1	345
10/1	48
11/1	240
11/2	285
12/1	324
12/2	58
13/1	42
13/2	838
13/3	932
14/1	1040
14/2	1158
15/1	949
15/2	908
16/1	217
17/1	1154
17/2	1224
18/1	981
18/2	906

Full Input Data And Results

Lane Saturation Flows

Junction: Thames Rd / Perry St / Northend Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A206 Northend Road)	3.63	0.00	Y	Arm 4 Left	Inf	100.0 %	1978	1978
1/2 (A206 Northend Road)	3.59	0.00	N	Arm 4 Left Arm 12 Ahead	Inf Inf	66.6 % 33.4 %	2114	2114
2/1	3.69	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1984	1984
2/2	3.57	0.00	N	Arm 14 Ahead	Inf	100.0 %	2112	2112
3/1 (A206 Thames Road)	3.56	0.00	Y	Arm 6 Left Arm 18 Ahead	27.00 27.00	5.1 % 94.9 %	1867	1867
3/2 (A206 Thames Road)	3.65	0.00	N	Arm 18 Ahead	27.00	100.0 %	2008	2008
4/1	3.22	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1937	1937
4/2	3.81	0.00	N	Arm 15 Ahead	Inf	100.0 %	2136	2136
5/1 (Wyatt Road)	4.17	0.00	Y	Arm 8 Left Arm 13 Ahead	8.00 12.00	44.4 % 55.6 %	1763	1763
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (A2000 Perry Street)	4.43	0.00	Y	Arm 10 Left Arm 17 Left	23.00 23.00	1.0 % 99.0 %	1932	1932
8/1	3.33	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1948	1948
9/1 (Parkside Avenue)	3.77	0.00	Y	Arm 2 Left Arm 11 Ahead	12.00 Inf	0.0 % 100.0 %	1992	1992
10/1 (Parkside Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
11/1	4.17	0.00	Y	Arm 4 Ahead Arm 12 Right	26.00 26.00	75.8 % 24.2 %	1921	1921
11/2	4.17	0.00	N	Arm 4 Ahead Arm 12 Right	26.00 26.00	97.2 % 2.8 %	2054	2054
12/1	3.71	0.00	Y	Arm 6 Ahead Arm 18 Right	Inf 26.00	37.3 % 62.7 %	1917	1917
12/2	3.55	0.00	N	Arm 18 Right	26.00	100.0 %	1995	1995
13/1	3.74	0.00	Y	Arm 10 Ahead	26.00	100.0 %	1881	1881
13/2	3.70	0.00	Y	Arm 17 Right	26.00	100.0 %	1877	1877
13/3	3.55	0.00	N	Arm 17 Right	26.00	100.0 %	1995	1995
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
15/1 (A206 Thames Road Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A206 Thames Road Lane 2)	Infinite Saturation Flow						Inf	Inf
16/1 (A2000 Perry Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

17/1	3.69	0.00	Y	Arm 2 Ahead	Inf	90.1 %	1984	1984
				Arm 11 Right	Inf	9.9 %		
17/2	3.57	0.00	N	Arm 2 Ahead	Inf	94.6 %	2112	2112
				Arm 11 Right	Inf	5.4 %		
18/1	5.00	0.00	Y	Arm 8 Ahead	Inf	15.7 %	2115	2115
				Arm 13 Right	Inf	84.3 %		
18/2	5.00	0.00	N	Arm 13 Right	Inf	100.0 %	2255	2255

Scenario 8: '2038 Local Plan Case PM - No LTC' (FG8: '2038 Local Plan Case PM - No LTC', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						Tot.
	A	B	C	D	E		
Origin	A	67	1434	43	335	2	1881
	B	1601	0	39	9	48	1697
	C	77	39	0	133	0	249
	D	530	0	35	0	0	565
	E	0	238	7	14	0	259
	Tot.	2275	1711	124	491	50	4651

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: 2038 Local Plan Case PM - No LTC
Junction: Thames Rd / Perry St / Northend Rd	
1/1	829
1/2	1052
2/1	1083
2/2	1192
3/1	830
3/2	867
4/1	926
4/2	785
5/1	249
6/1	124
7/1	565
8/1	491
9/1	259
10/1	50
11/1	148
11/2	185
12/1	456
12/2	47
13/1	50
13/2	846
13/3	938
14/1	1083
14/2	1192
15/1	926
15/2	785
16/1	491
17/1	1144
17/2	1205
18/1	1162
18/2	914

Full Input Data And Results

Lane Saturation Flows

Junction: Thames Rd / Perry St / Northend Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A206 Northend Road)	3.63	0.00	Y	Arm 4 Left	Inf	100.0 %	1978	1978
1/2 (A206 Northend Road)	3.59	0.00	N	Arm 4 Left Arm 12 Ahead	Inf Inf	57.5 % 42.5 %	2114	2114
2/1	3.69	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1984	1984
2/2	3.57	0.00	N	Arm 14 Ahead	Inf	100.0 %	2112	2112
3/1 (A206 Thames Road)	3.56	0.00	Y	Arm 6 Left Arm 18 Ahead	27.00 27.00	4.7 % 95.3 %	1867	1867
3/2 (A206 Thames Road)	3.65	0.00	N	Arm 18 Ahead	27.00	100.0 %	2008	2008
4/1	3.22	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1937	1937
4/2	3.81	0.00	N	Arm 15 Ahead	Inf	100.0 %	2136	2136
5/1 (Wyatt Road)	4.17	0.00	Y	Arm 8 Left Arm 13 Ahead	8.00 12.00	53.4 % 46.6 %	1754	1754
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (A2000 Perry Street)	4.43	0.00	Y	Arm 10 Left Arm 17 Left	23.00 23.00	0.0 % 100.0 %	1932	1932
8/1	3.33	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1948	1948
9/1 (Parkside Avenue)	3.77	0.00	Y	Arm 2 Left Arm 11 Ahead	12.00 Inf	0.0 % 100.0 %	1992	1992
10/1 (Parkside Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
11/1	4.17	0.00	Y	Arm 4 Ahead Arm 12 Right	26.00 26.00	65.5 % 34.5 %	1921	1921
11/2	4.17	0.00	N	Arm 4 Ahead Arm 12 Right	26.00 26.00	97.3 % 2.7 %	2054	2054
12/1	3.71	0.00	Y	Arm 6 Ahead Arm 18 Right	Inf 26.00	18.6 % 81.4 %	1897	1897
12/2	3.55	0.00	N	Arm 18 Right	26.00	100.0 %	1995	1995
13/1	3.74	0.00	Y	Arm 10 Ahead	26.00	100.0 %	1881	1881
13/2	3.70	0.00	Y	Arm 17 Right	26.00	100.0 %	1877	1877
13/3	3.55	0.00	N	Arm 17 Right	26.00	100.0 %	1995	1995
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
15/1 (A206 Thames Road Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A206 Thames Road Lane 2)	Infinite Saturation Flow						Inf	Inf
16/1 (A2000 Perry Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

17/1	3.69	0.00	Y	Arm 2 Ahead	Inf	94.7 %	1984	1984
				Arm 11 Right	Inf	5.3 %		
17/2	3.57	0.00	N	Arm 2 Ahead	Inf	98.9 %	2112	2112
				Arm 11 Right	Inf	1.1 %		
18/1	5.00	0.00	Y	Arm 8 Ahead	Inf	30.8 %	2115	2115
				Arm 13 Right	Inf	69.2 %		
18/2	5.00	0.00	N	Arm 13 Right	Inf	100.0 %	2255	2255

Scenario 9: '2038 Local Plan Case AM - With LTC' (FG9: '2038 Local Plan Case AM - With LTC', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						Tot.
	A	B	C	D	E		
Origin	A	71	1458	52	134	1	1716
	B	1752	0	43	0	33	1828
	C	50	33	0	59	0	142
	D	436	94	65	0	15	610
	E	0	331	4	0	0	335
	Tot.	2309	1916	164	193	49	4631

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 9: 2038 Local Plan Case AM - With LTC
Junction: Thames Rd / Perry St / Northend Rd	
1/1	820
1/2	896
2/1	1102
2/2	1207
3/1	895
3/2	933
4/1	949
4/2	967
5/1	142
6/1	164
7/1	610
8/1	193
9/1	335
10/1	49
11/1	175
11/2	352
12/1	289
12/2	38
13/1	34
13/2	910
13/3	996
14/1	1102
14/2	1207
15/1	949
15/2	967
16/1	193
17/1	1202
17/2	1299
18/1	1020
18/2	971

Full Input Data And Results

Lane Saturation Flows

Junction: Thames Rd / Perry St / Northend Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A206 Northend Road)	3.63	0.00	Y	Arm 4 Left	Inf	100.0 %	1978	1978
1/2 (A206 Northend Road)	3.59	0.00	N	Arm 4 Left Arm 12 Ahead	Inf Inf	71.2 % 28.8 %	2114	2114
2/1	3.69	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1984	1984
2/2	3.57	0.00	N	Arm 14 Ahead	Inf	100.0 %	2112	2112
3/1 (A206 Thames Road)	3.56	0.00	Y	Arm 6 Left Arm 18 Ahead	27.00 27.00	4.8 % 95.2 %	1867	1867
3/2 (A206 Thames Road)	3.65	0.00	N	Arm 18 Ahead	27.00	100.0 %	2008	2008
4/1	3.22	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1937	1937
4/2	3.81	0.00	N	Arm 15 Ahead	Inf	100.0 %	2136	2136
5/1 (Wyatt Road)	4.17	0.00	Y	Arm 8 Left Arm 13 Ahead	8.00 12.00	41.5 % 58.5 %	1765	1765
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (A2000 Perry Street)	4.43	0.00	Y	Arm 10 Left Arm 17 Left	23.00 23.00	2.5 % 97.5 %	1932	1932
8/1	3.33	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1948	1948
9/1 (Parkside Avenue)	3.77	0.00	Y	Arm 2 Left Arm 11 Ahead	12.00 Inf	0.0 % 100.0 %	1992	1992
10/1 (Parkside Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
11/1	4.17	0.00	Y	Arm 4 Ahead Arm 12 Right	26.00 26.00	73.7 % 26.3 %	1921	1921
11/2	4.17	0.00	N	Arm 4 Ahead Arm 12 Right	26.00 26.00	93.5 % 6.5 %	2054	2054
12/1	3.71	0.00	Y	Arm 6 Ahead Arm 18 Right	Inf 26.00	41.9 % 58.1 %	1922	1922
12/2	3.55	0.00	N	Arm 18 Right	26.00	100.0 %	1995	1995
13/1	3.74	0.00	Y	Arm 10 Ahead	26.00	100.0 %	1881	1881
13/2	3.70	0.00	Y	Arm 17 Right	26.00	100.0 %	1877	1877
13/3	3.55	0.00	N	Arm 17 Right	26.00	100.0 %	1995	1995
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
15/1 (A206 Thames Road Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A206 Thames Road Lane 2)	Infinite Saturation Flow						Inf	Inf
16/1 (A2000 Perry Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

17/1	3.69	0.00	Y	Arm 2 Ahead	Inf	91.7 %	1984	1984
				Arm 11 Right	Inf	8.3 %		
17/2	3.57	0.00	N	Arm 2 Ahead	Inf	92.9 %	2112	2112
				Arm 11 Right	Inf	7.1 %		
18/1	5.00	0.00	Y	Arm 8 Ahead	Inf	13.1 %	2115	2115
				Arm 13 Right	Inf	86.9 %		
18/2	5.00	0.00	N	Arm 13 Right	Inf	100.0 %	2255	2255

Scenario 10: '2038 Local Plan Case PM - With LTC' (FG10: '2038 Local Plan Case PM - With LTC', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						Tot.
	A	B	C	D	E		
Origin	A	66	1447	42	324	2	1881
	B	1623	0	38	8	49	1718
	C	78	41	0	129	0	248
	D	531	0	36	0	0	567
	E	0	233	7	15	0	255
	Tot.	2298	1721	123	476	51	4669

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 10: 2038 Local Plan Case PM - With LTC
Junction: Thames Rd / Perry St / Northend Rd	
1/1	831
1/2	1050
2/1	1095
2/2	1203
3/1	846
3/2	872
4/1	925
4/2	796
5/1	248
6/1	123
7/1	567
8/1	476
9/1	255
10/1	51
11/1	144
11/2	188
12/1	439
12/2	53
13/1	51
13/2	857
13/3	951
14/1	1095
14/2	1203
15/1	925
15/2	796
16/1	476
17/1	1152
17/2	1223
18/1	1162
18/2	925

Full Input Data And Results

Lane Saturation Flows

Junction: Thames Rd / Perry St / Northend Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A206 Northend Road)	3.63	0.00	Y	Arm 4 Left	Inf	100.0 %	1978	1978
1/2 (A206 Northend Road)	3.59	0.00	N	Arm 4 Left Arm 12 Ahead	Inf Inf	58.7 % 41.3 %	2114	2114
2/1	3.69	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1984	1984
2/2	3.57	0.00	N	Arm 14 Ahead	Inf	100.0 %	2112	2112
3/1 (A206 Thames Road)	3.56	0.00	Y	Arm 6 Left Arm 18 Ahead	27.00 27.00	4.5 % 95.5 %	1867	1867
3/2 (A206 Thames Road)	3.65	0.00	N	Arm 18 Ahead	27.00	100.0 %	2008	2008
4/1	3.22	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1937	1937
4/2	3.81	0.00	N	Arm 15 Ahead	Inf	100.0 %	2136	2136
5/1 (Wyatt Road)	4.17	0.00	Y	Arm 8 Left Arm 13 Ahead	8.00 12.00	52.0 % 48.0 %	1755	1755
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (A2000 Perry Street)	4.43	0.00	Y	Arm 10 Left Arm 17 Left	23.00 23.00	0.0 % 100.0 %	1932	1932
8/1	3.33	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1948	1948
9/1 (Parkside Avenue)	3.77	0.00	Y	Arm 2 Left Arm 11 Ahead	12.00 Inf	0.0 % 100.0 %	1992	1992
10/1 (Parkside Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
11/1	4.17	0.00	Y	Arm 4 Ahead Arm 12 Right	26.00 26.00	65.3 % 34.7 %	1921	1921
11/2	4.17	0.00	N	Arm 4 Ahead Arm 12 Right	26.00 26.00	95.7 % 4.3 %	2054	2054
12/1	3.71	0.00	Y	Arm 6 Ahead Arm 18 Right	Inf 26.00	19.4 % 80.6 %	1898	1898
12/2	3.55	0.00	N	Arm 18 Right	26.00	100.0 %	1995	1995
13/1	3.74	0.00	Y	Arm 10 Ahead	26.00	100.0 %	1881	1881
13/2	3.70	0.00	Y	Arm 17 Right	26.00	100.0 %	1877	1877
13/3	3.55	0.00	N	Arm 17 Right	26.00	100.0 %	1995	1995
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
15/1 (A206 Thames Road Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A206 Thames Road Lane 2)	Infinite Saturation Flow						Inf	Inf
16/1 (A2000 Perry Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

17/1	3.69	0.00	Y	Arm 2 Ahead	Inf	95.1 %	1984	1984
				Arm 11 Right	Inf	4.9 %		
17/2	3.57	0.00	N	Arm 2 Ahead	Inf	98.4 %	2112	2112
				Arm 11 Right	Inf	1.6 %		
18/1	5.00	0.00	Y	Arm 8 Ahead	Inf	29.9 %	2115	2115
				Arm 13 Right	Inf	70.1 %		
18/2	5.00	0.00	N	Arm 13 Right	Inf	100.0 %	2255	2255

Scenario 11: '2038 Local Plan Case (Sens) AM - No LTC' (FG11: '2038 Local Plan Case AM - No LTC - Sensitivity Test', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						Tot.
	A	B	C	D	E		
Origin	A	116	1392	54	140	2	1704
	B	1552	0	41	12	40	1645
	C	53	26	0	63	0	142
	D	445	93	61	0	6	605
	E	0	349	5	0	0	354
	Tot.	2166	1860	161	215	48	4450

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 11: 2038 Local Plan Case (Sens) AM - No LTC
Junction: Thames Rd / Perry St / Northend Rd	
1/1	809
1/2	895
2/1	1038
2/2	1128
3/1	801
3/2	844
4/1	921
4/2	939
5/1	142
6/1	161
7/1	605
8/1	215
9/1	354
10/1	48
11/1	176
11/2	358
12/1	324
12/2	54
13/1	42
13/2	825
13/3	922
14/1	1038
14/2	1128
15/1	921
15/2	939
16/1	215
17/1	1156
17/2	1190
18/1	964
18/2	898

Lane Saturation Flows

Junction: Thames Rd / Perry St / Northend Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A206 Northend Road)	3.63	0.00	Y	Arm 4 Left	Inf	100.0 %	1978	1978
1/2 (A206 Northend Road)	3.59	0.00	N	Arm 4 Left Arm 12 Ahead	Inf Inf	65.1 % 34.9 %	2114	2114
2/1	3.69	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1984	1984
2/2	3.57	0.00	N	Arm 14 Ahead	Inf	100.0 %	2112	2112
3/1 (A206 Thames Road)	3.56	0.00	Y	Arm 6 Left Arm 18 Ahead	27.00 27.00	5.1 % 94.9 %	1867	1867
3/2 (A206 Thames Road)	3.65	0.00	N	Arm 18 Ahead	27.00	100.0 %	2008	2008
4/1	3.22	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1937	1937
4/2	3.81	0.00	N	Arm 15 Ahead	Inf	100.0 %	2136	2136
5/1 (Wyatt Road)	4.17	0.00	Y	Arm 8 Left Arm 13 Ahead	8.00 12.00	44.4 % 55.6 %	1763	1763
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (A2000 Perry Street)	4.43	0.00	Y	Arm 10 Left Arm 17 Left	23.00 23.00	1.0 % 99.0 %	1932	1932
8/1	3.33	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1948	1948
9/1 (Parkside Avenue)	3.77	0.00	Y	Arm 2 Left Arm 11 Ahead	12.00 Inf	0.0 % 100.0 %	1992	1992
10/1 (Parkside Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
11/1	4.17	0.00	Y	Arm 4 Ahead Arm 12 Right	26.00 26.00	63.6 % 36.4 %	1921	1921
11/2	4.17	0.00	N	Arm 4 Ahead Arm 12 Right	26.00 26.00	99.4 % 0.6 %	2054	2054
12/1	3.71	0.00	Y	Arm 6 Ahead Arm 18 Right	Inf 26.00	37.0 % 63.0 %	1916	1916
12/2	3.55	0.00	N	Arm 18 Right	26.00	100.0 %	1995	1995
13/1	3.74	0.00	Y	Arm 10 Ahead	26.00	100.0 %	1881	1881
13/2	3.70	0.00	Y	Arm 17 Right	26.00	100.0 %	1877	1877
13/3	3.55	0.00	N	Arm 17 Right	26.00	100.0 %	1995	1995
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
15/1 (A206 Thames Road Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A206 Thames Road Lane 2)	Infinite Saturation Flow						Inf	Inf
16/1 (A2000 Perry Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

17/1	3.69	0.00	Y	Arm 2 Ahead	Inf	89.8 %	1984	1984
				Arm 11 Right	Inf	10.2 %		
17/2	3.57	0.00	N	Arm 2 Ahead	Inf	94.8 %	2112	2112
				Arm 11 Right	Inf	5.2 %		
18/1	5.00	0.00	Y	Arm 8 Ahead	Inf	15.8 %	2115	2115
				Arm 13 Right	Inf	84.2 %		
18/2	5.00	0.00	N	Arm 13 Right	Inf	100.0 %	2255	2255

Scenario 12: '2038 Local Plan Case (Sens) PM - No LTC' (FG12: '2038 Local Plan Case PM - No LTC - Sensitivity Test', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					Tot.
		A	B	C	D	E	
Origin	A	70	1432	44	317	3	1866
	B	1563	0	37	8	54	1662
	C	81	39	0	127	0	247
	D	527	0	34	0	0	561
	E	0	240	8	13	0	261
	Tot.	2241	1711	123	465	57	4597

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 12: 2038 Local Plan Case (Sens) PM - No LTC
Junction: Thames Rd / Perry St / Northend Rd	
1/1	873
1/2	993
2/1	1059
2/2	1182
3/1	813
3/2	849
4/1	958
4/2	753
5/1	247
6/1	123
7/1	561
8/1	465
9/1	261
10/1	57
11/1	123
11/2	211
12/1	444
12/2	45
13/1	57
13/2	818
13/3	935
14/1	1059
14/2	1182
15/1	958
15/2	753
16/1	465
17/1	1108
17/2	1206
18/1	1134
18/2	894

Full Input Data And Results

Lane Saturation Flows

Junction: Thames Rd / Perry St / Northend Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A206 Northend Road)	3.63	0.00	Y	Arm 4 Left	Inf	100.0 %	1978	1978
1/2 (A206 Northend Road)	3.59	0.00	N	Arm 4 Left Arm 12 Ahead	Inf Inf	56.3 % 43.7 %	2114	2114
2/1	3.69	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1984	1984
2/2	3.57	0.00	N	Arm 14 Ahead	Inf	100.0 %	2112	2112
3/1 (A206 Thames Road)	3.56	0.00	Y	Arm 6 Left Arm 18 Ahead	27.00 27.00	4.6 % 95.4 %	1867	1867
3/2 (A206 Thames Road)	3.65	0.00	N	Arm 18 Ahead	27.00	100.0 %	2008	2008
4/1	3.22	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1937	1937
4/2	3.81	0.00	N	Arm 15 Ahead	Inf	100.0 %	2136	2136
5/1 (Wyatt Road)	4.17	0.00	Y	Arm 8 Left Arm 13 Ahead	8.00 12.00	51.4 % 48.6 %	1756	1756
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (A2000 Perry Street)	4.43	0.00	Y	Arm 10 Left Arm 17 Left	23.00 23.00	0.0 % 100.0 %	1932	1932
8/1	3.33	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1948	1948
9/1 (Parkside Avenue)	3.77	0.00	Y	Arm 2 Left Arm 11 Ahead	12.00 Inf	0.0 % 100.0 %	1992	1992
10/1 (Parkside Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
11/1	4.17	0.00	Y	Arm 4 Ahead Arm 12 Right	26.00 26.00	69.1 % 30.9 %	1921	1921
11/2	4.17	0.00	N	Arm 4 Ahead Arm 12 Right	26.00 26.00	91.9 % 8.1 %	2054	2054
12/1	3.71	0.00	Y	Arm 6 Ahead Arm 18 Right	Inf 26.00	19.4 % 80.6 %	1898	1898
12/2	3.55	0.00	N	Arm 18 Right	26.00	100.0 %	1995	1995
13/1	3.74	0.00	Y	Arm 10 Ahead	26.00	100.0 %	1881	1881
13/2	3.70	0.00	Y	Arm 17 Right	26.00	100.0 %	1877	1877
13/3	3.55	0.00	N	Arm 17 Right	26.00	100.0 %	1995	1995
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
15/1 (A206 Thames Road Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A206 Thames Road Lane 2)	Infinite Saturation Flow						Inf	Inf
16/1 (A2000 Perry Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

17/1	3.69	0.00	Y	Arm 2 Ahead	Inf	95.6 %	1984	1984
				Arm 11 Right	Inf	4.4 %		
17/2	3.57	0.00	N	Arm 2 Ahead	Inf	98.0 %	2112	2112
				Arm 11 Right	Inf	2.0 %		
18/1	5.00	0.00	Y	Arm 8 Ahead	Inf	29.8 %	2115	2115
				Arm 13 Right	Inf	70.2 %		
18/2	5.00	0.00	N	Arm 13 Right	Inf	100.0 %	2255	2255

Scenario 13: '2038 Local Plan Case (Sens) AM - With LTC' (FG13: '2038 Local Plan Case AM - With LTC - Sensitivity Test', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						Tot.
	A	B	C	D	E		
Origin	A	74	1452	53	134	1	1714
	B	1733	0	42	0	32	1807
	C	52	33	0	58	0	143
	D	435	90	64	0	15	604
	E	0	333	4	0	0	337
	Tot.	2294	1908	163	192	48	4605

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 13: 2038 Local Plan Case (Sens) AM - With LTC
Junction: Thames Rd / Perry St / Northend Rd	
1/1	819
1/2	895
2/1	1098
2/2	1196
3/1	890
3/2	917
4/1	939
4/2	969
5/1	143
6/1	163
7/1	604
8/1	192
9/1	337
10/1	48
11/1	162
11/2	362
12/1	284
12/2	46
13/1	33
13/2	906
13/3	986
14/1	1098
14/2	1196
15/1	939
15/2	969
16/1	192
17/1	1186
17/2	1295
18/1	1011
18/2	963

Full Input Data And Results

Lane Saturation Flows

Junction: Thames Rd / Perry St / Northend Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A206 Northend Road)	3.63	0.00	Y	Arm 4 Left	Inf	100.0 %	1978	1978
1/2 (A206 Northend Road)	3.59	0.00	N	Arm 4 Left Arm 12 Ahead	Inf Inf	70.7 % 29.3 %	2114	2114
2/1	3.69	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1984	1984
2/2	3.57	0.00	N	Arm 14 Ahead	Inf	100.0 %	2112	2112
3/1 (A206 Thames Road)	3.56	0.00	Y	Arm 6 Left Arm 18 Ahead	27.00 27.00	4.7 % 95.3 %	1867	1867
3/2 (A206 Thames Road)	3.65	0.00	N	Arm 18 Ahead	27.00	100.0 %	2008	2008
4/1	3.22	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1937	1937
4/2	3.81	0.00	N	Arm 15 Ahead	Inf	100.0 %	2136	2136
5/1 (Wyatt Road)	4.17	0.00	Y	Arm 8 Left Arm 13 Ahead	8.00 12.00	40.6 % 59.4 %	1766	1766
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (A2000 Perry Street)	4.43	0.00	Y	Arm 10 Left Arm 17 Left	23.00 23.00	2.5 % 97.5 %	1932	1932
8/1	3.33	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1948	1948
9/1 (Parkside Avenue)	3.77	0.00	Y	Arm 2 Left Arm 11 Ahead	12.00 Inf	0.0 % 100.0 %	1992	1992
10/1 (Parkside Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
11/1	4.17	0.00	Y	Arm 4 Ahead Arm 12 Right	26.00 26.00	74.1 % 25.9 %	1921	1921
11/2	4.17	0.00	N	Arm 4 Ahead Arm 12 Right	26.00 26.00	92.8 % 7.2 %	2054	2054
12/1	3.71	0.00	Y	Arm 6 Ahead Arm 18 Right	Inf 26.00	42.6 % 57.4 %	1922	1922
12/2	3.55	0.00	N	Arm 18 Right	26.00	100.0 %	1995	1995
13/1	3.74	0.00	Y	Arm 10 Ahead	26.00	100.0 %	1881	1881
13/2	3.70	0.00	Y	Arm 17 Right	26.00	100.0 %	1877	1877
13/3	3.55	0.00	N	Arm 17 Right	26.00	100.0 %	1995	1995
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
15/1 (A206 Thames Road Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A206 Thames Road Lane 2)	Infinite Saturation Flow						Inf	Inf
16/1 (A2000 Perry Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

17/1	3.69	0.00	Y	Arm 2 Ahead	Inf	92.6 %	1984	1984
				Arm 11 Right	Inf	7.4 %		
17/2	3.57	0.00	N	Arm 2 Ahead	Inf	92.4 %	2112	2112
				Arm 11 Right	Inf	7.6 %		
18/1	5.00	0.00	Y	Arm 8 Ahead	Inf	13.3 %	2115	2115
				Arm 13 Right	Inf	86.7 %		
18/2	5.00	0.00	N	Arm 13 Right	Inf	100.0 %	2255	2255

Scenario 14: '2038 Local Plan Case (Sens) PM - With LTC' (FG14: '2038 Local Plan Case PM - With LTC - Sensitivity Test', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						Tot.
	A	B	C	D	E		
Origin	A	70	1446	44	307	3	1870
	B	1587	0	37	7	60	1691
	C	83	41	0	123	0	247
	D	525	0	35	0	0	560
	E	0	236	8	14	0	258
	Tot.	2265	1723	124	451	63	4626

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 14: 2038 Local Plan Case (Sens) PM - With LTC
Junction: Thames Rd / Perry St / Northend Rd	
1/1	827
1/2	1043
2/1	1079
2/2	1186
3/1	830
3/2	861
4/1	923
4/2	800
5/1	247
6/1	124
7/1	560
8/1	451
9/1	258
10/1	63
11/1	149
11/2	185
12/1	430
12/2	51
13/1	63
13/2	844
13/3	937
14/1	1079
14/2	1186
15/1	923
15/2	800
16/1	451
17/1	1138
17/2	1203
18/1	1136
18/2	912

Full Input Data And Results

Lane Saturation Flows

Junction: Thames Rd / Perry St / Northend Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A206 Northend Road)	3.63	0.00	Y	Arm 4 Left	Inf	100.0 %	1978	1978
1/2 (A206 Northend Road)	3.59	0.00	N	Arm 4 Left Arm 12 Ahead	Inf Inf	59.3 % 40.7 %	2114	2114
2/1	3.69	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1984	1984
2/2	3.57	0.00	N	Arm 14 Ahead	Inf	100.0 %	2112	2112
3/1 (A206 Thames Road)	3.56	0.00	Y	Arm 6 Left Arm 18 Ahead	27.00 27.00	4.5 % 95.5 %	1867	1867
3/2 (A206 Thames Road)	3.65	0.00	N	Arm 18 Ahead	27.00	100.0 %	2008	2008
4/1	3.22	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1937	1937
4/2	3.81	0.00	N	Arm 15 Ahead	Inf	100.0 %	2136	2136
5/1 (Wyatt Road)	4.17	0.00	Y	Arm 8 Left Arm 13 Ahead	8.00 12.00	49.8 % 50.2 %	1758	1758
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (A2000 Perry Street)	4.43	0.00	Y	Arm 10 Left Arm 17 Left	23.00 23.00	0.0 % 100.0 %	1932	1932
8/1	3.33	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1948	1948
9/1 (Parkside Avenue)	3.77	0.00	Y	Arm 2 Left Arm 11 Ahead	12.00 Inf	0.0 % 100.0 %	1992	1992
10/1 (Parkside Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
11/1	4.17	0.00	Y	Arm 4 Ahead Arm 12 Right	26.00 26.00	64.4 % 35.6 %	1921	1921
11/2	4.17	0.00	N	Arm 4 Ahead Arm 12 Right	26.00 26.00	97.8 % 2.2 %	2054	2054
12/1	3.71	0.00	Y	Arm 6 Ahead Arm 18 Right	Inf 26.00	20.2 % 79.8 %	1899	1899
12/2	3.55	0.00	N	Arm 18 Right	26.00	100.0 %	1995	1995
13/1	3.74	0.00	Y	Arm 10 Ahead	26.00	100.0 %	1881	1881
13/2	3.70	0.00	Y	Arm 17 Right	26.00	100.0 %	1877	1877
13/3	3.55	0.00	N	Arm 17 Right	26.00	100.0 %	1995	1995
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
15/1 (A206 Thames Road Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A206 Thames Road Lane 2)	Infinite Saturation Flow						Inf	Inf
16/1 (A2000 Perry Street Lane 1)	Infinite Saturation Flow						Inf	Inf

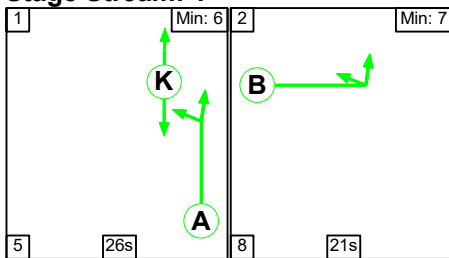
Full Input Data And Results

17/1	3.69	0.00	Y	Arm 2 Ahead	Inf	94.8 %	1984	1984
				Arm 11 Right	Inf	5.2 %		
17/2	3.57	0.00	N	Arm 2 Ahead	Inf	98.6 %	2112	2112
				Arm 11 Right	Inf	1.4 %		
18/1	5.00	0.00	Y	Arm 8 Ahead	Inf	28.9 %	2115	2115
				Arm 13 Right	Inf	71.1 %		
18/2	5.00	0.00	N	Arm 13 Right	Inf	100.0 %	2255	2255

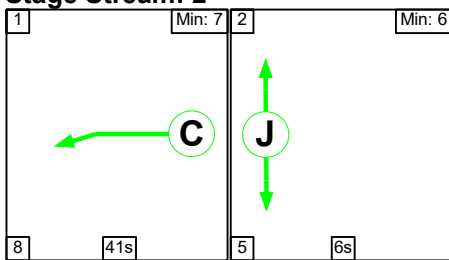
Scenario 1: '2021 Baseline AM (unchanged)' (FG1: '2021 Baseline AM (unchanged)', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

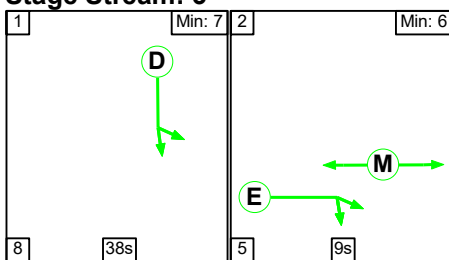
Stage Stream: 1



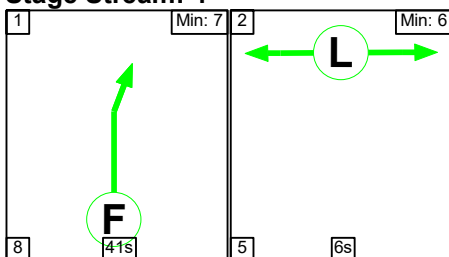
Stage Stream: 2



Stage Stream: 3

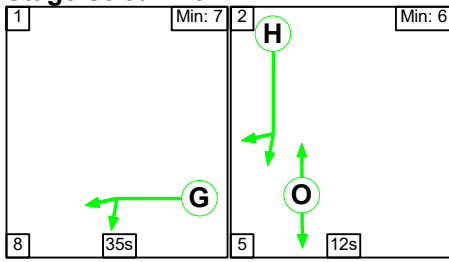


Stage Stream: 4

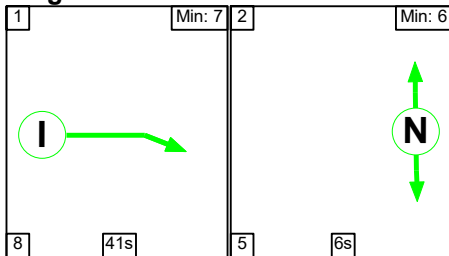


Full Input Data And Results

Stage Stream: 5



Stage Stream: 6



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	26	21
Change Point	0	31

Stage Stream: 2

Stage	1	2
Duration	41	6
Change Point	16	5

Stage Stream: 3

Stage	1	2
Duration	38	9
Change Point	8	54

Stage Stream: 4

Stage	1	2
Duration	41	6
Change Point	5	54

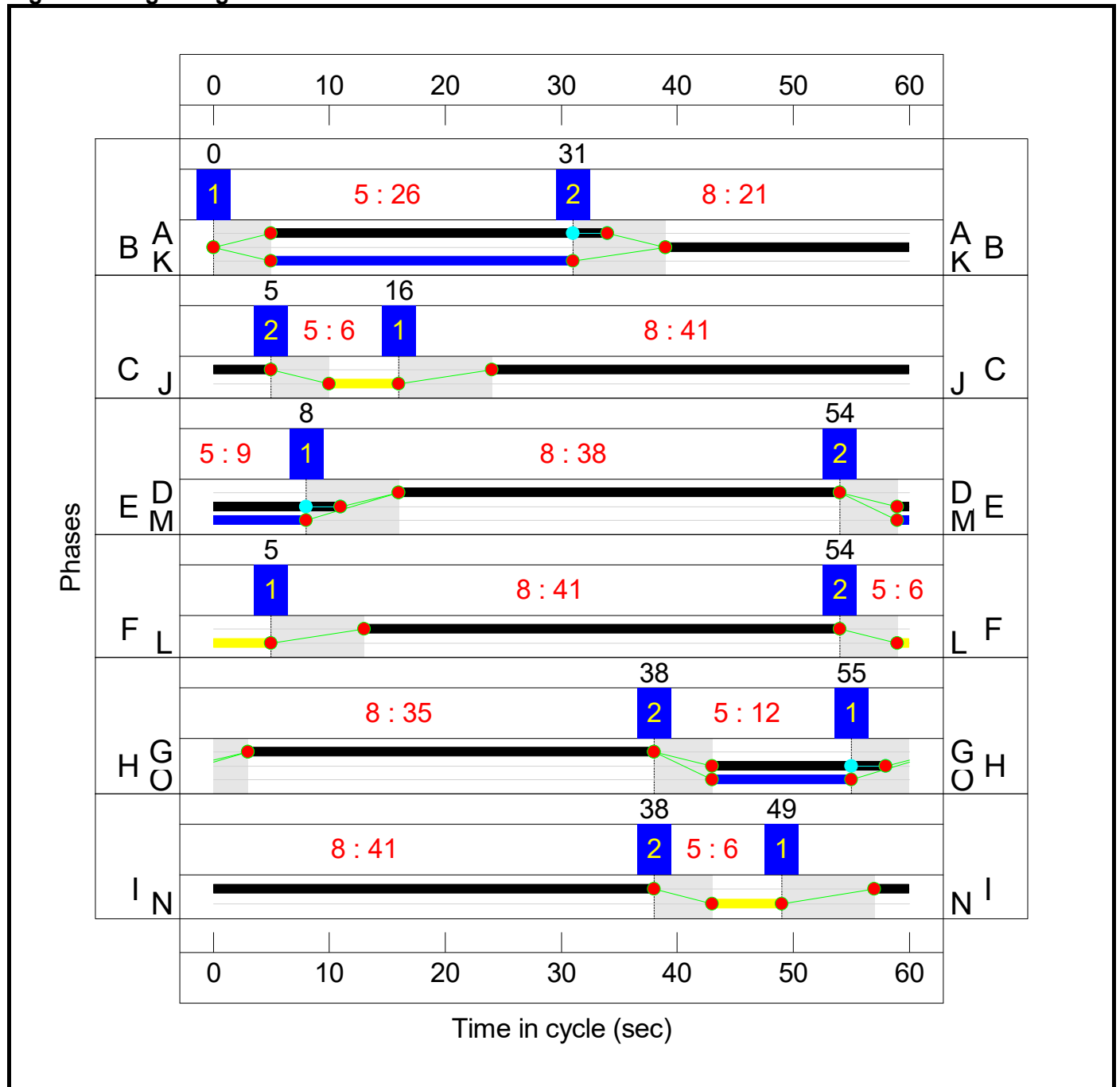
Stage Stream: 5

Stage	1	2
Duration	35	12
Change Point	55	38

Stage Stream: 6

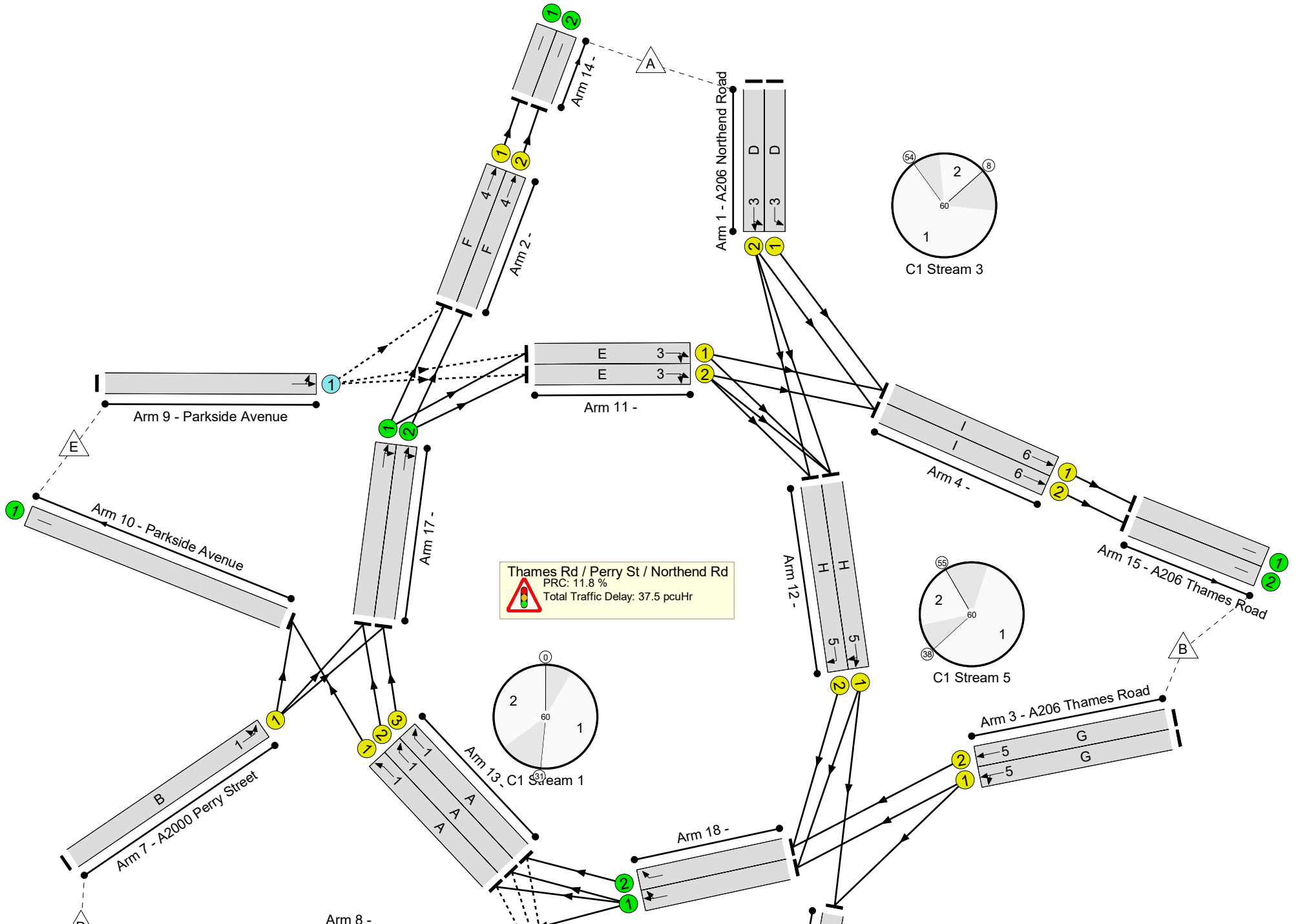
Stage	1	2
Duration	41	6
Change Point	49	38

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	80.5%
Thames Rd / Perry St / Northend Rd	-	-	N/A	-	-		-	-	-	-	-	-	80.5%
1/1	A206 Northend Road Left	U	3	N/A	D		1	38	-	700	1978	1286	54.4%
1/2	A206 Northend Road Left Ahead	U	3	N/A	D		1	38	-	847	2114	1374	61.6%
2/1	Ahead	U	4	N/A	F		1	41	-	889	1984	1389	64.0%
2/2	Ahead	U	4	N/A	F		1	41	-	972	2112	1478	65.7%
3/1	A206 Thames Road Left Ahead	U	5	N/A	G		1	35	-	827	1867	1120	73.8%
3/2	A206 Thames Road Ahead	U	5	N/A	G		1	35	-	677	2008	1205	56.2%
4/1	Ahead	U	6	N/A	I		1	41	-	891	1937	1356	65.7%
4/2	Ahead	U	6	N/A	I		1	41	-	609	2136	1495	40.7%
5/1	Wyatt Road Left Ahead	O	N/A	N/A	-		-	-	-	128	1775	326	39.3%
6/1		U	N/A	N/A	-		-	-	-	77	Inf	Inf	0.0%
7/1	A2000 Perry Street Left Left2	U	1	N/A	B		1	21	-	563	1932	708	79.5%
8/1	Ahead	U	2	N/A	C		1	41	-	415	1948	1364	30.4%
9/1	Parkside Avenue Left Ahead	O	N/A	N/A	-		-	-	-	288	1986	436	66.1%
10/1	Parkside Avenue	U	N/A	N/A	-		-	-	-	177	Inf	Inf	0.0%
11/1	Ahead Right	U	3	N/A	E		1	12	-	226	1921	416	54.3%
11/2	Ahead Right	U	3	N/A	E		1	12	-	242	2054	445	54.4%
12/1	Ahead Right	U	5	N/A	H		1	15	-	389	1891	504	77.1%
12/2	Right	U	5	N/A	H		1	15	-	126	1995	532	23.7%

Full Input Data And Results

13/1	Ahead	U	1	N/A	A		1	29	-	165	1881	941	17.5%
13/2	Right	U	1	N/A	A		1	29	-	687	1877	939	73.2%
13/3	Right	U	1	N/A	A		1	29	-	803	1995	998	80.5%
14/1		U	N/A	N/A	-		-	-	-	889	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	972	Inf	Inf	0.0%
15/1	A206 Thames Road	U	N/A	N/A	-		-	-	-	891	Inf	Inf	0.0%
15/2	A206 Thames Road	U	N/A	N/A	-		-	-	-	609	Inf	Inf	0.0%
16/1	A2000 Perry Street	U	N/A	N/A	-		-	-	-	415	Inf	Inf	0.0%
17/1	Ahead Right	U	N/A	N/A	-		-	-	-	992	1984	1984	50.0%
17/2	Ahead Right	U	N/A	N/A	-		-	-	-	1049	2112	2112	49.7%
18/1	Ahead Right	U	N/A	N/A	-		-	-	-	1139	2115	2115	53.9%
18/2	Right	U	N/A	N/A	-		-	-	-	803	2255	2255	35.6%

Full Input Data And Results

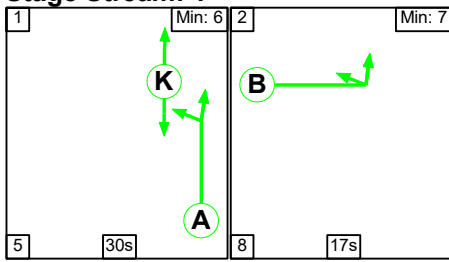
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	416	0	0	19.2	18.3	0.0	37.5	-	-	-	-
Thames Rd / Perry St / Northend Rd	-	-	416	0	0	19.2	18.3	0.0	37.5	-	-	-	-
1/1	700	700	-	-	-	1.1	0.6	-	1.7	8.8	6.2	0.6	6.8
1/2	847	847	-	-	-	1.4	0.8	-	2.2	9.5	8.2	0.8	9.0
2/1	889	889	-	-	-	0.7	0.9	-	1.6	6.5	4.0	0.9	4.9
2/2	972	972	-	-	-	0.5	1.0	-	1.5	5.4	2.7	1.0	3.6
3/1	827	827	-	-	-	2.0	1.4	-	3.4	14.7	9.9	1.4	11.3
3/2	677	677	-	-	-	1.4	0.6	-	2.0	10.6	6.8	0.6	7.4
4/1	891	891	-	-	-	0.8	1.0	-	1.8	7.1	4.9	1.0	5.9
4/2	609	609	-	-	-	0.3	0.3	-	0.7	4.1	2.2	0.3	2.5
5/1	128	128	128	0	0	0.1	0.3	-	0.4	11.5	0.8	0.3	1.1
6/1	77	77	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	563	563	-	-	-	2.7	1.9	-	4.5	29.1	8.3	1.9	10.2
8/1	415	415	-	-	-	0.1	0.2	-	0.3	2.9	0.8	0.2	1.0
9/1	288	288	288	0	0	0.4	1.0	-	1.4	17.4	2.9	1.0	3.8
10/1	177	177	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	226	226	-	-	-	1.0	0.6	-	1.6	24.7	3.5	0.6	4.0
11/2	242	242	-	-	-	0.9	0.6	-	1.5	22.7	3.7	0.6	4.3
12/1	389	389	-	-	-	1.8	1.6	-	3.4	31.7	6.0	1.6	7.6
12/2	126	126	-	-	-	0.4	0.2	-	0.5	15.5	1.6	0.2	1.8
13/1	165	165	-	-	-	0.3	0.1	-	0.5	9.8	1.3	0.1	1.4
13/2	687	687	-	-	-	1.5	1.4	-	2.8	14.8	3.7	1.4	5.0
13/3	803	803	-	-	-	1.7	2.0	-	3.8	16.9	5.7	2.0	7.7
14/1	889	889	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	972	972	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	891	891	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

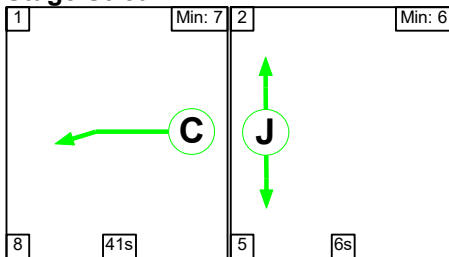
15/2	609	609	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1	415	415	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/1	992	992	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
17/2	1049	1049	-	-	-	0.0	0.5	-	0.5	1.7	0.0	0.5	0.5
18/1	1139	1139	-	-	-	0.0	0.6	-	0.6	1.8	0.0	0.6	0.6
18/2	803	803	-	-	-	0.0	0.3	-	0.3	1.2	0.0	0.3	0.3
		C1	Stream: 1 PRC for Signalled Lanes (%)		11.8	Total Delay for Signalled Lanes (pcuHr)		11.60	Cycle Time (s)		60		
		C1	Stream: 2 PRC for Signalled Lanes (%)		195.7	Total Delay for Signalled Lanes (pcuHr)		0.34	Cycle Time (s)		60		
		C1	Stream: 3 PRC for Signalled Lanes (%)		46.0	Total Delay for Signalled Lanes (pcuHr)		7.02	Cycle Time (s)		60		
		C1	Stream: 4 PRC for Signalled Lanes (%)		36.9	Total Delay for Signalled Lanes (pcuHr)		3.05	Cycle Time (s)		60		
		C1	Stream: 5 PRC for Signalled Lanes (%)		16.7	Total Delay for Signalled Lanes (pcuHr)		9.35	Cycle Time (s)		60		
		C1	Stream: 6 PRC for Signalled Lanes (%)		37.0	Total Delay for Signalled Lanes (pcuHr)		2.45	Cycle Time (s)		60		
			PRC Over All Lanes (%)		11.8	Total Delay Over All Lanes(pcuHr)		37.47					

Stage Sequence Diagram

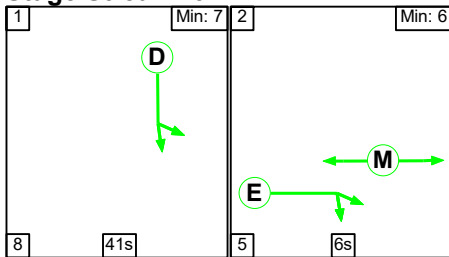
Stage Stream: 1



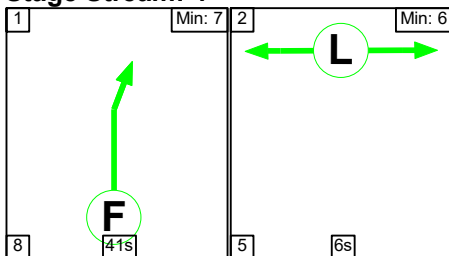
Stage Stream: 2



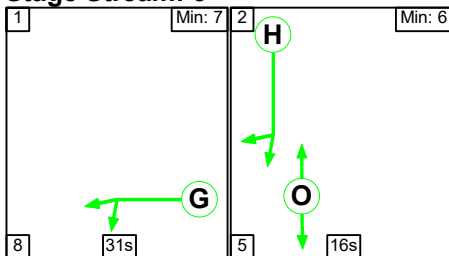
Stage Stream: 3



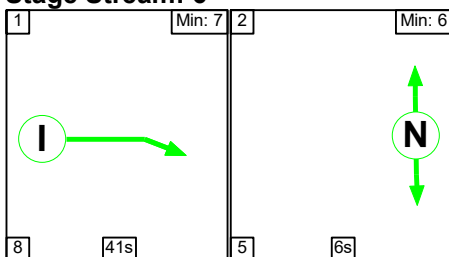
Stage Stream: 4



Stage Stream: 5



Stage Stream: 6



Full Input Data And Results

Stage Timings

Stage Stream: 1

Stage	1	2
Duration	30	17
Change Point	0	35

Stage Stream: 2

Stage	1	2
Duration	41	6
Change Point	10	59

Stage Stream: 3

Stage	1	2
Duration	41	6
Change Point	13	2

Stage Stream: 4

Stage	1	2
Duration	41	6
Change Point	3	52

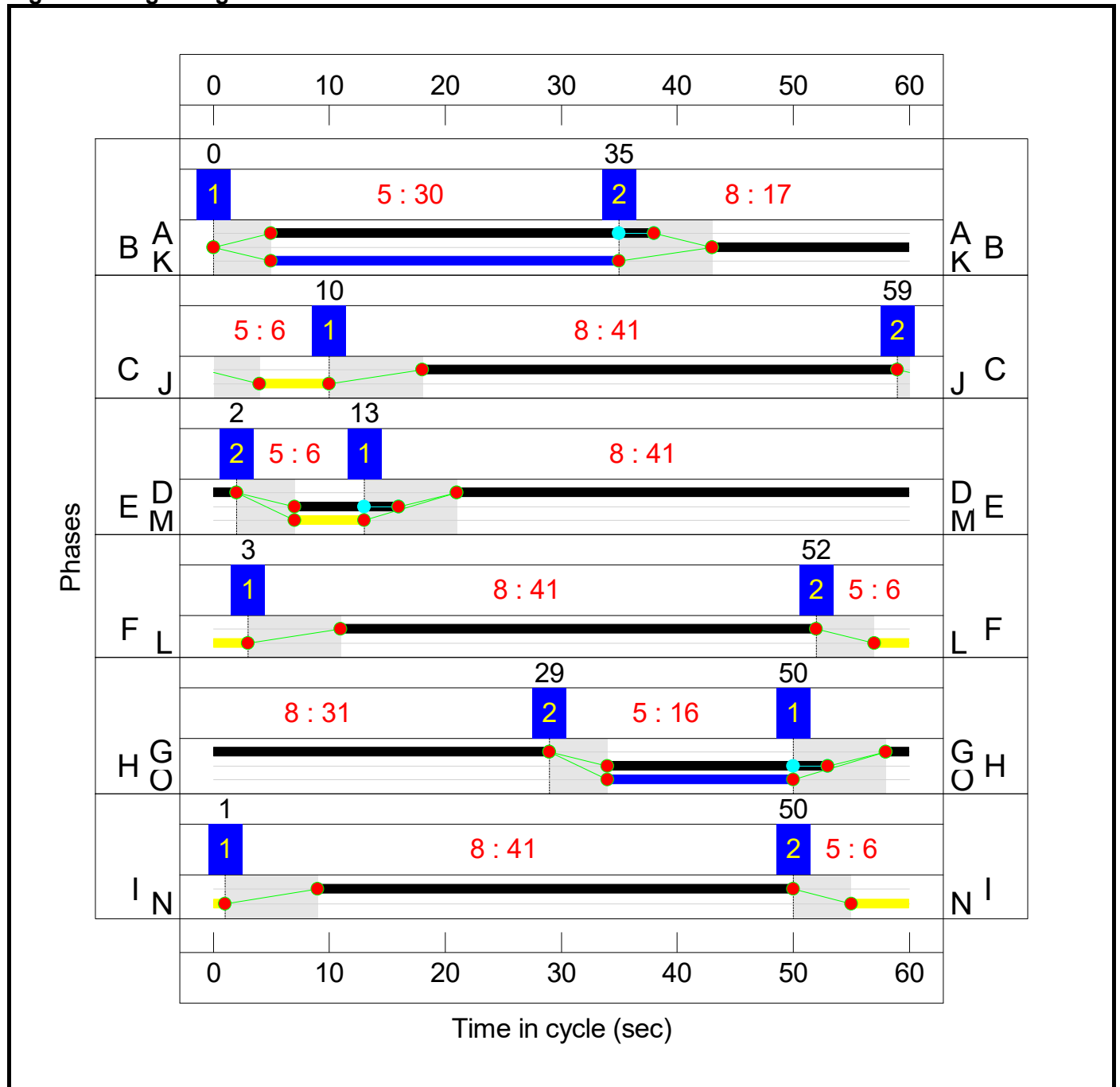
Stage Stream: 5

Stage	1	2
Duration	31	16
Change Point	50	29

Stage Stream: 6

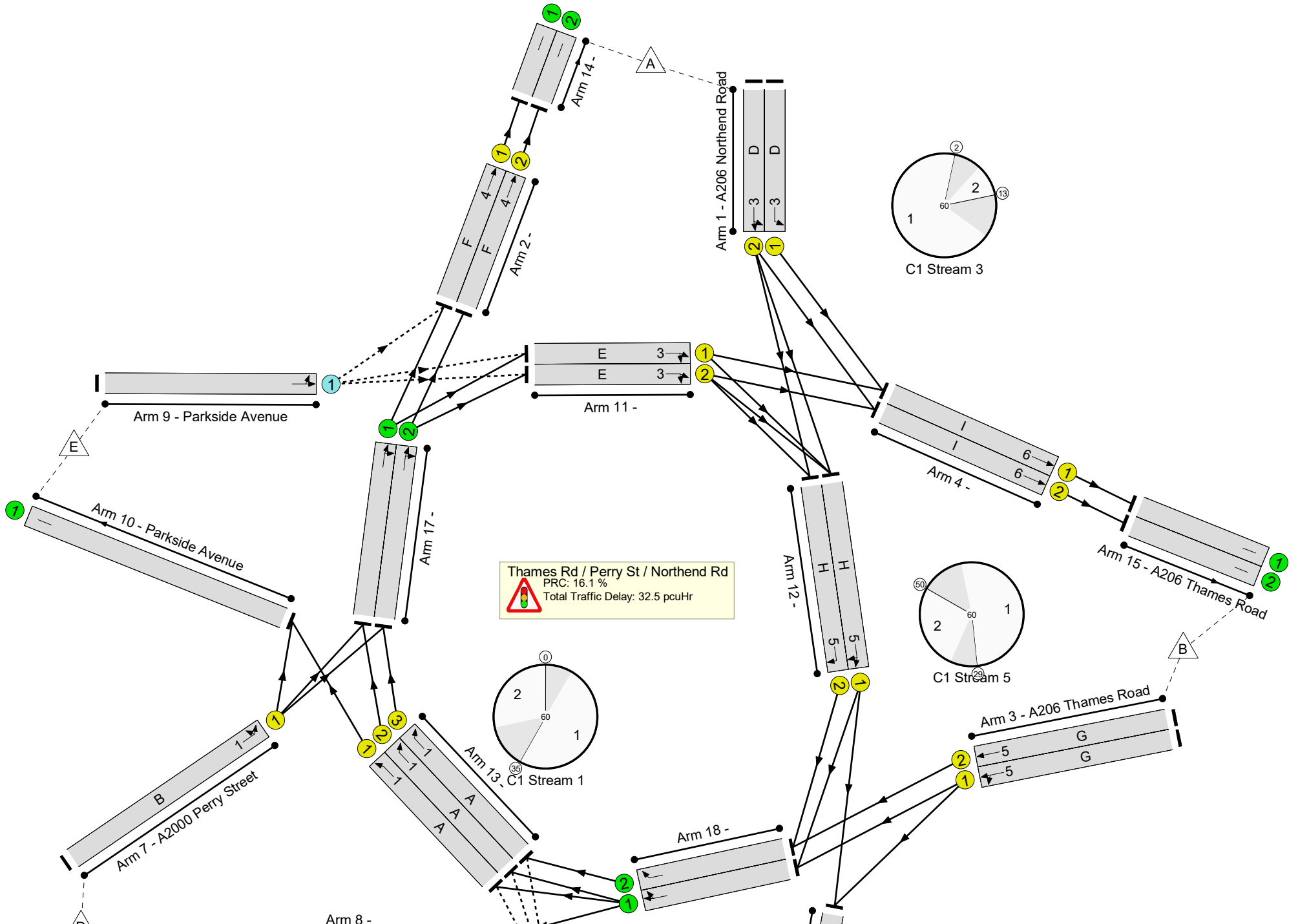
Stage	1	2
Duration	41	6
Change Point	1	50

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	77.5%
Thames Rd / Perry St / Northend Rd	-	-	N/A	-	-		-	-	-	-	-	-	77.5%
1/1	A206 Northend Road Left	U	3	N/A	D		1	41	-	750	1978	1385	54.2%
1/2	A206 Northend Road Left Ahead	U	3	N/A	D		1	41	-	915	2114	1480	61.8%
2/1	Ahead	U	4	N/A	F		1	41	-	757	1984	1389	54.5%
2/2	Ahead	U	4	N/A	F		1	41	-	917	2112	1478	62.0%
3/1	A206 Thames Road Left Ahead	U	5	N/A	G		1	31	-	772	1867	996	77.5%
3/2	A206 Thames Road Ahead	U	5	N/A	G		1	31	-	683	2008	1071	63.8%
4/1	Ahead	U	6	N/A	I		1	41	-	857	1937	1356	63.2%
4/2	Ahead	U	6	N/A	I		1	41	-	590	2136	1495	39.5%
5/1	Wyatt Road Left Ahead	O	N/A	N/A	-		-	-	-	131	1761	340	38.5%
6/1		U	N/A	N/A	-		-	-	-	118	Inf	Inf	0.0%
7/1	A2000 Perry Street Left Left2	U	1	N/A	B		1	17	-	449	1932	580	77.5%
8/1	Ahead	U	2	N/A	C		1	41	-	530	1948	1364	38.9%
9/1	Parkside Avenue Left Ahead	O	N/A	N/A	-		-	-	-	249	1978	515	48.4%
10/1	Parkside Avenue	U	N/A	N/A	-		-	-	-	180	Inf	Inf	0.0%
11/1	Ahead Right	U	3	N/A	E		1	9	-	176	1921	320	55.0%
11/2	Ahead Right	U	3	N/A	E		1	9	-	195	2054	342	57.0%
12/1	Ahead Right	U	5	N/A	H		1	19	-	477	1898	633	75.4%
12/2	Right	U	5	N/A	H		1	19	-	112	1995	665	16.8%

Full Input Data And Results

13/1	Ahead	U	1	N/A	A		1	33	-	167	1881	1066	15.7%
13/2	Right	U	1	N/A	A		1	33	-	564	1877	1064	53.0%
13/3	Right	U	1	N/A	A		1	33	-	796	1995	1131	70.4%
14/1		U	N/A	N/A	-		-	-	-	757	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	917	Inf	Inf	0.0%
15/1	A206 Thames Road	U	N/A	N/A	-		-	-	-	857	Inf	Inf	0.0%
15/2	A206 Thames Road	U	N/A	N/A	-		-	-	-	590	Inf	Inf	0.0%
16/1	A2000 Perry Street	U	N/A	N/A	-		-	-	-	530	Inf	Inf	0.0%
17/1	Ahead Right	U	N/A	N/A	-		-	-	-	831	1984	1984	41.9%
17/2	Ahead Right	U	N/A	N/A	-		-	-	-	965	2112	2112	45.7%
18/1	Ahead Right	U	N/A	N/A	-		-	-	-	1131	2115	2115	53.5%
18/2	Right	U	N/A	N/A	-		-	-	-	795	2255	2255	35.3%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	380	0	0	16.8	15.7	0.0	32.5	-	-	-	-
Thames Rd / Perry St / Northend Rd	-	-	380	0	0	16.8	15.7	0.0	32.5	-	-	-	-
1/1	750	750	-	-	-	0.9	0.6	-	1.5	7.2	5.8	0.6	6.4
1/2	915	915	-	-	-	1.2	0.8	-	2.0	7.9	7.9	0.8	8.7
2/1	757	757	-	-	-	0.6	0.6	-	1.2	5.8	3.8	0.6	4.4
2/2	917	917	-	-	-	0.4	0.8	-	1.2	4.8	2.5	0.8	3.3
3/1	772	772	-	-	-	2.4	1.7	-	4.1	19.1	10.1	1.7	11.8
3/2	683	683	-	-	-	1.9	0.9	-	2.8	14.5	8.0	0.9	8.8
4/1	857	857	-	-	-	0.8	0.9	-	1.7	7.1	5.2	0.9	6.1
4/2	590	590	-	-	-	0.4	0.3	-	0.7	4.2	2.0	0.3	2.4
5/1	131	131	131	0	0	0.1	0.3	-	0.4	11.6	0.8	0.3	1.1
6/1	118	118	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	449	449	-	-	-	2.4	1.7	-	4.1	32.6	6.7	1.7	8.4
8/1	530	530	-	-	-	0.2	0.3	-	0.5	3.4	1.3	0.3	1.6
9/1	249	249	249	0	0	0.1	0.5	-	0.5	7.9	1.5	0.5	1.9
10/1	180	180	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	176	176	-	-	-	0.9	0.6	-	1.5	30.5	2.7	0.6	3.3
11/2	195	195	-	-	-	1.1	0.7	-	1.8	32.6	3.0	0.7	3.7
12/1	477	477	-	-	-	2.0	1.5	-	3.5	26.1	7.1	1.5	8.7
12/2	112	112	-	-	-	0.3	0.1	-	0.4	13.0	1.0	0.1	1.1
13/1	167	167	-	-	-	0.1	0.1	-	0.2	4.7	0.5	0.1	0.6
13/2	564	564	-	-	-	0.3	0.6	-	0.8	5.4	0.9	0.6	1.4
13/3	796	796	-	-	-	0.8	1.2	-	2.0	8.9	3.4	1.2	4.6
14/1	757	757	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	917	917	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	857	857	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

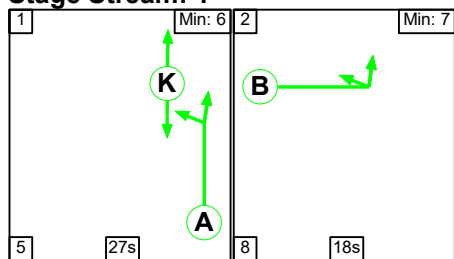
15/2	590	590	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
16/1	530	530	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
17/1	831	831	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4	
17/2	965	965	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4	
18/1	1131	1131	-	-	-	0.0	0.6	-	0.6	1.8	0.0	0.6	0.6	
18/2	795	795	-	-	-	0.0	0.3	-	0.3	1.2	0.0	0.3	0.3	
			C1	Stream: 1 PRC for Signalled Lanes (%)	16.2	Total Delay for Signalled Lanes (pcuHr):			7.09	Cycle Time (s):		60		
			C1	Stream: 2 PRC for Signalled Lanes (%)	131.6	Total Delay for Signalled Lanes (pcuHr):			0.51	Cycle Time (s):		60		
			C1	Stream: 3 PRC for Signalled Lanes (%)	45.6	Total Delay for Signalled Lanes (pcuHr):			6.77	Cycle Time (s):		60		
			C1	Stream: 4 PRC for Signalled Lanes (%)	45.1	Total Delay for Signalled Lanes (pcuHr):			2.43	Cycle Time (s):		60		
			C1	Stream: 5 PRC for Signalled Lanes (%)	16.1	Total Delay for Signalled Lanes (pcuHr):			10.71	Cycle Time (s):		60		
			C1	Stream: 6 PRC for Signalled Lanes (%)	42.4	Total Delay for Signalled Lanes (pcuHr):			2.38	Cycle Time (s):		60		
				PRC Over All Lanes (%)	16.1	Total Delay Over All Lanes (pcuHr):			32.48					

Full Input Data And Results

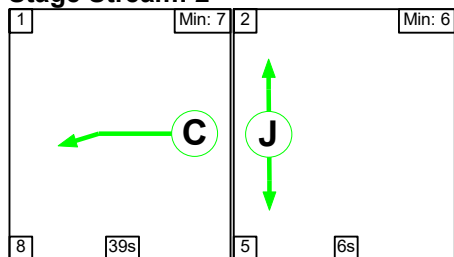
Scenario 3: '2038 Reference Case AM - No LTC' (FG3: '2038 Reference Case AM - No LTC', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

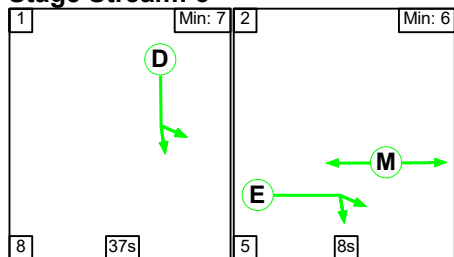
Stage Stream: 1



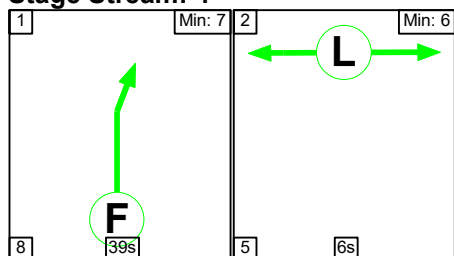
Stage Stream: 2



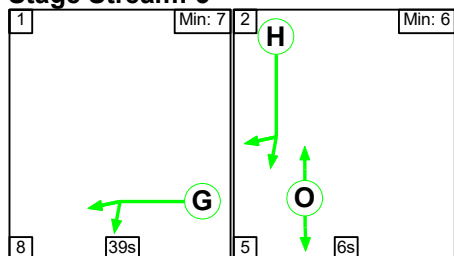
Stage Stream: 3



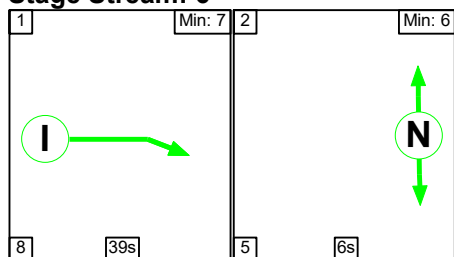
Stage Stream: 4



Stage Stream: 5



Stage Stream: 6



Full Input Data And Results

Stage Timings

Stage Stream: 1

Stage	1	2
Duration	27	18
Change Point	14	46

Stage Stream: 2

Stage	1	2
Duration	39	6
Change Point	30	19

Stage Stream: 3

Stage	1	2
Duration	37	8
Change Point	36	23

Stage Stream: 4

Stage	1	2
Duration	39	6
Change Point	16	5

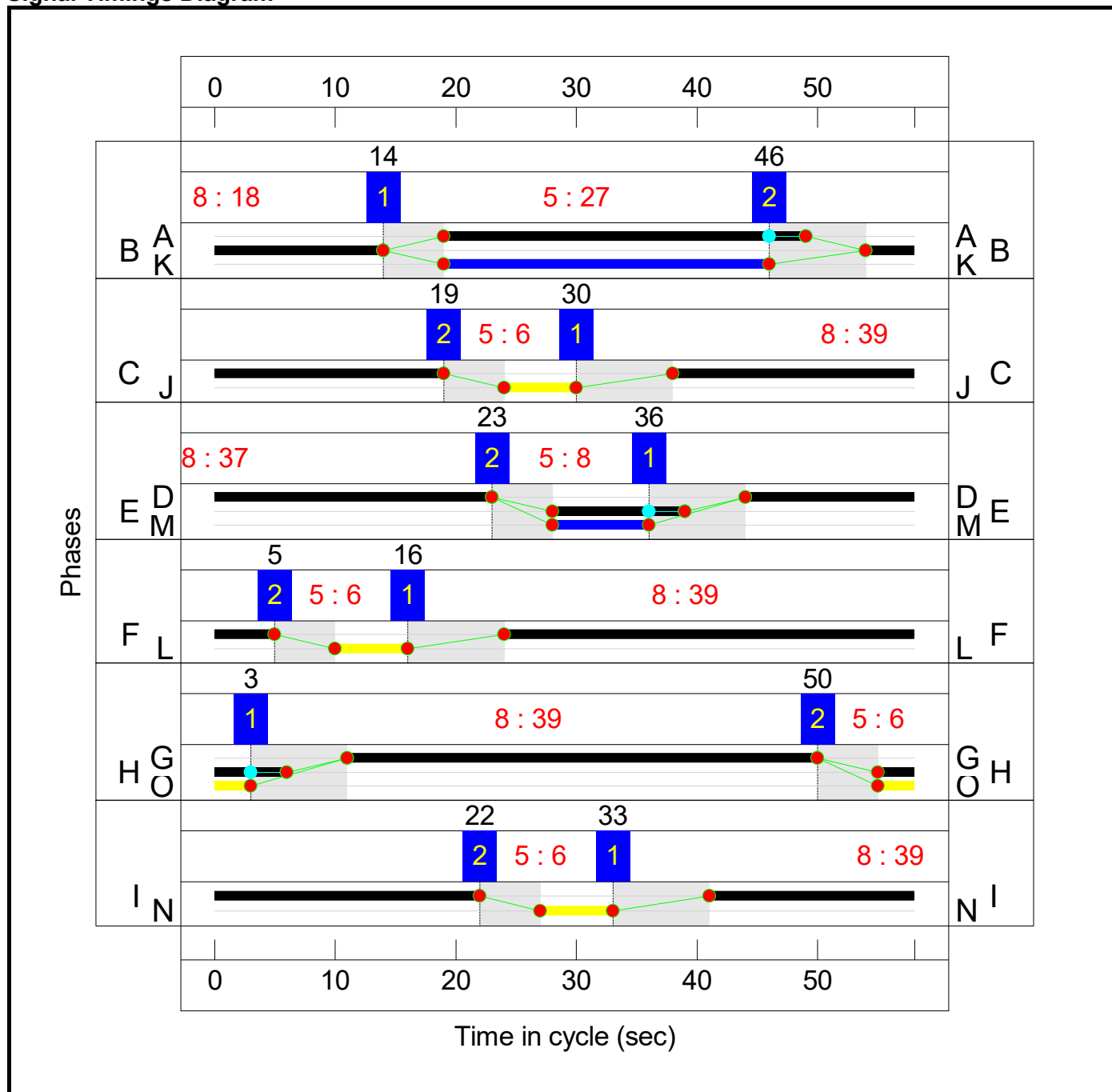
Stage Stream: 5

Stage	1	2
Duration	39	6
Change Point	3	50

Stage Stream: 6

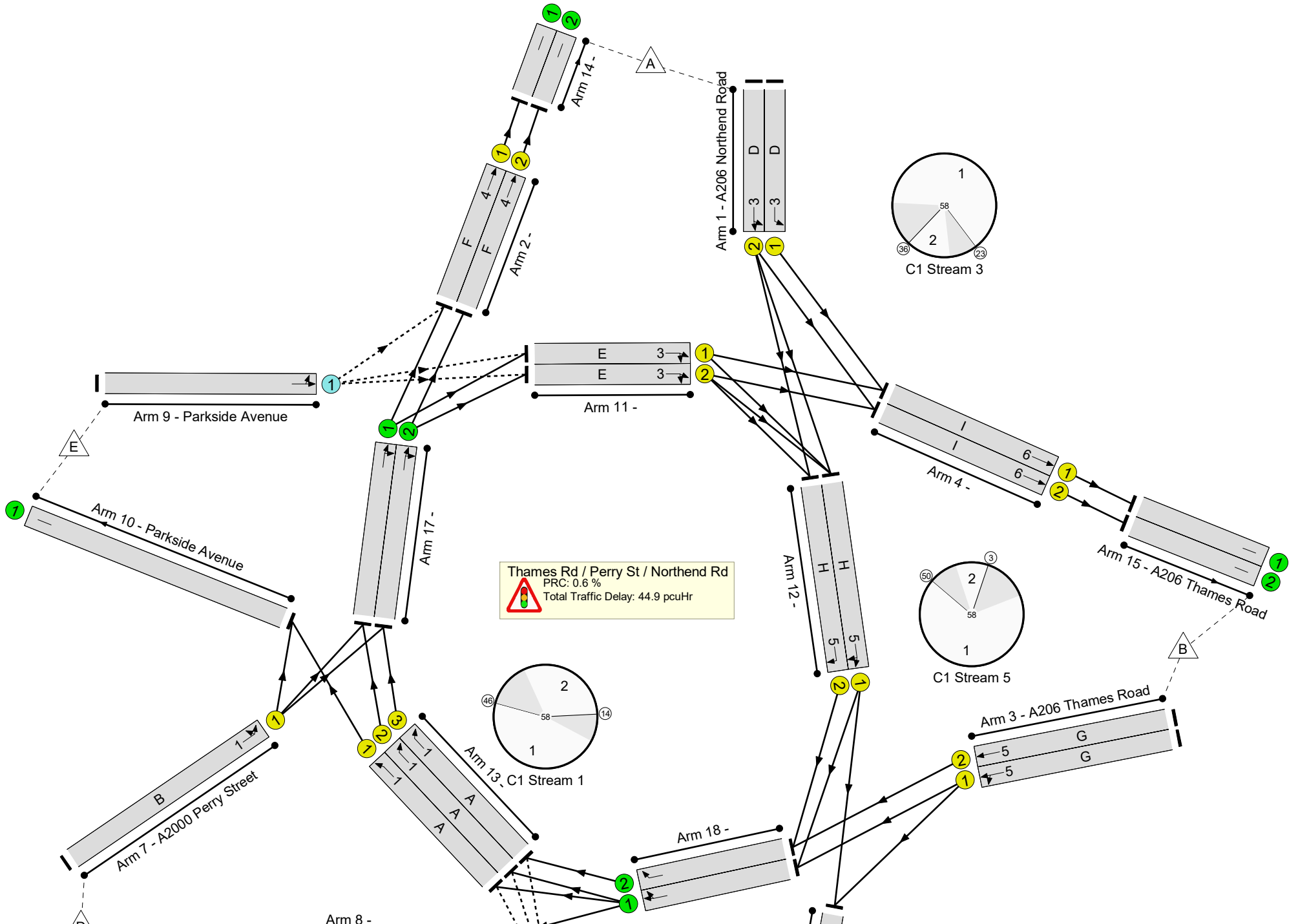
Stage	1	2
Duration	39	6
Change Point	33	22

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	89.5%
Thames Rd / Perry St / Northend Rd	-	-	N/A	-	-		-	-	-	-	-	-	89.5%
1/1	A206 Northend Road Left	U	3	N/A	D		1	37	-	772	1978	1296	59.6%
1/2	A206 Northend Road Left Ahead	U	3	N/A	D		1	37	-	892	2114	1385	64.4%
2/1	Ahead	U	4	N/A	F		1	39	-	1059	1984	1368	77.4%
2/2	Ahead	U	4	N/A	F		1	39	-	1067	2112	1457	73.3%
3/1	A206 Thames Road Left Ahead	U	5	N/A	G		1	39	-	844	1867	1288	65.5%
3/2	A206 Thames Road Ahead	U	5	N/A	G		1	39	-	708	2008	1385	51.1%
4/1	Ahead	U	6	N/A	I		1	39	-	948	1937	1336	71.0%
4/2	Ahead	U	6	N/A	I		1	39	-	802	2136	1473	54.4%
5/1	Wyatt Road Left Ahead	O	N/A	N/A	-		-	-	-	141	1760	378	37.3%
6/1		U	N/A	N/A	-		-	-	-	162	Inf	Inf	0.0%
7/1	A2000 Perry Street Left Left2	U	1	N/A	B		1	18	-	549	1932	633	86.7%
8/1	Ahead	U	2	N/A	C		1	39	-	209	1948	1343	15.6%
9/1	Parkside Avenue Left Ahead	O	N/A	N/A	-		-	-	-	391	1992	437	89.5%
10/1	Parkside Avenue	U	N/A	N/A	-		-	-	-	50	Inf	Inf	0.0%
11/1	Ahead Right	U	3	N/A	E		1	11	-	232	1921	397	58.4%
11/2	Ahead Right	U	3	N/A	E		1	11	-	243	2054	425	57.2%
12/1	Ahead Right	U	5	N/A	H		1	9	-	248	1922	331	74.8%
12/2	Right	U	5	N/A	H		1	9	-	141	1995	344	41.0%

Full Input Data And Results

13/1	Ahead	U	1	N/A	A		1	30	-	30	1881	1005	3.0%
13/2	Right	U	1	N/A	A		1	30	-	830	1877	1003	82.7%
13/3	Right	U	1	N/A	A		1	30	-	851	1995	1066	79.8%
14/1		U	N/A	N/A	-		-	-	-	1059	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	1067	Inf	Inf	0.0%
15/1	A206 Thames Road	U	N/A	N/A	-		-	-	-	948	Inf	Inf	0.0%
15/2	A206 Thames Road	U	N/A	N/A	-		-	-	-	802	Inf	Inf	0.0%
16/1	A2000 Perry Street	U	N/A	N/A	-		-	-	-	209	Inf	Inf	0.0%
17/1	Ahead Right	U	N/A	N/A	-		-	-	-	1138	1984	1984	57.4%
17/2	Ahead Right	U	N/A	N/A	-		-	-	-	1072	2112	2112	50.8%
18/1	Ahead Right	U	N/A	N/A	-		-	-	-	930	2115	2115	44.0%
18/2	Right	U	N/A	N/A	-		-	-	-	849	2255	2255	37.6%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	532	0	0	20.5	24.4	0.0	44.9	-	-	-	-
Thames Rd / Perry St / Northend Rd	-	-	532	0	0	20.5	24.4	0.0	44.9	-	-	-	-
1/1	772	772	-	-	-	1.2	0.7	-	1.9	9.1	6.9	0.7	7.6
1/2	892	892	-	-	-	1.5	0.9	-	2.4	9.6	8.4	0.9	9.3
2/1	1059	1059	-	-	-	0.8	1.7	-	2.5	8.4	4.7	1.7	6.4
2/2	1067	1067	-	-	-	0.6	1.4	-	2.0	6.7	3.8	1.4	5.2
3/1	844	844	-	-	-	1.2	0.9	-	2.1	9.1	7.5	0.9	8.4
3/2	708	708	-	-	-	0.8	0.5	-	1.4	7.0	5.3	0.5	5.8
4/1	948	948	-	-	-	0.9	1.2	-	2.1	7.9	4.5	1.2	5.7
4/2	802	802	-	-	-	0.9	0.6	-	1.5	6.5	5.1	0.6	5.7
5/1	141	141	141	0	0	0.1	0.3	-	0.4	9.0	0.6	0.3	0.9
6/1	162	162	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	549	549	-	-	-	2.8	3.1	-	5.8	38.3	8.2	3.1	11.3
8/1	209	209	-	-	-	0.0	0.1	-	0.1	2.4	0.4	0.1	0.5
9/1	391	391	391	0	0	1.0	3.7	-	4.7	43.1	5.6	3.7	9.3
10/1	50	50	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	232	232	-	-	-	1.5	0.7	-	2.2	33.9	3.7	0.7	4.4
11/2	243	243	-	-	-	1.6	0.7	-	2.3	34.1	3.9	0.7	4.6
12/1	248	248	-	-	-	1.3	1.4	-	2.7	39.5	3.5	1.4	5.0
12/2	141	141	-	-	-	0.7	0.3	-	1.0	26.0	1.6	0.3	1.9
13/1	30	30	-	-	-	0.0	0.0	-	0.1	6.6	0.1	0.0	0.1
13/2	830	830	-	-	-	1.5	2.3	-	3.9	16.8	10.6	2.3	12.9
13/3	851	851	-	-	-	2.1	1.9	-	4.0	16.9	11.7	1.9	13.7
14/1	1059	1059	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	1067	1067	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	948	948	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

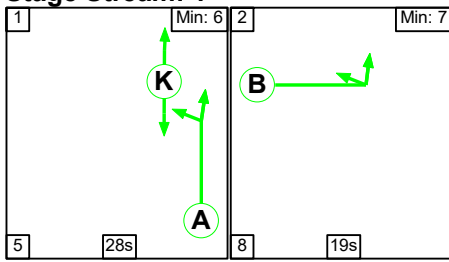
15/2	802	802	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1	209	209	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/1	1138	1138	-	-	-	0.0	0.7	-	0.7	2.1	0.0	0.7	0.7
17/2	1072	1072	-	-	-	0.0	0.5	-	0.5	1.7	0.0	0.5	0.5
18/1	930	930	-	-	-	0.0	0.4	-	0.4	1.5	0.0	0.4	0.4
18/2	849	849	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3
			C1	Stream: 1 PRC for Signalled Lanes (%)	3.8	Total Delay for Signalled Lanes (pcuHr):	13.78	Cycle Time (s):	58				
			C1	Stream: 2 PRC for Signalled Lanes (%)	478.5	Total Delay for Signalled Lanes (pcuHr):	0.14	Cycle Time (s):	58				
			C1	Stream: 3 PRC for Signalled Lanes (%)	39.7	Total Delay for Signalled Lanes (pcuHr):	8.81	Cycle Time (s):	58				
			C1	Stream: 4 PRC for Signalled Lanes (%)	16.3	Total Delay for Signalled Lanes (pcuHr):	4.44	Cycle Time (s):	58				
			C1	Stream: 5 PRC for Signalled Lanes (%)	20.3	Total Delay for Signalled Lanes (pcuHr):	7.26	Cycle Time (s):	58				
			C1	Stream: 6 PRC for Signalled Lanes (%)	26.8	Total Delay for Signalled Lanes (pcuHr):	3.53	Cycle Time (s):	58				
				PRC Over All Lanes (%)	0.6	Total Delay Over All Lanes(pcuHr):	44.88						

Full Input Data And Results

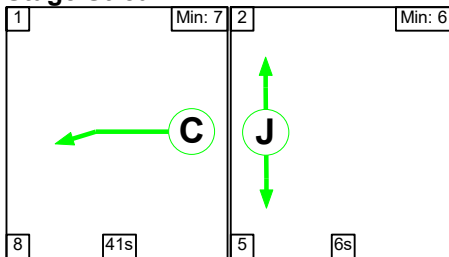
Scenario 4: '2038 Reference Case PM - No LTC' (FG4: '2038 Reference Case PM - No LTC', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

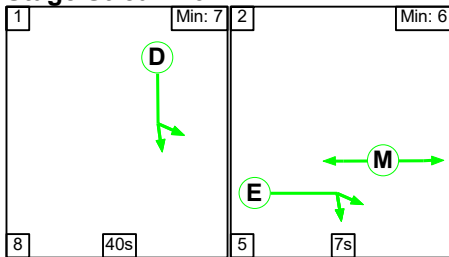
Stage Stream: 1



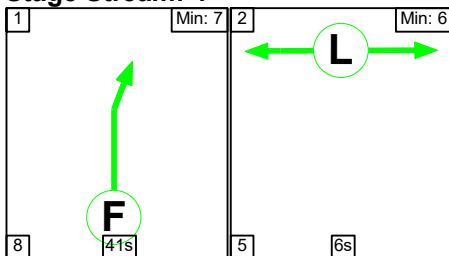
Stage Stream: 2



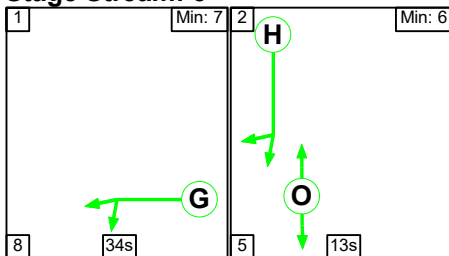
Stage Stream: 3



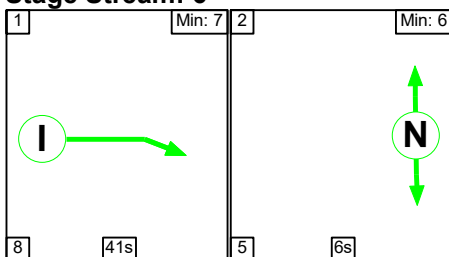
Stage Stream: 4



Stage Stream: 5



Stage Stream: 6



Full Input Data And Results

Stage Timings

Stage Stream: 1

Stage	1	2
Duration	28	19
Change Point	0	33

Stage Stream: 2

Stage	1	2
Duration	41	6
Change Point	20	9

Stage Stream: 3

Stage	1	2
Duration	40	7
Change Point	8	56

Stage Stream: 4

Stage	1	2
Duration	41	6
Change Point	2	51

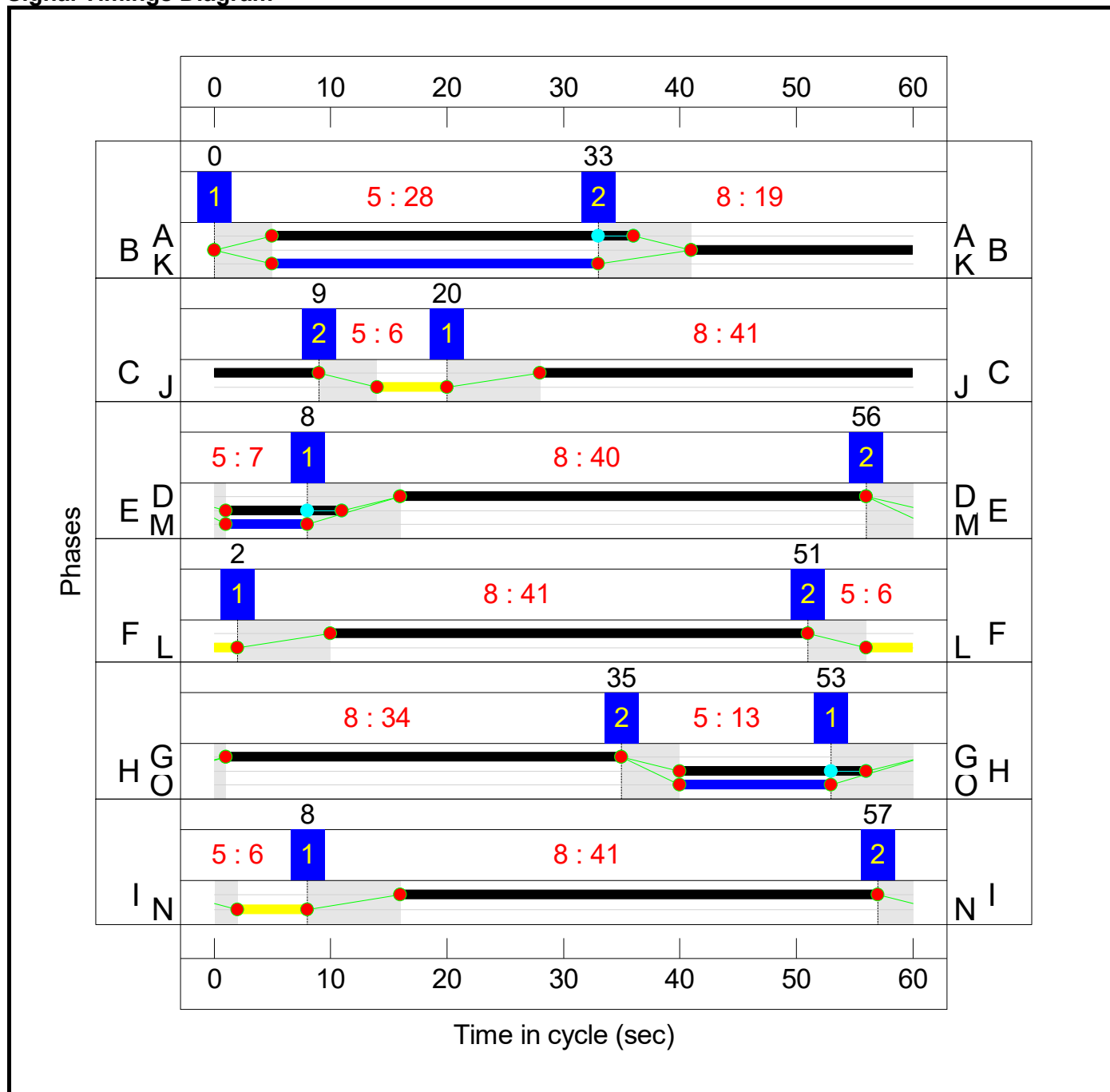
Stage Stream: 5

Stage	1	2
Duration	34	13
Change Point	53	35

Stage Stream: 6

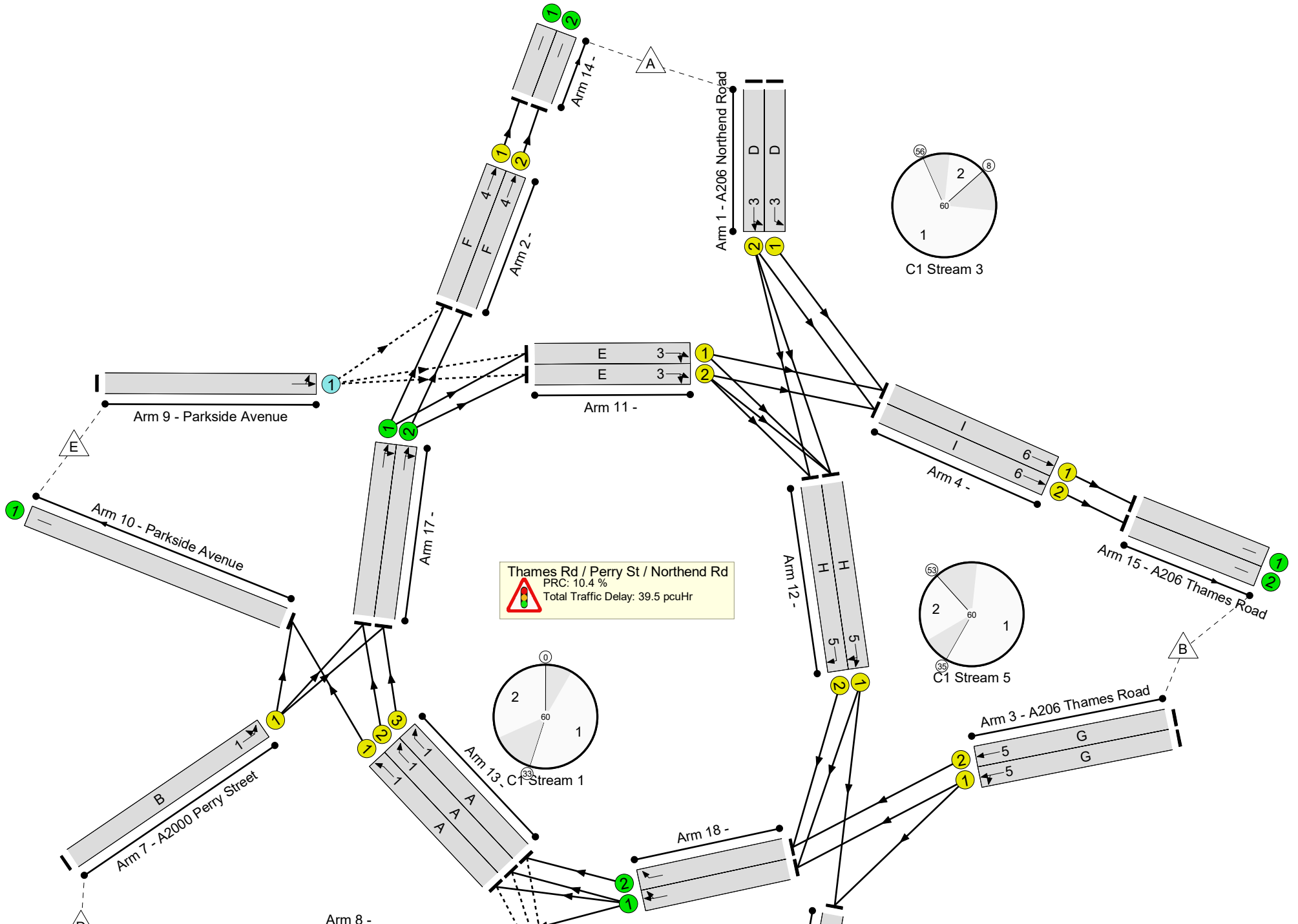
Stage	1	2
Duration	41	6
Change Point	8	57

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	81.5%
Thames Rd / Perry St / Northend Rd	-	-	N/A	-	-		-	-	-	-	-	-	81.5%
1/1	A206 Northend Road Left	U	3	N/A	D		1	40	-	838	1978	1352	62.0%
1/2	A206 Northend Road Left Ahead	U	3	N/A	D		1	40	-	950	2114	1445	65.8%
2/1	Ahead	U	4	N/A	F		1	41	-	1010	1984	1389	72.7%
2/2	Ahead	U	4	N/A	F		1	41	-	1049	2112	1478	71.0%
3/1	A206 Thames Road Left Ahead	U	5	N/A	G		1	34	-	787	1867	1089	72.3%
3/2	A206 Thames Road Ahead	U	5	N/A	G		1	34	-	704	2008	1171	60.1%
4/1	Ahead	U	6	N/A	I		1	41	-	956	1937	1356	70.5%
4/2	Ahead	U	6	N/A	I		1	41	-	699	2136	1495	46.7%
5/1	Wyatt Road Left Ahead	O	N/A	N/A	-		-	-	-	245	1751	363	67.4%
6/1		U	N/A	N/A	-		-	-	-	123	Inf	Inf	0.0%
7/1	A2000 Perry Street Left Left2	U	1	N/A	B		1	19	-	525	1932	644	81.5%
8/1	Ahead	U	2	N/A	C		1	41	-	436	1948	1364	32.0%
9/1	Parkside Avenue Left Ahead	O	N/A	N/A	-		-	-	-	292	1992	437	66.8%
10/1	Parkside Avenue	U	N/A	N/A	-		-	-	-	68	Inf	Inf	0.0%
11/1	Ahead Right	U	3	N/A	E		1	10	-	173	1921	352	49.1%
11/2	Ahead Right	U	3	N/A	E		1	10	-	196	2054	377	52.0%
12/1	Ahead Right	U	5	N/A	H		1	16	-	374	1902	539	69.4%
12/2	Right	U	5	N/A	H		1	16	-	128	1995	565	22.6%

Full Input Data And Results

13/1	Ahead	U	1	N/A	A		1	31	-	49	1881	1003	4.9%
13/2	Right	U	1	N/A	A		1	31	-	790	1877	1001	78.9%
13/3	Right	U	1	N/A	A		1	31	-	840	1995	1064	78.9%
14/1		U	N/A	N/A	-		-	-	-	1010	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	1049	Inf	Inf	0.0%
15/1	A206 Thames Road	U	N/A	N/A	-		-	-	-	956	Inf	Inf	0.0%
15/2	A206 Thames Road	U	N/A	N/A	-		-	-	-	699	Inf	Inf	0.0%
16/1	A2000 Perry Street	U	N/A	N/A	-		-	-	-	436	Inf	Inf	0.0%
17/1	Ahead Right	U	N/A	N/A	-		-	-	-	1076	1984	1984	54.2%
17/2	Ahead Right	U	N/A	N/A	-		-	-	-	1060	2112	2112	50.2%
18/1	Ahead Right	U	N/A	N/A	-		-	-	-	1038	2115	2115	49.1%
18/2	Right	U	N/A	N/A	-		-	-	-	832	2255	2255	36.9%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	537	0	0	19.3	20.2	0.0	39.5	-	-	-	-
Thames Rd / Perry St / Northend Rd	-	-	537	0	0	19.3	20.2	0.0	39.5	-	-	-	-
1/1	838	838	-	-	-	1.2	0.8	-	2.0	8.7	7.4	0.8	8.3
1/2	950	950	-	-	-	1.4	1.0	-	2.4	9.1	9.0	1.0	9.9
2/1	1010	1010	-	-	-	0.8	1.3	-	2.1	7.6	4.7	1.3	6.0
2/2	1049	1049	-	-	-	0.6	1.2	-	1.8	6.3	3.9	1.2	5.1
3/1	787	787	-	-	-	2.0	1.3	-	3.3	14.9	9.4	1.3	10.7
3/2	704	704	-	-	-	1.6	0.8	-	2.3	11.9	7.4	0.8	8.2
4/1	956	956	-	-	-	0.7	1.2	-	1.9	7.1	3.8	1.2	5.0
4/2	699	699	-	-	-	0.7	0.4	-	1.1	5.9	4.3	0.4	4.7
5/1	245	245	245	0	0	0.3	1.0	-	1.3	19.0	2.2	1.0	3.2
6/1	123	123	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	525	525	-	-	-	2.7	2.1	-	4.8	32.9	7.9	2.1	10.0
8/1	436	436	-	-	-	0.0	0.2	-	0.3	2.2	0.3	0.2	0.6
9/1	292	292	292	0	0	0.6	1.0	-	1.6	19.9	3.2	1.0	4.2
10/1	68	68	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	173	173	-	-	-	0.8	0.5	-	1.3	27.4	2.6	0.5	3.1
11/2	196	196	-	-	-	0.8	0.5	-	1.4	25.2	2.9	0.5	3.5
12/1	374	374	-	-	-	1.8	1.1	-	2.9	27.8	5.6	1.1	6.7
12/2	128	128	-	-	-	0.4	0.1	-	0.5	15.1	1.6	0.1	1.7
13/1	49	49	-	-	-	0.1	0.0	-	0.1	6.3	0.2	0.0	0.2
13/2	790	790	-	-	-	1.3	1.8	-	3.1	14.1	3.5	1.8	5.3
13/3	840	840	-	-	-	1.5	1.8	-	3.3	14.3	7.8	1.8	9.6
14/1	1010	1010	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	1049	1049	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	956	956	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

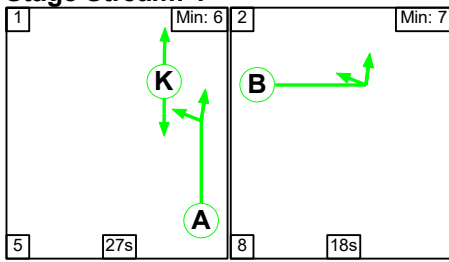
15/2	699	699	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
16/1	436	436	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
17/1	1076	1076	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6	
17/2	1060	1060	-	-	-	0.0	0.5	-	0.5	1.7	0.0	0.5	0.5	
18/1	1038	1038	-	-	-	0.0	0.5	-	0.5	1.7	0.0	0.5	0.5	
18/2	832	832	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3	
			C1	Stream: 1 PRC for Signalled Lanes (%)	10.4				Total Delay for Signalled Lanes (pcuHr)	11.31	Cycle Time (s)	60		
			C1	Stream: 2 PRC for Signalled Lanes (%)	181.5				Total Delay for Signalled Lanes (pcuHr)	0.27	Cycle Time (s)	60		
			C1	Stream: 3 PRC for Signalled Lanes (%)	36.9				Total Delay for Signalled Lanes (pcuHr)	7.12	Cycle Time (s)	60		
			C1	Stream: 4 PRC for Signalled Lanes (%)	23.8				Total Delay for Signalled Lanes (pcuHr)	3.98	Cycle Time (s)	60		
			C1	Stream: 5 PRC for Signalled Lanes (%)	24.5				Total Delay for Signalled Lanes (pcuHr)	9.00	Cycle Time (s)	60		
			C1	Stream: 6 PRC for Signalled Lanes (%)	27.6				Total Delay for Signalled Lanes (pcuHr)	3.01	Cycle Time (s)	60		
				PRC Over All Lanes (%)	10.4				Total Delay Over All Lanes(pcuHr)	39.47				

Full Input Data And Results

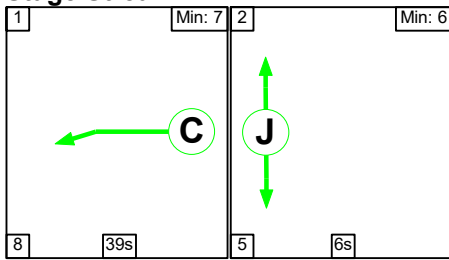
Scenario 5: '2038 Reference Case AM - With LTC' (FG5: '2038 Reference Case AM - With LTC', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

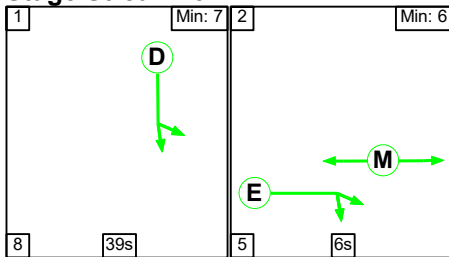
Stage Stream: 1



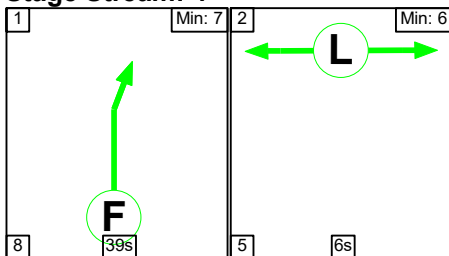
Stage Stream: 2



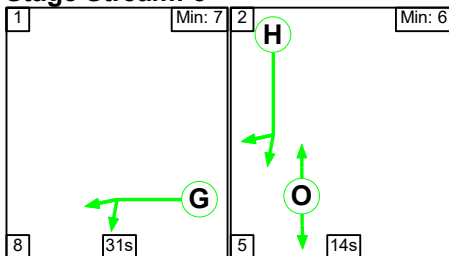
Stage Stream: 3



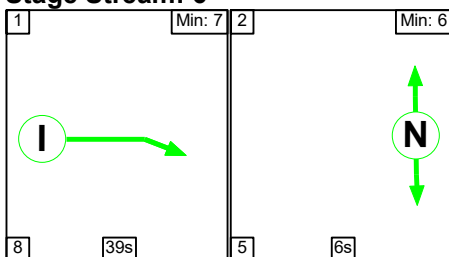
Stage Stream: 4



Stage Stream: 5



Stage Stream: 6



Full Input Data And Results

Stage Timings

Stage Stream: 1

Stage	1	2
Duration	27	18
Change Point	26	0

Stage Stream: 2

Stage	1	2
Duration	39	6
Change Point	54	43

Stage Stream: 3

Stage	1	2
Duration	39	6
Change Point	49	38

Stage Stream: 4

Stage	1	2
Duration	39	6
Change Point	29	18

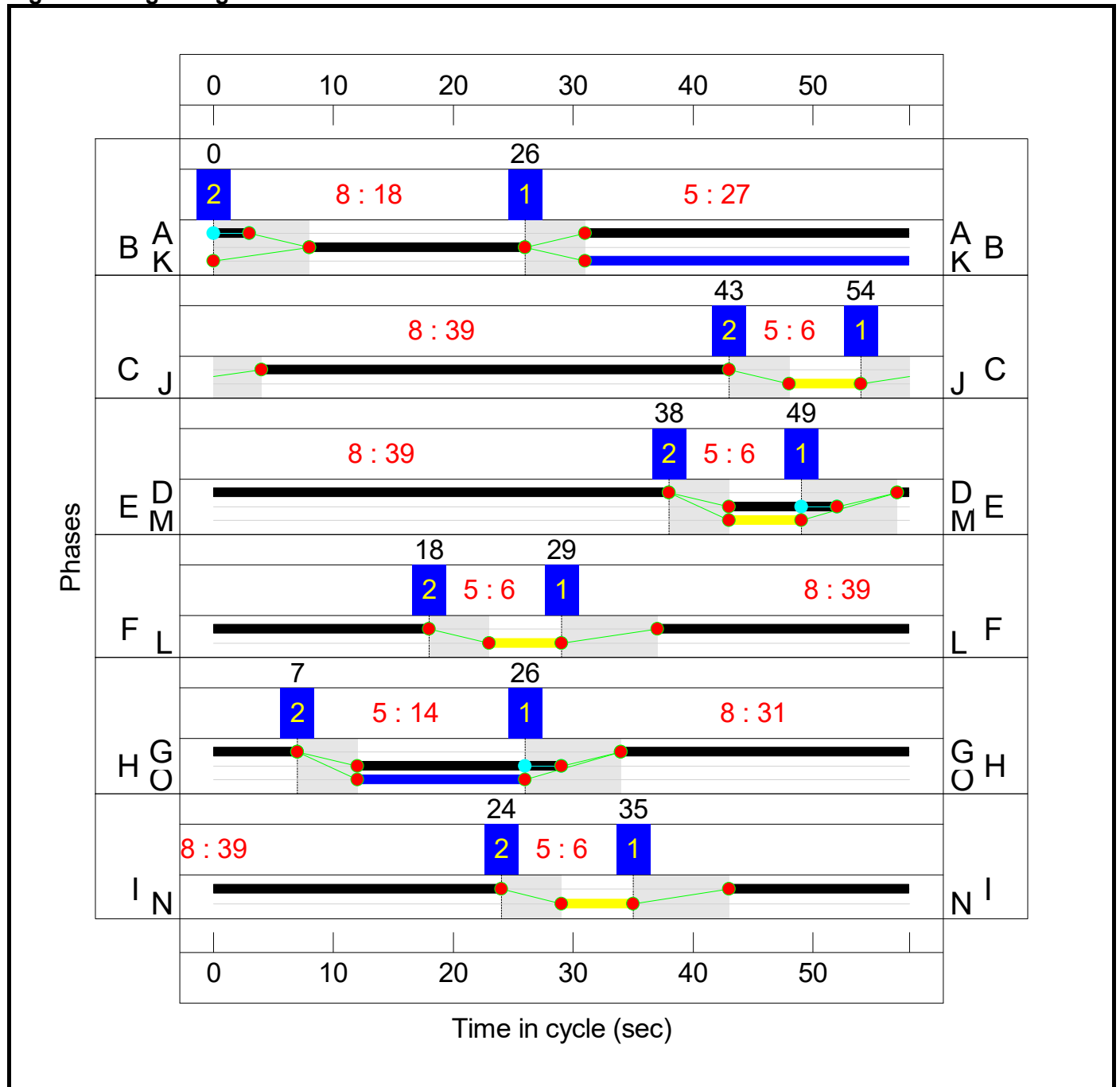
Stage Stream: 5

Stage	1	2
Duration	31	14
Change Point	26	7

Stage Stream: 6

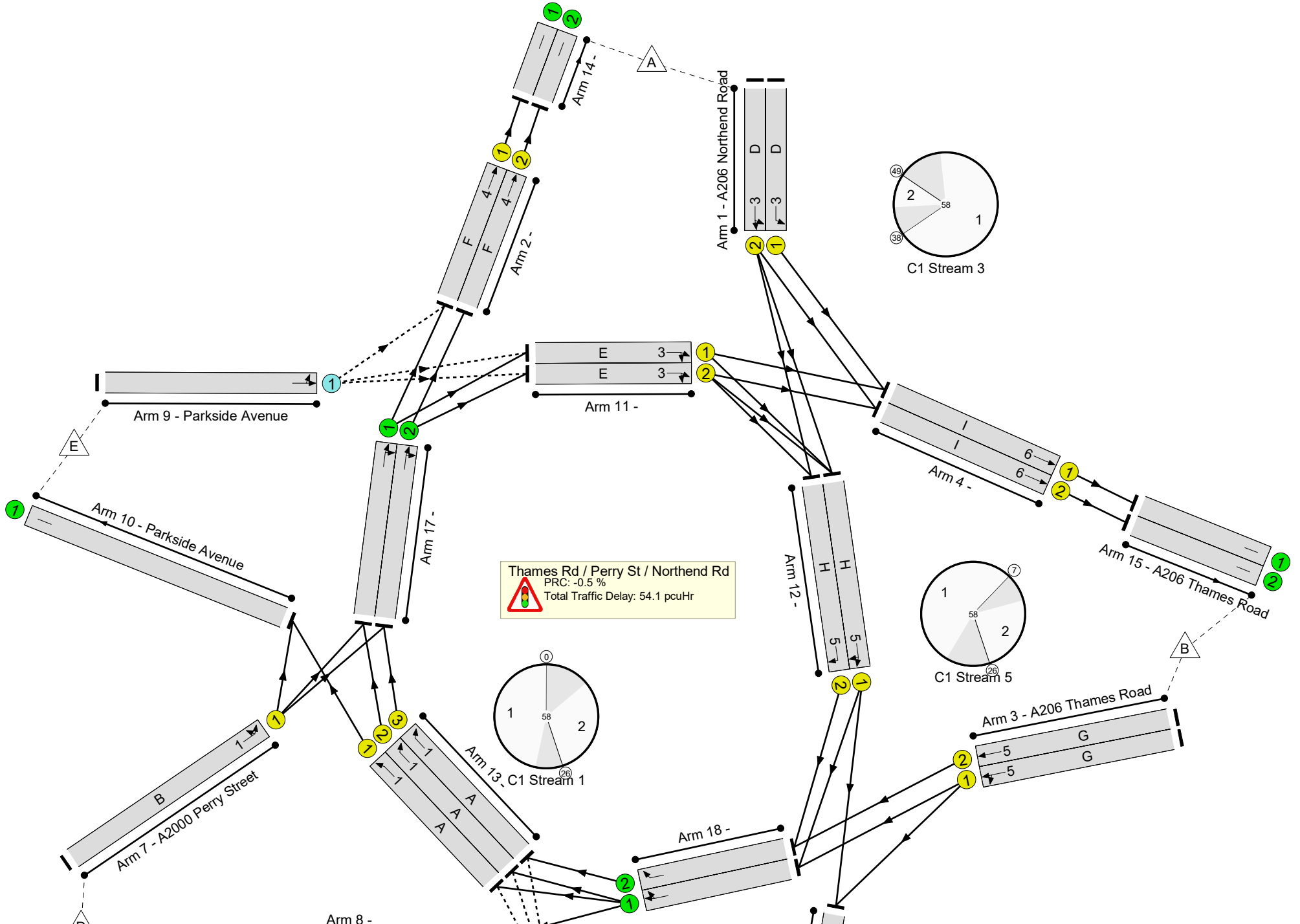
Stage	1	2
Duration	39	6
Change Point	35	24

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	90.4%
Thames Rd / Perry St / Northend Rd	-	-	N/A	-	-		-	-	-	-	-	-	90.4%
1/1	A206 Northend Road Left	U	3	N/A	D		1	39	-	828	1978	1364	60.7%
1/2	A206 Northend Road Left Ahead	U	3	N/A	D		1	39	-	848	2114	1458	58.2%
2/1	Ahead	U	4	N/A	F		1	39	-	1098	1984	1368	80.2%
2/2	Ahead	U	4	N/A	F		1	39	-	1117	2112	1457	76.7%
3/1	A206 Thames Road Left Ahead	U	5	N/A	G		1	31	-	873	1867	1030	84.8%
3/2	A206 Thames Road Ahead	U	5	N/A	G		1	31	-	793	2008	1108	71.6%
4/1	Ahead	U	6	N/A	I		1	39	-	993	1937	1336	74.3%
4/2	Ahead	U	6	N/A	I		1	39	-	787	2136	1473	53.4%
5/1	Wyatt Road Left Ahead	O	N/A	N/A	-		-	-	-	140	1761	351	39.8%
6/1		U	N/A	N/A	-		-	-	-	162	Inf	Inf	0.0%
7/1	A2000 Perry Street Left Left2	U	1	N/A	B		1	18	-	564	1932	633	89.1%
8/1	Ahead	U	2	N/A	C		1	39	-	202	1948	1343	15.0%
9/1	Parkside Avenue Left Ahead	O	N/A	N/A	-		-	-	-	362	1992	400	90.4%
10/1	Parkside Avenue	U	N/A	N/A	-		-	-	-	49	Inf	Inf	0.0%
11/1	Ahead Right	U	3	N/A	E		1	9	-	209	1921	331	63.1%
11/2	Ahead Right	U	3	N/A	E		1	9	-	280	2054	354	79.1%
12/1	Ahead Right	U	5	N/A	H		1	17	-	263	1919	596	44.2%
12/2	Right	U	5	N/A	H		1	17	-	122	1995	619	19.7%

Full Input Data And Results

13/1	Ahead	U	1	N/A	A		1	30	-	30	1881	1005	3.0%
13/2	Right	U	1	N/A	A		1	30	-	880	1877	1003	87.7%
13/3	Right	U	1	N/A	A		1	30	-	917	1995	1066	86.0%
14/1		U	N/A	N/A	-		-	-	-	1098	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	1117	Inf	Inf	0.0%
15/1	A206 Thames Road	U	N/A	N/A	-		-	-	-	993	Inf	Inf	0.0%
15/2	A206 Thames Road	U	N/A	N/A	-		-	-	-	787	Inf	Inf	0.0%
16/1	A2000 Perry Street	U	N/A	N/A	-		-	-	-	202	Inf	Inf	0.0%
17/1	Ahead Right	U	N/A	N/A	-		-	-	-	1185	1984	1984	59.7%
17/2	Ahead Right	U	N/A	N/A	-		-	-	-	1157	2112	2112	54.8%
18/1	Ahead Right	U	N/A	N/A	-		-	-	-	974	2115	2115	46.1%
18/2	Right	U	N/A	N/A	-		-	-	-	915	2255	2255	40.6%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	502	0	0	23.4	30.7	0.0	54.1	-	-	-	-
Thames Rd / Perry St / Northend Rd	-	-	502	0	0	23.4	30.7	0.0	54.1	-	-	-	-
1/1	828	828	-	-	-	1.1	0.8	-	1.9	8.2	6.9	0.8	7.7
1/2	848	848	-	-	-	1.1	0.7	-	1.8	7.6	7.1	0.7	7.8
2/1	1098	1098	-	-	-	0.9	2.0	-	2.9	9.6	5.5	2.0	7.5
2/2	1117	1117	-	-	-	0.8	1.6	-	2.4	7.7	4.2	1.6	5.8
3/1	873	873	-	-	-	2.7	2.7	-	5.3	22.0	11.6	2.7	14.3
3/2	793	793	-	-	-	2.1	1.2	-	3.4	15.3	9.3	1.2	10.5
4/1	993	993	-	-	-	1.1	1.4	-	2.5	9.0	6.8	1.4	8.2
4/2	787	787	-	-	-	0.5	0.6	-	1.1	5.0	3.0	0.6	3.5
5/1	140	140	140	0	0	0.2	0.3	-	0.5	13.0	1.1	0.3	1.4
6/1	162	162	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	564	564	-	-	-	2.9	3.7	-	6.6	42.1	8.6	3.7	12.3
8/1	202	202	-	-	-	0.0	0.1	-	0.1	2.0	0.2	0.1	0.3
9/1	362	362	362	0	0	1.0	3.9	-	4.9	48.9	5.3	3.9	9.3
10/1	49	49	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	209	209	-	-	-	1.1	0.8	-	2.0	34.1	3.1	0.8	3.9
11/2	280	280	-	-	-	1.8	1.8	-	3.6	45.7	4.3	1.8	6.1
12/1	263	263	-	-	-	1.0	0.4	-	1.4	19.0	3.5	0.4	3.9
12/2	122	122	-	-	-	0.3	0.1	-	0.5	13.9	1.2	0.1	1.4
13/1	30	30	-	-	-	0.1	0.0	-	0.1	10.2	0.2	0.0	0.2
13/2	880	880	-	-	-	2.7	3.4	-	6.1	25.0	6.9	3.4	10.2
13/3	917	917	-	-	-	2.1	3.0	-	5.0	19.7	6.0	3.0	9.0
14/1	1098	1098	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	1117	1117	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	993	993	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

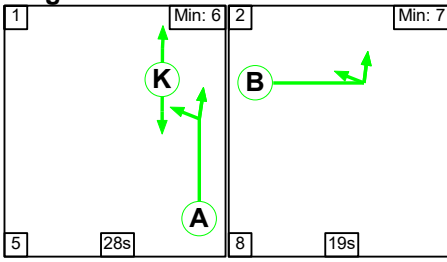
15/2	787	787	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
16/1	202	202	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
17/1	1185	1185	-	-	-	0.0	0.7	-	0.7	2.2	0.0	0.7	0.7	
17/2	1157	1157	-	-	-	0.0	0.6	-	0.6	1.9	0.0	0.6	0.6	
18/1	974	974	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4	
18/2	915	915	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3	
			C1	Stream: 1 PRC for Signalled Lanes (%)	1.0	Total Delay for Signalled Lanes (pcuHr):			17.81	Cycle Time (s):		58		
			C1	Stream: 2 PRC for Signalled Lanes (%)	498.6	Total Delay for Signalled Lanes (pcuHr):			0.11	Cycle Time (s):		58		
			C1	Stream: 3 PRC for Signalled Lanes (%)	13.8	Total Delay for Signalled Lanes (pcuHr):			9.20	Cycle Time (s):		58		
			C1	Stream: 4 PRC for Signalled Lanes (%)	12.2	Total Delay for Signalled Lanes (pcuHr):			5.31	Cycle Time (s):		58		
			C1	Stream: 5 PRC for Signalled Lanes (%)	6.2	Total Delay for Signalled Lanes (pcuHr):			10.57	Cycle Time (s):		58		
			C1	Stream: 6 PRC for Signalled Lanes (%)	21.1	Total Delay for Signalled Lanes (pcuHr):			3.59	Cycle Time (s):		58		
				PRC Over All Lanes (%)	-0.5	Total Delay Over All Lanes(pcuHr):			54.13					

Full Input Data And Results

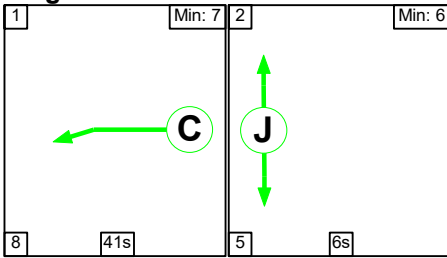
Scenario 6: '2038 Reference Case PM - With LTC' (FG6: '2038 Reference Case PM - With LTC', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

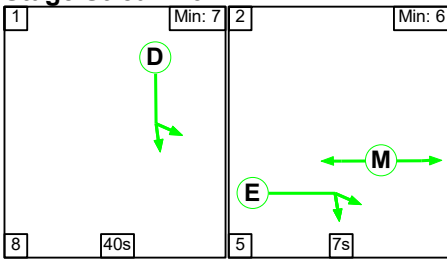
Stage Stream: 1



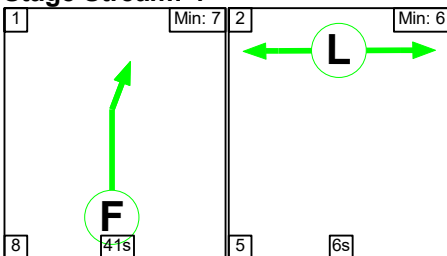
Stage Stream: 2



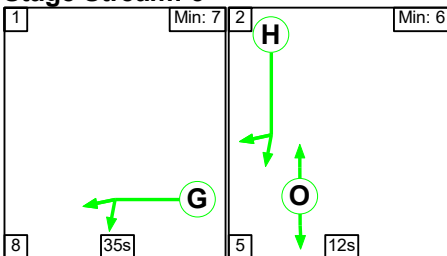
Stage Stream: 3



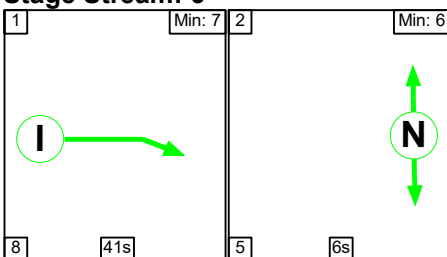
Stage Stream: 4



Stage Stream: 5



Stage Stream: 6



Full Input Data And Results

Stage Timings

Stage Stream: 1

Stage	1	2
Duration	28	19
Change Point	0	33

Stage Stream: 2

Stage	1	2
Duration	41	6
Change Point	20	9

Stage Stream: 3

Stage	1	2
Duration	40	7
Change Point	54	42

Stage Stream: 4

Stage	1	2
Duration	41	6
Change Point	2	51

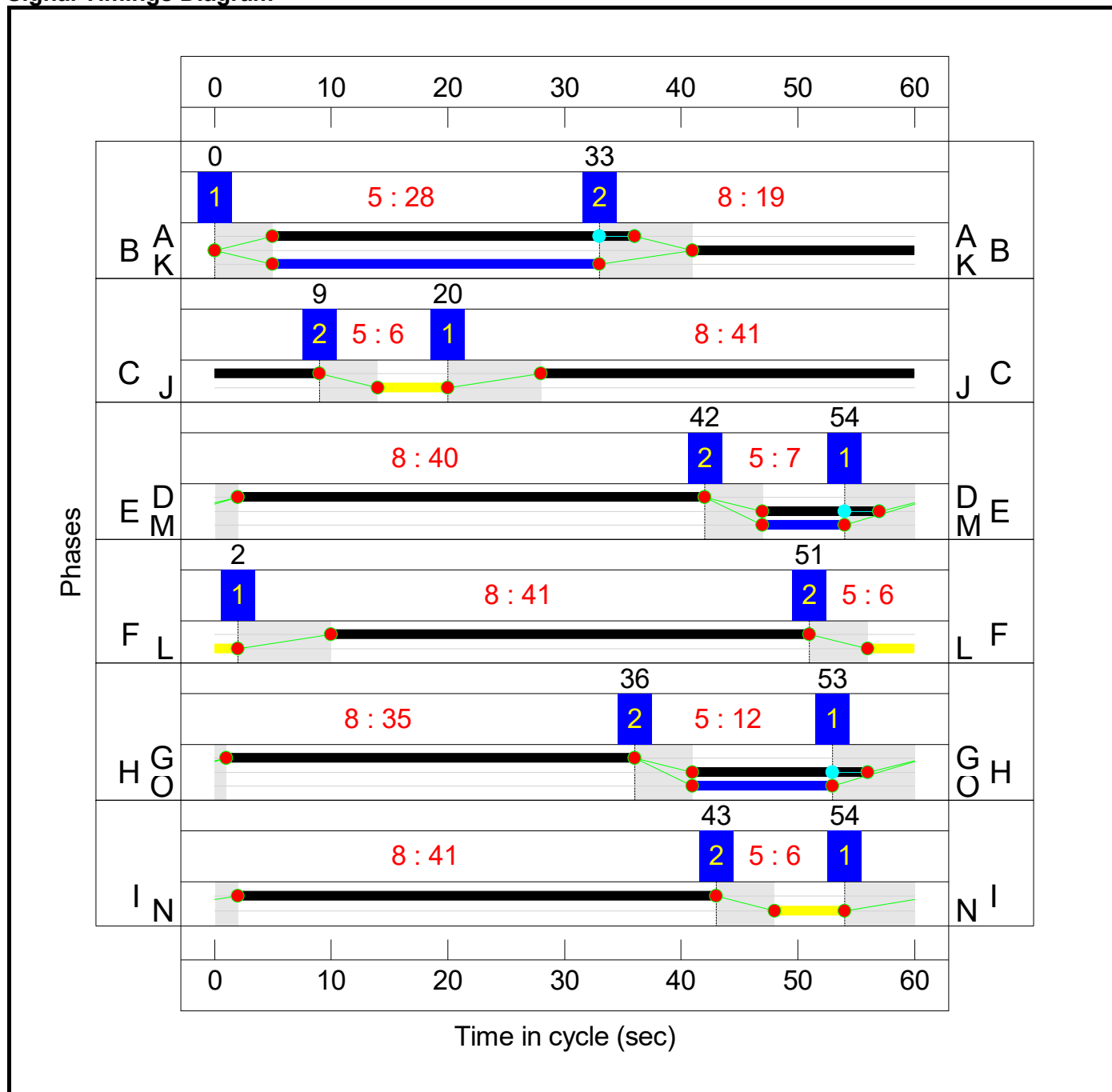
Stage Stream: 5

Stage	1	2
Duration	35	12
Change Point	53	36

Stage Stream: 6

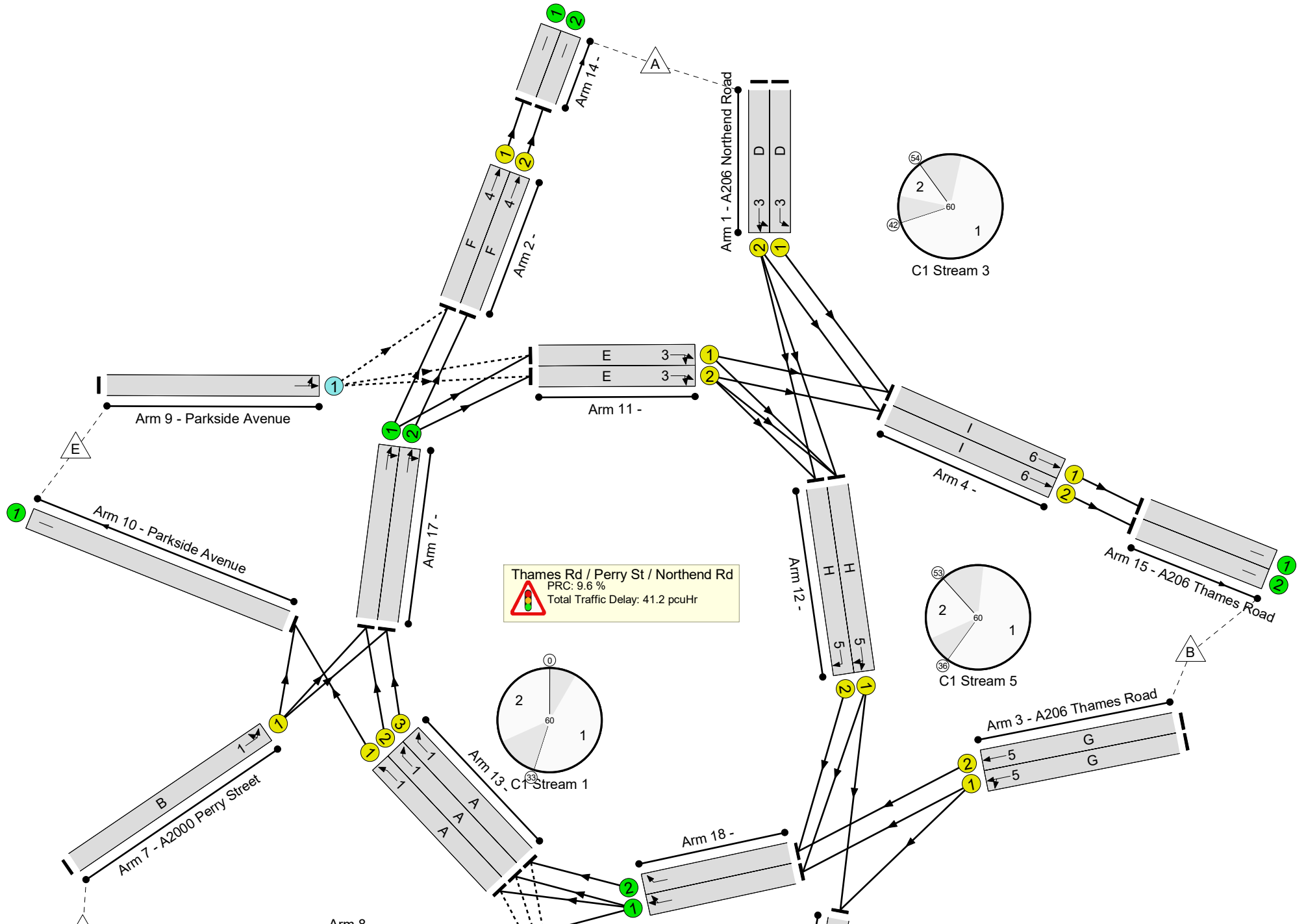
Stage	1	2
Duration	41	6
Change Point	54	43

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	82.1%
Thames Rd / Perry St / Northend Rd	-	-	N/A	-	-		-	-	-	-	-	-	82.1%
1/1	A206 Northend Road Left	U	3	N/A	D		1	40	-	844	1978	1352	62.4%
1/2	A206 Northend Road Left Ahead	U	3	N/A	D		1	40	-	954	2114	1445	66.0%
2/1	Ahead	U	4	N/A	F		1	41	-	1029	1984	1389	74.1%
2/2	Ahead	U	4	N/A	F		1	41	-	1063	2112	1478	71.9%
3/1	A206 Thames Road Left Ahead	U	5	N/A	G		1	35	-	806	1867	1120	72.0%
3/2	A206 Thames Road Ahead	U	5	N/A	G		1	35	-	722	2008	1205	59.9%
4/1	Ahead	U	6	N/A	I		1	41	-	958	1937	1356	70.7%
4/2	Ahead	U	6	N/A	I		1	41	-	714	2136	1495	47.8%
5/1	Wyatt Road Left Ahead	O	N/A	N/A	-		-	-	-	245	1753	355	69.0%
6/1		U	N/A	N/A	-		-	-	-	123	Inf	Inf	0.0%
7/1	A2000 Perry Street Left Left2	U	1	N/A	B		1	19	-	529	1932	644	82.1%
8/1	Ahead	U	2	N/A	C		1	41	-	430	1948	1364	31.5%
9/1	Parkside Avenue Left Ahead	O	N/A	N/A	-		-	-	-	288	1992	433	66.5%
10/1	Parkside Avenue	U	N/A	N/A	-		-	-	-	71	Inf	Inf	0.0%
11/1	Ahead Right	U	3	N/A	E		1	10	-	173	1921	352	49.1%
11/2	Ahead Right	U	3	N/A	E		1	10	-	193	2054	377	51.3%
12/1	Ahead Right	U	5	N/A	H		1	15	-	370	1901	507	73.0%
12/2	Right	U	5	N/A	H		1	15	-	122	1995	532	22.9%

Full Input Data And Results

13/1	Ahead	U	1	N/A	A		1	31	-	49	1881	1003	4.9%
13/2	Right	U	1	N/A	A		1	31	-	811	1877	1001	81.0%
13/3	Right	U	1	N/A	A		1	31	-	852	1995	1064	80.1%
14/1		U	N/A	N/A	-		-	-	-	1029	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	1063	Inf	Inf	0.0%
15/1	A206 Thames Road	U	N/A	N/A	-		-	-	-	958	Inf	Inf	0.0%
15/2	A206 Thames Road	U	N/A	N/A	-		-	-	-	714	Inf	Inf	0.0%
16/1	A2000 Perry Street	U	N/A	N/A	-		-	-	-	430	Inf	Inf	0.0%
17/1	Ahead Right	U	N/A	N/A	-		-	-	-	1096	1984	1984	55.2%
17/2	Ahead Right	U	N/A	N/A	-		-	-	-	1074	2112	2112	50.9%
18/1	Ahead Right	U	N/A	N/A	-		-	-	-	1053	2115	2115	49.8%
18/2	Right	U	N/A	N/A	-		-	-	-	844	2255	2255	37.4%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	533	0	0	20.0	21.2	0.0	41.2	-	-	-	-
Thames Rd / Perry St / Northend Rd	-	-	533	0	0	20.0	21.2	0.0	41.2	-	-	-	-
1/1	844	844	-	-	-	1.2	0.8	-	2.1	8.8	7.7	0.8	8.6
1/2	954	954	-	-	-	1.5	1.0	-	2.4	9.1	9.0	1.0	10.0
2/1	1029	1029	-	-	-	0.8	1.4	-	2.2	7.8	4.7	1.4	6.1
2/2	1063	1063	-	-	-	0.6	1.3	-	1.9	6.5	3.9	1.3	5.2
3/1	806	806	-	-	-	1.9	1.3	-	3.2	14.1	9.4	1.3	10.7
3/2	722	722	-	-	-	1.5	0.7	-	2.2	11.2	7.4	0.7	8.2
4/1	958	958	-	-	-	0.7	1.2	-	1.9	7.0	3.8	1.2	5.0
4/2	714	714	-	-	-	0.7	0.5	-	1.2	5.9	4.3	0.5	4.7
5/1	245	245	245	0	0	0.3	1.1	-	1.4	20.2	2.2	1.1	3.3
6/1	123	123	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	529	529	-	-	-	2.7	2.2	-	4.9	33.4	8.1	2.2	10.3
8/1	430	430	-	-	-	0.0	0.2	-	0.3	2.2	0.3	0.2	0.6
9/1	288	288	288	0	0	0.6	1.0	-	1.6	20.0	3.1	1.0	4.1
10/1	71	71	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	173	173	-	-	-	0.8	0.5	-	1.3	27.1	2.4	0.5	2.9
11/2	193	193	-	-	-	0.8	0.5	-	1.3	24.7	2.9	0.5	3.4
12/1	370	370	-	-	-	2.2	1.3	-	3.5	34.4	5.6	1.3	6.9
12/2	122	122	-	-	-	0.6	0.1	-	0.8	22.3	1.8	0.1	2.0
13/1	49	49	-	-	-	0.1	0.0	-	0.1	6.5	0.2	0.0	0.2
13/2	811	811	-	-	-	1.4	2.1	-	3.5	15.4	4.2	2.1	6.3
13/3	852	852	-	-	-	1.6	2.0	-	3.6	15.1	10.6	2.0	12.6
14/1	1029	1029	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	1063	1063	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	958	958	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

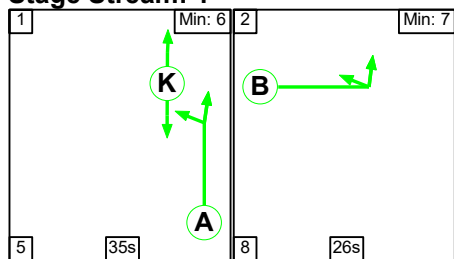
15/2	714	714	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
16/1	430	430	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
17/1	1096	1096	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6	
17/2	1074	1074	-	-	-	0.0	0.5	-	0.5	1.7	0.0	0.5	0.5	
18/1	1053	1053	-	-	-	0.0	0.5	-	0.5	1.7	0.0	0.5	0.5	
18/2	844	844	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3	
			C1	Stream: 1 PRC for Signalled Lanes (%)	9.6	Total Delay for Signalled Lanes (pcuHr):			12.04	Cycle Time (s):		60		
			C1	Stream: 2 PRC for Signalled Lanes (%)	185.4	Total Delay for Signalled Lanes (pcuHr):			0.27	Cycle Time (s):		60		
			C1	Stream: 3 PRC for Signalled Lanes (%)	36.3	Total Delay for Signalled Lanes (pcuHr):			7.11	Cycle Time (s):		60		
			C1	Stream: 4 PRC for Signalled Lanes (%)	21.5	Total Delay for Signalled Lanes (pcuHr):			4.14	Cycle Time (s):		60		
			C1	Stream: 5 PRC for Signalled Lanes (%)	23.3	Total Delay for Signalled Lanes (pcuHr):			9.70	Cycle Time (s):		60		
			C1	Stream: 6 PRC for Signalled Lanes (%)	27.4	Total Delay for Signalled Lanes (pcuHr):			3.03	Cycle Time (s):		60		
				PRC Over All Lanes (%)	9.6	Total Delay Over All Lanes(pcuHr):			41.19					

Full Input Data And Results

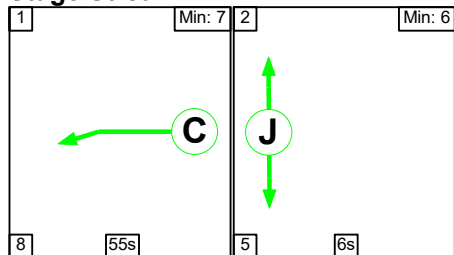
Scenario 7: '2038 Local Plan Case AM - No LTC' (FG7: '2038 Local Plan Case AM - No LTC', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

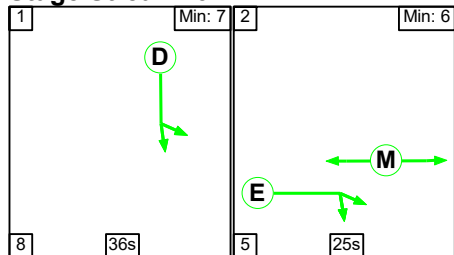
Stage Stream: 1



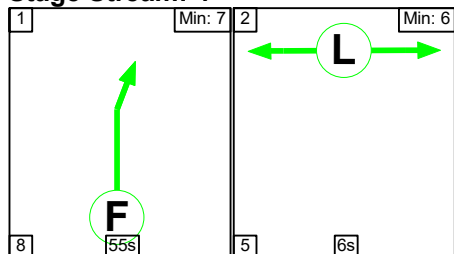
Stage Stream: 2



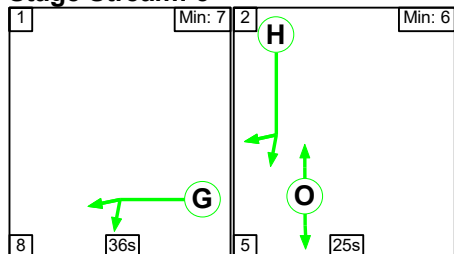
Stage Stream: 3



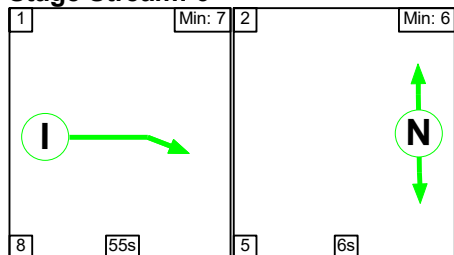
Stage Stream: 4



Stage Stream: 5



Stage Stream: 6



Full Input Data And Results

Stage Timings

Stage Stream: 1

Stage	1	2
Duration	35	26
Change Point	15	55

Stage Stream: 2

Stage	1	2
Duration	55	6
Change Point	38	27

Stage Stream: 3

Stage	1	2
Duration	36	25
Change Point	25	69

Stage Stream: 4

Stage	1	2
Duration	55	6
Change Point	6	69

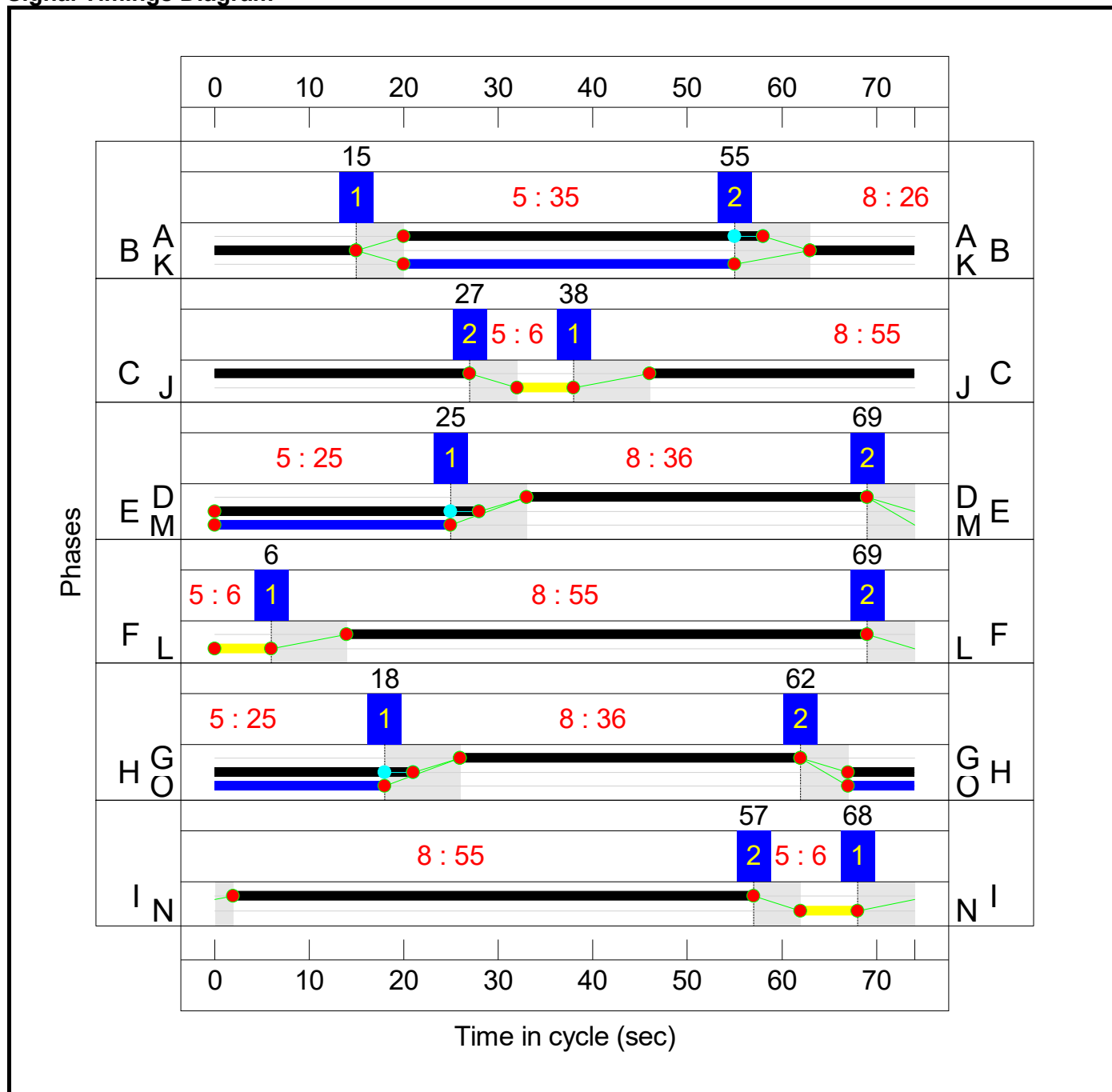
Stage Stream: 5

Stage	1	2
Duration	36	25
Change Point	18	62

Stage Stream: 6

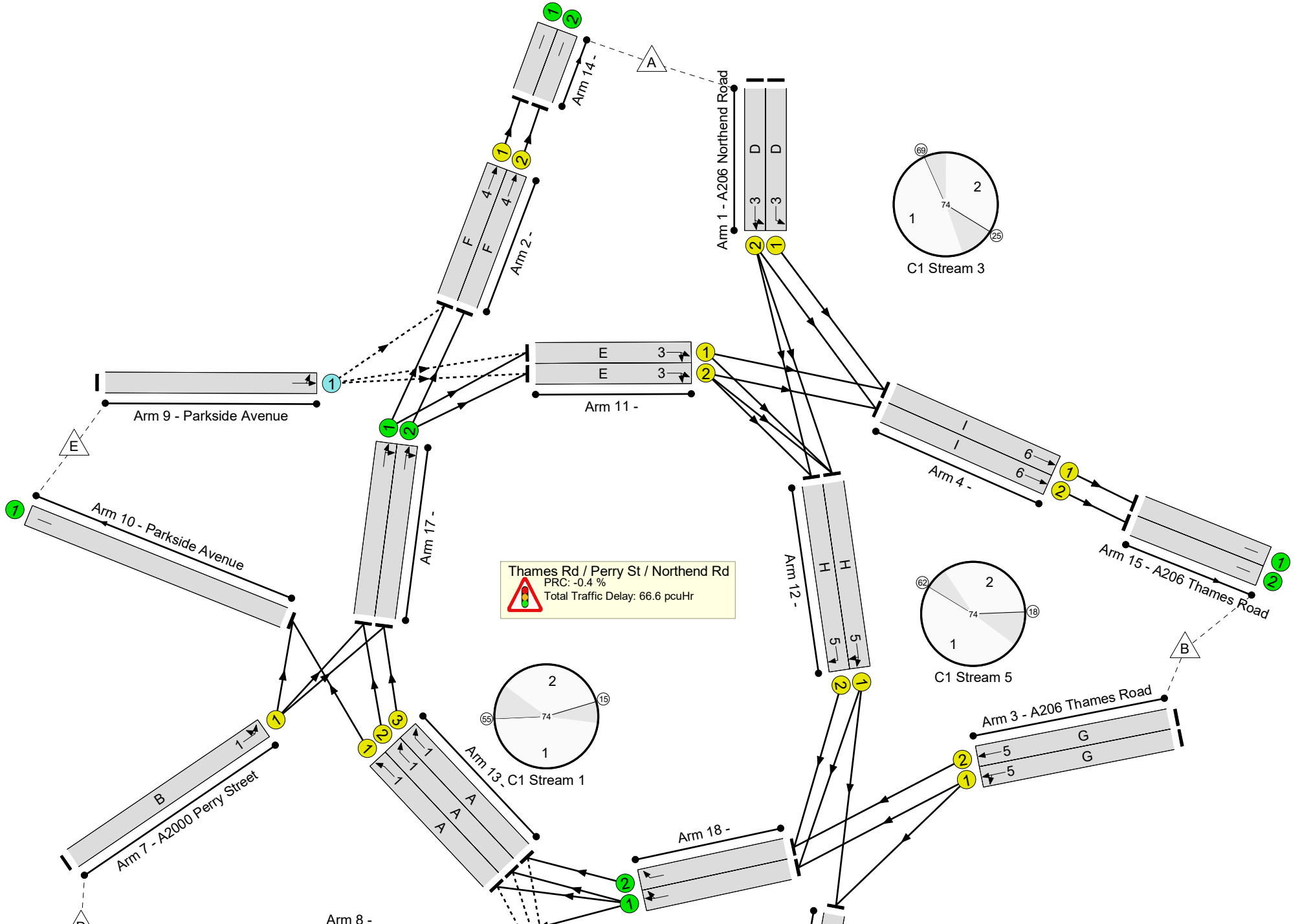
Stage	1	2
Duration	55	6
Change Point	68	57

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	90.4%
Thames Rd / Perry St / Northend Rd	-	-	N/A	-	-		-	-	-	-	-	-	90.4%
1/1	A206 Northend Road Left	U	3	N/A	D		1	36	-	767	1978	989	77.6%
1/2	A206 Northend Road Left Ahead	U	3	N/A	D		1	36	-	947	2114	1057	89.6%
2/1	Ahead	U	4	N/A	F		1	55	-	1040	1984	1501	69.3%
2/2	Ahead	U	4	N/A	F		1	55	-	1158	2112	1598	72.5%
3/1	A206 Thames Road Left Ahead	U	5	N/A	G		1	36	-	820	1867	933	87.8%
3/2	A206 Thames Road Ahead	U	5	N/A	G		1	36	-	848	2008	1004	84.5%
4/1	Ahead	U	6	N/A	I		1	55	-	949	1937	1466	64.7%
4/2	Ahead	U	6	N/A	I		1	55	-	908	2136	1616	56.2%
5/1	Wyatt Road Left Ahead	O	N/A	N/A	-		-	-	-	142	1763	350	40.5%
6/1		U	N/A	N/A	-		-	-	-	163	Inf	Inf	0.0%
7/1	A2000 Perry Street Left Left2	U	1	N/A	B		1	26	-	614	1932	705	87.1%
8/1	Ahead	U	2	N/A	C		1	55	-	217	1948	1474	14.7%
9/1	Parkside Avenue Left Ahead	O	N/A	N/A	-		-	-	-	345	1992	382	90.4%
10/1	Parkside Avenue	U	N/A	N/A	-		-	-	-	48	Inf	Inf	0.0%
11/1	Ahead Right	U	3	N/A	E		1	28	-	240	1921	753	31.9%
11/2	Ahead Right	U	3	N/A	E		1	28	-	285	2054	805	35.4%
12/1	Ahead Right	U	5	N/A	H		1	28	-	324	1917	751	43.1%
12/2	Right	U	5	N/A	H		1	28	-	58	1995	782	7.4%

Full Input Data And Results

13/1	Ahead	U	1	N/A	A		1	38	-	42	1881	991	4.2%
13/2	Right	U	1	N/A	A		1	38	-	838	1877	989	84.7%
13/3	Right	U	1	N/A	A		1	38	-	932	1995	1051	88.6%
14/1		U	N/A	N/A	-		-	-	-	1040	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	1158	Inf	Inf	0.0%
15/1	A206 Thames Road	U	N/A	N/A	-		-	-	-	949	Inf	Inf	0.0%
15/2	A206 Thames Road	U	N/A	N/A	-		-	-	-	908	Inf	Inf	0.0%
16/1	A2000 Perry Street	U	N/A	N/A	-		-	-	-	217	Inf	Inf	0.0%
17/1	Ahead Right	U	N/A	N/A	-		-	-	-	1154	1984	1984	58.2%
17/2	Ahead Right	U	N/A	N/A	-		-	-	-	1224	2112	2112	58.0%
18/1	Ahead Right	U	N/A	N/A	-		-	-	-	981	2115	2115	46.4%
18/2	Right	U	N/A	N/A	-		-	-	-	906	2255	2255	40.2%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	487	0	0	34.0	32.6	0.0	66.6	-	-	-	-
Thames Rd / Perry St / Northend Rd	-	-	487	0	0	34.0	32.6	0.0	66.6	-	-	-	-
1/1	767	767	-	-	-	3.2	1.7	-	4.9	23.1	12.8	1.7	14.5
1/2	947	947	-	-	-	4.4	4.0	-	8.4	32.0	17.6	4.0	21.6
2/1	1040	1040	-	-	-	0.9	1.1	-	2.0	6.9	6.1	1.1	7.2
2/2	1158	1158	-	-	-	1.0	1.3	-	2.4	7.3	6.9	1.3	8.2
3/1	820	820	-	-	-	3.8	3.4	-	7.2	31.5	14.8	3.4	18.2
3/2	848	848	-	-	-	3.8	2.6	-	6.4	27.2	15.1	2.6	17.7
4/1	949	949	-	-	-	1.5	0.9	-	2.4	9.0	8.3	0.9	9.2
4/2	908	908	-	-	-	1.4	0.6	-	2.0	8.1	9.5	0.6	10.2
5/1	142	142	142	0	0	0.3	0.3	-	0.6	16.0	1.5	0.3	1.8
6/1	163	163	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	614	614	-	-	-	3.7	3.2	-	6.9	40.4	11.6	3.2	14.8
8/1	217	217	-	-	-	0.0	0.1	-	0.1	2.0	0.2	0.1	0.3
9/1	345	345	345	0	0	1.2	3.9	-	5.0	52.7	6.6	3.9	10.5
10/1	48	48	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	240	240	-	-	-	0.4	0.2	-	0.7	10.2	2.4	0.2	2.6
11/2	285	285	-	-	-	0.5	0.3	-	0.8	10.0	2.9	0.3	3.2
12/1	324	324	-	-	-	1.2	0.4	-	1.6	18.0	5.4	0.4	5.8
12/2	58	58	-	-	-	0.2	0.0	-	0.2	14.6	1.0	0.0	1.1
13/1	42	42	-	-	-	0.1	0.0	-	0.1	12.1	0.3	0.0	0.4
13/2	838	838	-	-	-	3.1	2.7	-	5.8	24.7	7.5	2.7	10.2
13/3	932	932	-	-	-	3.2	3.7	-	6.9	26.6	7.5	3.7	11.2
14/1	1040	1040	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	1158	1158	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	949	949	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

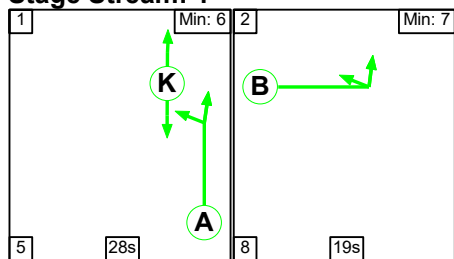
15/2	908	908	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
16/1	217	217	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
17/1	1154	1154	-	-	-	0.0	0.7	-	0.7	2.2	0.0	0.7	0.7	
17/2	1224	1224	-	-	-	0.0	0.7	-	0.7	2.0	0.0	0.7	0.7	
18/1	981	981	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4	
18/2	906	906	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3	
			C1	Stream: 1 PRC for Signalled Lanes (%)	1.5	Total Delay for Signalled Lanes (pcuHr):			19.66	Cycle Time (s):		74		
			C1	Stream: 2 PRC for Signalled Lanes (%)	511.4	Total Delay for Signalled Lanes (pcuHr):			0.12	Cycle Time (s):		74		
			C1	Stream: 3 PRC for Signalled Lanes (%)	0.5	Total Delay for Signalled Lanes (pcuHr):			14.81	Cycle Time (s):		74		
			C1	Stream: 4 PRC for Signalled Lanes (%)	24.2	Total Delay for Signalled Lanes (pcuHr):			4.35	Cycle Time (s):		74		
			C1	Stream: 5 PRC for Signalled Lanes (%)	2.5	Total Delay for Signalled Lanes (pcuHr):			15.42	Cycle Time (s):		74		
			C1	Stream: 6 PRC for Signalled Lanes (%)	39.0	Total Delay for Signalled Lanes (pcuHr):			4.41	Cycle Time (s):		74		
				PRC Over All Lanes (%)	-0.4	Total Delay Over All Lanes(pcuHr):			66.61					

Full Input Data And Results

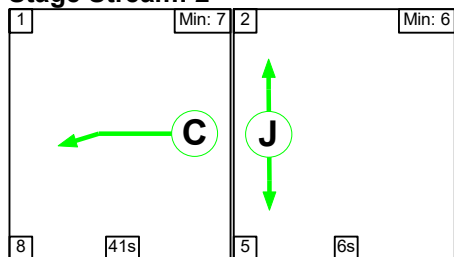
Scenario 8: '2038 Local Plan Case PM - No LTC' (FG8: '2038 Local Plan Case PM - No LTC', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

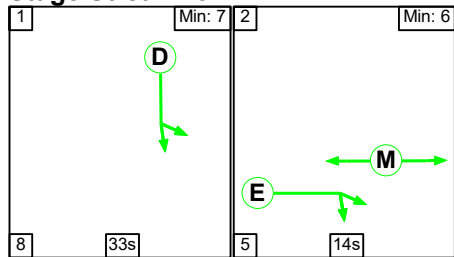
Stage Stream: 1



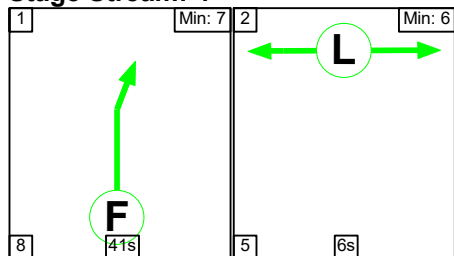
Stage Stream: 2



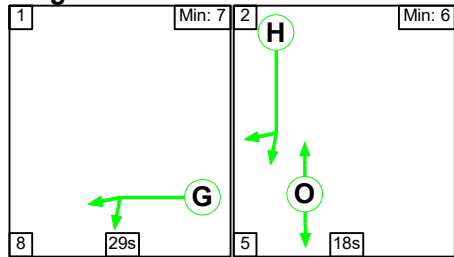
Stage Stream: 3



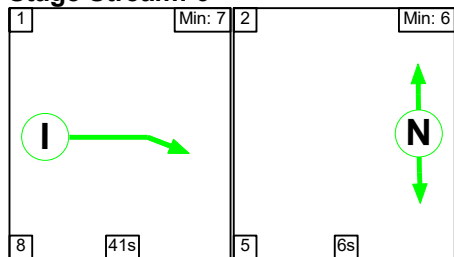
Stage Stream: 4



Stage Stream: 5



Stage Stream: 6



Full Input Data And Results

Stage Timings

Stage Stream: 1

Stage	1	2
Duration	28	19
Change Point	0	33

Stage Stream: 2

Stage	1	2
Duration	41	6
Change Point	18	7

Stage Stream: 3

Stage	1	2
Duration	33	14
Change Point	49	30

Stage Stream: 4

Stage	1	2
Duration	41	6
Change Point	1	50

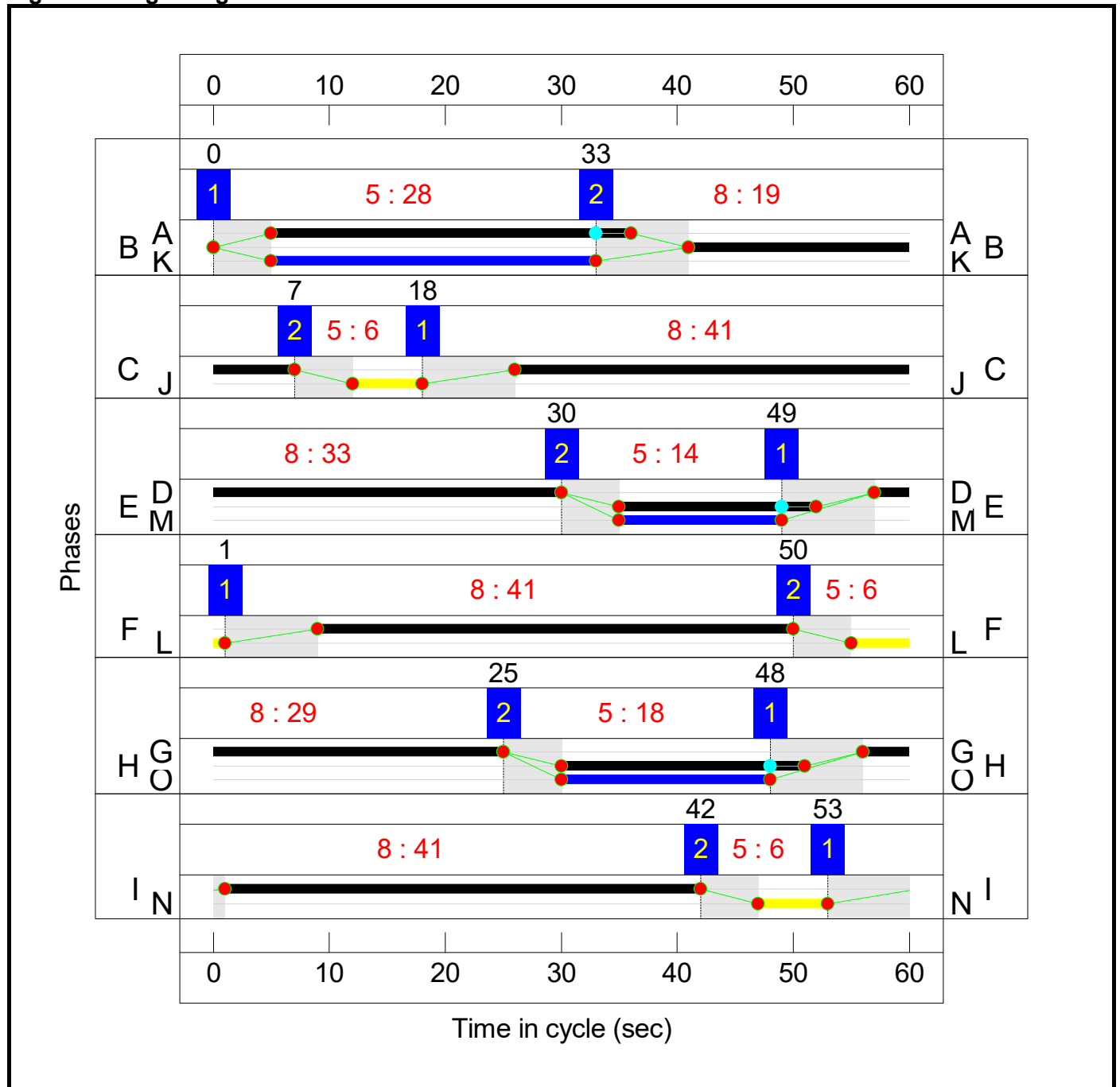
Stage Stream: 5

Stage	1	2
Duration	29	18
Change Point	48	25

Stage Stream: 6

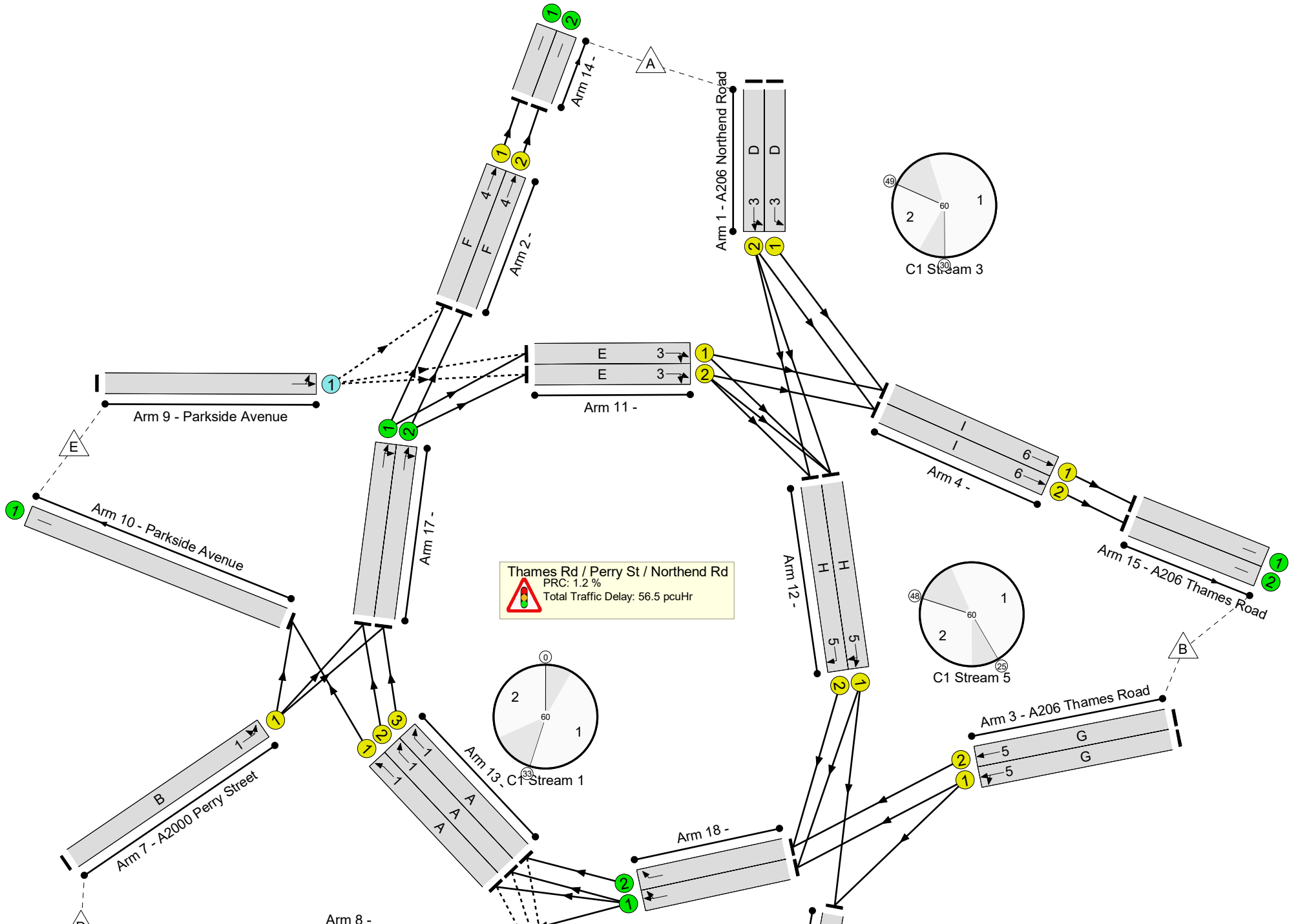
Stage	1	2
Duration	41	6
Change Point	53	42

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	88.9%
Thames Rd / Perry St / Northend Rd	-	-	N/A	-	-		-	-	-	-	-	-	88.9%
1/1	A206 Northend Road Left	U	3	N/A	D		1	33	-	829	1978	1121	74.0%
1/2	A206 Northend Road Left Ahead	U	3	N/A	D		1	33	-	1052	2114	1198	87.8%
2/1	Ahead	U	4	N/A	F		1	41	-	1083	1984	1389	78.0%
2/2	Ahead	U	4	N/A	F		1	41	-	1192	2112	1478	80.6%
3/1	A206 Thames Road Left Ahead	U	5	N/A	G		1	29	-	830	1867	933	88.9%
3/2	A206 Thames Road Ahead	U	5	N/A	G		1	29	-	867	2008	1004	86.4%
4/1	Ahead	U	6	N/A	I		1	41	-	926	1937	1356	68.3%
4/2	Ahead	U	6	N/A	I		1	41	-	785	2136	1495	52.5%
5/1	Wyatt Road Left Ahead	O	N/A	N/A	-		-	-	-	249	1754	313	79.6%
6/1		U	N/A	N/A	-		-	-	-	124	Inf	Inf	0.0%
7/1	A2000 Perry Street Left Left2	U	1	N/A	B		1	19	-	565	1932	644	87.7%
8/1	Ahead	U	2	N/A	C		1	41	-	491	1948	1364	36.0%
9/1	Parkside Avenue Left Ahead	O	N/A	N/A	-		-	-	-	259	1992	403	64.3%
10/1	Parkside Avenue	U	N/A	N/A	-		-	-	-	50	Inf	Inf	0.0%
11/1	Ahead Right	U	3	N/A	E		1	17	-	148	1921	576	25.7%
11/2	Ahead Right	U	3	N/A	E		1	17	-	185	2054	616	30.0%
12/1	Ahead Right	U	5	N/A	H		1	21	-	456	1897	696	65.6%
12/2	Right	U	5	N/A	H		1	21	-	47	1995	732	6.4%

Full Input Data And Results

13/1	Ahead	U	1	N/A	A		1	31	-	50	1881	1003	5.0%
13/2	Right	U	1	N/A	A		1	31	-	846	1877	1001	84.5%
13/3	Right	U	1	N/A	A		1	31	-	938	1995	1064	88.2%
14/1		U	N/A	N/A	-		-	-	-	1083	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	1192	Inf	Inf	0.0%
15/1	A206 Thames Road	U	N/A	N/A	-		-	-	-	926	Inf	Inf	0.0%
15/2	A206 Thames Road	U	N/A	N/A	-		-	-	-	785	Inf	Inf	0.0%
16/1	A2000 Perry Street	U	N/A	N/A	-		-	-	-	491	Inf	Inf	0.0%
17/1	Ahead Right	U	N/A	N/A	-		-	-	-	1144	1984	1984	57.7%
17/2	Ahead Right	U	N/A	N/A	-		-	-	-	1205	2112	2112	57.1%
18/1	Ahead Right	U	N/A	N/A	-		-	-	-	1162	2115	2115	54.9%
18/2	Right	U	N/A	N/A	-		-	-	-	914	2255	2255	40.5%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	508	0	0	23.3	33.2	0.0	56.5	-	-	-	-
Thames Rd / Perry St / Northend Rd	-	-	508	0	0	23.3	33.2	0.0	56.5	-	-	-	-
1/1	829	829	-	-	-	2.2	1.4	-	3.6	15.8	10.1	1.4	11.5
1/2	1052	1052	-	-	-	3.3	3.4	-	6.7	23.0	14.9	3.4	18.3
2/1	1083	1083	-	-	-	0.8	1.8	-	2.6	8.5	5.1	1.8	6.8
2/2	1192	1192	-	-	-	0.8	2.1	-	2.9	8.6	5.0	2.1	7.0
3/1	830	830	-	-	-	3.1	3.7	-	6.9	29.7	12.5	3.7	16.2
3/2	867	867	-	-	-	3.2	3.0	-	6.2	25.8	12.5	3.0	15.6
4/1	926	926	-	-	-	0.2	1.1	-	1.3	5.1	6.0	1.1	7.1
4/2	785	785	-	-	-	0.5	0.6	-	1.0	4.6	3.1	0.6	3.7
5/1	249	249	249	0	0	0.7	1.8	-	2.5	36.4	3.5	1.8	5.3
6/1	124	124	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	565	565	-	-	-	3.0	3.3	-	6.3	39.9	8.8	3.3	12.1
8/1	491	491	-	-	-	0.0	0.3	-	0.3	2.2	0.1	0.3	0.4
9/1	259	259	259	0	0	0.6	0.9	-	1.5	21.0	2.9	0.9	3.8
10/1	50	50	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	148	148	-	-	-	0.7	0.2	-	0.8	20.1	1.3	0.2	1.4
11/2	185	185	-	-	-	0.6	0.2	-	0.8	16.2	1.2	0.2	1.4
12/1	456	456	-	-	-	2.2	0.9	-	3.1	24.8	7.4	0.9	8.3
12/2	47	47	-	-	-	0.2	0.0	-	0.2	14.8	0.7	0.0	0.7
13/1	50	50	-	-	-	0.0	0.0	-	0.0	3.3	0.1	0.0	0.1
13/2	846	846	-	-	-	0.7	2.6	-	3.3	14.1	5.3	2.6	7.9
13/3	938	938	-	-	-	0.6	3.5	-	4.1	15.8	5.0	3.5	8.5
14/1	1083	1083	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	1192	1192	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	926	926	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

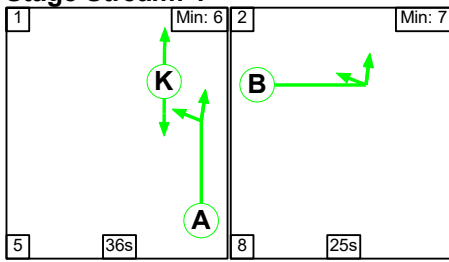
15/2	785	785	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																																																	
16/1	491	491	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																																																	
17/1	1144	1144	-	-	-	0.0	0.7	-	0.7	2.1	0.0	0.7	0.7																																																	
17/2	1205	1205	-	-	-	0.0	0.7	-	0.7	2.0	0.0	0.7	0.7																																																	
18/1	1162	1162	-	-	-	0.0	0.6	-	0.6	1.9	0.0	0.6	0.6																																																	
18/2	914	914	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3																																																	
<table border="0"> <tbody> <tr> <td>C1</td> <td>Stream: 1 PRC for Signalled Lanes (%)</td> <td>2.1</td> <td>Total Delay for Signalled Lanes (pcuHr)</td> <td>13.74</td> <td>Cycle Time (s)</td> <td>60</td> </tr> <tr> <td>C1</td> <td>Stream: 2 PRC for Signalled Lanes (%)</td> <td>149.9</td> <td>Total Delay for Signalled Lanes (pcuHr)</td> <td>0.30</td> <td>Cycle Time (s)</td> <td>60</td> </tr> <tr> <td>C1</td> <td>Stream: 3 PRC for Signalled Lanes (%)</td> <td>2.5</td> <td>Total Delay for Signalled Lanes (pcuHr)</td> <td>12.02</td> <td>Cycle Time (s)</td> <td>60</td> </tr> <tr> <td>C1</td> <td>Stream: 4 PRC for Signalled Lanes (%)</td> <td>11.6</td> <td>Total Delay for Signalled Lanes (pcuHr)</td> <td>5.42</td> <td>Cycle Time (s)</td> <td>60</td> </tr> <tr> <td>C1</td> <td>Stream: 5 PRC for Signalled Lanes (%)</td> <td>1.2</td> <td>Total Delay for Signalled Lanes (pcuHr)</td> <td>16.40</td> <td>Cycle Time (s)</td> <td>60</td> </tr> <tr> <td>C1</td> <td>Stream: 6 PRC for Signalled Lanes (%)</td> <td>31.8</td> <td>Total Delay for Signalled Lanes (pcuHr)</td> <td>2.32</td> <td>Cycle Time (s)</td> <td>60</td> </tr> <tr> <td></td> <td>PRC Over All Lanes (%)</td> <td>1.2</td> <td>Total Delay Over All Lanes (pcuHr)</td> <td>56.52</td> <td></td> <td></td> </tr> </tbody> </table>														C1	Stream: 1 PRC for Signalled Lanes (%)	2.1	Total Delay for Signalled Lanes (pcuHr)	13.74	Cycle Time (s)	60	C1	Stream: 2 PRC for Signalled Lanes (%)	149.9	Total Delay for Signalled Lanes (pcuHr)	0.30	Cycle Time (s)	60	C1	Stream: 3 PRC for Signalled Lanes (%)	2.5	Total Delay for Signalled Lanes (pcuHr)	12.02	Cycle Time (s)	60	C1	Stream: 4 PRC for Signalled Lanes (%)	11.6	Total Delay for Signalled Lanes (pcuHr)	5.42	Cycle Time (s)	60	C1	Stream: 5 PRC for Signalled Lanes (%)	1.2	Total Delay for Signalled Lanes (pcuHr)	16.40	Cycle Time (s)	60	C1	Stream: 6 PRC for Signalled Lanes (%)	31.8	Total Delay for Signalled Lanes (pcuHr)	2.32	Cycle Time (s)	60		PRC Over All Lanes (%)	1.2	Total Delay Over All Lanes (pcuHr)	56.52		
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Full Input Data And Results

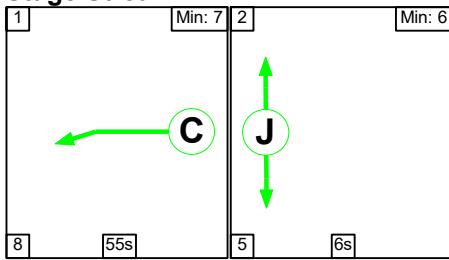
Scenario 9: '2038 Local Plan Case AM - With LTC' (FG9: '2038 Local Plan Case AM - With LTC', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

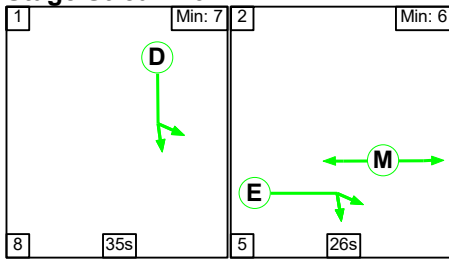
Stage Stream: 1



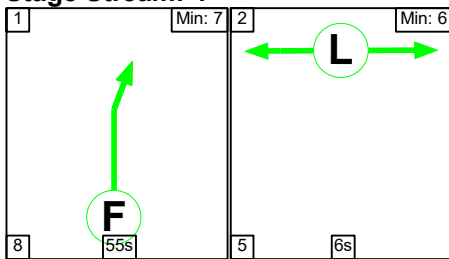
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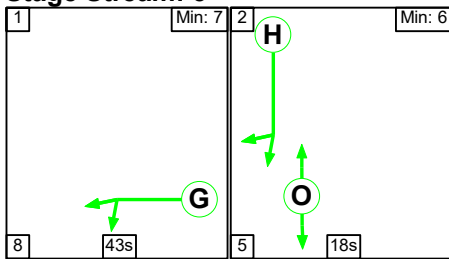
Stage Stream: 3



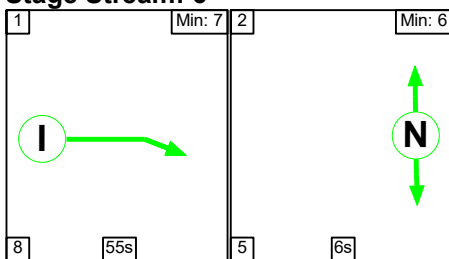
Stage Stream: 4



Stage Stream: 5



Stage Stream: 6



Full Input Data And Results

Stage Timings

Stage Stream: 1

Stage	1	2
Duration	36	25
Change Point	46	13

Stage Stream: 2

Stage	1	2
Duration	55	6
Change Point	1	64

Stage Stream: 3

Stage	1	2
Duration	35	26
Change Point	50	19

Stage Stream: 4

Stage	1	2
Duration	55	6
Change Point	54	43

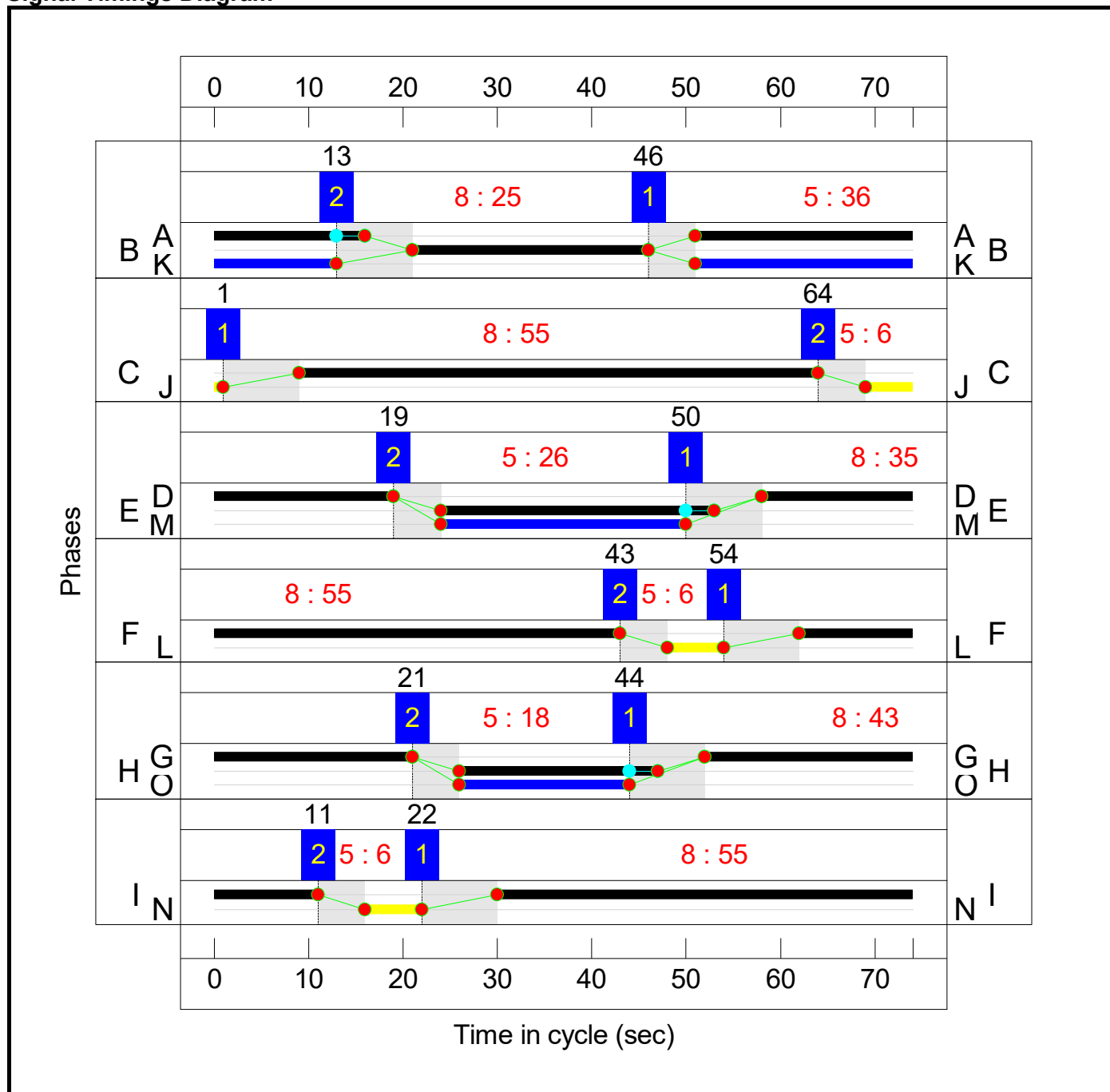
Stage Stream: 5

Stage	1	2
Duration	43	18
Change Point	44	21

Stage Stream: 6

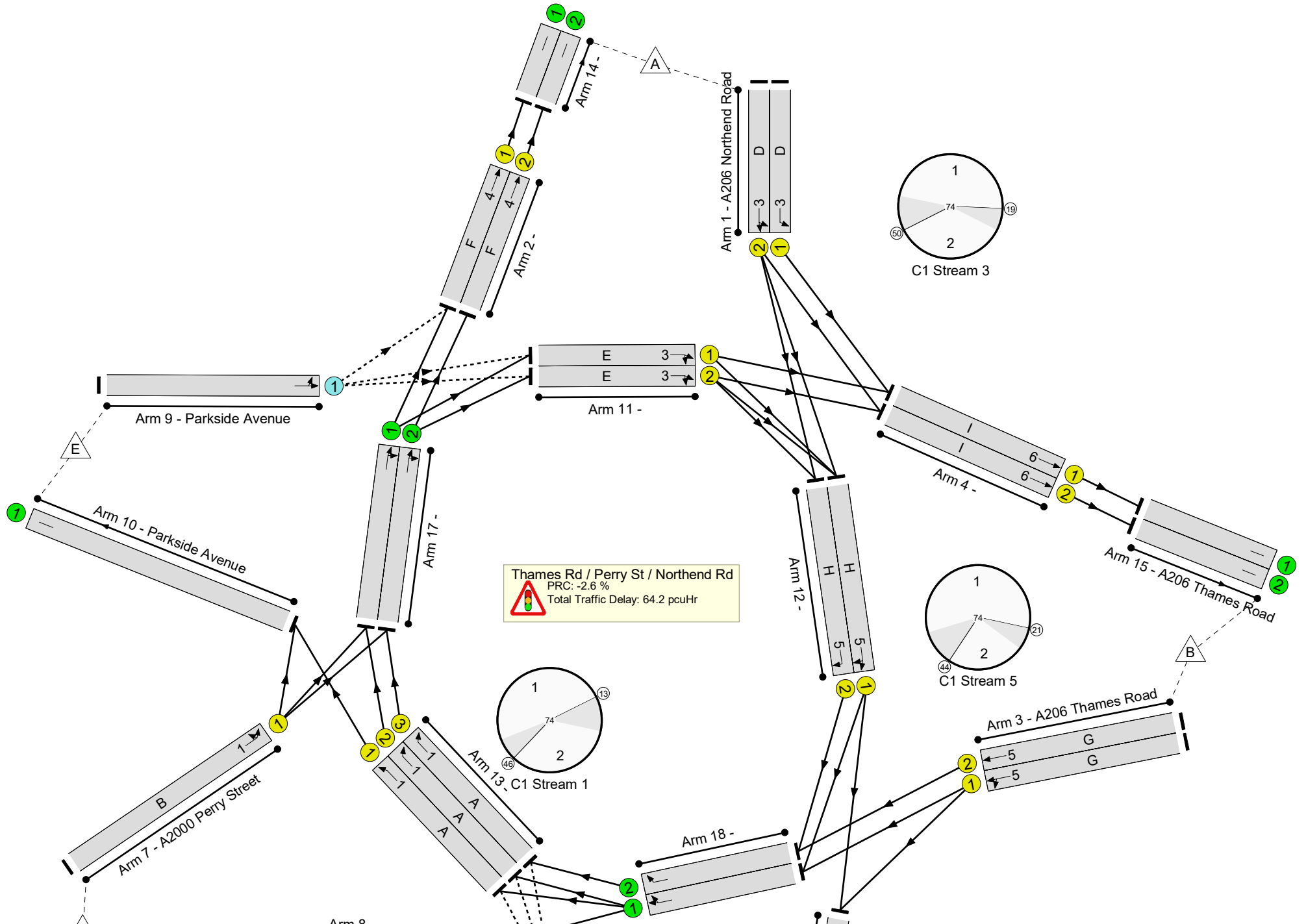
Stage	1	2
Duration	55	6
Change Point	22	11

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	92.4%
Thames Rd / Perry St / Northend Rd	-	-	N/A	-	-		-	-	-	-	-	-	92.4%
1/1	A206 Northend Road Left	U	3	N/A	D		1	35	-	820	1978	962	85.2%
1/2	A206 Northend Road Left Ahead	U	3	N/A	D		1	35	-	896	2114	1028	87.1%
2/1	Ahead	U	4	N/A	F		1	55	-	1102	1984	1501	73.4%
2/2	Ahead	U	4	N/A	F		1	55	-	1207	2112	1598	75.5%
3/1	A206 Thames Road Left Ahead	U	5	N/A	G		1	43	-	895	1867	1110	80.6%
3/2	A206 Thames Road Ahead	U	5	N/A	G		1	43	-	933	2008	1194	78.1%
4/1	Ahead	U	6	N/A	I		1	55	-	949	1937	1466	64.7%
4/2	Ahead	U	6	N/A	I		1	55	-	967	2136	1616	59.8%
5/1	Wyatt Road Left Ahead	O	N/A	N/A	-		-	-	-	142	1765	332	42.8%
6/1		U	N/A	N/A	-		-	-	-	164	Inf	Inf	0.0%
7/1	A2000 Perry Street Left Left2	U	1	N/A	B		1	25	-	610	1932	679	89.9%
8/1	Ahead	U	2	N/A	C		1	55	-	193	1948	1474	13.1%
9/1	Parkside Avenue Left Ahead	O	N/A	N/A	-		-	-	-	335	1992	408	82.0%
10/1	Parkside Avenue	U	N/A	N/A	-		-	-	-	49	Inf	Inf	0.0%
11/1	Ahead Right	U	3	N/A	E		1	29	-	175	1921	779	22.5%
11/2	Ahead Right	U	3	N/A	E		1	29	-	352	2054	833	42.3%
12/1	Ahead Right	U	5	N/A	H		1	21	-	289	1922	571	50.6%
12/2	Right	U	5	N/A	H		1	21	-	38	1995	593	6.4%

Full Input Data And Results

13/1	Ahead	U	1	N/A	A		1	39	-	34	1881	1017	3.3%
13/2	Right	U	1	N/A	A		1	39	-	910	1877	1015	89.7%
13/3	Right	U	1	N/A	A		1	39	-	996	1995	1078	92.4%
14/1		U	N/A	N/A	-		-	-	-	1102	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	1207	Inf	Inf	0.0%
15/1	A206 Thames Road	U	N/A	N/A	-		-	-	-	949	Inf	Inf	0.0%
15/2	A206 Thames Road	U	N/A	N/A	-		-	-	-	967	Inf	Inf	0.0%
16/1	A2000 Perry Street	U	N/A	N/A	-		-	-	-	193	Inf	Inf	0.0%
17/1	Ahead Right	U	N/A	N/A	-		-	-	-	1202	1984	1984	60.6%
17/2	Ahead Right	U	N/A	N/A	-		-	-	-	1299	2112	2112	61.5%
18/1	Ahead Right	U	N/A	N/A	-		-	-	-	1020	2115	2115	48.2%
18/2	Right	U	N/A	N/A	-		-	-	-	971	2255	2255	43.1%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	477	0	0	30.3	33.8	0.0	64.2	-	-	-	-
Thames Rd / Perry St / Northend Rd	-	-	477	0	0	30.3	33.8	0.0	64.2	-	-	-	-
1/1	820	820	-	-	-	3.8	2.8	-	6.6	28.8	14.6	2.8	17.4
1/2	896	896	-	-	-	4.2	3.2	-	7.4	29.9	16.2	3.2	19.4
2/1	1102	1102	-	-	-	0.6	1.4	-	1.9	6.3	6.2	1.4	7.5
2/2	1207	1207	-	-	-	0.6	1.5	-	2.1	6.3	6.5	1.5	8.1
3/1	895	895	-	-	-	2.9	2.0	-	4.9	19.9	14.2	2.0	16.2
3/2	933	933	-	-	-	2.9	1.8	-	4.7	18.2	14.5	1.8	16.3
4/1	949	949	-	-	-	1.4	0.9	-	2.3	8.8	8.2	0.9	9.1
4/2	967	967	-	-	-	1.1	0.7	-	1.9	7.0	7.9	0.7	8.7
5/1	142	142	142	0	0	0.3	0.4	-	0.7	16.8	1.6	0.4	2.0
6/1	164	164	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	610	610	-	-	-	3.9	4.0	-	7.8	46.2	11.9	4.0	15.8
8/1	193	193	-	-	-	0.0	0.1	-	0.1	1.4	0.0	0.1	0.1
9/1	335	335	335	0	0	1.3	2.2	-	3.4	36.8	6.0	2.2	8.2
10/1	49	49	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	175	175	-	-	-	0.3	0.1	-	0.5	9.6	0.8	0.1	0.9
11/2	352	352	-	-	-	0.5	0.4	-	0.8	8.3	1.8	0.4	2.2
12/1	289	289	-	-	-	1.8	0.5	-	2.3	29.2	5.2	0.5	5.7
12/2	38	38	-	-	-	0.2	0.0	-	0.2	23.4	0.8	0.0	0.8
13/1	34	34	-	-	-	0.1	0.0	-	0.1	8.5	0.2	0.0	0.2
13/2	910	910	-	-	-	2.3	4.0	-	6.3	24.9	6.3	4.0	10.3
13/3	996	996	-	-	-	2.3	5.4	-	7.6	27.6	6.7	5.4	12.0
14/1	1102	1102	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	1207	1207	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	949	949	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

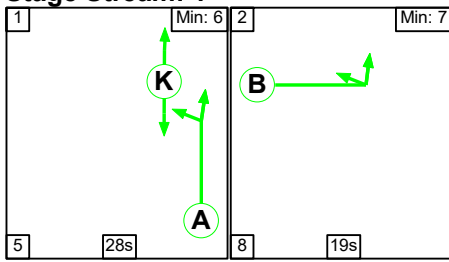
15/2	967	967	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
16/1	193	193	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
17/1	1202	1202	-	-	-	0.0	0.8	-	0.8	2.3	0.0	0.8	0.8	
17/2	1299	1299	-	-	-	0.0	0.8	-	0.8	2.2	0.0	0.8	0.8	
18/1	1020	1020	-	-	-	0.0	0.5	-	0.5	1.6	0.0	0.5	0.5	
18/2	971	971	-	-	-	0.0	0.4	-	0.4	1.4	0.0	0.4	0.4	
			C1	Stream: 1 PRC for Signalled Lanes (%)	-2.6	Total Delay for Signalled Lanes (pcuHr):			21.83	Cycle Time (s):		74		
			C1	Stream: 2 PRC for Signalled Lanes (%)	587.4	Total Delay for Signalled Lanes (pcuHr):			0.08	Cycle Time (s):		74		
			C1	Stream: 3 PRC for Signalled Lanes (%)	3.3	Total Delay for Signalled Lanes (pcuHr):			15.29	Cycle Time (s):		74		
			C1	Stream: 4 PRC for Signalled Lanes (%)	19.2	Total Delay for Signalled Lanes (pcuHr):			4.03	Cycle Time (s):		74		
			C1	Stream: 5 PRC for Signalled Lanes (%)	11.6	Total Delay for Signalled Lanes (pcuHr):			12.24	Cycle Time (s):		74		
			C1	Stream: 6 PRC for Signalled Lanes (%)	39.0	Total Delay for Signalled Lanes (pcuHr):			4.19	Cycle Time (s):		74		
				PRC Over All Lanes (%)	-2.6	Total Delay Over All Lanes(pcuHr):			64.16					

Full Input Data And Results

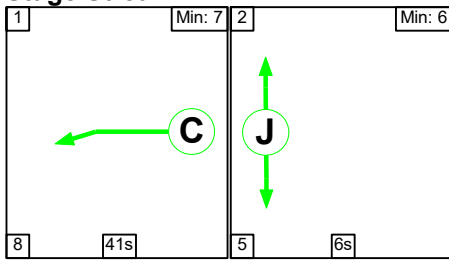
Scenario 10: '2038 Local Plan Case PM - With LTC' (FG10: '2038 Local Plan Case PM - With LTC', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

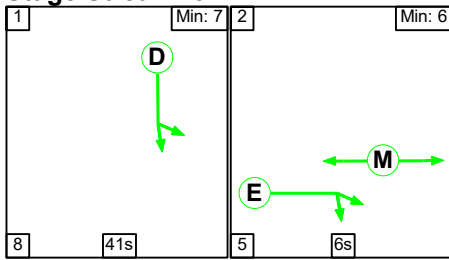
Stage Stream: 1



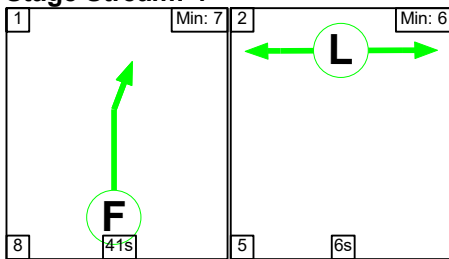
Stage Stream: 2



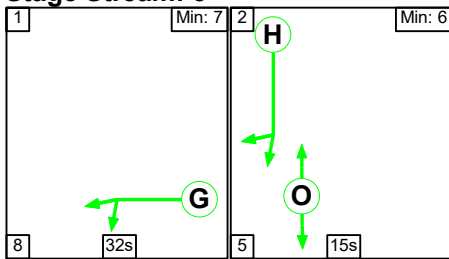
Stage Stream: 3



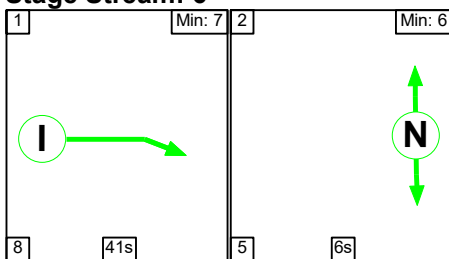
Stage Stream: 4



Stage Stream: 5



Stage Stream: 6



Full Input Data And Results

Stage Timings

Stage Stream: 1

Stage	1	2
Duration	28	19
Change Point	0	33

Stage Stream: 2

Stage	1	2
Duration	41	6
Change Point	19	8

Stage Stream: 3

Stage	1	2
Duration	41	6
Change Point	7	56

Stage Stream: 4

Stage	1	2
Duration	41	6
Change Point	1	50

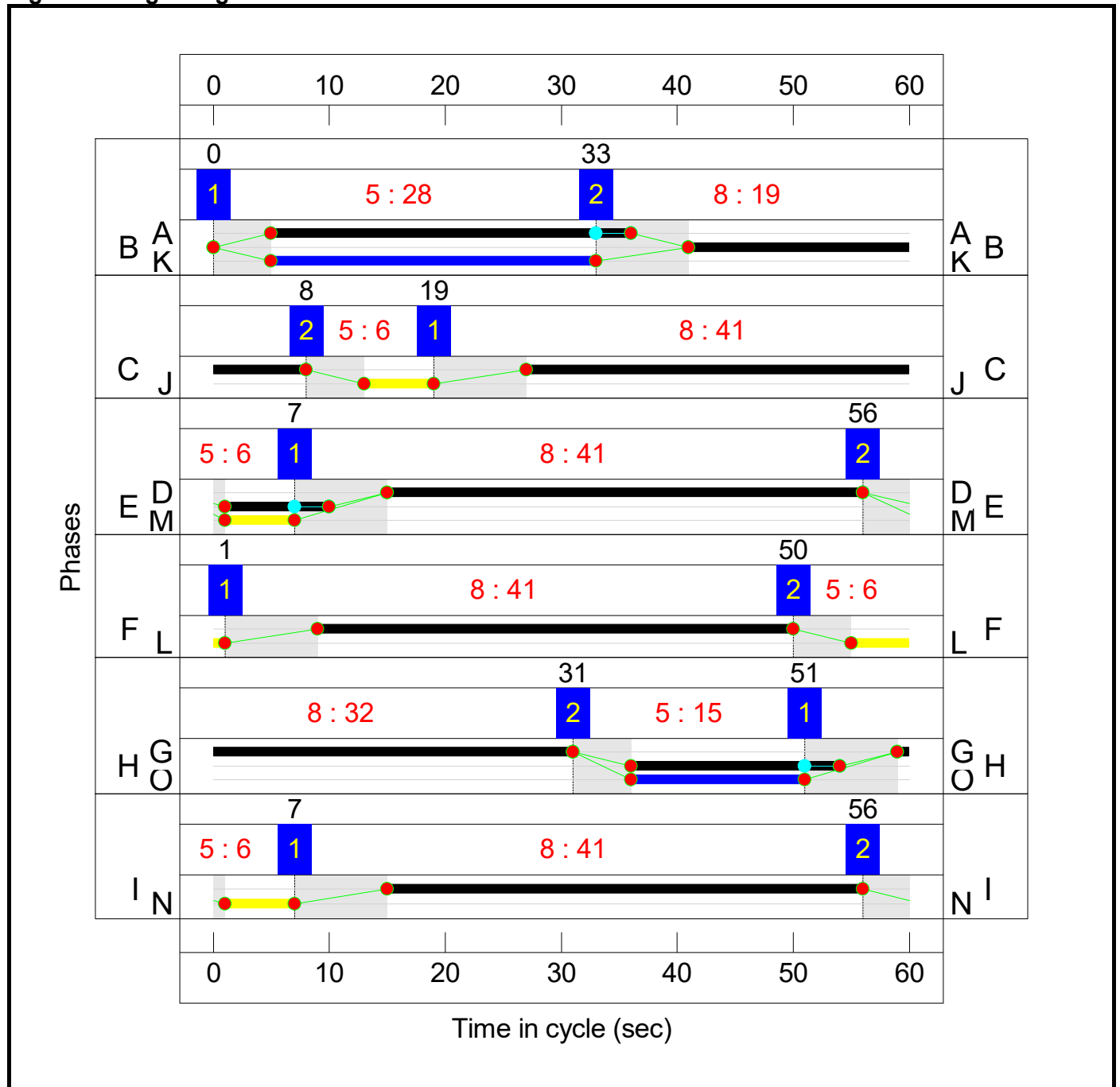
Stage Stream: 5

Stage	1	2
Duration	32	15
Change Point	51	31

Stage Stream: 6

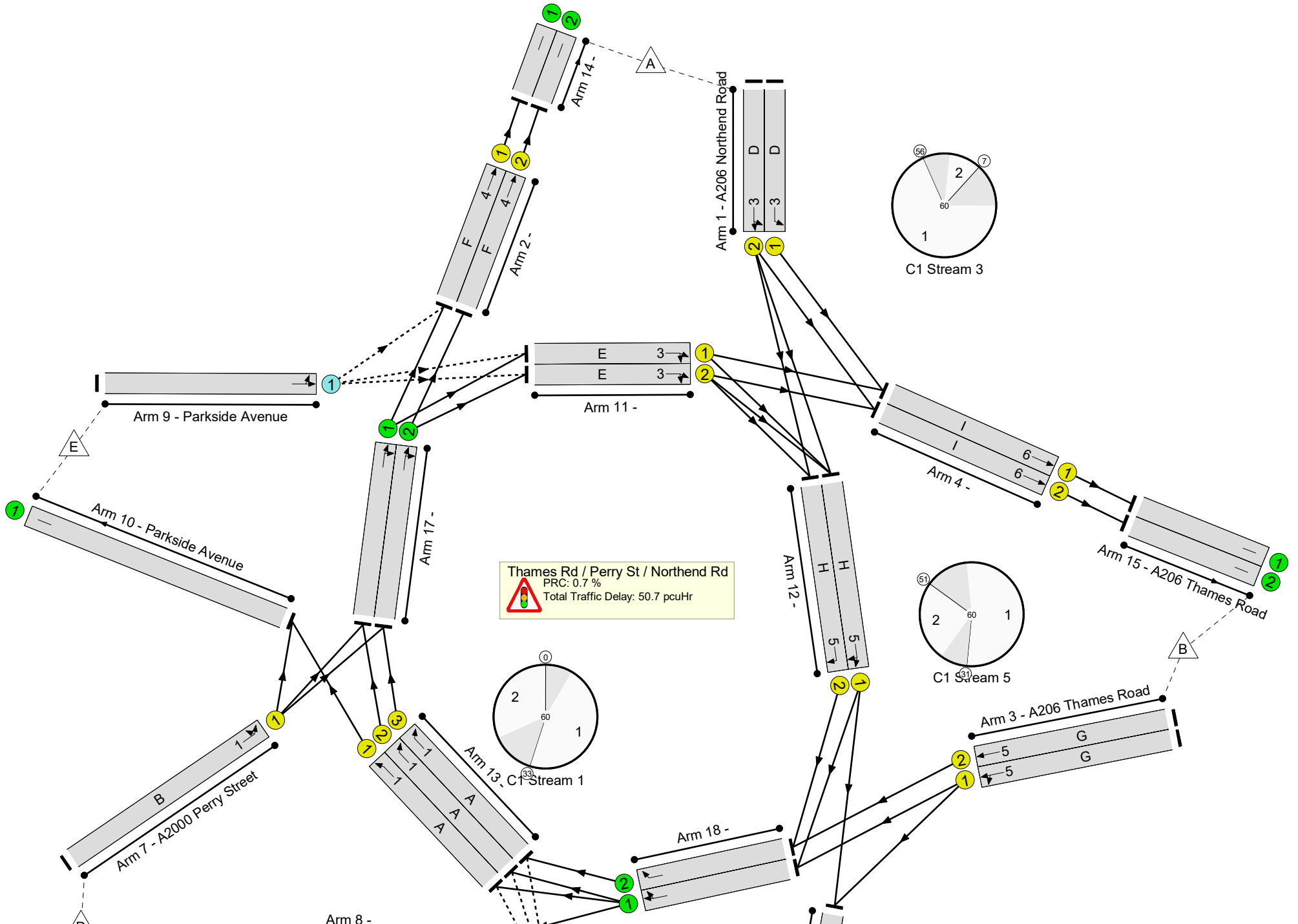
Stage	1	2
Duration	41	6
Change Point	7	56

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	89.4%
Thames Rd / Perry St / Northend Rd	-	-	N/A	-	-		-	-	-	-	-	-	89.4%
1/1	A206 Northend Road Left	U	3	N/A	D		1	41	-	831	1978	1385	60.0%
1/2	A206 Northend Road Left Ahead	U	3	N/A	D		1	41	-	1050	2114	1480	71.0%
2/1	Ahead	U	4	N/A	F		1	41	-	1095	1984	1389	78.8%
2/2	Ahead	U	4	N/A	F		1	41	-	1203	2112	1478	81.4%
3/1	A206 Thames Road Left Ahead	U	5	N/A	G		1	32	-	846	1867	1027	82.4%
3/2	A206 Thames Road Ahead	U	5	N/A	G		1	32	-	872	2008	1104	79.0%
4/1	Ahead	U	6	N/A	I		1	41	-	925	1937	1356	68.2%
4/2	Ahead	U	6	N/A	I		1	41	-	796	2136	1495	53.2%
5/1	Wyatt Road Left Ahead	O	N/A	N/A	-		-	-	-	248	1755	313	79.2%
6/1		U	N/A	N/A	-		-	-	-	123	Inf	Inf	0.0%
7/1	A2000 Perry Street Left Left2	U	1	N/A	B		1	19	-	567	1932	644	88.0%
8/1	Ahead	U	2	N/A	C		1	41	-	476	1948	1364	34.9%
9/1	Parkside Avenue Left Ahead	O	N/A	N/A	-		-	-	-	255	1992	385	66.2%
10/1	Parkside Avenue	U	N/A	N/A	-		-	-	-	51	Inf	Inf	0.0%
11/1	Ahead Right	U	3	N/A	E		1	9	-	144	1921	320	45.0%
11/2	Ahead Right	U	3	N/A	E		1	9	-	188	2054	342	54.9%
12/1	Ahead Right	U	5	N/A	H		1	18	-	439	1898	601	73.0%
12/2	Right	U	5	N/A	H		1	18	-	53	1995	632	8.4%

Full Input Data And Results

13/1	Ahead	U	1	N/A	A		1	31	-	51	1881	1003	5.1%
13/2	Right	U	1	N/A	A		1	31	-	857	1877	1001	85.6%
13/3	Right	U	1	N/A	A		1	31	-	951	1995	1064	89.4%
14/1		U	N/A	N/A	-		-	-	-	1095	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	1203	Inf	Inf	0.0%
15/1	A206 Thames Road	U	N/A	N/A	-		-	-	-	925	Inf	Inf	0.0%
15/2	A206 Thames Road	U	N/A	N/A	-		-	-	-	796	Inf	Inf	0.0%
16/1	A2000 Perry Street	U	N/A	N/A	-		-	-	-	476	Inf	Inf	0.0%
17/1	Ahead Right	U	N/A	N/A	-		-	-	-	1152	1984	1984	58.1%
17/2	Ahead Right	U	N/A	N/A	-		-	-	-	1223	2112	2112	57.9%
18/1	Ahead Right	U	N/A	N/A	-		-	-	-	1162	2115	2115	54.9%
18/2	Right	U	N/A	N/A	-		-	-	-	925	2255	2255	41.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	503	0	0	21.0	29.7	0.0	50.7	-	-	-	-
Thames Rd / Perry St / Northend Rd	-	-	503	0	0	21.0	29.7	0.0	50.7	-	-	-	-
1/1	831	831	-	-	-	1.1	0.7	-	1.8	7.9	7.2	0.7	7.9
1/2	1050	1050	-	-	-	1.6	1.2	-	2.8	9.5	10.2	1.2	11.4
2/1	1095	1095	-	-	-	0.9	1.8	-	2.7	8.9	5.2	1.8	7.0
2/2	1203	1203	-	-	-	0.9	2.2	-	3.0	9.0	5.1	2.2	7.3
3/1	846	846	-	-	-	2.6	2.3	-	4.9	20.8	11.5	2.3	13.8
3/2	872	872	-	-	-	2.6	1.8	-	4.4	18.4	11.4	1.8	13.2
4/1	925	925	-	-	-	0.7	1.1	-	1.7	6.7	3.3	1.1	4.4
4/2	796	796	-	-	-	0.7	0.6	-	1.3	5.9	4.5	0.6	5.0
5/1	248	248	248	0	0	0.6	1.8	-	2.4	34.3	3.4	1.8	5.2
6/1	123	123	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	567	567	-	-	-	3.0	3.4	-	6.4	40.4	8.8	3.4	12.2
8/1	476	476	-	-	-	0.0	0.3	-	0.3	2.2	0.1	0.3	0.4
9/1	255	255	255	0	0	0.7	1.0	-	1.6	23.1	3.0	1.0	4.0
10/1	51	51	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	144	144	-	-	-	0.7	0.4	-	1.1	27.7	2.2	0.4	2.6
11/2	188	188	-	-	-	0.8	0.6	-	1.4	27.4	2.9	0.6	3.5
12/1	439	439	-	-	-	1.9	1.3	-	3.2	26.3	6.6	1.3	7.9
12/2	53	53	-	-	-	0.1	0.0	-	0.2	12.2	0.6	0.0	0.6
13/1	51	51	-	-	-	0.0	0.0	-	0.1	5.2	0.1	0.0	0.2
13/2	857	857	-	-	-	1.1	2.9	-	4.0	16.8	4.3	2.9	7.2
13/3	951	951	-	-	-	1.1	3.9	-	5.1	19.2	4.0	3.9	7.9
14/1	1095	1095	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	1203	1203	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	925	925	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

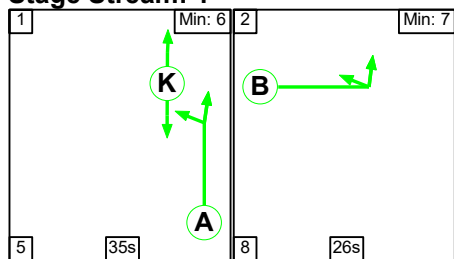
15/2	796	796	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1	476	476	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/1	1152	1152	-	-	-	0.0	0.7	-	0.7	2.2	0.0	0.7	0.7
17/2	1223	1223	-	-	-	0.0	0.7	-	0.7	2.0	0.0	0.7	0.7
18/1	1162	1162	-	-	-	0.0	0.6	-	0.6	1.9	0.0	0.6	0.6
18/2	925	925	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
		C1	Stream: 1 PRC for Signalled Lanes (%)		0.7	Total Delay for Signalled Lanes (pcuHr)		15.50	Cycle Time (s)		60		
		C1	Stream: 2 PRC for Signalled Lanes (%)		157.8	Total Delay for Signalled Lanes (pcuHr)		0.28	Cycle Time (s)		60		
		C1	Stream: 3 PRC for Signalled Lanes (%)		26.8	Total Delay for Signalled Lanes (pcuHr)		7.14	Cycle Time (s)		60		
		C1	Stream: 4 PRC for Signalled Lanes (%)		10.6	Total Delay for Signalled Lanes (pcuHr)		5.70	Cycle Time (s)		60		
		C1	Stream: 5 PRC for Signalled Lanes (%)		9.2	Total Delay for Signalled Lanes (pcuHr)		12.73	Cycle Time (s)		60		
		C1	Stream: 6 PRC for Signalled Lanes (%)		31.9	Total Delay for Signalled Lanes (pcuHr)		3.04	Cycle Time (s)		60		
			PRC Over All Lanes (%)		0.7	Total Delay Over All Lanes (pcuHr)		50.72					

Full Input Data And Results

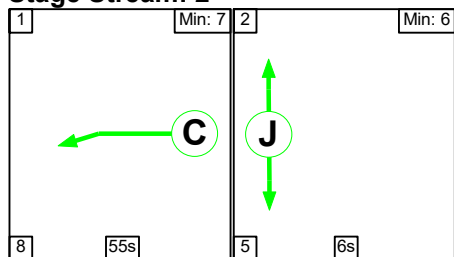
Scenario 11: '2038 Local Plan Case (Sens) AM - No LTC' (FG11: '2038 Local Plan Case AM - No LTC - Sensitivity Test', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

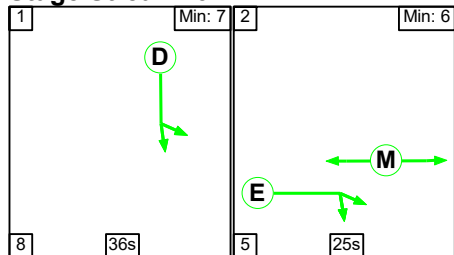
Stage Stream: 1



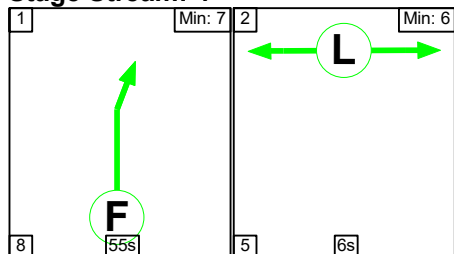
Stage Stream: 2



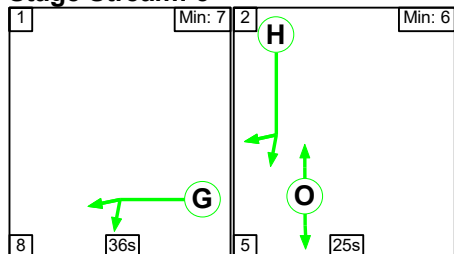
Stage Stream: 3



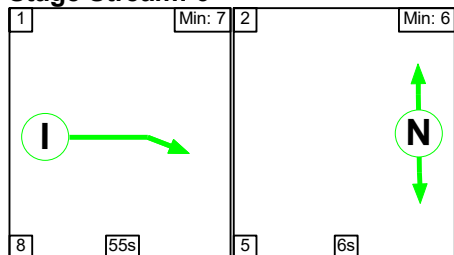
Stage Stream: 4



Stage Stream: 5



Stage Stream: 6



Full Input Data And Results

Stage Timings

Stage Stream: 1

Stage	1	2
Duration	35	26
Change Point	15	55

Stage Stream: 2

Stage	1	2
Duration	55	6
Change Point	38	27

Stage Stream: 3

Stage	1	2
Duration	36	25
Change Point	25	69

Stage Stream: 4

Stage	1	2
Duration	55	6
Change Point	6	69

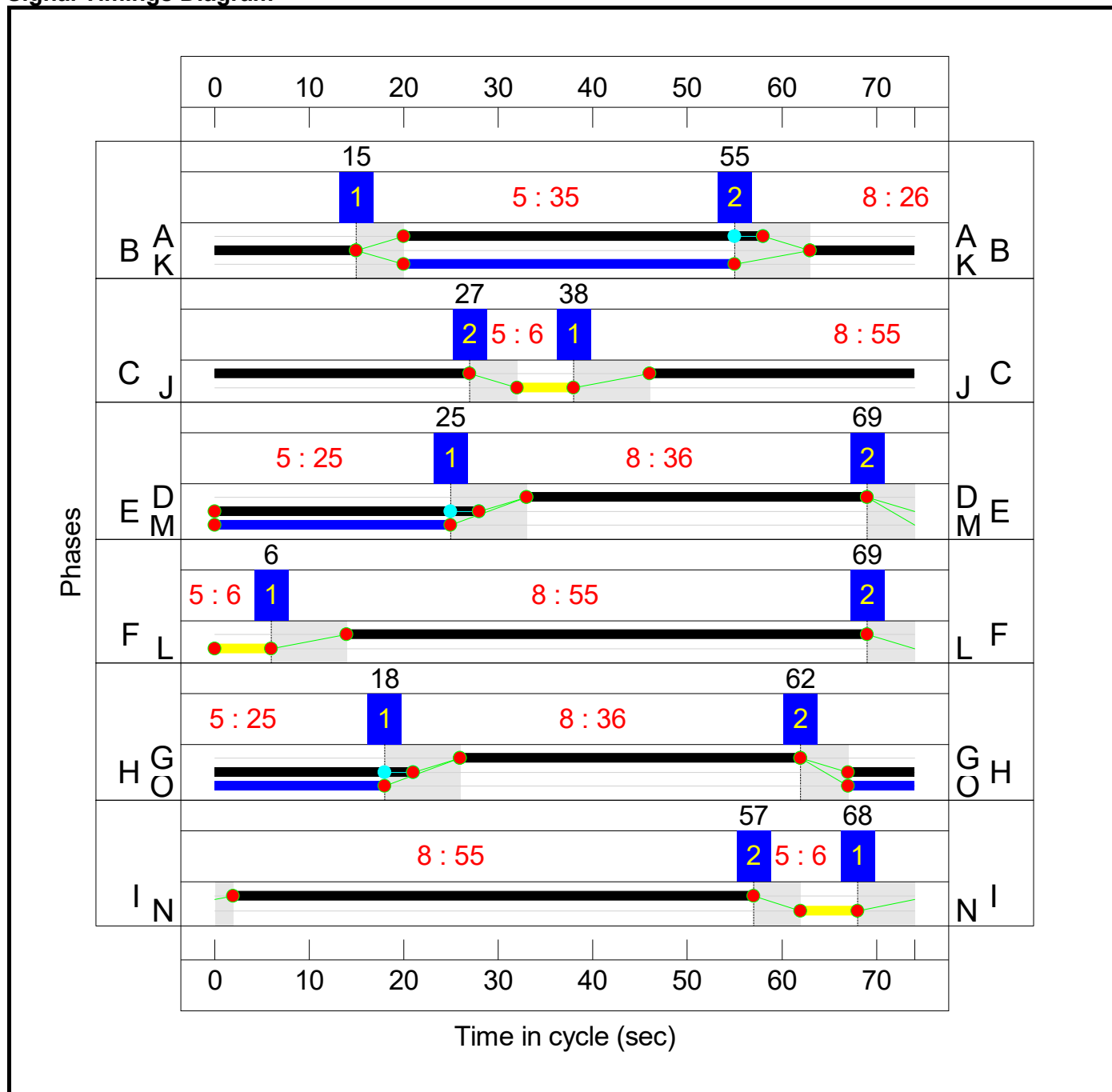
Stage Stream: 5

Stage	1	2
Duration	36	25
Change Point	18	62

Stage Stream: 6

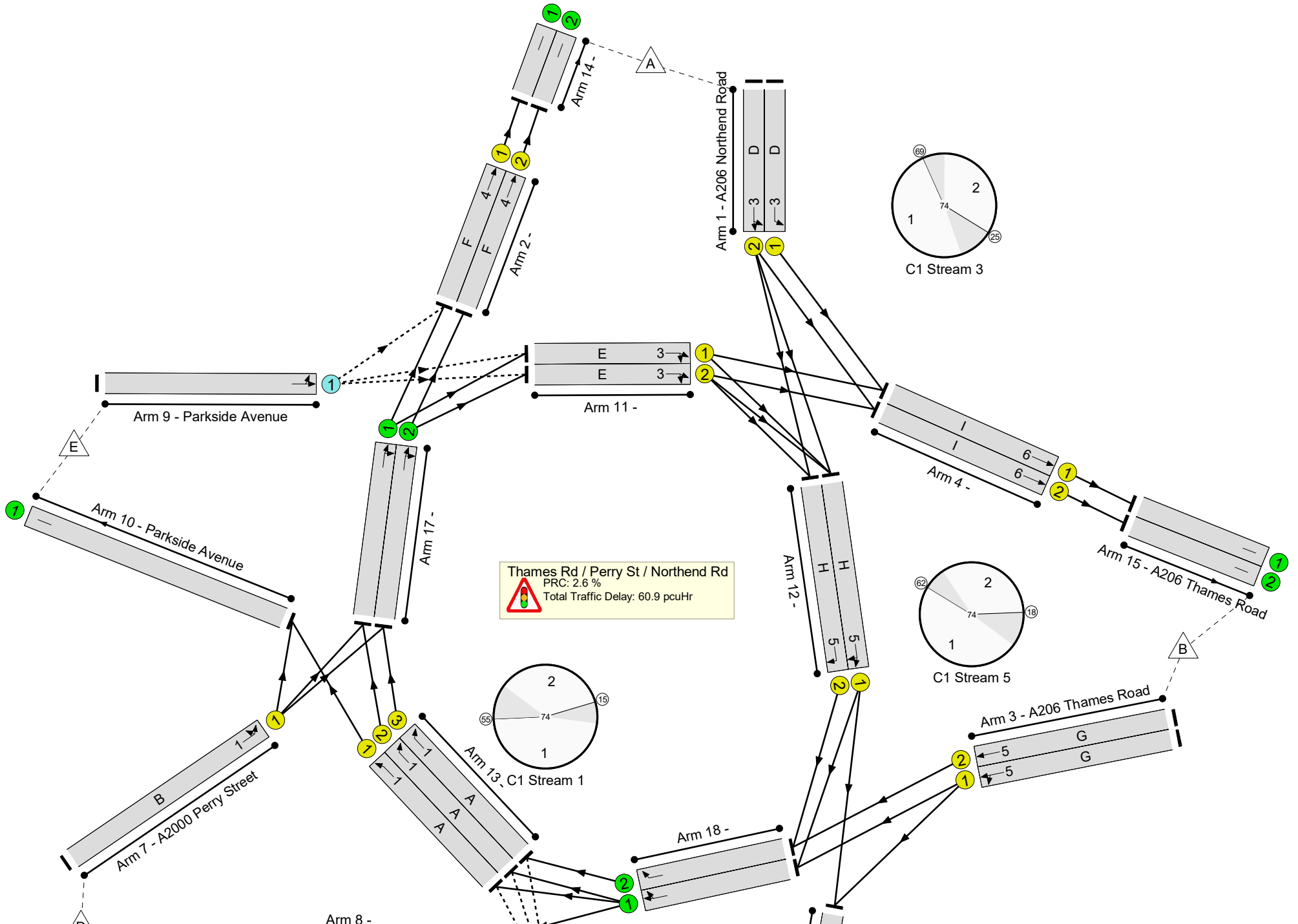
Stage	1	2
Duration	55	6
Change Point	68	57

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	87.7%
Thames Rd / Perry St / Northend Rd	-	-	N/A	-	-		-	-	-	-	-	-	87.7%
1/1	A206 Northend Road Left	U	3	N/A	D		1	36	-	809	1978	989	81.8%
1/2	A206 Northend Road Left Ahead	U	3	N/A	D		1	36	-	895	2114	1057	84.7%
2/1	Ahead	U	4	N/A	F		1	55	-	1038	1984	1501	69.1%
2/2	Ahead	U	4	N/A	F		1	55	-	1128	2112	1598	70.6%
3/1	A206 Thames Road Left Ahead	U	5	N/A	G		1	36	-	801	1867	933	85.8%
3/2	A206 Thames Road Ahead	U	5	N/A	G		1	36	-	844	2008	1004	84.1%
4/1	Ahead	U	6	N/A	I		1	55	-	921	1937	1466	62.8%
4/2	Ahead	U	6	N/A	I		1	55	-	939	2136	1616	58.1%
5/1	Wyatt Road Left Ahead	O	N/A	N/A	-		-	-	-	142	1763	356	39.9%
6/1		U	N/A	N/A	-		-	-	-	161	Inf	Inf	0.0%
7/1	A2000 Perry Street Left Left2	U	1	N/A	B		1	26	-	605	1932	705	85.8%
8/1	Ahead	U	2	N/A	C		1	55	-	215	1948	1474	14.6%
9/1	Parkside Avenue Left Ahead	O	N/A	N/A	-		-	-	-	354	1992	504	70.3%
10/1	Parkside Avenue	U	N/A	N/A	-		-	-	-	48	Inf	Inf	0.0%
11/1	Ahead Right	U	3	N/A	E		1	28	-	176	1921	753	23.4%
11/2	Ahead Right	U	3	N/A	E		1	28	-	358	2054	805	44.5%
12/1	Ahead Right	U	5	N/A	H		1	28	-	324	1916	751	43.2%
12/2	Right	U	5	N/A	H		1	28	-	54	1995	782	6.9%

Full Input Data And Results

13/1	Ahead	U	1	N/A	A		1	38	-	42	1881	991	4.2%
13/2	Right	U	1	N/A	A		1	38	-	825	1877	989	83.4%
13/3	Right	U	1	N/A	A		1	38	-	922	1995	1051	87.7%
14/1		U	N/A	N/A	-		-	-	-	1038	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	1128	Inf	Inf	0.0%
15/1	A206 Thames Road	U	N/A	N/A	-		-	-	-	921	Inf	Inf	0.0%
15/2	A206 Thames Road	U	N/A	N/A	-		-	-	-	939	Inf	Inf	0.0%
16/1	A2000 Perry Street	U	N/A	N/A	-		-	-	-	215	Inf	Inf	0.0%
17/1	Ahead Right	U	N/A	N/A	-		-	-	-	1156	1984	1984	58.3%
17/2	Ahead Right	U	N/A	N/A	-		-	-	-	1190	2112	2112	56.3%
18/1	Ahead Right	U	N/A	N/A	-		-	-	-	964	2115	2115	45.6%
18/2	Right	U	N/A	N/A	-		-	-	-	898	2255	2255	39.8%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	496	0	0	33.4	27.5	0.0	60.9	-	-	-	-
Thames Rd / Perry St / Northend Rd	-	-	496	0	0	33.4	27.5	0.0	60.9	-	-	-	-
1/1	809	809	-	-	-	3.5	2.2	-	5.7	25.4	13.9	2.2	16.1
1/2	895	895	-	-	-	4.0	2.7	-	6.7	26.8	15.9	2.7	18.6
2/1	1038	1038	-	-	-	0.9	1.1	-	2.0	7.0	6.3	1.1	7.4
2/2	1128	1128	-	-	-	1.0	1.2	-	2.2	7.0	6.6	1.2	7.8
3/1	801	801	-	-	-	3.6	2.9	-	6.5	29.2	14.2	2.9	17.1
3/2	844	844	-	-	-	3.7	2.6	-	6.3	26.9	14.8	2.6	17.3
4/1	921	921	-	-	-	1.7	0.8	-	2.5	9.9	8.5	0.8	9.3
4/2	939	939	-	-	-	1.3	0.7	-	2.0	7.5	10.9	0.7	11.6
5/1	142	142	142	0	0	0.3	0.3	-	0.6	15.4	1.5	0.3	1.8
6/1	161	161	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	605	605	-	-	-	3.7	2.9	-	6.5	38.8	11.4	2.9	14.3
8/1	215	215	-	-	-	0.0	0.1	-	0.1	2.0	0.2	0.1	0.3
9/1	354	354	354	0	0	0.7	1.2	-	1.8	18.7	5.2	1.2	6.4
10/1	48	48	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	176	176	-	-	-	0.3	0.2	-	0.5	9.9	1.8	0.2	2.0
11/2	358	358	-	-	-	1.0	0.4	-	1.4	14.5	5.4	0.4	5.8
12/1	324	324	-	-	-	1.3	0.4	-	1.7	18.4	5.4	0.4	5.8
12/2	54	54	-	-	-	0.2	0.0	-	0.2	15.2	1.0	0.0	1.0
13/1	42	42	-	-	-	0.1	0.0	-	0.1	11.8	0.3	0.0	0.3
13/2	825	825	-	-	-	2.9	2.4	-	5.4	23.4	7.3	2.4	9.7
13/3	922	922	-	-	-	3.1	3.4	-	6.5	25.4	7.3	3.4	10.7
14/1	1038	1038	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	1128	1128	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	921	921	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

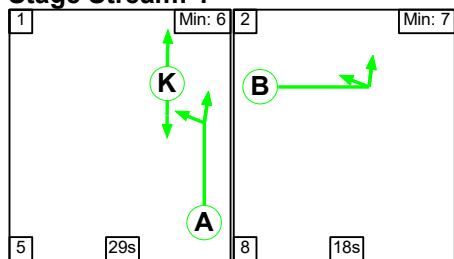
15/2	939	939	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
16/1	215	215	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
17/1	1156	1156	-	-	-	0.0	0.7	-	0.7	2.2	0.0	0.7	0.7	
17/2	1190	1190	-	-	-	0.0	0.6	-	0.6	1.9	0.0	0.6	0.6	
18/1	964	964	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4	
18/2	898	898	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3	
			C1	Stream: 1 PRC for Signalled Lanes (%)	2.6	Total Delay for Signalled Lanes (pcuHr):			18.51	Cycle Time (s):		74		
			C1	Stream: 2 PRC for Signalled Lanes (%)	517.1	Total Delay for Signalled Lanes (pcuHr):			0.12	Cycle Time (s):		74		
			C1	Stream: 3 PRC for Signalled Lanes (%)	6.3	Total Delay for Signalled Lanes (pcuHr):			14.30	Cycle Time (s):		74		
			C1	Stream: 4 PRC for Signalled Lanes (%)	27.5	Total Delay for Signalled Lanes (pcuHr):			4.22	Cycle Time (s):		74		
			C1	Stream: 5 PRC for Signalled Lanes (%)	4.9	Total Delay for Signalled Lanes (pcuHr):			14.69	Cycle Time (s):		74		
			C1	Stream: 6 PRC for Signalled Lanes (%)	43.2	Total Delay for Signalled Lanes (pcuHr):			4.49	Cycle Time (s):		74		
				PRC Over All Lanes (%)	2.6	Total Delay Over All Lanes(pcuHr):			60.87					

Full Input Data And Results

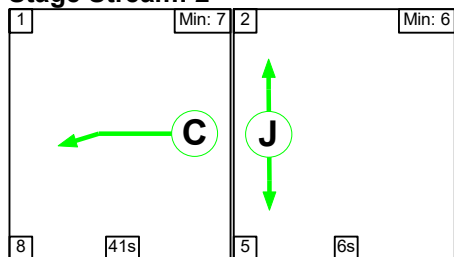
Scenario 12: '2038 Local Plan Case (Sens) PM - No LTC' (FG12: '2038 Local Plan Case PM - No LTC - Sensitivity Test', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

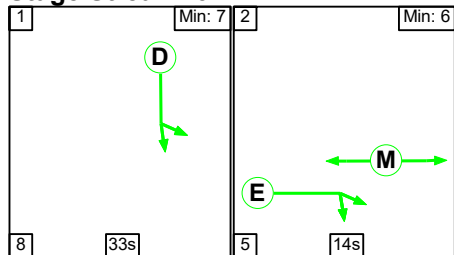
Stage Stream: 1



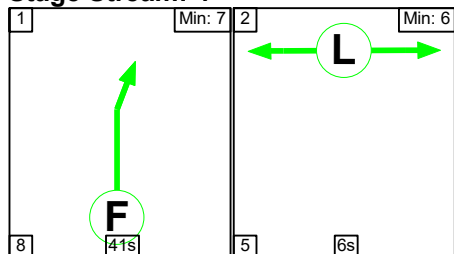
Stage Stream: 2



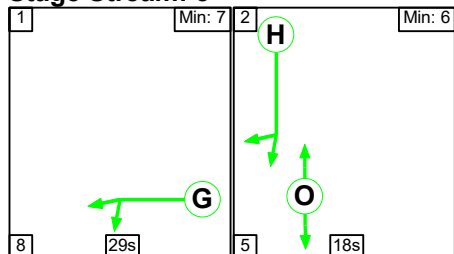
Stage Stream: 3



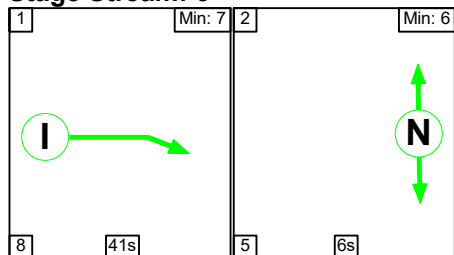
Stage Stream: 4



Stage Stream: 5



Stage Stream: 6



Full Input Data And Results

Stage Timings

Stage Stream: 1

Stage	1	2
Duration	29	18
Change Point	0	34

Stage Stream: 2

Stage	1	2
Duration	41	6
Change Point	18	7

Stage Stream: 3

Stage	1	2
Duration	33	14
Change Point	49	30

Stage Stream: 4

Stage	1	2
Duration	41	6
Change Point	1	50

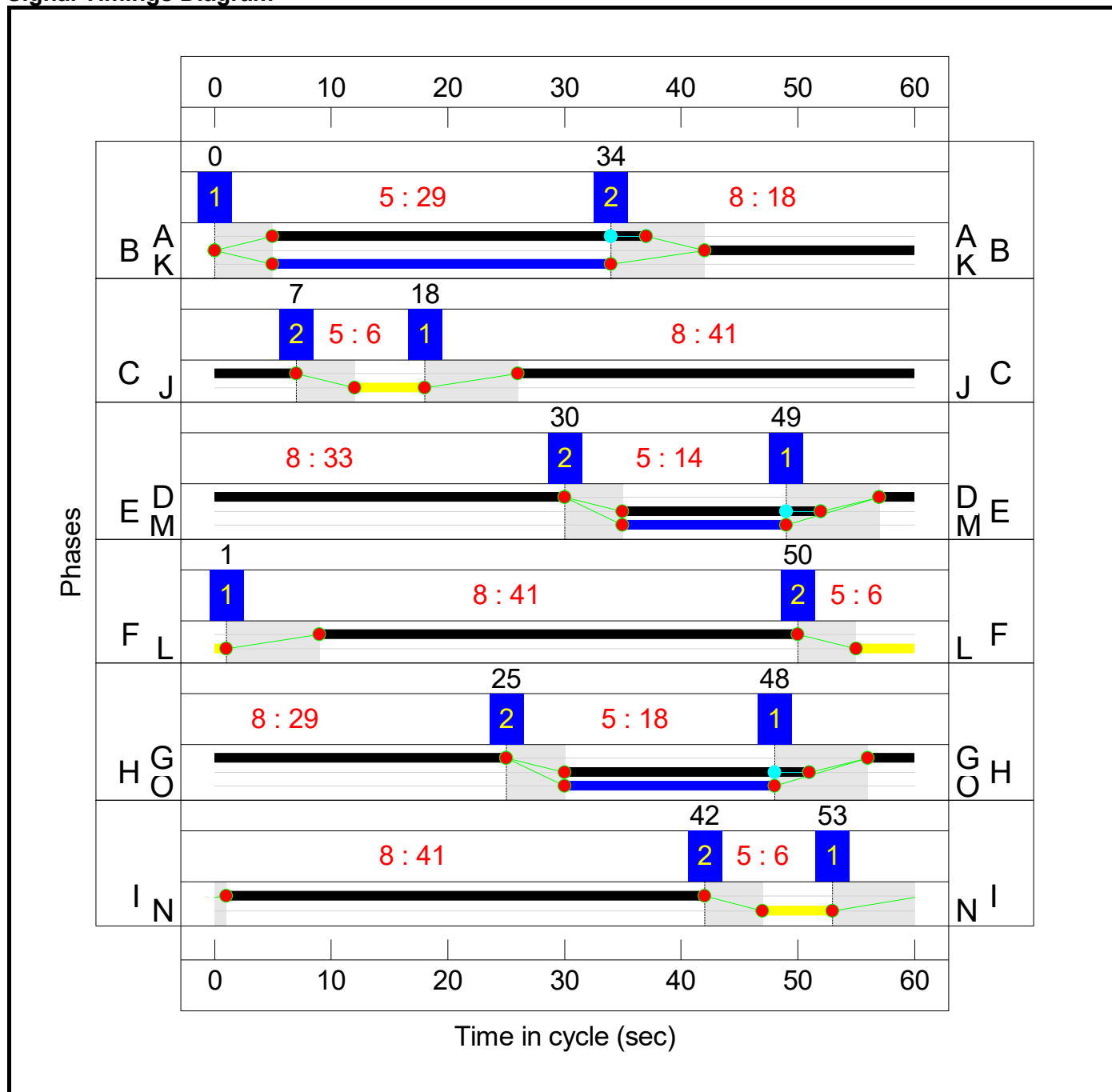
Stage Stream: 5

Stage	1	2
Duration	29	18
Change Point	48	25

Stage Stream: 6

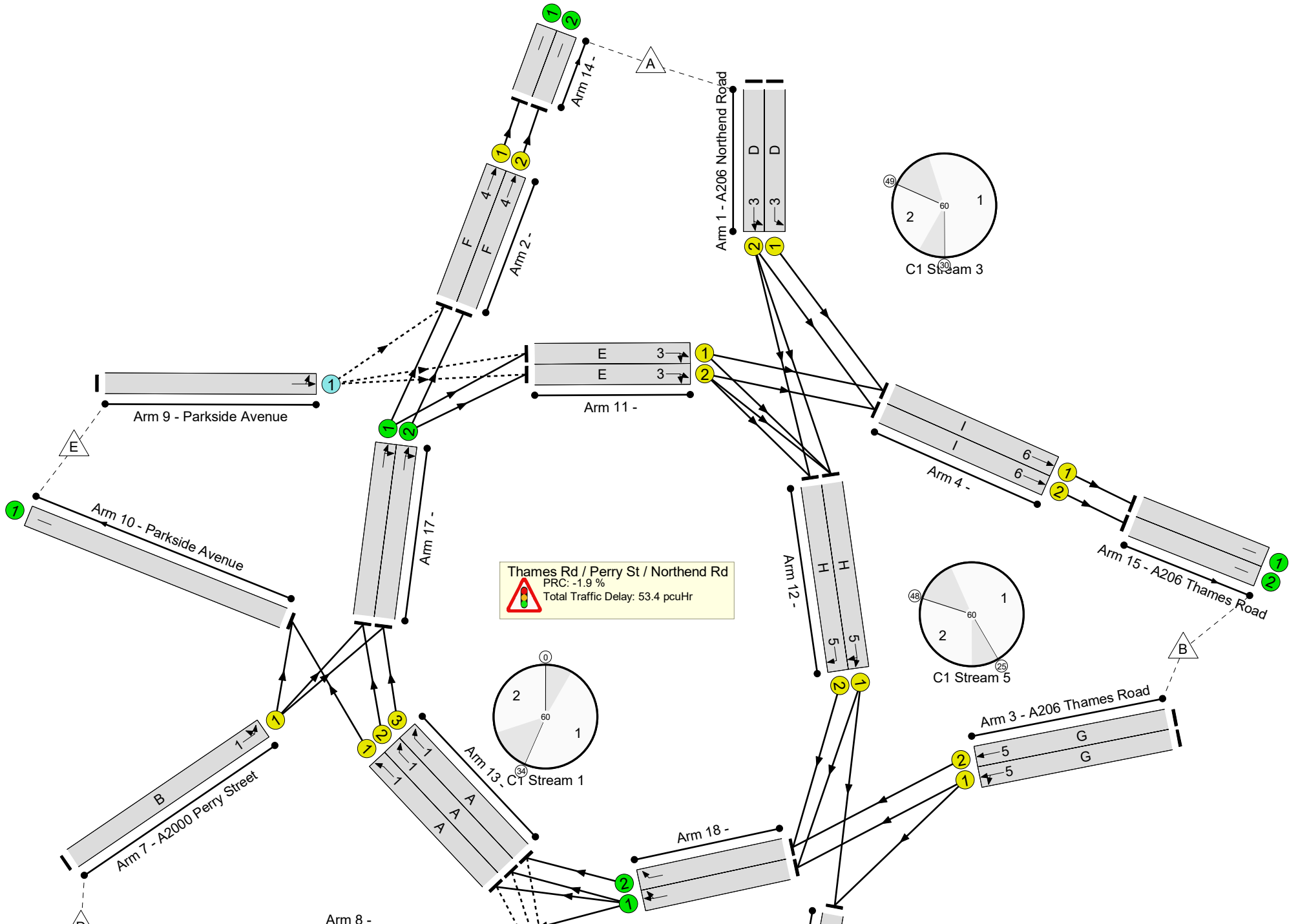
Stage	1	2
Duration	41	6
Change Point	53	42

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	91.7%
Thames Rd / Perry St / Northend Rd	-	-	N/A	-	-		-	-	-	-	-	-	91.7%
1/1	A206 Northend Road Left	U	3	N/A	D		1	33	-	873	1978	1121	77.9%
1/2	A206 Northend Road Left Ahead	U	3	N/A	D		1	33	-	993	2114	1198	82.9%
2/1	Ahead	U	4	N/A	F		1	41	-	1059	1984	1389	76.3%
2/2	Ahead	U	4	N/A	F		1	41	-	1182	2112	1478	80.0%
3/1	A206 Thames Road Left Ahead	U	5	N/A	G		1	29	-	813	1867	933	87.1%
3/2	A206 Thames Road Ahead	U	5	N/A	G		1	29	-	849	2008	1004	84.6%
4/1	Ahead	U	6	N/A	I		1	41	-	958	1937	1356	70.7%
4/2	Ahead	U	6	N/A	I		1	41	-	753	2136	1495	50.4%
5/1	Wyatt Road Left Ahead	O	N/A	N/A	-		-	-	-	247	1756	322	76.7%
6/1		U	N/A	N/A	-		-	-	-	123	Inf	Inf	0.0%
7/1	A2000 Perry Street Left Left2	U	1	N/A	B		1	18	-	561	1932	612	91.7%
8/1	Ahead	U	2	N/A	C		1	41	-	465	1948	1364	34.1%
9/1	Parkside Avenue Left Ahead	O	N/A	N/A	-		-	-	-	261	1992	434	60.1%
10/1	Parkside Avenue	U	N/A	N/A	-		-	-	-	57	Inf	Inf	0.0%
11/1	Ahead Right	U	3	N/A	E		1	17	-	123	1921	576	21.3%
11/2	Ahead Right	U	3	N/A	E		1	17	-	211	2054	616	34.2%
12/1	Ahead Right	U	5	N/A	H		1	21	-	444	1898	696	63.8%
12/2	Right	U	5	N/A	H		1	21	-	45	1995	732	6.2%

Full Input Data And Results

13/1	Ahead	U	1	N/A	A		1	32	-	57	1881	1035	5.5%
13/2	Right	U	1	N/A	A		1	32	-	818	1877	1032	79.2%
13/3	Right	U	1	N/A	A		1	32	-	935	1995	1097	85.2%
14/1		U	N/A	N/A	-		-	-	-	1059	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	1182	Inf	Inf	0.0%
15/1	A206 Thames Road	U	N/A	N/A	-		-	-	-	958	Inf	Inf	0.0%
15/2	A206 Thames Road	U	N/A	N/A	-		-	-	-	753	Inf	Inf	0.0%
16/1	A2000 Perry Street	U	N/A	N/A	-		-	-	-	465	Inf	Inf	0.0%
17/1	Ahead Right	U	N/A	N/A	-		-	-	-	1108	1984	1984	55.8%
17/2	Ahead Right	U	N/A	N/A	-		-	-	-	1206	2112	2112	57.1%
18/1	Ahead Right	U	N/A	N/A	-		-	-	-	1134	2115	2115	53.6%
18/2	Right	U	N/A	N/A	-		-	-	-	894	2255	2255	39.6%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	508	0	0	22.7	30.7	0.0	53.4	-	-	-	-
Thames Rd / Perry St / Northend Rd	-	-	508	0	0	22.7	30.7	0.0	53.4	-	-	-	-
1/1	873	873	-	-	-	2.4	1.7	-	4.2	17.2	11.2	1.7	12.9
1/2	993	993	-	-	-	2.9	2.4	-	5.3	19.2	13.5	2.4	15.9
2/1	1059	1059	-	-	-	0.8	1.6	-	2.4	8.0	5.1	1.6	6.7
2/2	1182	1182	-	-	-	0.7	2.0	-	2.7	8.3	4.9	2.0	6.9
3/1	813	813	-	-	-	3.0	3.2	-	6.2	27.5	12.0	3.2	15.2
3/2	849	849	-	-	-	3.1	2.6	-	5.7	24.2	12.0	2.6	14.7
4/1	958	958	-	-	-	0.2	1.2	-	1.4	5.3	7.1	1.2	8.3
4/2	753	753	-	-	-	0.5	0.5	-	1.0	5.0	3.6	0.5	4.1
5/1	247	247	247	0	0	0.6	1.6	-	2.2	31.9	3.4	1.6	4.9
6/1	123	123	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	561	561	-	-	-	3.1	4.7	-	7.7	49.7	8.9	4.7	13.5
8/1	465	465	-	-	-	0.0	0.3	-	0.3	2.1	0.1	0.3	0.4
9/1	261	261	261	0	0	0.6	0.7	-	1.3	18.3	2.6	0.7	3.4
10/1	57	57	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	123	123	-	-	-	0.5	0.1	-	0.7	19.4	1.1	0.1	1.2
11/2	211	211	-	-	-	0.7	0.3	-	1.0	16.8	1.4	0.3	1.7
12/1	444	444	-	-	-	2.2	0.9	-	3.0	24.6	7.1	0.9	8.0
12/2	45	45	-	-	-	0.2	0.0	-	0.2	15.4	0.7	0.0	0.7
13/1	57	57	-	-	-	0.0	0.0	-	0.1	3.2	0.1	0.0	0.1
13/2	818	818	-	-	-	0.5	1.9	-	2.4	10.6	3.2	1.9	5.1
13/3	935	935	-	-	-	0.6	2.8	-	3.4	13.0	4.5	2.8	7.2
14/1	1059	1059	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	1182	1182	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	958	958	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

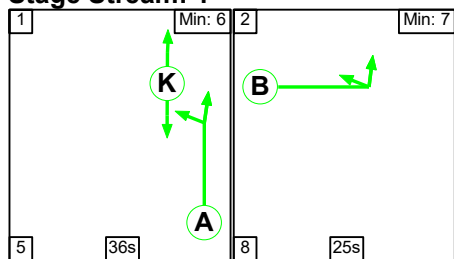
15/2	753	753	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
16/1	465	465	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
17/1	1108	1108	-	-	-	0.0	0.6	-	0.6	2.1	0.0	0.6	0.6	
17/2	1206	1206	-	-	-	0.0	0.7	-	0.7	2.0	0.0	0.7	0.7	
18/1	1134	1134	-	-	-	0.0	0.6	-	0.6	1.8	0.0	0.6	0.6	
18/2	894	894	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3	
			C1	Stream: 1 PRC for Signalled Lanes (%)	-1.9	Total Delay for Signalled Lanes (pcuHr):			13.56	Cycle Time (s):		60		
			C1	Stream: 2 PRC for Signalled Lanes (%)	163.9	Total Delay for Signalled Lanes (pcuHr):			0.27	Cycle Time (s):		60		
			C1	Stream: 3 PRC for Signalled Lanes (%)	8.6	Total Delay for Signalled Lanes (pcuHr):			11.13	Cycle Time (s):		60		
			C1	Stream: 4 PRC for Signalled Lanes (%)	12.6	Total Delay for Signalled Lanes (pcuHr):			5.08	Cycle Time (s):		60		
			C1	Stream: 5 PRC for Signalled Lanes (%)	3.3	Total Delay for Signalled Lanes (pcuHr):			15.14	Cycle Time (s):		60		
			C1	Stream: 6 PRC for Signalled Lanes (%)	27.4	Total Delay for Signalled Lanes (pcuHr):			2.46	Cycle Time (s):		60		
				PRC Over All Lanes (%)	-1.9	Total Delay Over All Lanes(pcuHr):			53.35					

Full Input Data And Results

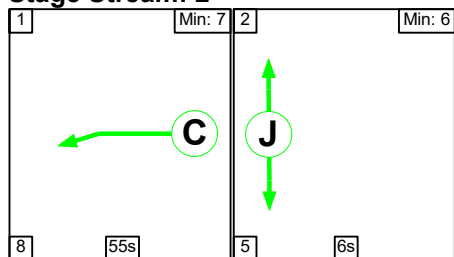
Scenario 13: '2038 Local Plan Case (Sens) AM - With LTC' (FG13: '2038 Local Plan Case AM - With LTC - Sensitivity Test', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

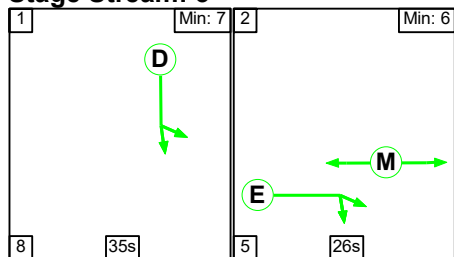
Stage Stream: 1



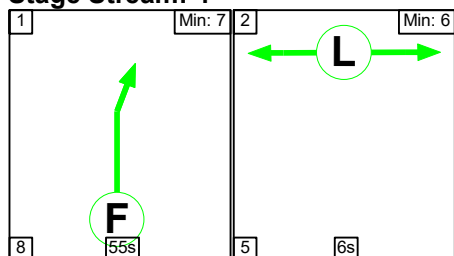
Stage Stream: 2



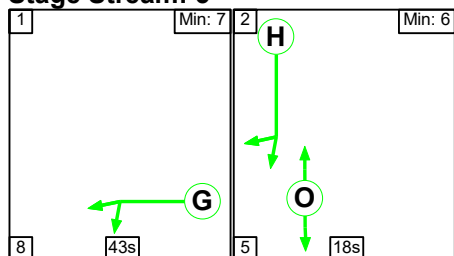
Stage Stream: 3



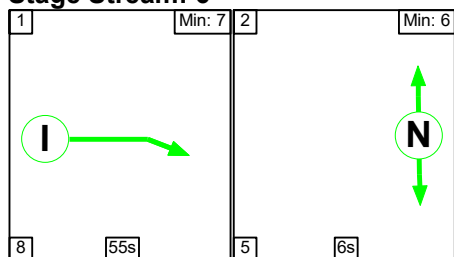
Stage Stream: 4



Stage Stream: 5



Stage Stream: 6



Full Input Data And Results

Stage Timings

Stage Stream: 1

Stage	1	2
Duration	36	25
Change Point	46	13

Stage Stream: 2

Stage	1	2
Duration	55	6
Change Point	1	64

Stage Stream: 3

Stage	1	2
Duration	35	26
Change Point	50	19

Stage Stream: 4

Stage	1	2
Duration	55	6
Change Point	54	43

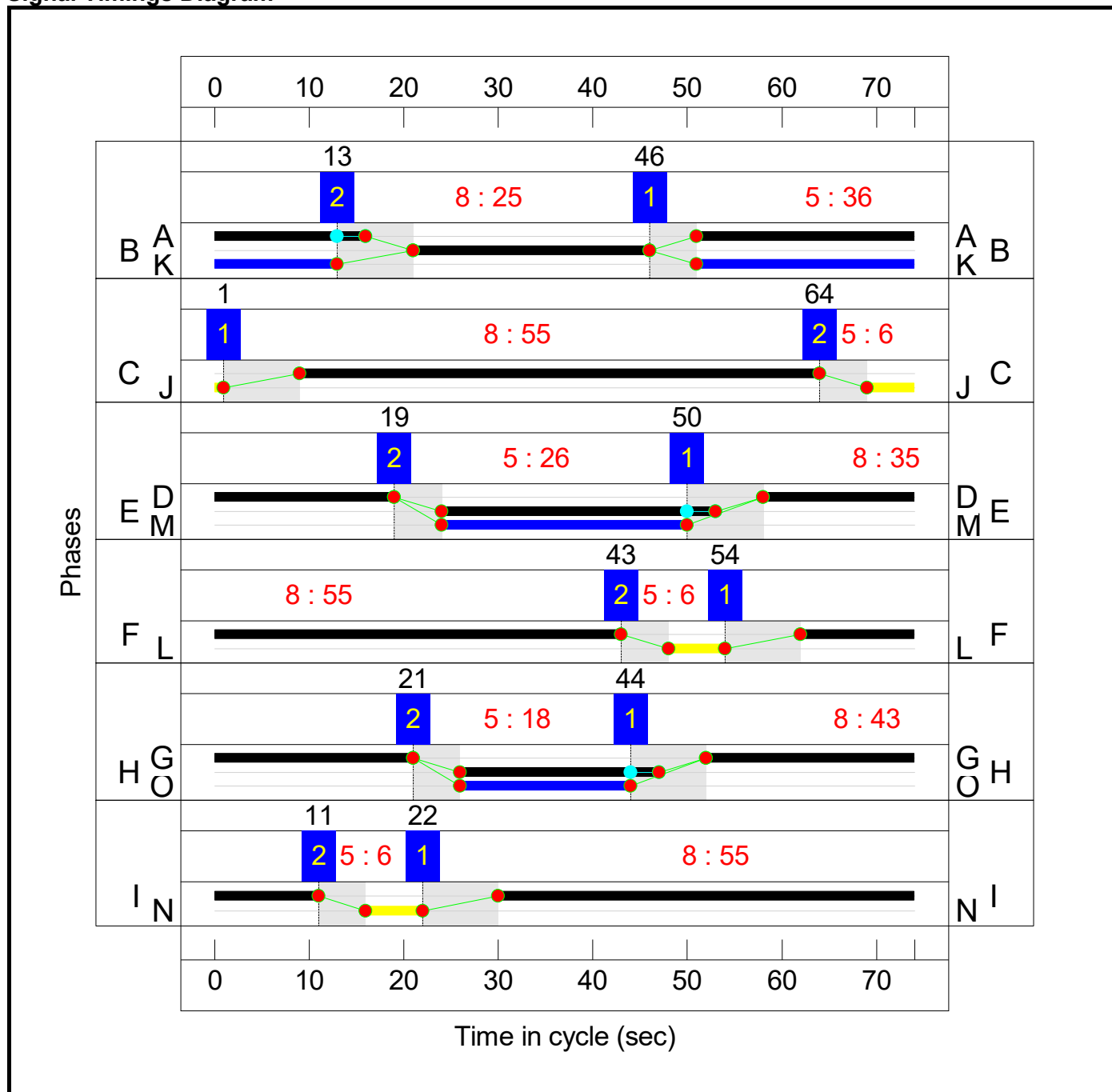
Stage Stream: 5

Stage	1	2
Duration	43	18
Change Point	44	21

Stage Stream: 6

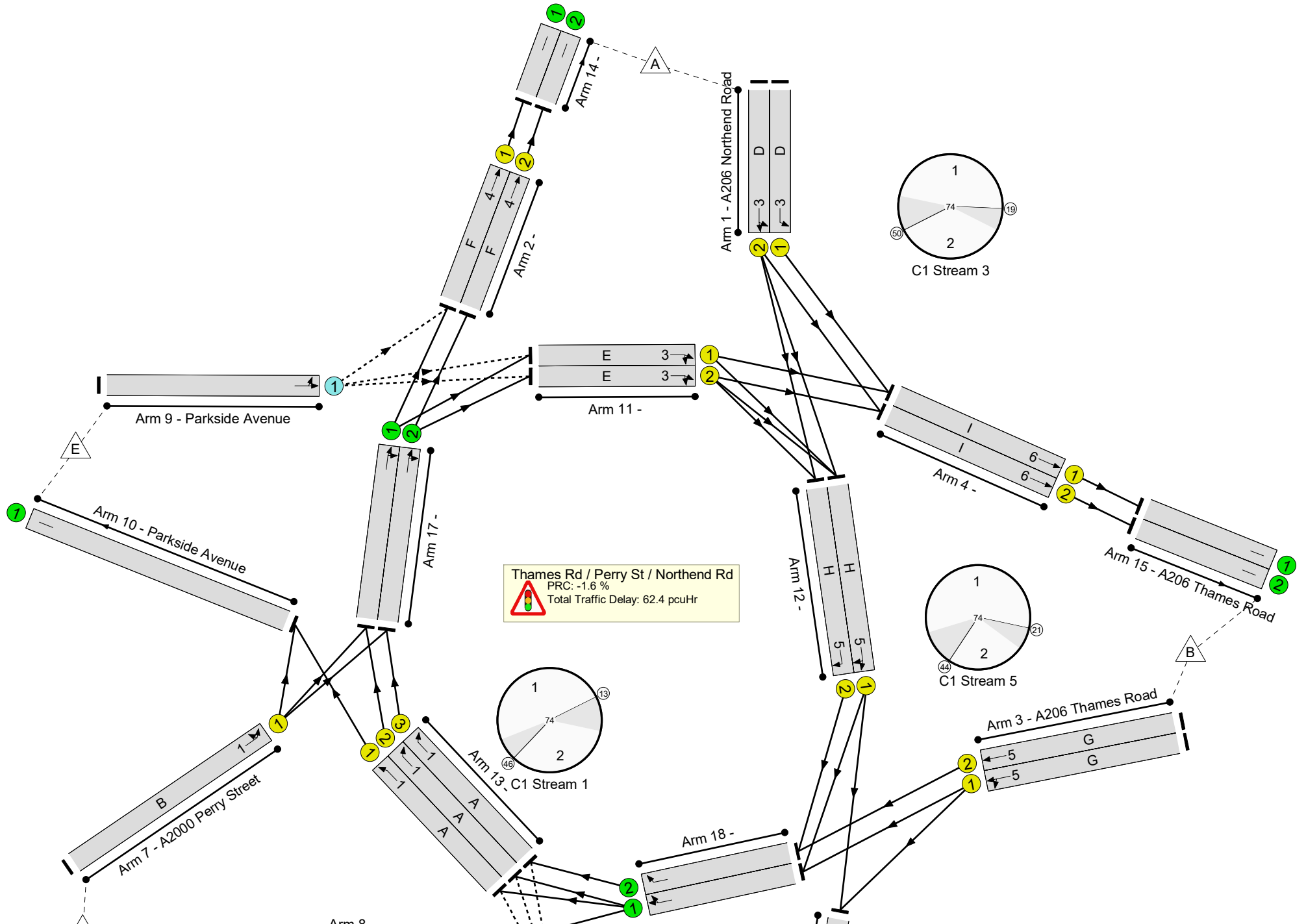
Stage	1	2
Duration	55	6
Change Point	22	11

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	91.4%
Thames Rd / Perry St / Northend Rd	-	-	N/A	-	-		-	-	-	-	-	-	91.4%
1/1	A206 Northend Road Left	U	3	N/A	D		1	35	-	819	1978	962	85.1%
1/2	A206 Northend Road Left Ahead	U	3	N/A	D		1	35	-	895	2114	1028	87.0%
2/1	Ahead	U	4	N/A	F		1	55	-	1098	1984	1501	73.1%
2/2	Ahead	U	4	N/A	F		1	55	-	1196	2112	1598	74.8%
3/1	A206 Thames Road Left Ahead	U	5	N/A	G		1	43	-	890	1867	1110	80.2%
3/2	A206 Thames Road Ahead	U	5	N/A	G		1	43	-	917	2008	1194	76.8%
4/1	Ahead	U	6	N/A	I		1	55	-	939	1937	1466	64.1%
4/2	Ahead	U	6	N/A	I		1	55	-	969	2136	1616	59.9%
5/1	Wyatt Road Left Ahead	O	N/A	N/A	-		-	-	-	143	1766	334	42.8%
6/1		U	N/A	N/A	-		-	-	-	163	Inf	Inf	0.0%
7/1	A2000 Perry Street Left Left2	U	1	N/A	B		1	25	-	604	1932	679	89.0%
8/1	Ahead	U	2	N/A	C		1	55	-	192	1948	1474	13.0%
9/1	Parkside Avenue Left Ahead	O	N/A	N/A	-		-	-	-	337	1992	418	80.7%
10/1	Parkside Avenue	U	N/A	N/A	-		-	-	-	48	Inf	Inf	0.0%
11/1	Ahead Right	U	3	N/A	E		1	29	-	162	1921	779	20.8%
11/2	Ahead Right	U	3	N/A	E		1	29	-	362	2054	833	43.5%
12/1	Ahead Right	U	5	N/A	H		1	21	-	284	1922	571	49.7%
12/2	Right	U	5	N/A	H		1	21	-	46	1995	593	7.8%

Full Input Data And Results

13/1	Ahead	U	1	N/A	A		1	39	-	33	1881	1017	3.2%
13/2	Right	U	1	N/A	A		1	39	-	906	1877	1015	89.3%
13/3	Right	U	1	N/A	A		1	39	-	986	1995	1078	91.4%
14/1		U	N/A	N/A	-		-	-	-	1098	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	1196	Inf	Inf	0.0%
15/1	A206 Thames Road	U	N/A	N/A	-		-	-	-	939	Inf	Inf	0.0%
15/2	A206 Thames Road	U	N/A	N/A	-		-	-	-	969	Inf	Inf	0.0%
16/1	A2000 Perry Street	U	N/A	N/A	-		-	-	-	192	Inf	Inf	0.0%
17/1	Ahead Right	U	N/A	N/A	-		-	-	-	1186	1984	1984	59.8%
17/2	Ahead Right	U	N/A	N/A	-		-	-	-	1295	2112	2112	61.3%
18/1	Ahead Right	U	N/A	N/A	-		-	-	-	1011	2115	2115	47.8%
18/2	Right	U	N/A	N/A	-		-	-	-	963	2255	2255	42.7%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	480	0	0	30.0	32.3	0.0	62.4	-	-	-	-
Thames Rd / Perry St / Northend Rd	-	-	480	0	0	30.0	32.3	0.0	62.4	-	-	-	-
1/1	819	819	-	-	-	3.8	2.8	-	6.5	28.8	14.6	2.8	17.3
1/2	895	895	-	-	-	4.2	3.2	-	7.4	29.8	16.2	3.2	19.4
2/1	1098	1098	-	-	-	0.5	1.4	-	1.9	6.2	6.1	1.4	7.5
2/2	1196	1196	-	-	-	0.6	1.5	-	2.1	6.2	6.5	1.5	8.0
3/1	890	890	-	-	-	2.9	2.0	-	4.9	19.7	14.1	2.0	16.1
3/2	917	917	-	-	-	2.9	1.6	-	4.5	17.6	14.0	1.6	15.6
4/1	939	939	-	-	-	1.4	0.9	-	2.3	8.7	8.2	0.9	9.1
4/2	969	969	-	-	-	1.1	0.7	-	1.9	7.0	8.1	0.7	8.8
5/1	143	143	143	0	0	0.3	0.4	-	0.7	16.5	1.6	0.4	2.0
6/1	163	163	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	604	604	-	-	-	3.8	3.7	-	7.5	44.6	11.6	3.7	15.3
8/1	192	192	-	-	-	0.0	0.1	-	0.1	1.4	0.0	0.1	0.1
9/1	337	337	337	0	0	1.2	2.0	-	3.2	34.4	6.1	2.0	8.1
10/1	48	48	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	162	162	-	-	-	0.3	0.1	-	0.4	9.2	0.7	0.1	0.9
11/2	362	362	-	-	-	0.5	0.4	-	0.9	8.9	2.0	0.4	2.4
12/1	284	284	-	-	-	1.8	0.5	-	2.3	28.9	5.1	0.5	5.6
12/2	46	46	-	-	-	0.3	0.0	-	0.3	23.5	0.9	0.0	1.0
13/1	33	33	-	-	-	0.1	0.0	-	0.1	8.5	0.2	0.0	0.2
13/2	906	906	-	-	-	2.2	3.9	-	6.1	24.3	6.0	3.9	9.9
13/3	986	986	-	-	-	2.2	4.8	-	7.1	25.8	6.1	4.8	11.0
14/1	1098	1098	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	1196	1196	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	939	939	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

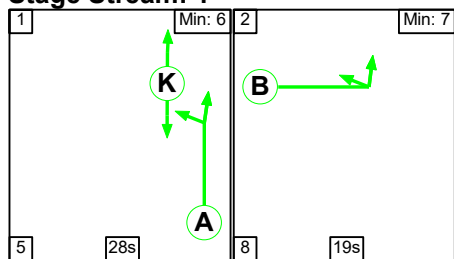
15/2	969	969	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
16/1	192	192	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
17/1	1186	1186	-	-	-	0.0	0.7	-	0.7	2.3	0.0	0.7	0.7	
17/2	1295	1295	-	-	-	0.0	0.8	-	0.8	2.2	0.0	0.8	0.8	
18/1	1011	1011	-	-	-	0.0	0.5	-	0.5	1.6	0.0	0.5	0.5	
18/2	963	963	-	-	-	0.0	0.4	-	0.4	1.4	0.0	0.4	0.4	
			C1	Stream: 1 PRC for Signalled Lanes (%)	-1.6	Total Delay for Signalled Lanes (pcuHr):			20.75	Cycle Time (s):		74		
			C1	Stream: 2 PRC for Signalled Lanes (%)	591.0	Total Delay for Signalled Lanes (pcuHr):			0.07	Cycle Time (s):		74		
			C1	Stream: 3 PRC for Signalled Lanes (%)	3.4	Total Delay for Signalled Lanes (pcuHr):			15.26	Cycle Time (s):		74		
			C1	Stream: 4 PRC for Signalled Lanes (%)	20.3	Total Delay for Signalled Lanes (pcuHr):			3.95	Cycle Time (s):		74		
			C1	Stream: 5 PRC for Signalled Lanes (%)	12.3	Total Delay for Signalled Lanes (pcuHr):			11.93	Cycle Time (s):		74		
			C1	Stream: 6 PRC for Signalled Lanes (%)	40.5	Total Delay for Signalled Lanes (pcuHr):			4.16	Cycle Time (s):		74		
				PRC Over All Lanes (%)	-1.6	Total Delay Over All Lanes(pcuHr):			62.36					

Full Input Data And Results

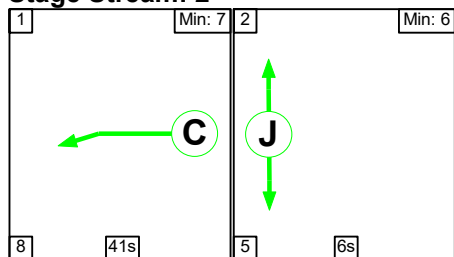
Scenario 14: '2038 Local Plan Case (Sens) PM - With LTC' (FG14: '2038 Local Plan Case PM - With LTC - Sensitivity Test', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

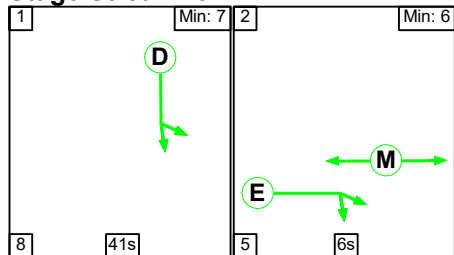
Stage Stream: 1



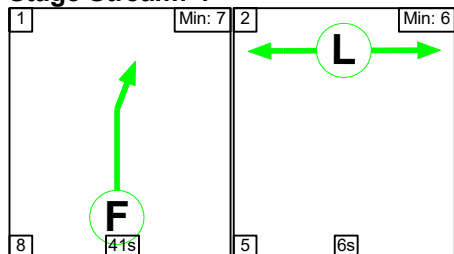
Stage Stream: 2



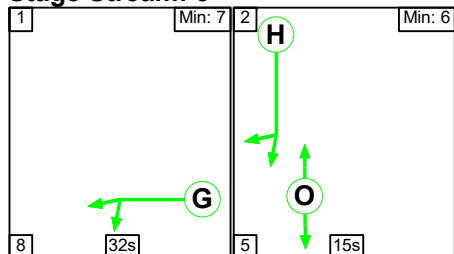
Stage Stream: 3



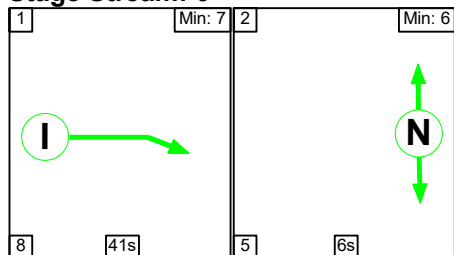
Stage Stream: 4



Stage Stream: 5



Stage Stream: 6



Full Input Data And Results

Stage Timings

Stage Stream: 1

Stage	1	2
Duration	28	19
Change Point	0	33

Stage Stream: 2

Stage	1	2
Duration	41	6
Change Point	19	8

Stage Stream: 3

Stage	1	2
Duration	41	6
Change Point	7	56

Stage Stream: 4

Stage	1	2
Duration	41	6
Change Point	1	50

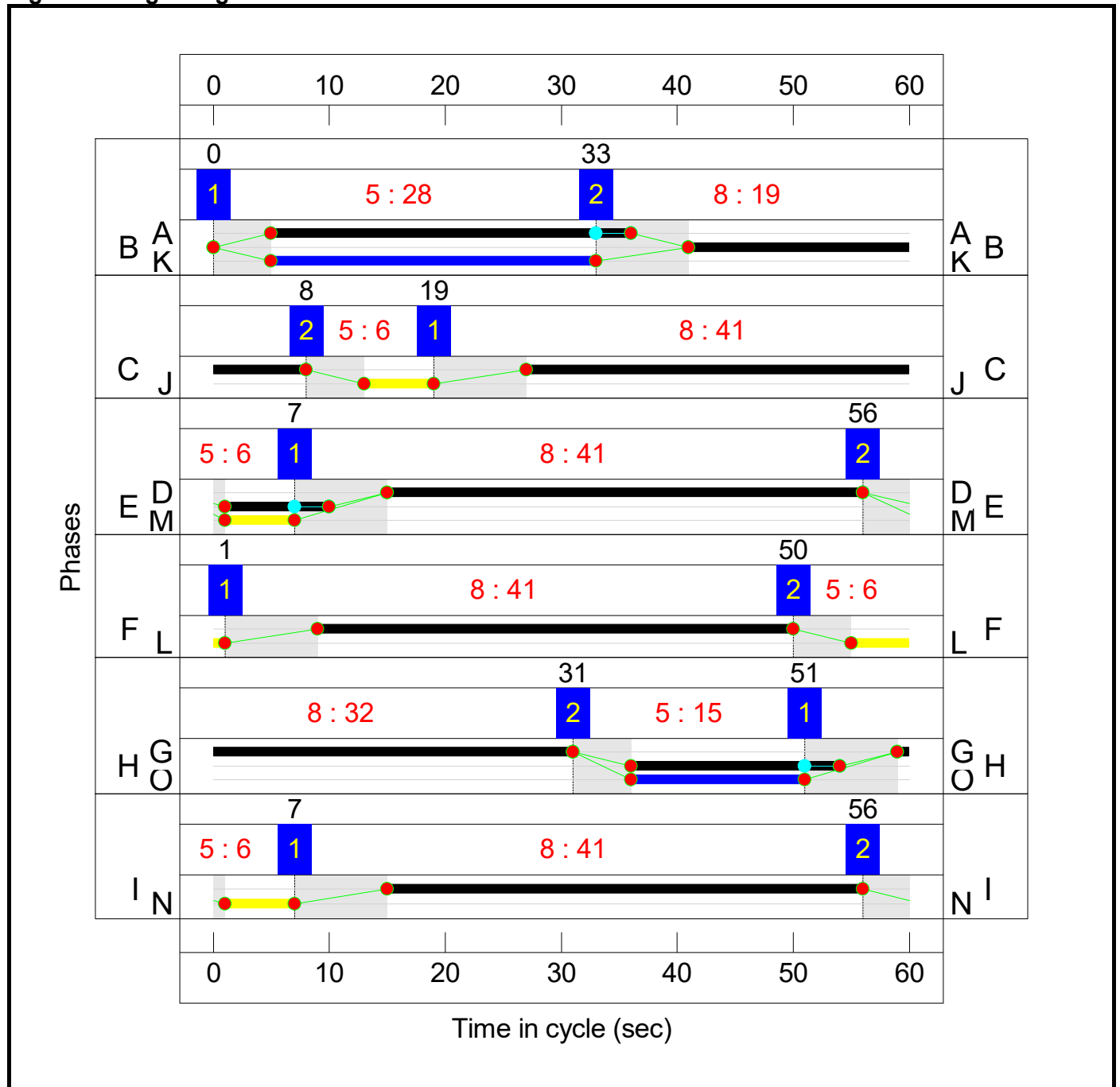
Stage Stream: 5

Stage	1	2
Duration	32	15
Change Point	51	31

Stage Stream: 6

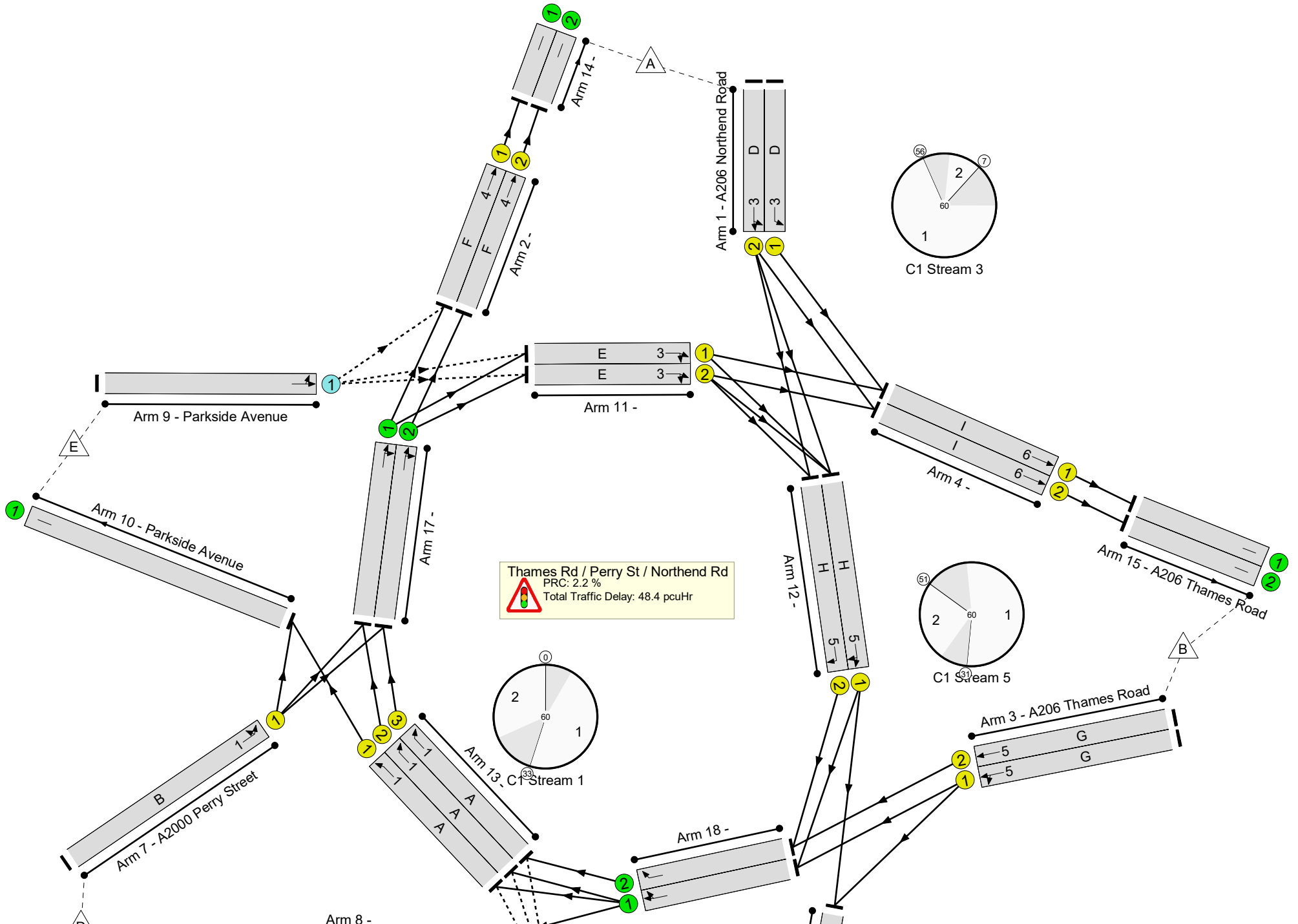
Stage	1	2
Duration	41	6
Change Point	7	56

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	88.1%
Thames Rd / Perry St / Northend Rd	-	-	N/A	-	-		-	-	-	-	-	-	88.1%
1/1	A206 Northend Road Left	U	3	N/A	D		1	41	-	827	1978	1385	59.7%
1/2	A206 Northend Road Left Ahead	U	3	N/A	D		1	41	-	1043	2114	1480	70.5%
2/1	Ahead	U	4	N/A	F		1	41	-	1079	1984	1389	77.7%
2/2	Ahead	U	4	N/A	F		1	41	-	1186	2112	1478	80.2%
3/1	A206 Thames Road Left Ahead	U	5	N/A	G		1	32	-	830	1867	1027	80.8%
3/2	A206 Thames Road Ahead	U	5	N/A	G		1	32	-	861	2008	1104	78.0%
4/1	Ahead	U	6	N/A	I		1	41	-	923	1937	1356	68.1%
4/2	Ahead	U	6	N/A	I		1	41	-	800	2136	1495	53.5%
5/1	Wyatt Road Left Ahead	O	N/A	N/A	-		-	-	-	247	1758	320	77.1%
6/1		U	N/A	N/A	-		-	-	-	124	Inf	Inf	0.0%
7/1	A2000 Perry Street Left Left2	U	1	N/A	B		1	19	-	560	1932	644	87.0%
8/1	Ahead	U	2	N/A	C		1	41	-	451	1948	1364	33.1%
9/1	Parkside Avenue Left Ahead	O	N/A	N/A	-		-	-	-	258	1992	391	66.0%
10/1	Parkside Avenue	U	N/A	N/A	-		-	-	-	63	Inf	Inf	0.0%
11/1	Ahead Right	U	3	N/A	E		1	9	-	149	1921	320	46.5%
11/2	Ahead Right	U	3	N/A	E		1	9	-	185	2054	342	54.0%
12/1	Ahead Right	U	5	N/A	H		1	18	-	430	1899	601	71.5%
12/2	Right	U	5	N/A	H		1	18	-	51	1995	632	8.1%

Full Input Data And Results

13/1	Ahead	U	1	N/A	A		1	31	-	63	1881	1003	6.3%
13/2	Right	U	1	N/A	A		1	31	-	844	1877	1001	84.3%
13/3	Right	U	1	N/A	A		1	31	-	937	1995	1064	88.1%
14/1		U	N/A	N/A	-		-	-	-	1079	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	1186	Inf	Inf	0.0%
15/1	A206 Thames Road	U	N/A	N/A	-		-	-	-	923	Inf	Inf	0.0%
15/2	A206 Thames Road	U	N/A	N/A	-		-	-	-	800	Inf	Inf	0.0%
16/1	A2000 Perry Street	U	N/A	N/A	-		-	-	-	451	Inf	Inf	0.0%
17/1	Ahead Right	U	N/A	N/A	-		-	-	-	1138	1984	1984	57.4%
17/2	Ahead Right	U	N/A	N/A	-		-	-	-	1203	2112	2112	57.0%
18/1	Ahead Right	U	N/A	N/A	-		-	-	-	1136	2115	2115	53.7%
18/2	Right	U	N/A	N/A	-		-	-	-	912	2255	2255	40.4%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	505	0	0	20.7	27.7	0.0	48.4	-	-	-	-
Thames Rd / Perry St / Northend Rd	-	-	505	0	0	20.7	27.7	0.0	48.4	-	-	-	-
1/1	827	827	-	-	-	1.1	0.7	-	1.8	7.9	6.9	0.7	7.6
1/2	1043	1043	-	-	-	1.5	1.2	-	2.7	9.4	10.1	1.2	11.3
2/1	1079	1079	-	-	-	0.8	1.7	-	2.6	8.5	5.1	1.7	6.8
2/2	1186	1186	-	-	-	0.8	2.0	-	2.8	8.6	5.1	2.0	7.1
3/1	830	830	-	-	-	2.5	2.1	-	4.6	19.9	11.1	2.1	13.1
3/2	861	861	-	-	-	2.5	1.7	-	4.3	17.9	11.2	1.7	13.0
4/1	923	923	-	-	-	0.7	1.1	-	1.7	6.7	3.3	1.1	4.4
4/2	800	800	-	-	-	0.7	0.6	-	1.3	6.0	4.8	0.6	5.3
5/1	247	247	247	0	0	0.5	1.6	-	2.1	31.2	3.2	1.6	4.8
6/1	124	124	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	560	560	-	-	-	2.9	3.1	-	6.0	38.7	8.7	3.1	11.8
8/1	451	451	-	-	-	0.0	0.2	-	0.3	2.1	0.1	0.2	0.3
9/1	258	258	258	0	0	0.7	1.0	-	1.6	22.5	3.0	1.0	4.0
10/1	63	63	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	149	149	-	-	-	0.7	0.4	-	1.2	28.0	2.3	0.4	2.7
11/2	185	185	-	-	-	0.8	0.6	-	1.4	27.5	2.8	0.6	3.4
12/1	430	430	-	-	-	1.8	1.2	-	3.1	25.7	6.4	1.2	7.7
12/2	51	51	-	-	-	0.1	0.0	-	0.2	12.2	0.6	0.0	0.6
13/1	63	63	-	-	-	0.1	0.0	-	0.1	5.3	0.2	0.0	0.2
13/2	844	844	-	-	-	1.2	2.6	-	3.8	16.0	4.8	2.6	7.4
13/3	937	937	-	-	-	1.1	3.5	-	4.6	17.7	3.9	3.5	7.4
14/1	1079	1079	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	1186	1186	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	923	923	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

15/2	800	800	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1	451	451	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/1	1138	1138	-	-	-	0.0	0.7	-	0.7	2.1	0.0	0.7	0.7
17/2	1203	1203	-	-	-	0.0	0.7	-	0.7	2.0	0.0	0.7	0.7
18/1	1136	1136	-	-	-	0.0	0.6	-	0.6	1.8	0.0	0.6	0.6
18/2	912	912	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3
		C1	Stream: 1 PRC for Signalled Lanes (%):		2.2	Total Delay for Signalled Lanes (pcuHr):		14.47	Cycle Time (s):		60		
		C1	Stream: 2 PRC for Signalled Lanes (%):		172.1	Total Delay for Signalled Lanes (pcuHr):		0.26	Cycle Time (s):		60		
		C1	Stream: 3 PRC for Signalled Lanes (%):		27.7	Total Delay for Signalled Lanes (pcuHr):		7.11	Cycle Time (s):		60		
		C1	Stream: 4 PRC for Signalled Lanes (%):		12.2	Total Delay for Signalled Lanes (pcuHr):		5.39	Cycle Time (s):		60		
		C1	Stream: 5 PRC for Signalled Lanes (%):		11.3	Total Delay for Signalled Lanes (pcuHr):		12.11	Cycle Time (s):		60		
		C1	Stream: 6 PRC for Signalled Lanes (%):		32.2	Total Delay for Signalled Lanes (pcuHr):		3.04	Cycle Time (s):		60		
			PRC Over All Lanes (%):		2.2	Total Delay Over All Lanes (pcuHr):		48.40					

Appendix G Gravel Hill / Albion Road Modelling Results

Junctions 10
ARCADY 10 - Roundabout Module
Version: 10.0.0.1499 © Copyright TRL Software Limited, 2021
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Gravel Hill _ Albion Road RBT.j10
Path: J:\50923 - GH - LB Bexley Local Plan\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10\2022 Modelling Update
Report generation date: 10/03/2022 12:13:14

- »Existing layout - 2021 Baseline (unchanged), AM
- »Existing layout - 2021 Baseline (unchanged), PM
- »Existing layout - 2038 Reference Case - No LTC, AM
- »Existing layout - 2038 Reference Case - No LTC, PM
- »Existing layout - 2038 Reference Case - With LTC, AM
- »Existing layout - 2038 Reference Case - With LTC, PM
- »Existing layout - 2038 Local Plan Case - No LTC, AM
- »Existing layout - 2038 Local Plan Case - No LTC, PM
- »Existing layout - 2038 Local Plan Case - With LTC, AM
- »Existing layout - 2038 Local Plan Case - With LTC, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Existing layout - 2021 Baseline (unchanged)						
1 - A220 Gravel Hill (N)	3.0	8.51	0.75	2.3	7.34	0.69
2 - A220 Gravel Hill (S)	3.9	9.08	0.79	2.2	5.82	0.68
3 - Albion Road	0.6	4.45	0.36	1.2	5.78	0.54
Existing layout - 2038 Reference Case - No LTC						
1 - A220 Gravel Hill (N)	5.9	14.73	0.85	3.2	9.31	0.75
2 - A220 Gravel Hill (S)	10.9	22.58	0.92	3.6	8.53	0.78
3 - Albion Road	0.6	4.37	0.36	0.9	4.75	0.48
Existing layout - 2038 Reference Case - With LTC						
1 - A220 Gravel Hill (N)	5.3	13.37	0.84	3.1	9.16	0.74
2 - A220 Gravel Hill (S)	11.4	23.59	0.93	3.4	8.11	0.77
3 - Albion Road	0.6	4.12	0.35	0.9	4.69	0.48
Existing layout - 2038 Local Plan Case - No LTC						
1 - A220 Gravel Hill (N)	9.0	21.84	0.90	3.5	10.13	0.77
2 - A220 Gravel Hill (S)	17.6	34.90	0.96	3.8	8.82	0.79
3 - Albion Road	0.7	4.53	0.40	1.2	5.55	0.55
Existing layout - 2038 Local Plan Case - With LTC						
1 - A220 Gravel Hill (N)	8.3	20.40	0.90	3.1	9.13	0.74
2 - A220 Gravel Hill (S)	18.9	37.21	0.97	3.2	7.60	0.76
3 - Albion Road	0.7	4.35	0.39	1.2	5.52	0.55

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

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

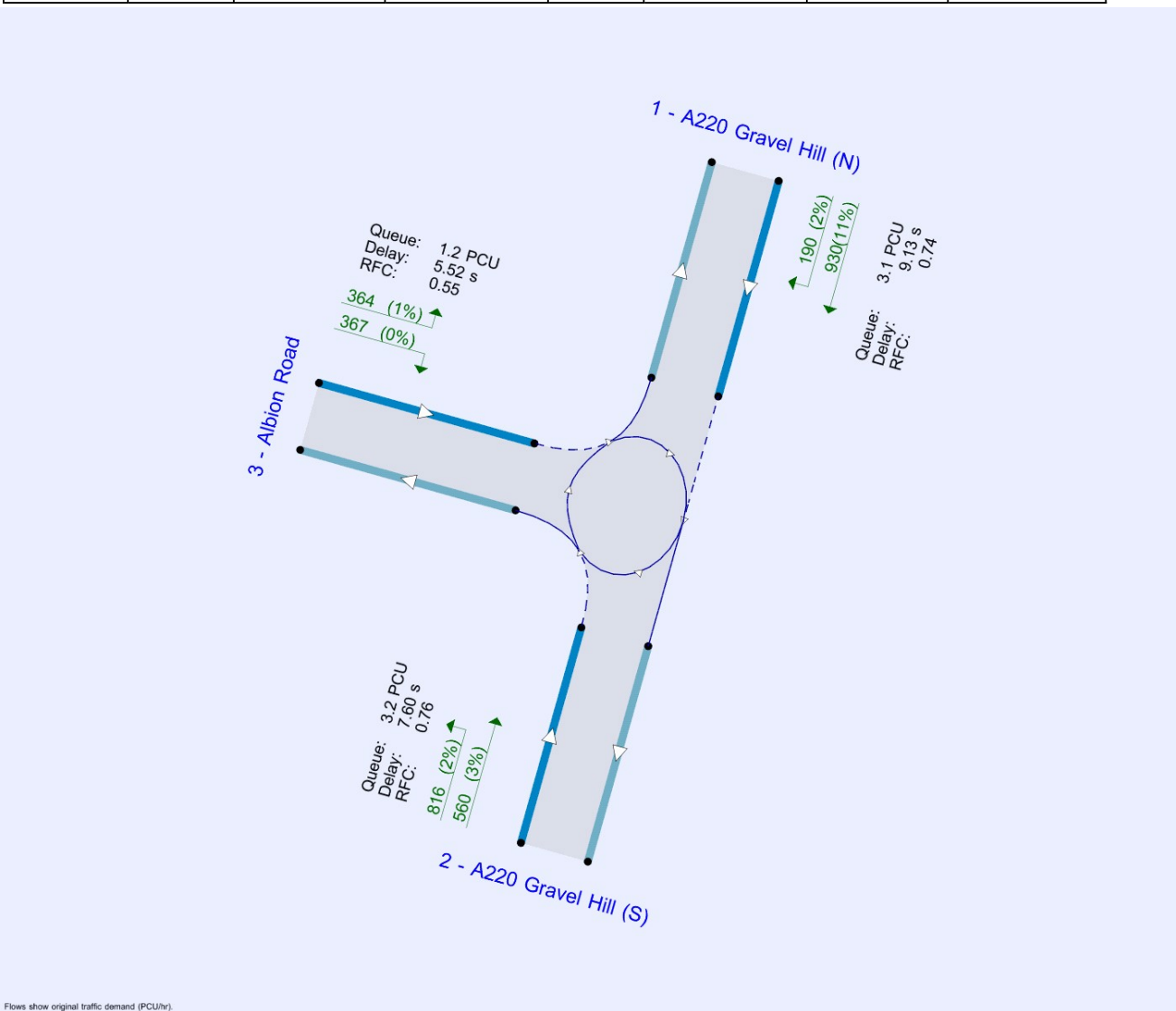
File summary

File Description

Title	
Location	
Site number	
Date	18/03/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SDGNT\dsabathier
Description	

Units

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



The junction diagram reflects the last run of Junctions.

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
D1	2021 Baseline (unchanged)	AM	ONE HOUR	07:45	09:15	15	✓
D2	2021 Baseline (unchanged)	PM	ONE HOUR	16:45	18:15	15	✓
D3	2038 Reference Case - No LTC	AM	ONE HOUR	07:45	09:15	15	✓
D4	2038 Reference Case - No LTC	PM	ONE HOUR	16:45	18:15	15	✓
D5	2038 Reference Case - With LTC	AM	ONE HOUR	07:45	09:15	15	✓
D6	2038 Reference Case - With LTC	PM	ONE HOUR	16:45	18:15	15	✓
D7	2038 Local Plan Case - No LTC	AM	ONE HOUR	07:45	09:15	15	✓
D8	2038 Local Plan Case - No LTC	PM	ONE HOUR	16:45	18:15	15	✓
D9	2038 Local Plan Case - With LTC	AM	ONE HOUR	07:45	09:15	15	✓
D10	2038 Local Plan Case - With LTC	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Existing layout - 2021 Baseline (unchanged), 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	8.20	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.20	A

Arms

Arms

Arm	Name	Description	No give-way line
1	A220 Gravel Hill (N)		
2	A220 Gravel Hill (S)		
3	Albion Road		

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 - A220 Gravel Hill (N)	6.00	6.00	0.0	25.0	28.0	10.0		
2 - A220 Gravel Hill (S)	7.00	7.00	0.0	20.0	28.0	25.0		
3 - Albion Road	6.00	6.00	0.0	22.5	28.0	18.5		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A220 Gravel Hill (N)	0.738	1962
2 - A220 Gravel Hill (S)	0.759	2158
3 - Albion Road	0.715	1900

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021 Baseline (unchanged)	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A220 Gravel Hill (N)		ONE HOUR	✓	1191	100.000
2 - A220 Gravel Hill (S)		ONE HOUR	✓	1425	100.000
3 - Albion Road		ONE HOUR	✓	433	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	978	213
	2 - A220 Gravel Hill (S)	712	0	713
	3 - Albion Road	176	257	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	5	3
	2 - A220 Gravel Hill (S)	6	0	2
	3 - Albion Road	0	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A220 Gravel Hill (N)	0.75	8.51	3.0	8.6	A	1093	1639
2 - A220 Gravel Hill (S)	0.79	9.08	3.9	14.3	A	1308	1961
3 - Albion Road	0.36	4.45	0.6	2.7	A	397	596

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	897	224	193	1820	0.493	893	666	0.0	1.0	4.047	A
2 - A220 Gravel Hill (S)	1073	268	160	2037	0.527	1068	926	0.0	1.1	3.847	A
3 - Albion Road	326	81	534	1519	0.215	325	694	0.0	0.3	3.217	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1071	268	231	1792	0.598	1069	797	1.0	1.5	5.194	A
2 - A220 Gravel Hill (S)	1281	320	191	2013	0.636	1278	1108	1.1	1.8	5.078	A
3 - Albion Road	389	97	639	1444	0.270	389	831	0.3	0.4	3.644	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1311	328	283	1753	0.748	1305	973	1.5	3.0	8.300	A
2 - A220 Gravel Hill (S)	1569	392	233	1981	0.792	1561	1354	1.8	3.8	8.754	A
3 - Albion Road	477	119	780	1343	0.355	476	1015	0.4	0.6	4.431	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1311	328	283	1753	0.748	1311	978	3.0	3.0	8.511	A
2 - A220 Gravel Hill (S)	1569	392	234	1980	0.792	1569	1360	3.8	3.9	9.080	A
3 - Albion Road	477	119	784	1340	0.356	477	1019	0.6	0.6	4.452	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1071	268	231	1791	0.598	1077	803	3.0	1.6	5.316	A
2 - A220 Gravel Hill (S)	1281	320	193	2012	0.637	1289	1116	3.9	1.9	5.238	A
3 - Albion Road	389	97	644	1440	0.270	390	838	0.6	0.4	3.666	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	897	224	194	1819	0.493	899	670	1.6	1.0	4.103	A
2 - A220 Gravel Hill (S)	1073	268	161	2036	0.527	1076	932	1.9	1.2	3.908	A
3 - Albion Road	326	81	537	1516	0.215	326	699	0.4	0.3	3.234	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.01	0.58	1.05	1.46	1.52			N/A	N/A
2 - A220 Gravel Hill (S)	1.15	0.57	1.04	1.46	1.51			N/A	N/A
3 - Albion Road	0.29	0.00	0.00	0.29	0.29			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.53	0.05	0.56	3.82	5.81			N/A	N/A
2 - A220 Gravel Hill (S)	1.79	0.05	0.48	4.77	7.73			N/A	N/A
3 - Albion Road	0.39	0.00	0.00	0.39	0.39			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	3.00	0.03	0.30	3.00	8.61			N/A	N/A
2 - A220 Gravel Hill (S)	3.79	0.03	0.30	3.79	14.33			N/A	N/A
3 - Albion Road	0.58	0.03	0.27	0.58	0.58			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	3.05	0.03	0.28	3.05	3.05			N/A	N/A
2 - A220 Gravel Hill (S)	3.88	0.03	0.28	3.88	4.28			N/A	N/A
3 - Albion Road	0.59	0.03	0.32	1.51	2.74			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.58	0.07	1.03	3.46	4.85			N/A	N/A
2 - A220 Gravel Hill (S)	1.85	0.06	0.93	4.51	6.59			N/A	N/A
3 - Albion Road	0.40	0.00	0.00	0.40	0.40			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.03	0.05	0.46	2.43	3.80			N/A	N/A
2 - A220 Gravel Hill (S)	1.17	0.04	0.42	2.94	4.98			N/A	N/A
3 - Albion Road	0.29	0.00	0.00	0.29	0.29			N/A	N/A

Existing layout - 2021 Baseline (unchanged), PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	6.35	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.35	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)	Run automatically
D2	2021 Baseline (unchanged)	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A220 Gravel Hill (N)		ONE HOUR	✓	1038	100.000
2 - A220 Gravel Hill (S)		ONE HOUR	✓	1258	100.000
3 - Albion Road		ONE HOUR	✓	671	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	876	162
	2 - A220 Gravel Hill (S)	685	0	573
	3 - Albion Road	308	363	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	8	2
	2 - A220 Gravel Hill (S)	5	0	1
	3 - Albion Road	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A220 Gravel Hill (N)	0.69	7.34	2.3	3.9	A	952	1429
2 - A220 Gravel Hill (S)	0.68	5.82	2.2	4.2	A	1154	1732
3 - Albion Road	0.54	5.78	1.2	1.6	A	616	924

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	781	195	272	1761	0.444	778	745	0.0	0.8	3.906	A
2 - A220 Gravel Hill (S)	947	237	121	2066	0.459	944	929	0.0	0.9	3.300	A
3 - Albion Road	505	126	514	1533	0.330	503	551	0.0	0.5	3.490	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	933	233	326	1721	0.542	932	891	0.8	1.3	4.867	A
2 - A220 Gravel Hill (S)	1131	283	145	2047	0.552	1129	1112	0.9	1.3	4.038	A
3 - Albion Road	603	151	615	1461	0.413	602	660	0.5	0.7	4.189	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1143	286	399	1668	0.685	1139	1090	1.3	2.3	7.227	A
2 - A220 Gravel Hill (S)	1385	346	178	2023	0.685	1381	1360	1.3	2.2	5.754	A
3 - Albion Road	739	185	752	1363	0.542	737	807	0.7	1.2	5.735	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1143	286	400	1667	0.686	1143	1093	2.3	2.3	7.344	A
2 - A220 Gravel Hill (S)	1385	346	178	2022	0.685	1385	1364	2.2	2.2	5.822	A
3 - Albion Road	739	185	754	1361	0.543	739	809	1.2	1.2	5.782	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	933	233	327	1720	0.542	937	896	2.3	1.3	4.946	A
2 - A220 Gravel Hill (S)	1131	283	146	2047	0.553	1135	1118	2.2	1.3	4.088	A
3 - Albion Road	603	151	618	1459	0.414	605	663	1.2	0.7	4.227	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	781	195	274	1760	0.444	783	749	1.3	0.9	3.950	A
2 - A220 Gravel Hill (S)	947	237	122	2065	0.459	949	935	1.3	0.9	3.332	A
3 - Albion Road	505	126	517	1531	0.330	506	554	0.7	0.5	3.516	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	0.85	0.59	1.07	1.50	1.55			N/A	N/A
2 - A220 Gravel Hill (S)	0.87	0.57	1.03	1.44	1.50			N/A	N/A
3 - Albion Road	0.49	0.00	0.00	0.49	0.49			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.25	0.06	0.79	2.73	3.87			N/A	N/A
2 - A220 Gravel Hill (S)	1.26	0.06	0.65	2.89	4.22			N/A	N/A
3 - Albion Road	0.70	0.08	0.80	1.38	1.46			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	2.27	0.03	0.29	2.27	3.02			N/A	N/A
2 - A220 Gravel Hill (S)	2.20	0.03	0.28	2.20	2.20			N/A	N/A
3 - Albion Road	1.17	0.03	0.26	1.17	1.17			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	2.30	0.03	0.28	2.30	2.30			N/A	N/A
2 - A220 Gravel Hill (S)	2.22	0.03	0.27	2.22	2.22			N/A	N/A
3 - Albion Road	1.18	0.03	0.27	1.18	1.57			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.28	0.10	1.11	2.14	2.94			N/A	N/A
2 - A220 Gravel Hill (S)	1.29	0.13	1.15	2.03	2.72			N/A	N/A
3 - Albion Road	0.71	0.21	0.93	1.39	1.44			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	0.86	0.05	0.56	1.69	2.27			N/A	N/A
2 - A220 Gravel Hill (S)	0.88	0.06	0.70	1.62	2.05			N/A	N/A
3 - Albion Road	0.50	0.04	0.45	1.27	1.39			N/A	N/A

Existing layout - 2038 Reference Case - No LTC, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	17.10	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	17.10	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2038 Reference Case - No LTC	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A220 Gravel Hill (N)		ONE HOUR	✓	1353	100.000
2 - A220 Gravel Hill (S)		ONE HOUR	✓	1670	100.000
3 - Albion Road		ONE HOUR	✓	467	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	1155	198
	2 - A220 Gravel Hill (S)	617	0	1053
	3 - Albion Road	200	267	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	6	6
	2 - A220 Gravel Hill (S)	8	0	3
	3 - Albion Road	1	17	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A220 Gravel Hill (N)	0.85	14.73	5.9	30.2	B	1242	1862
2 - A220 Gravel Hill (S)	0.92	22.58	10.9	59.8	C	1532	2299
3 - Albion Road	0.36	4.37	0.6	2.9	A	429	643

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1019	255	200	1814	0.561	1013	612	0.0	1.3	4.734	A
2 - A220 Gravel Hill (S)	1257	314	148	2045	0.615	1251	1065	0.0	1.6	4.710	A
3 - Albion Road	352	88	462	1570	0.224	350	937	0.0	0.3	3.231	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1216	304	240	1785	0.681	1213	732	1.3	2.2	6.628	A
2 - A220 Gravel Hill (S)	1501	375	177	2023	0.742	1496	1275	1.6	2.9	7.090	A
3 - Albion Road	420	105	553	1505	0.279	419	1121	0.3	0.4	3.630	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1490	372	294	1745	0.854	1476	889	2.2	5.6	13.537	B
2 - A220 Gravel Hill (S)	1839	460	216	1994	0.922	1811	1554	2.9	9.8	18.412	C
3 - Albion Road	514	129	669	1422	0.362	513	1358	0.4	0.6	4.337	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1490	372	294	1745	0.854	1489	898	5.6	5.9	14.730	B
2 - A220 Gravel Hill (S)	1839	460	218	1992	0.923	1834	1565	9.8	10.9	22.576	C
3 - Albion Road	514	129	678	1416	0.363	514	1375	0.6	0.6	4.374	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1216	304	240	1784	0.682	1231	746	5.9	2.3	7.059	A
2 - A220 Gravel Hill (S)	1501	375	180	2021	0.743	1532	1291	10.9	3.1	8.178	A
3 - Albion Road	420	105	566	1496	0.281	421	1146	0.6	0.4	3.670	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1019	255	201	1813	0.562	1022	617	2.3	1.4	4.848	A
2 - A220 Gravel Hill (S)	1257	314	150	2044	0.615	1263	1074	3.1	1.7	4.864	A
3 - Albion Road	352	88	467	1567	0.224	352	946	0.4	0.3	3.249	A

Queue Variation Results for each time segment
07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.34	0.60	1.18	1.56	1.84			N/A	N/A
2 - A220 Gravel Hill (S)	1.65	0.60	1.55	2.08	2.64			N/A	N/A
3 - Albion Road	0.31	0.00	0.00	0.31	0.31			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	2.22	0.05	0.50	6.02	9.84			N/A	N/A
2 - A220 Gravel Hill (S)	2.93	0.05	0.48	8.15	13.95			N/A	N/A
3 - Albion Road	0.42	0.00	0.00	0.42	0.42			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	5.61	0.04	0.36	11.12	30.24			N/A	N/A
2 - A220 Gravel Hill (S)	9.78	0.05	0.52	27.97	51.00			N/A	N/A
3 - Albion Road	0.62	0.03	0.28	0.62	0.62			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	5.87	0.03	0.31	5.87	21.79			N/A	N/A
2 - A220 Gravel Hill (S)	10.85	0.04	0.39	23.74	59.78			N/A	N/A
3 - Albion Road	0.62	0.03	0.33	1.51	2.93			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	2.32	0.05	0.51	6.30	10.28			N/A	N/A
2 - A220 Gravel Hill (S)	3.12	0.05	0.46	8.69	15.39			N/A	N/A
3 - Albion Road	0.43	0.00	0.00	0.43	0.43			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.37	0.04	0.36	3.26	6.95			N/A	N/A
2 - A220 Gravel Hill (S)	1.70	0.03	0.33	3.14	8.82			N/A	N/A
3 - Albion Road	0.32	0.00	0.00	0.32	0.32			N/A	N/A

Existing layout - 2038 Reference Case - No LTC, PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	8.06	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.06	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)	Run automatically
D4	2038 Reference Case - No LTC	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A220 Gravel Hill (N)		ONE HOUR	✓	1136	100.000
2 - A220 Gravel Hill (S)		ONE HOUR	✓	1422	100.000
3 - Albion Road		ONE HOUR	✓	628	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	943	193
	2 - A220 Gravel Hill (S)	570	0	852
	3 - Albion Road	273	355	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	11	3
	2 - A220 Gravel Hill (S)	3	0	2
	3 - Albion Road	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A220 Gravel Hill (N)	0.75	9.31	3.2	10.0	A	1042	1564
2 - A220 Gravel Hill (S)	0.78	8.53	3.6	12.3	A	1305	1957
3 - Albion Road	0.48	4.75	0.9	2.1	A	576	864

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	855	214	266	1765	0.484	851	632	0.0	1.0	4.295	A
2 - A220 Gravel Hill (S)	1071	268	145	2048	0.523	1066	973	0.0	1.1	3.737	A
3 - Albion Road	473	118	427	1595	0.296	471	783	0.0	0.4	3.213	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1021	255	319	1727	0.591	1019	757	1.0	1.6	5.557	A
2 - A220 Gravel Hill (S)	1278	320	173	2026	0.631	1276	1165	1.1	1.7	4.896	A
3 - Albion Road	565	141	511	1535	0.368	564	938	0.4	0.6	3.722	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1251	313	390	1674	0.747	1245	925	1.6	3.1	9.054	A
2 - A220 Gravel Hill (S)	1566	391	211	1997	0.784	1558	1423	1.7	3.6	8.259	A
3 - Albion Road	691	173	625	1454	0.476	690	1145	0.6	0.9	4.727	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1251	313	391	1673	0.747	1251	928	3.1	3.2	9.309	A
2 - A220 Gravel Hill (S)	1566	391	212	1997	0.784	1565	1429	3.6	3.6	8.533	A
3 - Albion Road	691	173	627	1452	0.476	691	1150	0.9	0.9	4.754	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1021	255	320	1726	0.592	1028	761	3.2	1.6	5.698	A
2 - A220 Gravel Hill (S)	1278	320	175	2025	0.631	1286	1173	3.6	1.8	5.033	A
3 - Albion Road	565	141	515	1532	0.369	566	945	0.9	0.6	3.746	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	855	214	268	1764	0.485	858	636	1.6	1.0	4.359	A
2 - A220 Gravel Hill (S)	1071	268	146	2047	0.523	1073	979	1.8	1.1	3.796	A
3 - Albion Road	473	118	430	1593	0.297	473	789	0.6	0.4	3.230	A

Queue Variation Results for each time segment
16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.02	0.60	1.10	1.53	1.59			N/A	N/A
2 - A220 Gravel Hill (S)	1.11	0.56	1.02	1.43	1.48			N/A	N/A
3 - Albion Road	0.42	0.00	0.00	0.42	0.42			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.56	0.06	0.66	3.83	5.72			N/A	N/A
2 - A220 Gravel Hill (S)	1.73	0.05	0.47	4.57	7.38			N/A	N/A
3 - Albion Road	0.58	0.08	0.78	1.36	1.43			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	3.12	0.03	0.31	3.12	10.01			N/A	N/A
2 - A220 Gravel Hill (S)	3.57	0.03	0.29	3.57	12.25			N/A	N/A
3 - Albion Road	0.90	0.03	0.26	0.90	0.90			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	3.18	0.03	0.30	3.18	3.18			N/A	N/A
2 - A220 Gravel Hill (S)	3.64	0.03	0.28	3.64	3.64			N/A	N/A
3 - Albion Road	0.91	0.03	0.27	0.91	2.14			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.61	0.07	1.03	3.57	5.06			N/A	N/A
2 - A220 Gravel Hill (S)	1.78	0.07	0.98	4.20	6.06			N/A	N/A
3 - Albion Road	0.59	0.55	1.00	1.41	1.46			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.04	0.05	0.46	2.46	3.92			N/A	N/A
2 - A220 Gravel Hill (S)	1.13	0.04	0.42	2.84	4.68			N/A	N/A
3 - Albion Road	0.43	0.00	0.00	0.43	0.43			N/A	N/A

Existing layout - 2038 Reference Case - With LTC, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	17.13	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	17.13	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	2038 Reference Case - With LTC	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A220 Gravel Hill (N)		ONE HOUR	✓	1328	100.000
2 - A220 Gravel Hill (S)		ONE HOUR	✓	1682	100.000
3 - Albion Road		ONE HOUR	✓	453	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	1133	195
	2 - A220 Gravel Hill (S)	597	0	1085
	3 - Albion Road	186	267	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	6	7
	2 - A220 Gravel Hill (S)	8	0	1
	3 - Albion Road	1	11	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A220 Gravel Hill (N)	0.84	13.37	5.3	26.2	B	1219	1828
2 - A220 Gravel Hill (S)	0.93	23.59	11.4	63.1	C	1543	2315
3 - Albion Road	0.35	4.12	0.6	2.6	A	416	624

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1000	250	200	1814	0.551	995	587	0.0	1.3	4.635	A
2 - A220 Gravel Hill (S)	1266	317	146	2047	0.619	1260	1049	0.0	1.7	4.688	A
3 - Albion Road	341	85	447	1581	0.216	340	959	0.0	0.3	3.091	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1194	298	240	1785	0.669	1191	702	1.3	2.1	6.393	A
2 - A220 Gravel Hill (S)	1512	378	175	2025	0.747	1507	1256	1.7	3.0	7.109	A
3 - Albion Road	407	102	535	1518	0.268	407	1147	0.3	0.4	3.456	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1462	366	294	1745	0.838	1450	852	2.1	5.1	12.478	B
2 - A220 Gravel Hill (S)	1852	463	213	1996	0.928	1823	1531	3.0	10.2	18.951	C
3 - Albion Road	499	125	647	1438	0.347	498	1389	0.4	0.6	4.083	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1462	366	294	1745	0.838	1461	860	5.1	5.3	13.373	B
2 - A220 Gravel Hill (S)	1852	463	215	1995	0.928	1847	1541	10.2	11.4	23.592	C
3 - Albion Road	499	125	656	1432	0.348	499	1406	0.6	0.6	4.115	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1194	298	240	1784	0.669	1206	716	5.3	2.2	6.740	A
2 - A220 Gravel Hill (S)	1512	378	177	2023	0.747	1545	1269	11.4	3.2	8.289	A
3 - Albion Road	407	102	548	1508	0.270	408	1174	0.6	0.4	3.493	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1000	250	201	1813	0.551	1003	592	2.2	1.3	4.738	A
2 - A220 Gravel Hill (S)	1266	317	147	2046	0.619	1272	1057	3.2	1.7	4.844	A
3 - Albion Road	341	85	452	1578	0.216	341	968	0.4	0.3	3.106	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.29	0.59	1.12	1.29	1.62			N/A	N/A
2 - A220 Gravel Hill (S)	1.65	0.58	1.55	2.16	2.71			N/A	N/A
3 - Albion Road	0.29	0.00	0.00	0.29	0.29			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	2.10	0.05	0.50	5.66	9.19			N/A	N/A
2 - A220 Gravel Hill (S)	2.96	0.05	0.47	8.22	14.15			N/A	N/A
3 - Albion Road	0.39	0.00	0.00	0.39	0.39			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	5.06	0.03	0.35	8.38	26.22			N/A	N/A
2 - A220 Gravel Hill (S)	10.20	0.05	0.74	29.54	52.54			N/A	N/A
3 - Albion Road	0.56	0.03	0.27	0.56	0.56			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	5.25	0.03	0.31	5.25	16.32			N/A	N/A
2 - A220 Gravel Hill (S)	11.41	0.04	0.40	26.61	63.11			N/A	N/A
3 - Albion Road	0.57	0.03	0.32	1.51	2.62			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	2.19	0.05	0.53	5.87	9.31			N/A	N/A
2 - A220 Gravel Hill (S)	3.16	0.04	0.45	8.79	15.65			N/A	N/A
3 - Albion Road	0.40	0.00	0.00	0.40	0.40			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.32	0.04	0.37	3.21	6.47			N/A	N/A
2 - A220 Gravel Hill (S)	1.70	0.03	0.33	3.06	8.81			N/A	N/A
3 - Albion Road	0.30	0.00	0.00	0.30	0.30			N/A	N/A

Existing layout - 2038 Reference Case - With LTC, PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	7.79	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.79	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)	Run automatically
D6	2038 Reference Case - With LTC	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A220 Gravel Hill (N)		ONE HOUR	✓	1129	100.000
2 - A220 Gravel Hill (S)		ONE HOUR	✓	1402	100.000
3 - Albion Road		ONE HOUR	✓	639	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	937	192
	2 - A220 Gravel Hill (S)	541	0	861
	3 - Albion Road	283	356	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	11	3
	2 - A220 Gravel Hill (S)	3	0	2
	3 - Albion Road	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A220 Gravel Hill (N)	0.74	9.16	3.1	9.4	A	1036	1554
2 - A220 Gravel Hill (S)	0.77	8.11	3.4	10.3	A	1286	1930
3 - Albion Road	0.48	4.69	0.9	2.1	A	586	880

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	850	212	267	1765	0.482	846	618	0.0	1.0	4.273	A
2 - A220 Gravel Hill (S)	1055	264	144	2049	0.515	1051	969	0.0	1.1	3.681	A
3 - Albion Road	481	120	406	1610	0.299	479	789	0.0	0.4	3.193	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1015	254	320	1726	0.588	1013	740	1.0	1.5	5.513	A
2 - A220 Gravel Hill (S)	1260	315	172	2027	0.622	1258	1160	1.1	1.7	4.778	A
3 - Albion Road	574	144	485	1553	0.370	574	945	0.4	0.6	3.689	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1243	311	391	1673	0.743	1237	904	1.5	3.1	8.920	A
2 - A220 Gravel Hill (S)	1544	386	210	1998	0.773	1537	1418	1.7	3.4	7.876	A
3 - Albion Road	704	176	593	1476	0.477	702	1154	0.6	0.9	4.663	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1243	311	392	1673	0.743	1243	907	3.1	3.1	9.162	A
2 - A220 Gravel Hill (S)	1544	386	211	1997	0.773	1543	1423	3.4	3.4	8.105	A
3 - Albion Road	704	176	596	1475	0.477	704	1159	0.9	0.9	4.688	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1015	254	321	1725	0.588	1021	744	3.1	1.6	5.649	A
2 - A220 Gravel Hill (S)	1260	315	174	2026	0.622	1267	1168	3.4	1.7	4.901	A
3 - Albion Road	574	144	489	1551	0.370	576	952	0.9	0.6	3.712	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	850	212	268	1764	0.482	852	622	1.6	1.0	4.336	A
2 - A220 Gravel Hill (S)	1055	264	145	2048	0.515	1058	976	1.7	1.1	3.734	A
3 - Albion Road	481	120	408	1609	0.299	482	795	0.6	0.4	3.210	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.01	0.60	1.10	1.53	1.59			N/A	N/A
2 - A220 Gravel Hill (S)	1.08	0.56	1.02	1.43	1.48			N/A	N/A
3 - Albion Road	0.43	0.00	0.00	0.43	0.43			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.54	0.06	0.67	3.74	5.55			N/A	N/A
2 - A220 Gravel Hill (S)	1.66	0.05	0.48	4.34	6.95			N/A	N/A
3 - Albion Road	0.59	0.08	0.78	1.36	1.43			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	3.05	0.03	0.31	3.05	9.43			N/A	N/A
2 - A220 Gravel Hill (S)	3.35	0.03	0.29	3.35	10.26			N/A	N/A
3 - Albion Road	0.91	0.03	0.26	0.91	0.91			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	3.11	0.03	0.30	3.11	3.11			N/A	N/A
2 - A220 Gravel Hill (S)	3.42	0.03	0.28	3.42	3.42			N/A	N/A
3 - Albion Road	0.91	0.03	0.27	0.91	2.06			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.59	0.08	1.04	3.45	4.89			N/A	N/A
2 - A220 Gravel Hill (S)	1.71	0.07	1.02	3.92	5.59			N/A	N/A
3 - Albion Road	0.59	0.55	1.00	1.41	1.46			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.03	0.05	0.47	2.40	3.81			N/A	N/A
2 - A220 Gravel Hill (S)	1.10	0.04	0.44	2.71	4.32			N/A	N/A
3 - Albion Road	0.43	0.00	0.00	0.43	0.43			N/A	N/A

Existing layout - 2038 Local Plan Case - No LTC, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	25.62	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	25.62	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
D7	2038 Local Plan Case - No LTC	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A220 Gravel Hill (N)		ONE HOUR	✓	1424	100.000
2 - A220 Gravel Hill (S)		ONE HOUR	✓	1743	100.000
3 - Albion Road		ONE HOUR	✓	512	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	1229	195
	2 - A220 Gravel Hill (S)	620	0	1123
	3 - Albion Road	232	280	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	7	6
	2 - A220 Gravel Hill (S)	7	0	2
	3 - Albion Road	1	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A220 Gravel Hill (N)	0.90	21.84	9.0	48.0	C	1307	1960
2 - A220 Gravel Hill (S)	0.96	34.90	17.6	89.2	D	1599	2399
3 - Albion Road	0.40	4.53	0.7	3.1	A	470	705

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1072	268	210	1807	0.593	1066	638	0.0	1.5	5.150	A
2 - A220 Gravel Hill (S)	1312	328	146	2047	0.641	1305	1130	0.0	1.8	4.984	A
3 - Albion Road	385	96	464	1569	0.246	384	987	0.0	0.3	3.256	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1280	320	251	1776	0.721	1276	763	1.5	2.7	7.611	A
2 - A220 Gravel Hill (S)	1567	392	175	2025	0.774	1561	1352	1.8	3.4	7.928	A
3 - Albion Road	460	115	555	1504	0.306	460	1180	0.3	0.5	3.696	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1568	392	308	1735	0.904	1546	922	2.7	8.3	18.480	C
2 - A220 Gravel Hill (S)	1919	480	212	1997	0.961	1875	1642	3.4	14.4	24.618	C
3 - Albion Road	564	141	667	1424	0.396	563	1420	0.5	0.7	4.480	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1568	392	308	1734	0.904	1565	934	8.3	9.0	21.837	C
2 - A220 Gravel Hill (S)	1919	480	214	1995	0.962	1907	1659	14.4	17.6	34.903	D
3 - Albion Road	564	141	678	1416	0.398	564	1443	0.7	0.7	4.531	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1280	320	252	1776	0.721	1305	786	9.0	2.8	8.567	A
2 - A220 Gravel Hill (S)	1567	392	179	2022	0.775	1622	1378	17.6	3.7	10.556	B
3 - Albion Road	460	115	577	1488	0.309	461	1224	0.7	0.5	3.765	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1072	268	211	1806	0.594	1077	644	2.8	1.6	5.314	A
2 - A220 Gravel Hill (S)	1312	328	147	2046	0.641	1320	1141	3.7	1.9	5.191	A
3 - Albion Road	385	96	469	1565	0.246	386	998	0.5	0.4	3.277	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.54	0.62	1.43	1.93	2.07			N/A	N/A
2 - A220 Gravel Hill (S)	1.82	0.53	1.15	2.78	3.26			N/A	N/A
3 - Albion Road	0.35	0.00	0.00	0.35	0.35			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	2.68	0.05	0.51	7.38	12.26			N/A	N/A
2 - A220 Gravel Hill (S)	3.42	0.05	0.49	9.61	16.36			N/A	N/A
3 - Albion Road	0.47	0.00	0.00	0.47	0.47			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	8.25	0.05	0.48	22.89	44.07			N/A	N/A
2 - A220 Gravel Hill (S)	14.44	0.10	3.36	41.50	63.71			N/A	N/A
3 - Albion Road	0.70	0.03	0.27	0.70	0.70			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	8.99	0.04	0.37	16.56	47.97			N/A	N/A
2 - A220 Gravel Hill (S)	17.58	0.06	1.55	51.71	89.20			N/A	N/A
3 - Albion Road	0.71	0.03	0.31	1.23	3.07			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	2.84	0.05	0.47	7.87	13.80			N/A	N/A
2 - A220 Gravel Hill (S)	3.72	0.04	0.44	10.29	18.99			N/A	N/A
3 - Albion Road	0.48	0.00	0.00	0.48	0.48			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.58	0.03	0.34	3.10	8.22			N/A	N/A
2 - A220 Gravel Hill (S)	1.88	0.03	0.32	2.73	9.33			N/A	N/A
3 - Albion Road	0.35	0.00	0.00	0.35	0.35			N/A	N/A

Existing layout - 2038 Local Plan Case - No LTC, PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	8.57	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.57	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)	Run automatically
D8	2038 Local Plan Case - No LTC	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A220 Gravel Hill (N)		ONE HOUR	✓	1156	100.000
2 - A220 Gravel Hill (S)		ONE HOUR	✓	1440	100.000
3 - Albion Road		ONE HOUR	✓	719	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	970	186
	2 - A220 Gravel Hill (S)	581	0	859
	3 - Albion Road	348	371	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	11	2
	2 - A220 Gravel Hill (S)	3	0	2
	3 - Albion Road	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A220 Gravel Hill (N)	0.77	10.13	3.5	13.0	B	1061	1591
2 - A220 Gravel Hill (S)	0.79	8.82	3.8	13.7	A	1321	1982
3 - Albion Road	0.55	5.55	1.2	1.5	A	660	990

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	870	218	278	1757	0.495	866	697	0.0	1.1	4.403	A
2 - A220 Gravel Hill (S)	1084	271	139	2052	0.528	1080	1005	0.0	1.1	3.774	A
3 - Albion Road	541	135	436	1589	0.341	539	783	0.0	0.5	3.440	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1039	260	333	1716	0.606	1037	834	1.1	1.7	5.781	A
2 - A220 Gravel Hill (S)	1295	324	167	2031	0.637	1292	1203	1.1	1.8	4.970	A
3 - Albion Road	646	162	521	1528	0.423	646	938	0.5	0.7	4.095	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1273	318	408	1661	0.766	1266	1019	1.7	3.4	9.789	A
2 - A220 Gravel Hill (S)	1585	396	204	2003	0.791	1578	1470	1.8	3.7	8.508	A
3 - Albion Road	792	198	637	1445	0.548	790	1145	0.7	1.2	5.502	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1273	318	408	1660	0.767	1272	1023	3.4	3.5	10.132	B
2 - A220 Gravel Hill (S)	1585	396	205	2002	0.792	1585	1476	3.7	3.8	8.815	A
3 - Albion Road	792	198	640	1443	0.549	792	1150	1.2	1.2	5.551	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1039	260	334	1715	0.606	1046	839	3.5	1.7	5.953	A
2 - A220 Gravel Hill (S)	1295	324	168	2030	0.638	1302	1213	3.8	1.8	5.122	A
3 - Albion Road	646	162	525	1525	0.424	648	945	1.2	0.7	4.137	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	870	218	280	1755	0.496	873	701	1.7	1.1	4.476	A
2 - A220 Gravel Hill (S)	1084	271	140	2051	0.529	1087	1012	1.8	1.2	3.832	A
3 - Albion Road	541	135	438	1587	0.341	542	789	0.7	0.5	3.464	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.06	0.60	1.09	1.53	1.59			N/A	N/A
2 - A220 Gravel Hill (S)	1.14	0.56	1.02	1.43	1.48			N/A	N/A
3 - Albion Road	0.52	0.52	1.00	1.41	1.46			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.65	0.06	0.60	4.14	6.31			N/A	N/A
2 - A220 Gravel Hill (S)	1.77	0.05	0.47	4.72	7.69			N/A	N/A
3 - Albion Road	0.73	0.09	0.81	1.41	1.49			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	3.43	0.03	0.32	3.43	13.00			N/A	N/A
2 - A220 Gravel Hill (S)	3.72	0.03	0.30	3.72	13.65			N/A	N/A
3 - Albion Road	1.20	0.03	0.26	1.20	1.20			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	3.51	0.03	0.30	3.51	4.76			N/A	N/A
2 - A220 Gravel Hill (S)	3.81	0.03	0.28	3.81	3.82			N/A	N/A
3 - Albion Road	1.21	0.03	0.27	1.21	1.23			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.71	0.07	0.95	4.02	5.80			N/A	N/A
2 - A220 Gravel Hill (S)	1.83	0.06	0.94	4.44	6.47			N/A	N/A
3 - Albion Road	0.75	0.26	0.95	1.40	1.45			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.09	0.04	0.44	2.69	4.38			N/A	N/A
2 - A220 Gravel Hill (S)	1.16	0.04	0.41	2.92	4.91			N/A	N/A
3 - Albion Road	0.52	0.05	0.50	1.31	1.41			N/A	N/A

Existing layout - 2038 Local Plan Case - With LTC, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	26.16	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	26.16	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	2038 Local Plan Case - With LTC	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A220 Gravel Hill (N)		ONE HOUR	✓	1410	100.000
2 - A220 Gravel Hill (S)		ONE HOUR	✓	1749	100.000
3 - Albion Road		ONE HOUR	✓	513	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	1210	200
	2 - A220 Gravel Hill (S)	595	0	1154
	3 - Albion Road	231	282	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	7	6
	2 - A220 Gravel Hill (S)	7	0	1
	3 - Albion Road	1	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A220 Gravel Hill (N)	0.90	20.40	8.3	42.9	C	1294	1941
2 - A220 Gravel Hill (S)	0.97	37.21	18.9	92.9	E	1605	2407
3 - Albion Road	0.39	4.35	0.7	3.0	A	471	706

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1062	265	212	1806	0.588	1056	619	0.0	1.5	5.087	A
2 - A220 Gravel Hill (S)	1317	329	150	2044	0.644	1309	1117	0.0	1.8	4.997	A
3 - Albion Road	386	97	445	1582	0.244	385	1014	0.0	0.3	3.162	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1268	317	253	1775	0.714	1263	740	1.5	2.6	7.452	A
2 - A220 Gravel Hill (S)	1572	393	179	2022	0.778	1566	1337	1.8	3.5	8.014	A
3 - Albion Road	461	115	533	1520	0.303	461	1212	0.3	0.5	3.576	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1552	388	310	1733	0.896	1532	893	2.6	7.7	17.563	C
2 - A220 Gravel Hill (S)	1926	481	217	1993	0.966	1879	1625	3.5	15.2	25.621	D
3 - Albion Road	565	141	639	1444	0.391	564	1457	0.5	0.7	4.303	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1552	388	310	1733	0.896	1550	904	7.7	8.3	20.400	C
2 - A220 Gravel Hill (S)	1926	481	220	1991	0.967	1911	1641	15.2	18.9	37.208	E
3 - Albion Road	565	141	650	1436	0.393	565	1481	0.7	0.7	4.350	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1268	317	254	1774	0.714	1290	763	8.3	2.7	8.284	A
2 - A220 Gravel Hill (S)	1572	393	183	2019	0.779	1633	1361	18.9	3.8	11.009	B
3 - Albion Road	461	115	555	1503	0.307	462	1260	0.7	0.5	3.640	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1062	265	213	1805	0.588	1066	625	2.7	1.5	5.242	A
2 - A220 Gravel Hill (S)	1317	329	151	2043	0.645	1324	1128	3.8	1.9	5.210	A
3 - Albion Road	386	97	451	1578	0.245	387	1025	0.5	0.3	3.180	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.50	0.61	1.39	1.89	2.04			N/A	N/A
2 - A220 Gravel Hill (S)	1.83	0.52	1.16	2.83	3.41			N/A	N/A
3 - Albion Road	0.34	0.00	0.00	0.34	0.34			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	2.60	0.05	0.50	7.15	11.81			N/A	N/A
2 - A220 Gravel Hill (S)	3.47	0.05	0.49	9.77	16.62			N/A	N/A
3 - Albion Road	0.46	0.00	0.00	0.46	0.46			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	7.72	0.04	0.45	20.78	41.84			N/A	N/A
2 - A220 Gravel Hill (S)	15.25	0.11	4.24	43.20	65.01			N/A	N/A
3 - Albion Road	0.67	0.03	0.27	0.67	0.67			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	8.34	0.04	0.35	13.28	42.90			N/A	N/A
2 - A220 Gravel Hill (S)	18.89	0.07	1.94	55.86	92.88			N/A	N/A
3 - Albion Road	0.68	0.03	0.30	1.24	3.00			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	2.75	0.05	0.47	7.58	13.16			N/A	N/A
2 - A220 Gravel Hill (S)	3.79	0.04	0.44	10.45	19.37			N/A	N/A
3 - Albion Road	0.47	0.00	0.00	0.47	0.47			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.55	0.03	0.35	3.14	8.03			N/A	N/A
2 - A220 Gravel Hill (S)	1.90	0.03	0.31	2.63	9.29			N/A	N/A
3 - Albion Road	0.34	0.00	0.00	0.34	0.34			N/A	N/A

Existing layout - 2038 Local Plan Case - With LTC, PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	7.66	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.66	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)	Run automatically
D10	2038 Local Plan Case - With LTC	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A220 Gravel Hill (N)		ONE HOUR	✓	1120	100.000
2 - A220 Gravel Hill (S)		ONE HOUR	✓	1376	100.000
3 - Albion Road		ONE HOUR	✓	731	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	930	190
	2 - A220 Gravel Hill (S)	560	0	816
	3 - Albion Road	364	367	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	11	2
	2 - A220 Gravel Hill (S)	3	0	2
	3 - Albion Road	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A220 Gravel Hill (N)	0.74	9.13	3.1	9.2	A	1028	1542
2 - A220 Gravel Hill (S)	0.76	7.60	3.2	8.0	A	1263	1894
3 - Albion Road	0.55	5.52	1.2	1.5	A	671	1006

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	843	211	275	1759	0.479	839	693	0.0	1.0	4.264	A
2 - A220 Gravel Hill (S)	1036	259	142	2050	0.505	1032	972	0.0	1.0	3.607	A
3 - Albion Road	550	138	420	1600	0.344	548	754	0.0	0.5	3.431	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1007	252	329	1719	0.586	1005	829	1.0	1.5	5.497	A
2 - A220 Gravel Hill (S)	1237	309	170	2028	0.610	1235	1164	1.0	1.6	4.632	A
3 - Albion Road	657	164	503	1541	0.426	656	903	0.5	0.7	4.084	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1233	308	403	1664	0.741	1227	1014	1.5	3.0	8.884	A
2 - A220 Gravel Hill (S)	1515	379	208	2000	0.758	1509	1422	1.6	3.1	7.419	A
3 - Albion Road	805	201	614	1461	0.551	803	1103	0.7	1.2	5.479	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1233	308	404	1664	0.741	1233	1017	3.0	3.1	9.125	A
2 - A220 Gravel Hill (S)	1515	379	209	1999	0.758	1515	1428	3.1	3.2	7.603	A
3 - Albion Road	805	201	616	1460	0.551	805	1107	1.2	1.2	5.524	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1007	252	331	1718	0.586	1013	834	3.1	1.6	5.633	A
2 - A220 Gravel Hill (S)	1237	309	172	2027	0.610	1243	1172	3.2	1.6	4.737	A
3 - Albion Road	657	164	506	1539	0.427	659	909	1.2	0.8	4.121	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	843	211	277	1758	0.480	845	697	1.6	1.0	4.325	A
2 - A220 Gravel Hill (S)	1036	259	143	2049	0.506	1038	979	1.6	1.1	3.657	A
3 - Albion Road	550	138	423	1598	0.344	551	759	0.8	0.5	3.457	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.00	0.60	1.09	1.53	1.59			N/A	N/A
2 - A220 Gravel Hill (S)	1.04	0.56	1.02	1.43	1.48			N/A	N/A
3 - Albion Road	0.52	0.52	1.00	1.41	1.46			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.52	0.06	0.68	3.68	5.45			N/A	N/A
2 - A220 Gravel Hill (S)	1.58	0.05	0.48	4.06	6.46			N/A	N/A
3 - Albion Road	0.74	0.08	0.81	1.42	1.50			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	3.01	0.03	0.31	3.01	9.17			N/A	N/A
2 - A220 Gravel Hill (S)	3.10	0.03	0.29	3.10	7.96			N/A	N/A
3 - Albion Road	1.22	0.03	0.26	1.22	1.22			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	3.07	0.03	0.30	3.07	3.07			N/A	N/A
2 - A220 Gravel Hill (S)	3.15	0.03	0.27	3.15	3.15			N/A	N/A
3 - Albion Road	1.23	0.03	0.27	1.23	1.23			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.57	0.08	1.04	3.38	4.79			N/A	N/A
2 - A220 Gravel Hill (S)	1.62	0.08	1.07	3.57	4.94			N/A	N/A
3 - Albion Road	0.76	0.26	0.95	1.40	1.45			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.02	0.05	0.47	2.35	3.74			N/A	N/A
2 - A220 Gravel Hill (S)	1.06	0.05	0.46	2.52	3.89			N/A	N/A
3 - Albion Road	0.53	0.05	0.53	1.31	1.41			N/A	N/A

Junctions 10
ARCADY 10 - Roundabout Module
Version: 10.0.0.1499 © Copyright TRL Software Limited, 2021
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Gravel Hill _ Albion Road RBT_Sens.j10
Path: J:\50923 - GH - LB Bexley Local Plan\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10\2022 Modelling Update
Report generation date: 10/03/2022 12:15:18

- » Existing layout - 2038 Local Plan Case - No LTC - Sensitivity Test, AM
- » Existing layout - 2038 Local Plan Case - No LTC - Sensitivity Test, PM
- » Existing layout - 2038 Local Plan Case - With LTC - Sensitivity Test, AM
- » Existing layout - 2038 Local Plan Case - With LTC - Sensitivity Test, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Existing layout - 2038 Local Plan Case - No LTC - Sensitivity Test						
1 - A220 Gravel Hill (N)	8.3	20.19	0.89	3.4	9.77	0.76
2 - A220 Gravel Hill (S)	15.7	31.54	0.95	3.9	8.90	0.79
3 - Albion Road	0.7	4.45	0.39	1.1	5.32	0.53
Existing layout - 2038 Local Plan Case - With LTC - Sensitivity Test						
1 - A220 Gravel Hill (N)	7.5	18.56	0.89	3.0	8.84	0.73
2 - A220 Gravel Hill (S)	15.7	31.55	0.95	3.2	7.77	0.76
3 - Albion Road	0.7	4.31	0.39	1.2	5.38	0.54

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

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

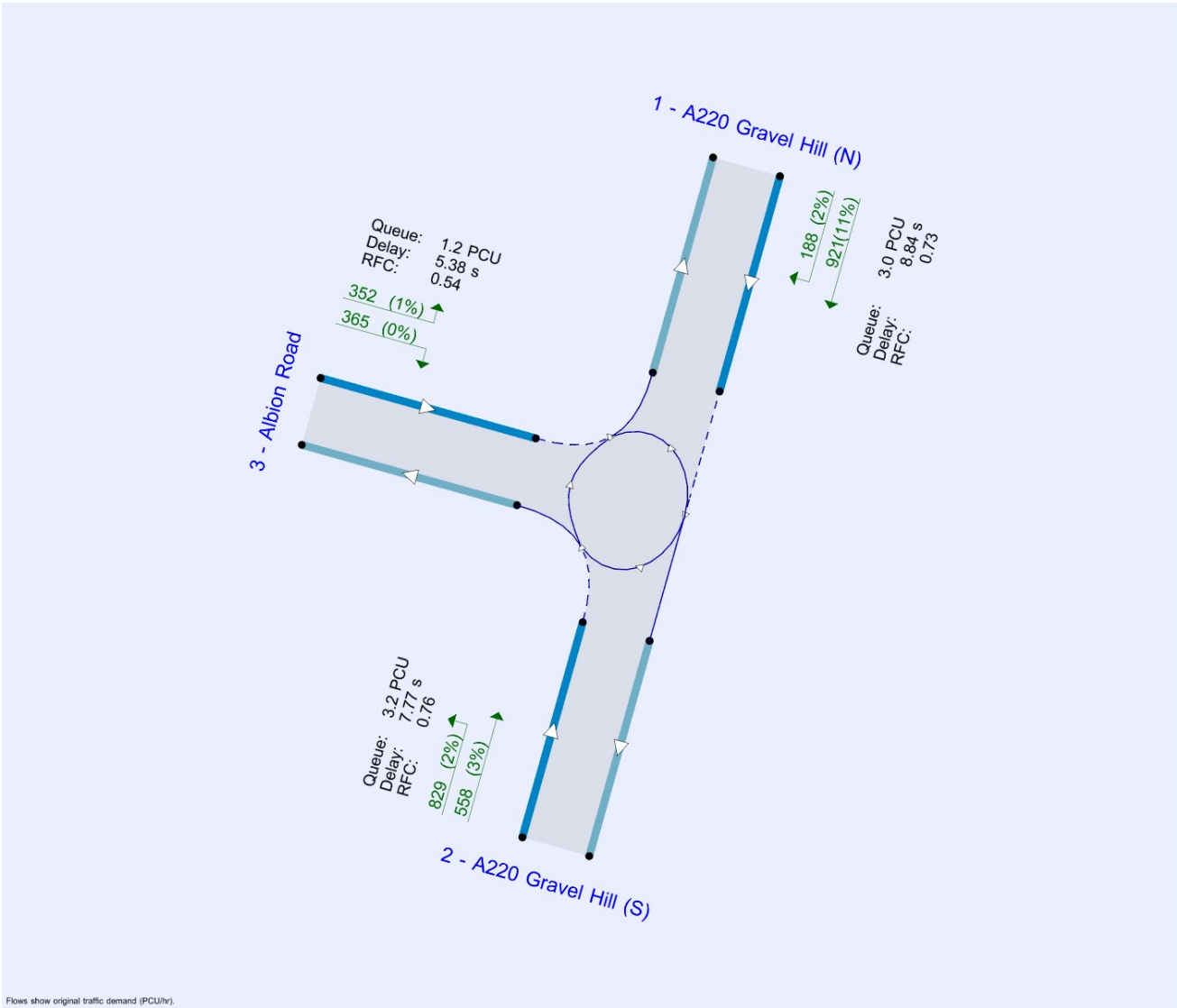
File summary

File Description

Title	
Location	
Site number	
Date	18/03/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SDGNT\dsabathier
Description	

Units

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



Flows show original traffic demand (PCU/hr).

The junction diagram reflects the last run of Junctions.

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	2038 Local Plan Case - No LTC - Sensitivity Test	AM	ONE HOUR	07:45	09:15	15	✓
D8	2038 Local Plan Case - No LTC - Sensitivity Test	PM	ONE HOUR	16:45	18:15	15	✓
D9	2038 Local Plan Case - With LTC - Sensitivity Test	AM	ONE HOUR	07:45	09:15	15	✓
D10	2038 Local Plan Case - With LTC - Sensitivity Test	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Existing layout - 2038 Local Plan Case - No LTC - Sensitivity Test, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	23.41	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	23.41	C

Arms

Arms

Arm	Name	Description	No give-way line
1	A220 Gravel Hill (N)		
2	A220 Gravel Hill (S)		
3	Albion Road		

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 - A220 Gravel Hill (N)	6.00	6.00	0.0	25.0	28.0	10.0		
2 - A220 Gravel Hill (S)	7.00	7.00	0.0	20.0	28.0	25.0		
3 - Albion Road	6.00	6.00	0.0	22.5	28.0	18.5		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A220 Gravel Hill (N)	0.738	1962
2 - A220 Gravel Hill (S)	0.759	2158
3 - Albion Road	0.715	1900

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	2038 Local Plan Case - No LTC - Sensitivity Test	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A220 Gravel Hill (N)		ONE HOUR	✓	1411	100.000
2 - A220 Gravel Hill (S)		ONE HOUR	✓	1728	100.000
3 - Albion Road		ONE HOUR	✓	501	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	1216	195
	2 - A220 Gravel Hill (S)	614	0	1114
	3 - Albion Road	223	278	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	7	6
	2 - A220 Gravel Hill (S)	7	0	2
	3 - Albion Road	1	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A220 Gravel Hill (N)	0.89	20.19	8.3	42.2	C	1295	1942
2 - A220 Gravel Hill (S)	0.95	31.54	15.7	82.6	D	1586	2378
3 - Albion Road	0.39	4.45	0.7	3.1	A	460	690

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1062	266	209	1808	0.588	1056	627	0.0	1.5	5.077	A
2 - A220 Gravel Hill (S)	1301	325	146	2047	0.636	1294	1119	0.0	1.8	4.912	A
3 - Albion Road	377	94	460	1572	0.240	376	980	0.0	0.3	3.228	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1268	317	250	1778	0.714	1264	750	1.5	2.6	7.426	A
2 - A220 Gravel Hill (S)	1553	388	175	2025	0.767	1547	1339	1.8	3.3	7.717	A
3 - Albion Road	450	113	550	1507	0.299	450	1172	0.3	0.5	3.651	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1554	388	306	1736	0.895	1533	907	2.6	7.7	17.423	C
2 - A220 Gravel Hill (S)	1903	476	212	1997	0.953	1863	1627	3.3	13.2	23.049	C
3 - Albion Road	552	138	662	1427	0.387	551	1413	0.5	0.7	4.403	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1554	388	306	1736	0.895	1551	918	7.7	8.3	20.189	C
2 - A220 Gravel Hill (S)	1903	476	214	1995	0.954	1893	1643	13.2	15.7	31.536	D
3 - Albion Road	552	138	673	1420	0.389	552	1435	0.7	0.7	4.450	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1268	317	250	1777	0.714	1291	770	8.3	2.7	8.244	A
2 - A220 Gravel Hill (S)	1553	388	178	2022	0.768	1602	1363	15.7	3.6	9.838	A
3 - Albion Road	450	113	569	1493	0.302	451	1211	0.7	0.5	3.709	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1062	266	210	1807	0.588	1067	633	2.7	1.5	5.231	A
2 - A220 Gravel Hill (S)	1301	325	147	2046	0.636	1308	1129	3.6	1.8	5.105	A
3 - Albion Road	377	94	465	1568	0.241	378	991	0.5	0.3	3.246	A

Queue Variation Results for each time segment
07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.50	0.61	1.39	1.89	2.04			N/A	N/A
2 - A220 Gravel Hill (S)	1.78	0.55	1.13	2.66	3.06			N/A	N/A
3 - Albion Road	0.34	0.00	0.00	0.34	0.34			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	2.59	0.05	0.50	7.13	11.77			N/A	N/A
2 - A220 Gravel Hill (S)	3.30	0.05	0.49	9.24	15.79			N/A	N/A
3 - Albion Road	0.45	0.00	0.00	0.45	0.45			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	7.66	0.04	0.45	20.50	41.56			N/A	N/A
2 - A220 Gravel Hill (S)	13.20	0.08	2.18	38.50	61.03			N/A	N/A
3 - Albion Road	0.67	0.03	0.27	0.67	0.67			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	8.26	0.04	0.35	12.85	42.23			N/A	N/A
2 - A220 Gravel Hill (S)	15.67	0.05	0.76	44.94	82.62			N/A	N/A
3 - Albion Road	0.68	0.03	0.31	1.32	3.06			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	2.74	0.05	0.47	7.56	13.10			N/A	N/A
2 - A220 Gravel Hill (S)	3.57	0.04	0.44	9.90	18.13			N/A	N/A
3 - Albion Road	0.47	0.00	0.00	0.47	0.47			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.54	0.03	0.35	3.15	8.02			N/A	N/A
2 - A220 Gravel Hill (S)	1.84	0.03	0.32	2.82	9.23			N/A	N/A
3 - Albion Road	0.34	0.00	0.00	0.34	0.34			N/A	N/A

Existing layout - 2038 Local Plan Case - No LTC - Sensitivity Test, PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	8.44	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.44	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)	Run automatically
D8	2038 Local Plan Case - No LTC - Sensitivity Test	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A220 Gravel Hill (N)		ONE HOUR	✓	1145	100.000
2 - A220 Gravel Hill (S)		ONE HOUR	✓	1446	100.000
3 - Albion Road		ONE HOUR	✓	698	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	962	183
	2 - A220 Gravel Hill (S)	575	0	871
	3 - Albion Road	330	368	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	11	2
	2 - A220 Gravel Hill (S)	3	0	2
	3 - Albion Road	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A220 Gravel Hill (N)	0.76	9.77	3.4	11.7	A	1051	1576
2 - A220 Gravel Hill (S)	0.79	8.90	3.9	14.1	A	1327	1990
3 - Albion Road	0.53	5.32	1.1	1.5	A	640	961

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	862	216	276	1758	0.490	858	679	0.0	1.0	4.356	A
2 - A220 Gravel Hill (S)	1089	272	137	2054	0.530	1084	997	0.0	1.1	3.785	A
3 - Albion Road	525	131	431	1592	0.330	524	790	0.0	0.5	3.379	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1029	257	330	1718	0.599	1027	812	1.0	1.6	5.684	A
2 - A220 Gravel Hill (S)	1300	325	164	2033	0.639	1297	1193	1.1	1.8	4.991	A
3 - Albion Road	627	157	516	1532	0.410	627	946	0.5	0.7	3.994	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1261	315	404	1664	0.758	1254	992	1.6	3.3	9.466	A
2 - A220 Gravel Hill (S)	1592	398	200	2006	0.794	1584	1458	1.8	3.8	8.582	A
3 - Albion Road	769	192	630	1450	0.530	767	1155	0.7	1.1	5.281	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1261	315	405	1663	0.758	1260	996	3.3	3.4	9.771	A
2 - A220 Gravel Hill (S)	1592	398	201	2005	0.794	1592	1464	3.8	3.9	8.901	A
3 - Albion Road	769	192	633	1448	0.531	768	1160	1.1	1.1	5.323	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1029	257	332	1717	0.599	1036	818	3.4	1.7	5.843	A
2 - A220 Gravel Hill (S)	1300	325	166	2032	0.640	1308	1202	3.9	1.8	5.145	A
3 - Albion Road	627	157	520	1529	0.411	629	953	1.1	0.7	4.030	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	862	216	277	1757	0.491	864	683	1.7	1.1	4.425	A
2 - A220 Gravel Hill (S)	1089	272	138	2053	0.530	1091	1004	1.8	1.2	3.844	A
3 - Albion Road	525	131	434	1590	0.330	526	796	0.7	0.5	3.404	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.04	0.60	1.09	1.53	1.59			N/A	N/A
2 - A220 Gravel Hill (S)	1.14	0.56	1.02	1.43	1.48			N/A	N/A
3 - Albion Road	0.49	0.00	0.00	0.49	0.49			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.61	0.06	0.63	4.00	6.05			N/A	N/A
2 - A220 Gravel Hill (S)	1.79	0.05	0.47	4.77	7.78			N/A	N/A
3 - Albion Road	0.69	0.09	0.81	1.38	1.45			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	3.29	0.03	0.32	3.29	11.66			N/A	N/A
2 - A220 Gravel Hill (S)	3.77	0.03	0.30	3.77	14.09			N/A	N/A
3 - Albion Road	1.12	0.03	0.26	1.12	1.12			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	3.36	0.03	0.30	3.36	4.02			N/A	N/A
2 - A220 Gravel Hill (S)	3.86	0.03	0.28	3.86	4.03			N/A	N/A
3 - Albion Road	1.13	0.03	0.27	1.13	1.42			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.66	0.07	0.98	3.83	5.41			N/A	N/A
2 - A220 Gravel Hill (S)	1.85	0.06	0.93	4.51	6.58			N/A	N/A
3 - Albion Road	0.70	0.29	0.96	1.40	1.45			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.06	0.04	0.45	2.59	4.18			N/A	N/A
2 - A220 Gravel Hill (S)	1.17	0.04	0.41	2.94	4.96			N/A	N/A
3 - Albion Road	0.50	0.05	0.46	1.28	1.40			N/A	N/A

Existing layout - 2038 Local Plan Case - With LTC - Sensitivity Test, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	22.76	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	22.76	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	2038 Local Plan Case - With LTC - Sensitivity Test	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A220 Gravel Hill (N)		ONE HOUR	✓	1396	100.000
2 - A220 Gravel Hill (S)		ONE HOUR	✓	1725	100.000
3 - Albion Road		ONE HOUR	✓	504	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	1196	200
	2 - A220 Gravel Hill (S)	590	0	1135
	3 - Albion Road	226	278	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	6	6
	2 - A220 Gravel Hill (S)	7	0	1
	3 - Albion Road	1	10	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A220 Gravel Hill (N)	0.89	18.56	7.5	38.5	C	1281	1921
2 - A220 Gravel Hill (S)	0.95	31.55	15.7	82.5	D	1583	2374
3 - Albion Road	0.39	4.31	0.7	3.0	A	462	694

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1051	263	209	1808	0.581	1045	611	0.0	1.5	4.965	A
2 - A220 Gravel Hill (S)	1299	325	150	2044	0.635	1292	1104	0.0	1.8	4.883	A
3 - Albion Road	379	95	442	1585	0.239	378	1000	0.0	0.3	3.153	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1255	314	250	1778	0.706	1251	731	1.5	2.5	7.188	A
2 - A220 Gravel Hill (S)	1551	388	179	2022	0.767	1545	1321	1.8	3.3	7.673	A
3 - Albion Road	453	113	528	1523	0.298	453	1196	0.3	0.4	3.556	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1537	384	306	1736	0.885	1519	885	2.5	7.1	16.310	C
2 - A220 Gravel Hill (S)	1899	475	218	1993	0.953	1860	1607	3.3	13.2	23.034	C
3 - Albion Road	555	139	636	1446	0.384	554	1441	0.4	0.7	4.267	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1537	384	306	1736	0.885	1535	895	7.1	7.5	18.556	C
2 - A220 Gravel Hill (S)	1899	475	220	1991	0.954	1889	1621	13.2	15.7	31.553	D
3 - Albion Road	555	139	646	1438	0.386	555	1463	0.7	0.7	4.309	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1255	314	250	1777	0.706	1275	751	7.5	2.6	7.877	A
2 - A220 Gravel Hill (S)	1551	388	183	2019	0.768	1599	1342	15.7	3.5	9.786	A
3 - Albion Road	453	113	547	1509	0.300	454	1235	0.7	0.5	3.612	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1051	263	210	1807	0.582	1055	617	2.6	1.5	5.105	A
2 - A220 Gravel Hill (S)	1299	325	151	2043	0.636	1306	1114	3.5	1.8	5.074	A
3 - Albion Road	379	95	447	1581	0.240	380	1010	0.5	0.3	3.172	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.45	0.61	1.33	1.83	1.99			N/A	N/A
2 - A220 Gravel Hill (S)	1.77	0.54	1.12	2.65	3.04			N/A	N/A
3 - Albion Road	0.33	0.00	0.00	0.33	0.33			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	2.48	0.05	0.50	6.81	11.25			N/A	N/A
2 - A220 Gravel Hill (S)	3.27	0.05	0.48	9.17	15.70			N/A	N/A
3 - Albion Road	0.45	0.00	0.00	0.45	0.45			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	7.06	0.04	0.42	17.87	38.45			N/A	N/A
2 - A220 Gravel Hill (S)	13.18	0.08	2.21	38.43	60.86			N/A	N/A
3 - Albion Road	0.65	0.03	0.27	0.65	0.65			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	7.54	0.03	0.34	9.49	36.39			N/A	N/A
2 - A220 Gravel Hill (S)	15.65	0.05	0.78	44.95	82.48			N/A	N/A
3 - Albion Road	0.66	0.03	0.31	1.31	3.00			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	2.62	0.05	0.48	7.23	12.35			N/A	N/A
2 - A220 Gravel Hill (S)	3.54	0.04	0.44	9.82	17.99			N/A	N/A
3 - Albion Road	0.46	0.00	0.00	0.46	0.46			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.49	0.03	0.35	3.16	7.70			N/A	N/A
2 - A220 Gravel Hill (S)	1.82	0.03	0.32	2.79	9.15			N/A	N/A
3 - Albion Road	0.34	0.00	0.00	0.34	0.34			N/A	N/A

Existing layout - 2038 Local Plan Case - With LTC - Sensitivity Test, PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	7.61	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.61	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)	Run automatically
D10	2038 Local Plan Case - With LTC - Sensitivity Test	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A220 Gravel Hill (N)		ONE HOUR	✓	1109	100.000
2 - A220 Gravel Hill (S)		ONE HOUR	✓	1387	100.000
3 - Albion Road		ONE HOUR	✓	717	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	921	188
	2 - A220 Gravel Hill (S)	558	0	829
	3 - Albion Road	352	365	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A220 Gravel Hill (N)	2 - A220 Gravel Hill (S)	3 - Albion Road
From	1 - A220 Gravel Hill (N)	0	11	2
	2 - A220 Gravel Hill (S)	3	0	2
	3 - Albion Road	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A220 Gravel Hill (N)	0.73	8.84	3.0	8.1	A	1018	1526
2 - A220 Gravel Hill (S)	0.76	7.77	3.2	8.8	A	1273	1909
3 - Albion Road	0.54	5.38	1.2	1.5	A	658	987

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	835	209	274	1760	0.474	831	682	0.0	1.0	4.221	A
2 - A220 Gravel Hill (S)	1044	261	141	2051	0.509	1040	964	0.0	1.1	3.632	A
3 - Albion Road	540	135	418	1601	0.337	538	762	0.0	0.5	3.396	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	997	249	328	1720	0.580	995	817	1.0	1.5	5.414	A
2 - A220 Gravel Hill (S)	1247	312	169	2030	0.614	1245	1154	1.1	1.6	4.682	A
3 - Albion Road	645	161	501	1542	0.418	644	913	0.5	0.7	4.022	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1221	305	401	1666	0.733	1215	999	1.5	2.9	8.630	A
2 - A220 Gravel Hill (S)	1527	382	206	2001	0.763	1521	1410	1.6	3.2	7.571	A
3 - Albion Road	789	197	612	1463	0.540	788	1115	0.7	1.2	5.343	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	1221	305	402	1665	0.733	1221	1002	2.9	3.0	8.845	A
2 - A220 Gravel Hill (S)	1527	382	207	2001	0.763	1527	1416	3.2	3.2	7.770	A
3 - Albion Road	789	197	614	1461	0.540	789	1120	1.2	1.2	5.384	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	997	249	329	1719	0.580	1003	821	3.0	1.5	5.539	A
2 - A220 Gravel Hill (S)	1247	312	170	2029	0.615	1253	1162	3.2	1.7	4.792	A
3 - Albion Road	645	161	504	1540	0.419	646	919	1.2	0.7	4.056	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A220 Gravel Hill (N)	835	209	275	1759	0.475	837	686	1.5	1.0	4.280	A
2 - A220 Gravel Hill (S)	1044	261	142	2050	0.509	1047	970	1.7	1.1	3.683	A
3 - Albion Road	540	135	421	1599	0.338	541	767	0.7	0.5	3.421	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	0.98	0.60	1.09	1.53	1.59			N/A	N/A
2 - A220 Gravel Hill (S)	1.05	0.56	1.02	1.43	1.48			N/A	N/A
3 - Albion Road	0.51	0.51	1.00	1.41	1.46			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.49	0.06	0.70	3.53	5.25			N/A	N/A
2 - A220 Gravel Hill (S)	1.61	0.05	0.48	4.15	6.65			N/A	N/A
3 - Albion Road	0.72	0.09	0.81	1.40	1.47			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	2.90	0.03	0.31	2.90	8.10			N/A	N/A
2 - A220 Gravel Hill (S)	3.19	0.03	0.29	3.19	8.75			N/A	N/A
3 - Albion Road	1.16	0.03	0.26	1.16	1.16			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	2.95	0.03	0.29	2.95	2.95			N/A	N/A
2 - A220 Gravel Hill (S)	3.24	0.03	0.27	3.24	3.24			N/A	N/A
3 - Albion Road	1.17	0.03	0.27	1.17	1.26			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.53	0.08	1.06	3.20	4.43			N/A	N/A
2 - A220 Gravel Hill (S)	1.65	0.07	1.06	3.71	5.12			N/A	N/A
3 - Albion Road	0.73	0.28	0.96	1.40	1.45			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A220 Gravel Hill (N)	1.00	0.05	0.48	2.22	3.50			N/A	N/A
2 - A220 Gravel Hill (S)	1.07	0.04	0.45	2.60	4.02			N/A	N/A
3 - Albion Road	0.51	0.05	0.49	1.30	1.40			N/A	N/A

Appendix H Crayford High Street / Crayford Way Modelling Results

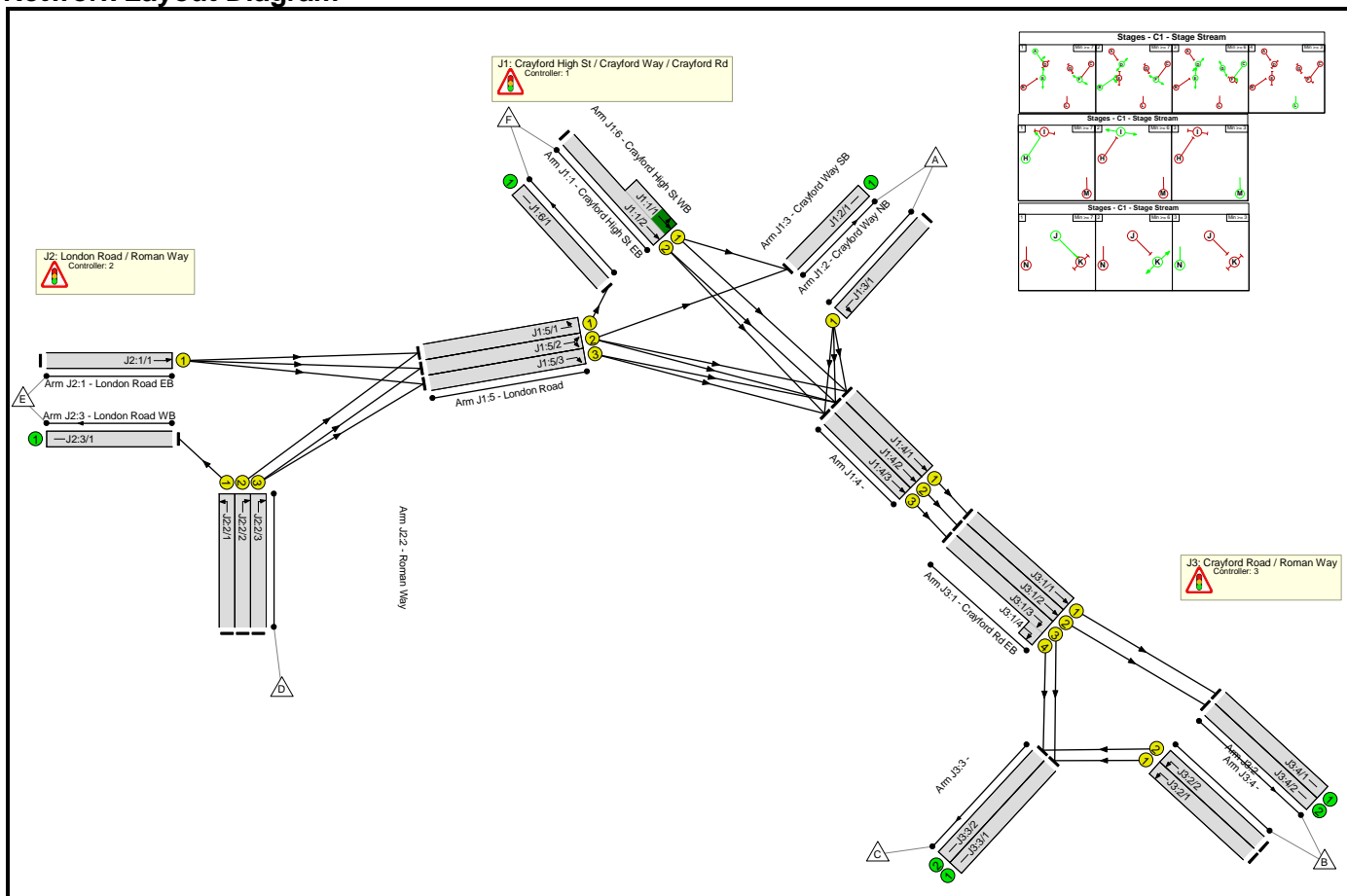
Full Input Data And Results

Full Input Data And Results

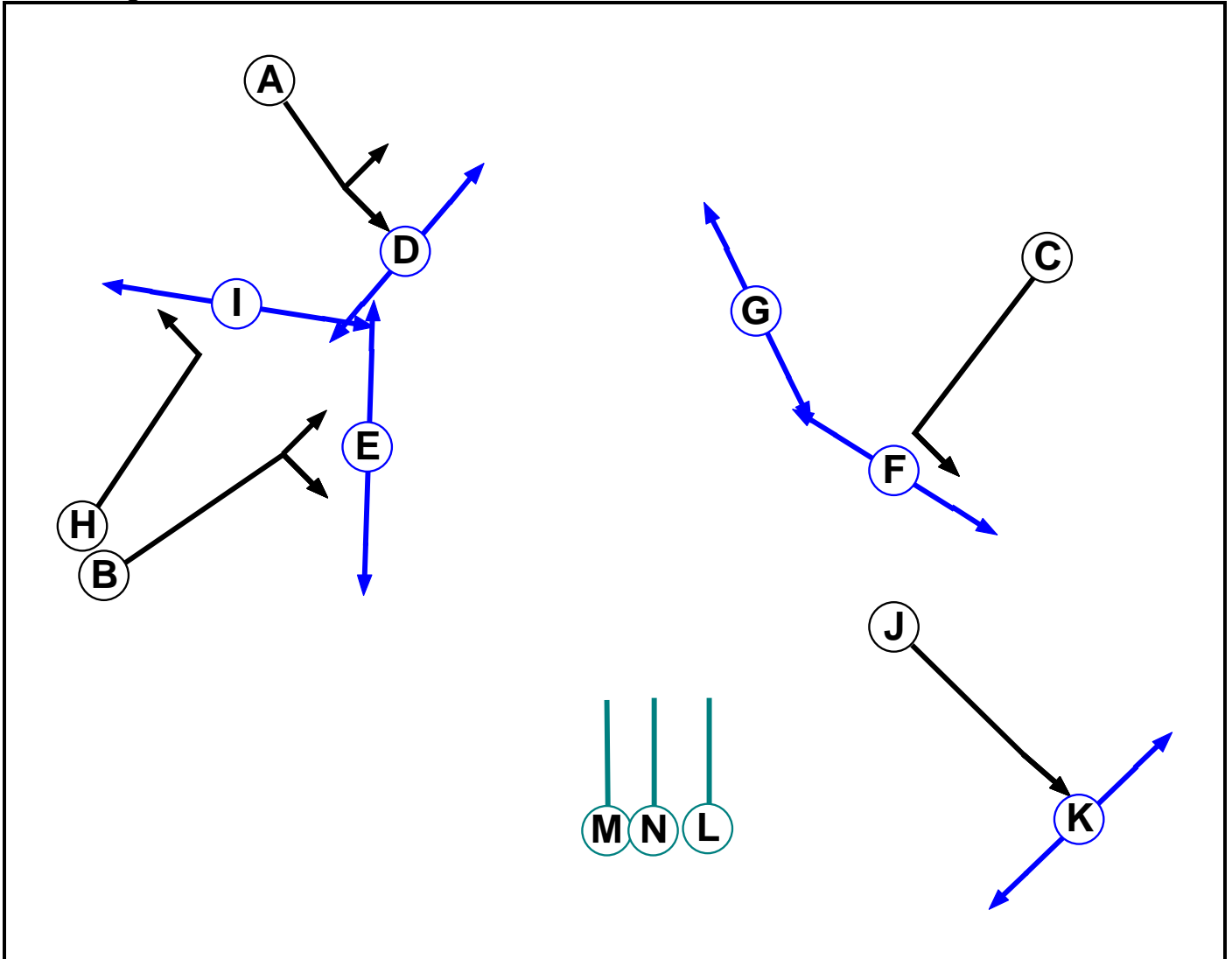
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	Crayford Junction - Optimisation v02.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



C1
Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	1		7	7
D	Pedestrian	1		6	6
E	Pedestrian	1		6	6
F	Pedestrian	1		6	6
G	Pedestrian	1		6	6
H	Traffic	2		7	7
I	Pedestrian	2		6	6
J	Traffic	3		7	7
K	Pedestrian	3		6	6
L	Dummy	1		3	3
M	Dummy	2		3	3
N	Dummy	3		3	3

Phase Intergrens Matrix

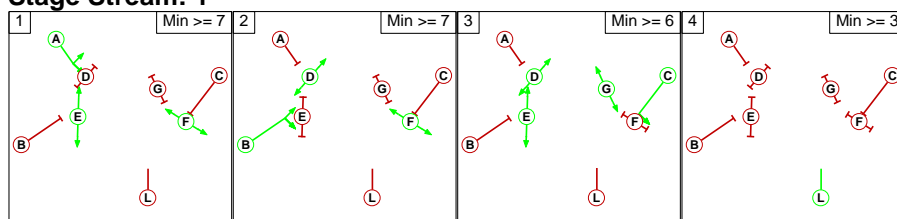
		Starting Phase													
		A	B	C	D	E	F	G	H	I	J	K	L	M	N
Terminating Phase	A		5	8	5	-	-	10	-	-	-	-	3	-	-
	B	5		8	-	5	-	10	-	-	-	-	3	-	-
	C	5	5		-	-	5	-	-	-	-	-	3	-	-
	D	8	-	-		-	-	-	-	-	-	-	3	-	-
	E	-	9	-	-		-	-	-	-	-	-	4	-	-
	F	-	-	8	-	-		-	-	-	-	-	3	-	-
	G	8	8	-	-	-	-		-	-	-	-	3	-	-
	H	-	-	-	-	-	-	-	-		5	-	-	3	-
	I	-	-	-	-	-	-	-	11	-		-	-	5	-
	J	-	-	-	-	-	-	-	-	-	-		5	-	3
	K	-	-	-	-	-	-	-	-	-	10	-		-	4
	L	2	2	2	2	2	2	2	-	-	-	-	-		-
	M	-	-	-	-	-	-	-	2	2	-	-	-	-	
	N	-	-	-	-	-	-	-	-	-	2	2	-	-	-

Phases in Stage

Stream	Stage No.	Phases in Stage
1	1	A E F
1	2	B D F
1	3	C D E G
1	4	L
2	1	H
2	2	I
2	3	M
3	1	J
3	2	K
3	3	N

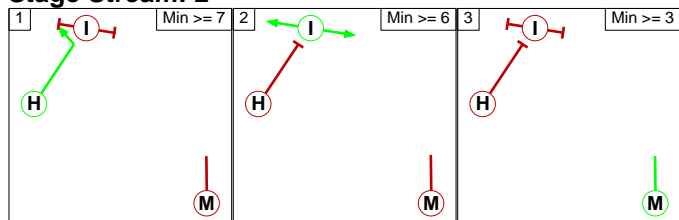
Stage Diagram

Stage Stream: 1

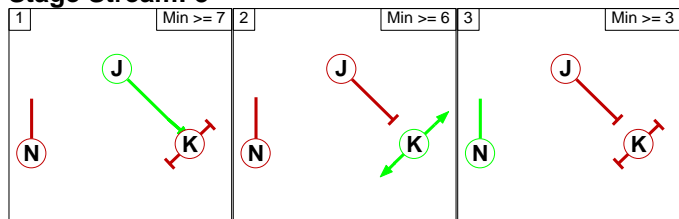


Full Input Data And Results

Stage Stream: 2



Stage Stream: 3



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
1	2	A	Losing	4	4
2	1	B	Losing	3	3
3	1	C	Losing	3	3
3	2	C	Losing	4	4

Stage Stream: 2

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 3

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

Stage Stream: 1

		To Stage			
		1	2	3	4
From Stage	1	9	10	4	
	2	8	10	3	
	3	8	9	4	
	4	2	2	2	

Stage Stream: 2

		To Stage		
		1	2	3
From Stage	1	5	3	
	2	11	5	
	3	2	2	

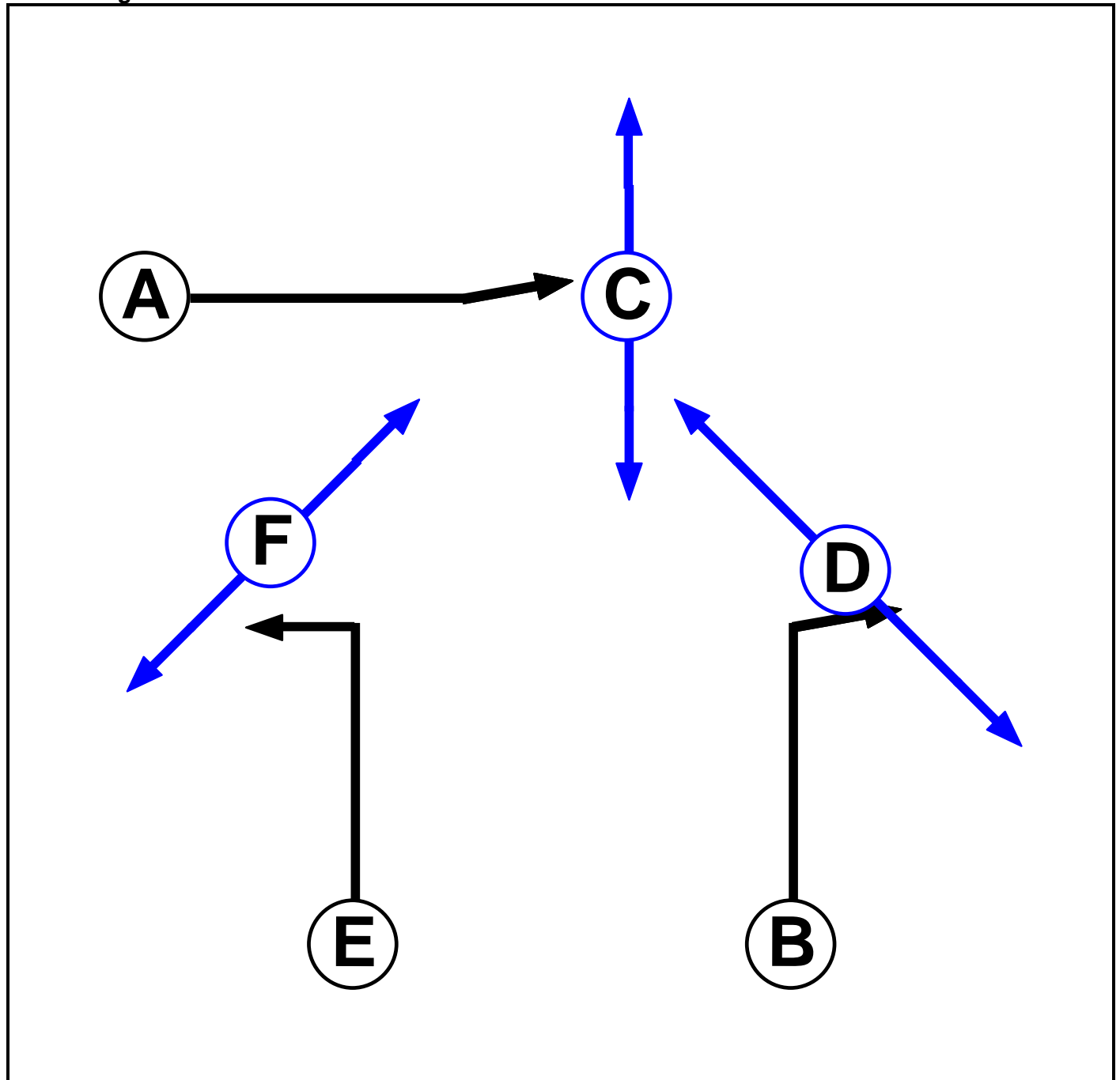
Full Input Data And Results

Stage Stream: 3

From Stage	To Stage		
	1	2	3
1	■	5	3
2	10	■	4
3	2	2	■

C2

Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	5
B	Traffic	1		7	5
C	Pedestrian	1		6	6
D	Pedestrian	1		6	6
E	Traffic	2		7	7
F	Pedestrian	2		6	6

Phase Intergreens Matrix

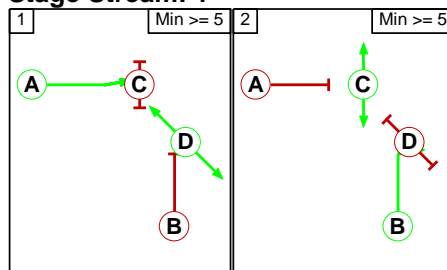
		Starting Phase					
		A	B	C	D	E	F
Terminating Phase	A		6	5	-	-	-
	B	6		-	5	-	-
	C	8	-		-	-	-
	D	-	8	-		-	-
	E	-	-	-	-		5
	F	-	-	-	-	8	

Phases in Stage

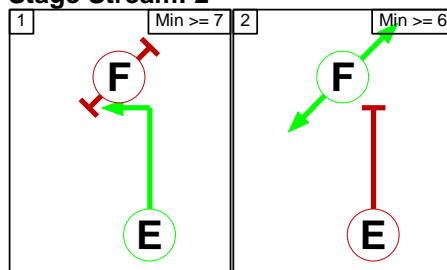
Stream	Stage No.	Phases in Stage
1	1	A D
1	2	B C
2	1	E
2	2	F

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Full Input Data And Results

Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
1	2	A	Losing	2	2
2	1	B	Losing	2	2

Stage Stream: 2

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

Stage Stream: 1

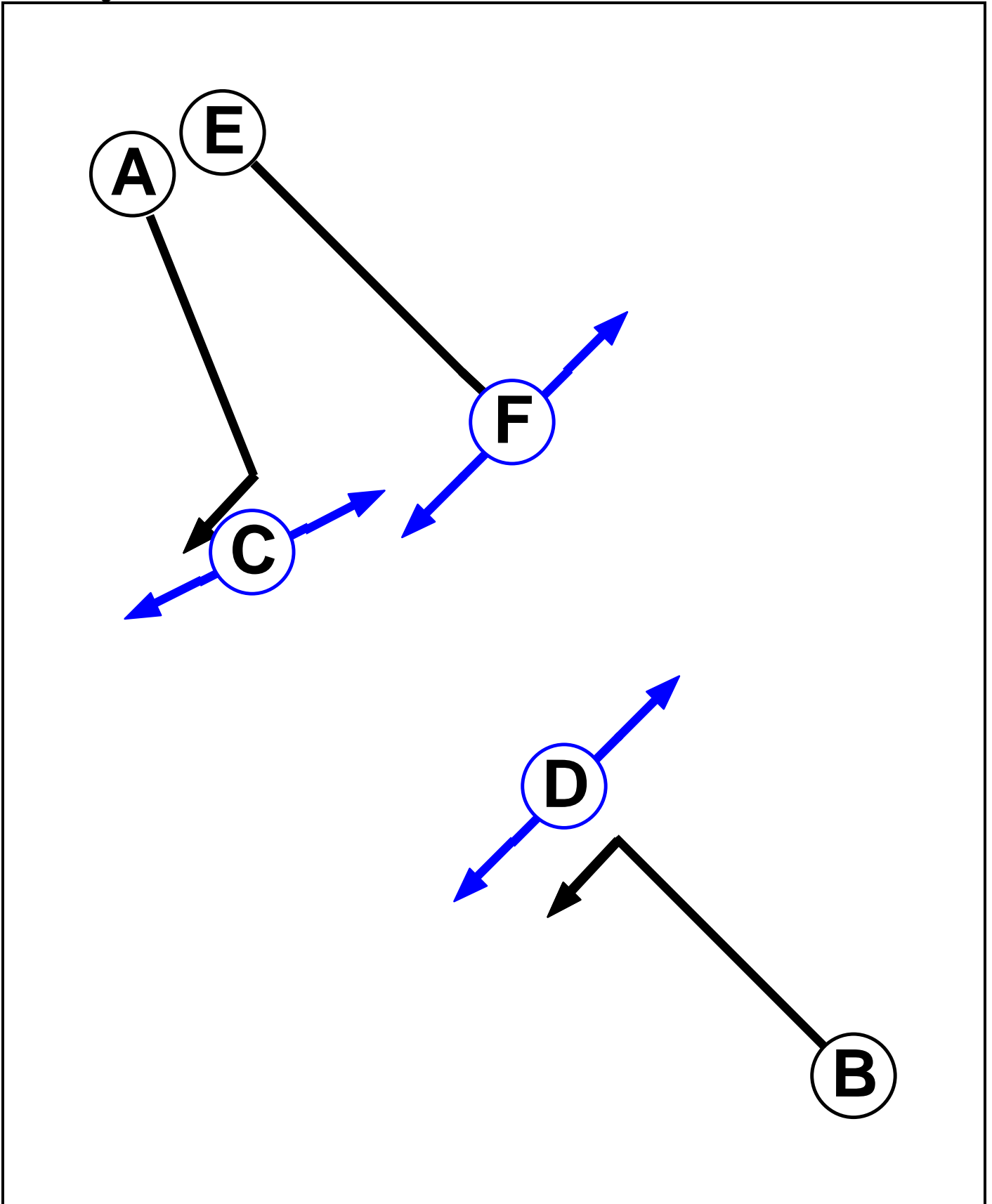
		To Stage	
		1	2
From Stage	1		8
	2	8	

Stage Stream: 2

		To Stage	
		1	2
From Stage	1		5
	2	8	

C3

Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	5
B	Traffic	1		7	4
C	Pedestrian	1		6	6
D	Pedestrian	1		6	6
E	Traffic	2		7	7
F	Pedestrian	2		6	6

Phase Intergreens Matrix

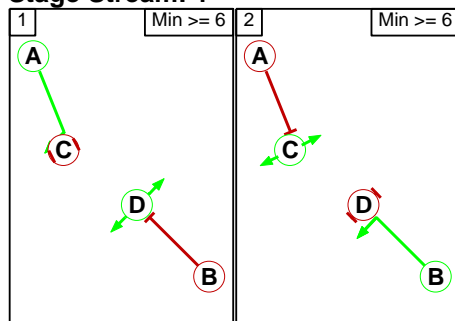
		Starting Phase					
		A	B	C	D	E	F
Terminating Phase	A		7	7	-	-	-
	B	7		-	7	-	-
	C	10	-		-	-	-
	D	-	9	-		-	-
	E	-	-	-	-		5
	F	-	-	-	-	8	

Phases in Stage

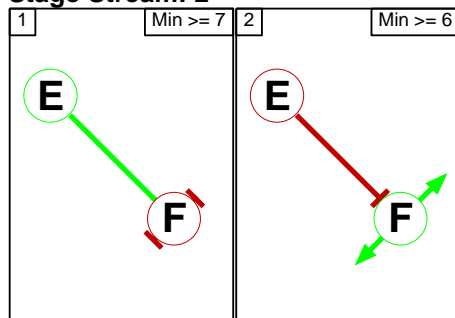
Stream	Stage No.	Phases in Stage
1	1	A D
1	2	B C
2	1	E
2	2	F

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Full Input Data And Results

Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
1	2	A	Losing	2	2
2	1	B	Losing	3	3

Stage Stream: 2

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

Stage Stream: 1

		To Stage	
		1	2
From Stage	1		9
	2	10	

Stage Stream: 2

		To Stage	
		1	2
From Stage	1		5
	2	8	

Full Input Data And Results

Give-Way Lane Input Data

Junction: J1: Crayford High St / Crayford Way / Crayford Rd

There are no Opposed Lanes in this Junction

Junction: J2: London Road / Roman Way

There are no Opposed Lanes in this Junction

Junction: J3: Crayford Road / Roman Way

There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: J1: Crayford High St / Crayford Way / Crayford Rd												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J1:1/1 (Crayford High St EB)	U	A	2	3	5.7	Geom	-	3.50	0.00	Y	Arm J1:2 Left	10.00
											Arm J1:4 Ahead	Inf
J1:1/2 (Crayford High St EB)	U	A	2	3	60.0	Geom	-	3.75	0.00	N	Arm J1:4 Ahead	Inf
J1:2/1 (Crayford Way NB)	U		2	3	60.0	Geom	-	5.00	0.00	Y		
J1:3/1 (Crayford Way SB)	U	C	2	3	60.0	Geom	-	5.00	0.00	Y	Arm J1:4 Left	16.90
J1:4/1	U	J	2	3	5.0	Geom	-	3.00	0.00	Y	Arm J3:1 Ahead	Inf
J1:4/2	U	J	2	3	5.0	Geom	-	3.00	0.00	N	Arm J3:1 Ahead	Inf
J1:4/3	U	J	2	3	5.0	Geom	-	3.00	0.00	Y	Arm J3:1 Ahead	Inf
J1:5/1 (London Road)	U	H	2	3	14.4	Geom	-	4.00	0.00	Y	Arm J1:6 Left	12.20
J1:5/2 (London Road)	U	B	2	3	14.4	Geom	-	3.50	0.00	Y	Arm J1:2 Ahead	30.80
											Arm J1:4 Right	48.90
J1:5/3 (London Road)	U	B	2	3	14.4	Geom	-	3.50	0.00	Y	Arm J1:4 Right	55.13
J1:6/1 (Crayford High St WB)	U		2	3	60.0	Geom	-	4.00	0.00	Y		

Full Input Data And Results

Junction: J2: London Road / Roman Way												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J2:1/1 (London Road EB)	U	A	2	3	60.0	Geom	-	3.00	0.00	Y	Arm J1:5 Ahead	Inf
J2:2/1 (Roman Way)	U	E	2	3	14.8	Geom	-	3.00	0.00	Y	Arm J2:3 Left	11.85
J2:2/2 (Roman Way)	U	B	2	3	14.8	Geom	-	3.00	0.00	Y	Arm J1:5 Right	20.05
J2:2/3 (Roman Way)	U	B	2	3	14.8	Geom	-	3.00	0.00	Y	Arm J1:5 Right	15.88
J2:3/1 (London Road WB)	U		2	3	60.0	Inf	-	-	-	-	-	-

Junction: J3: Crayford Road / Roman Way												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J3:1/1 (Crayford Rd EB)	U	E	2	3	12.9	Geom	-	3.00	0.00	Y	Arm J3:4 Ahead	Inf
J3:1/2 (Crayford Rd EB)	U	E	2	3	12.9	Geom	-	3.00	0.00	Y	Arm J3:4 Ahead	Inf
J3:1/3 (Crayford Rd EB)	U	A	2	3	12.9	Geom	-	3.00	0.00	Y	Arm J3:3 Right	15.19
J3:1/4 (Crayford Rd EB)	U	A	2	3	1.7	Geom	-	3.00	0.00	Y	Arm J3:3 Right	11.83
J3:2/1	U	B	2	3	26.1	Geom	-	3.00	0.00	Y	Arm J3:3 Left	15.44
J3:2/2	U	B	2	3	26.1	Geom	-	3.00	0.00	Y	Arm J3:3 Left	18.53
J3:3/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J3:3/2	U		2	3	60.0	Inf	-	-	-	-	-	-
J3:4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J3:4/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2038 Reference Case AM - No LTC'	08:00	09:00	01:00	
2: '2038 Reference Case PM - No LTC'	17:00	18:00	01:00	
3: '2038 Reference Case AM - With LTC'	08:00	09:00	01:00	
4: '2038 Reference Case PM - With LTC'	17:00	18:00	01:00	
5: '2038 Local Plan Case AM - No LTC'	08:00	09:00	01:00	
6: '2038 Local Plan Case PM - No LTC'	17:00	18:00	01:00	
7: '2038 Local Plan Case AM - With LTC'	08:00	09:00	01:00	
8: '2038 Local Plan Case PM - With LTC'	17:00	18:00	01:00	
9: '2038 Local Plan Case AM - No LTC - Sensitivity Test'	08:00	09:00	01:00	
10: '2038 Local Plan Case PM - No LTC - Sensitivity Test'	17:00	18:00	01:00	
11: '2038 Local Plan Case AM - With LTC - Sensitivity Test'	08:00	09:00	01:00	
12: '2038 Local Plan Case PM - With LTC - Sensitivity Test'	17:00	18:00	01:00	

Scenario 1: '2038 Reference Case AM - No LTC' (FG1: '2038 Reference Case AM - No LTC', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
	A	B	C	D	E	F	Tot.	
Origin	A	0	8	194	0	0	0	202
B	0	0	1121	0	0	0	1121	
C	0	0	0	0	0	0	0	
D	8	0	0	0	1084	345	1437	
E	353	185	0	0	0	244	782	
F	0	357	120	0	0	0	477	
Tot.	361	550	1435	0	1084	589	4019	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2038 Reference Case AM - No LTC
Junction: J1: Crayford High St / Crayford Way / Crayford Rd	
J1:1/1 (short)	30
J1:1/2 (with short)	477(In) 447(Out)
J1:2/1	361
J1:3/1	202
J1:4/1	38
J1:4/2	512
J1:4/3	314
J1:5/1	589
J1:5/2	361
J1:5/3	185
J1:6/1	589
Junction: J2: London Road / Roman Way	
J2:1/1	782
J2:2/1	1084
J2:2/2	345
J2:2/3	8
J2:3/1	1084
Junction: J3: Crayford Road / Roman Way	
J3:1/1	38
J3:1/2	512
J3:1/3 (with short)	314(In) 159(Out)
J3:1/4 (short)	155
J3:2/1	554
J3:2/2	567
J3:3/1	713
J3:3/2	722
J3:4/1	38
J3:4/2	512

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Crayford High St / Crayford Way / Crayford Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Crayford High St EB)	3.50	0.00	Y	Arm J1:2 Left	10.00	0.0 %	1965	1965
				Arm J1:4 Ahead	Inf	100.0 %		
J1:1/2 (Crayford High St EB)	3.75	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2130	2130
J1:2/1 (Crayford Way NB)	5.00	0.00	Y				2115	2115
J1:3/1 (Crayford Way SB)	5.00	0.00	Y	Arm J1:4 Left	16.90	100.0 %	1943	1943
J1:4/1	3.00	0.00	Y	Arm J3:1 Ahead	Inf	100.0 %	1915	1915
J1:4/2	3.00	0.00	N	Arm J3:1 Ahead	Inf	100.0 %	2055	2055
J1:4/3	3.00	0.00	Y	Arm J3:1 Ahead	Inf	100.0 %	1915	1915
J1:5/1 (London Road)	4.00	0.00	Y	Arm J1:6 Left	12.20	100.0 %	1794	1794
J1:5/2 (London Road)	3.50	0.00	Y	Arm J1:2 Ahead	30.80	100.0 %	1874	1874
				Arm J1:4 Right	48.90	0.0 %		
J1:5/3 (London Road)	3.50	0.00	Y	Arm J1:4 Right	55.13	100.0 %	1913	1913
J1:6/1 (Crayford High St WB)	4.00	0.00	Y				2015	2015

Junction: J2: London Road / Roman Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (London Road EB)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J2:2/1 (Roman Way)	3.00	0.00	Y	Arm J2:3 Left	11.85	100.0 %	1700	1700
J2:2/2 (Roman Way)	3.00	0.00	Y	Arm J1:5 Right	20.05	100.0 %	1782	1782
J2:2/3 (Roman Way)	3.00	0.00	Y	Arm J1:5 Right	15.88	100.0 %	1750	1750
J2:3/1 (London Road WB Lane 1)				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Junction: J3: Crayford Road / Roman Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1915	1915
J3:1/2 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1915	1915
J3:1/3 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:3 Right	15.19	100.0 %	1743	1743
J3:1/4 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:3 Right	11.83	100.0 %	1700	1700
J3:2/1	3.00	0.00	Y	Arm J3:3 Left	15.44	100.0 %	1745	1745
J3:2/2	3.00	0.00	Y	Arm J3:3 Left	18.53	100.0 %	1772	1772
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:3/2	Infinite Saturation Flow						Inf	Inf
J3:4/1	Infinite Saturation Flow						Inf	Inf
J3:4/2	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2038 Reference Case PM - No LTC' (FG2: '2038 Reference Case PM - No LTC', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
	A	B	C	D	E	F	Tot.	
Origin	A	0	7	183	0	0	0	190
	B	0	0	1293	0	0	0	1293
	C	0	0	0	0	0	0	0
	D	7	0	0	0	1193	404	1604
	E	231	189	0	0	0	206	626
	F	0	423	117	0	0	0	540
	Tot.	238	619	1593	0	1193	610	4253

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2038 Reference Case PM - No LTC
Junction: J1: Crayford High St / Crayford Way / Crayford Rd	
J1:1/1 (short)	283
J1:1/2 (with short)	540(In) 257(Out)
J1:2/1	238
J1:3/1	190
J1:4/1	286
J1:4/2	333
J1:4/3	300
J1:5/1	610
J1:5/2	238
J1:5/3	189
J1:6/1	610
Junction: J2: London Road / Roman Way	
J2:1/1	626
J2:2/1	1193
J2:2/2	404
J2:2/3	7
J2:3/1	1193
Junction: J3: Crayford Road / Roman Way	
J3:1/1	286
J3:1/2	333
J3:1/3 (with short)	300(In) 152(Out)
J3:1/4 (short)	148
J3:2/1	640
J3:2/2	653
J3:3/1	792
J3:3/2	801
J3:4/1	286
J3:4/2	333

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Crayford High St / Crayford Way / Crayford Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Crayford High St EB)	3.50	0.00	Y	Arm J1:2 Left	10.00	0.0 %	1965	1965
				Arm J1:4 Ahead	Inf	100.0 %		
J1:1/2 (Crayford High St EB)	3.75	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2130	2130
J1:2/1 (Crayford Way NB)	5.00	0.00	Y				2115	2115
J1:3/1 (Crayford Way SB)	5.00	0.00	Y	Arm J1:4 Left	16.90	100.0 %	1943	1943
J1:4/1	3.00	0.00	Y	Arm J3:1 Ahead	Inf	100.0 %	1915	1915
J1:4/2	3.00	0.00	N	Arm J3:1 Ahead	Inf	100.0 %	2055	2055
J1:4/3	3.00	0.00	Y	Arm J3:1 Ahead	Inf	100.0 %	1915	1915
J1:5/1 (London Road)	4.00	0.00	Y	Arm J1:6 Left	12.20	100.0 %	1794	1794
J1:5/2 (London Road)	3.50	0.00	Y	Arm J1:2 Ahead	30.80	100.0 %	1874	1874
				Arm J1:4 Right	48.90	0.0 %		
J1:5/3 (London Road)	3.50	0.00	Y	Arm J1:4 Right	55.13	100.0 %	1913	1913
J1:6/1 (Crayford High St WB)	4.00	0.00	Y				2015	2015

Junction: J2: London Road / Roman Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (London Road EB)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J2:2/1 (Roman Way)	3.00	0.00	Y	Arm J2:3 Left	11.85	100.0 %	1700	1700
J2:2/2 (Roman Way)	3.00	0.00	Y	Arm J1:5 Right	20.05	100.0 %	1782	1782
J2:2/3 (Roman Way)	3.00	0.00	Y	Arm J1:5 Right	15.88	100.0 %	1750	1750
J2:3/1 (London Road WB Lane 1)				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Junction: J3: Crayford Road / Roman Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1915	1915
J3:1/2 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1915	1915
J3:1/3 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:3 Right	15.19	100.0 %	1743	1743
J3:1/4 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:3 Right	11.83	100.0 %	1700	1700
J3:2/1	3.00	0.00	Y	Arm J3:3 Left	15.44	100.0 %	1745	1745
J3:2/2	3.00	0.00	Y	Arm J3:3 Left	18.53	100.0 %	1772	1772
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:3/2	Infinite Saturation Flow						Inf	Inf
J3:4/1	Infinite Saturation Flow						Inf	Inf
J3:4/2	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2038 Reference Case AM - With LTC' (FG3: '2038 Reference Case AM - With LTC', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
	A	B	C	D	E	F	Tot.	
Origin	A	0	8	177	0	0	0	185
	B	0	0	1308	0	0	0	1308
	C	0	0	0	0	0	0	0
	D	8	0	0	0	1248	349	1605
	E	305	204	0	0	0	239	748
	F	0	350	117	0	0	0	467
	Tot.	313	562	1602	0	1248	588	4313

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: 2038 Reference Case AM - With LTC
Junction: J1: Crayford High St / Crayford Way / Crayford Rd	
J1:1/1 (short)	40
J1:1/2 (with short)	467(In) 427(Out)
J1:2/1	313
J1:3/1	185
J1:4/1	48
J1:4/2	514
J1:4/3	294
J1:5/1	588
J1:5/2	313
J1:5/3	204
J1:6/1	588
Junction: J2: London Road / Roman Way	
J2:1/1	748
J2:2/1	1248
J2:2/2	349
J2:2/3	8
J2:3/1	1248
Junction: J3: Crayford Road / Roman Way	
J3:1/1	48
J3:1/2	514
J3:1/3 (with short)	294(In) 149(Out)
J3:1/4 (short)	145
J3:2/1	647
J3:2/2	661
J3:3/1	796
J3:3/2	806
J3:4/1	48
J3:4/2	514

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Crayford High St / Crayford Way / Crayford Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Crayford High St EB)	3.50	0.00	Y	Arm J1:2 Left	10.00	0.0 %	1965	1965
				Arm J1:4 Ahead	Inf	100.0 %		
J1:1/2 (Crayford High St EB)	3.75	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2130	2130
J1:2/1 (Crayford Way NB)	5.00	0.00	Y				2115	2115
J1:3/1 (Crayford Way SB)	5.00	0.00	Y	Arm J1:4 Left	16.90	100.0 %	1943	1943
J1:4/1	3.00	0.00	Y	Arm J3:1 Ahead	Inf	100.0 %	1915	1915
J1:4/2	3.00	0.00	N	Arm J3:1 Ahead	Inf	100.0 %	2055	2055
J1:4/3	3.00	0.00	Y	Arm J3:1 Ahead	Inf	100.0 %	1915	1915
J1:5/1 (London Road)	4.00	0.00	Y	Arm J1:6 Left	12.20	100.0 %	1794	1794
J1:5/2 (London Road)	3.50	0.00	Y	Arm J1:2 Ahead	30.80	100.0 %	1874	1874
				Arm J1:4 Right	48.90	0.0 %		
J1:5/3 (London Road)	3.50	0.00	Y	Arm J1:4 Right	55.13	100.0 %	1913	1913
J1:6/1 (Crayford High St WB)	4.00	0.00	Y				2015	2015

Junction: J2: London Road / Roman Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (London Road EB)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J2:2/1 (Roman Way)	3.00	0.00	Y	Arm J2:3 Left	11.85	100.0 %	1700	1700
J2:2/2 (Roman Way)	3.00	0.00	Y	Arm J1:5 Right	20.05	100.0 %	1782	1782
J2:2/3 (Roman Way)	3.00	0.00	Y	Arm J1:5 Right	15.88	100.0 %	1750	1750
J2:3/1 (London Road WB Lane 1)				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Junction: J3: Crayford Road / Roman Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1915	1915
J3:1/2 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1915	1915
J3:1/3 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:3 Right	15.19	100.0 %	1743	1743
J3:1/4 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:3 Right	11.83	100.0 %	1700	1700
J3:2/1	3.00	0.00	Y	Arm J3:3 Left	15.44	100.0 %	1745	1745
J3:2/2	3.00	0.00	Y	Arm J3:3 Left	18.53	100.0 %	1772	1772
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:3/2	Infinite Saturation Flow						Inf	Inf
J3:4/1	Infinite Saturation Flow						Inf	Inf
J3:4/2	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2038 Reference Case PM - With LTC' (FG4: '2038 Reference Case PM - With LTC', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
	A	B	C	D	E	F	Tot.	
Origin	A	0	7	179	0	0	0	186
	B	0	0	1308	0	0	0	1308
	C	0	0	0	0	0	0	0
	D	7	0	0	0	1248	387	1642
	E	227	200	0	0	0	212	639
	F	0	450	89	0	0	0	539
	Tot.	234	657	1576	0	1248	599	4314

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2038 Reference Case PM - With LTC
Junction: J1: Crayford High St / Crayford Way / Crayford Rd	
J1:1/1 (short)	286
J1:1/2 (with short)	539(In) 253(Out)
J1:2/1	234
J1:3/1	186
J1:4/1	290
J1:4/2	367
J1:4/3	268
J1:5/1	599
J1:5/2	234
J1:5/3	200
J1:6/1	599
Junction: J2: London Road / Roman Way	
J2:1/1	639
J2:2/1	1248
J2:2/2	387
J2:2/3	7
J2:3/1	1248
Junction: J3: Crayford Road / Roman Way	
J3:1/1	290
J3:1/2	367
J3:1/3 (with short)	268(In) 136(Out)
J3:1/4 (short)	132
J3:2/1	647
J3:2/2	661
J3:3/1	783
J3:3/2	793
J3:4/1	290
J3:4/2	367

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Crayford High St / Crayford Way / Crayford Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Crayford High St EB)	3.50	0.00	Y	Arm J1:2 Left	10.00	0.0 %	1965	1965
				Arm J1:4 Ahead	Inf	100.0 %		
J1:1/2 (Crayford High St EB)	3.75	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2130	2130
J1:2/1 (Crayford Way NB)	5.00	0.00	Y				2115	2115
J1:3/1 (Crayford Way SB)	5.00	0.00	Y	Arm J1:4 Left	16.90	100.0 %	1943	1943
J1:4/1	3.00	0.00	Y	Arm J3:1 Ahead	Inf	100.0 %	1915	1915
J1:4/2	3.00	0.00	N	Arm J3:1 Ahead	Inf	100.0 %	2055	2055
J1:4/3	3.00	0.00	Y	Arm J3:1 Ahead	Inf	100.0 %	1915	1915
J1:5/1 (London Road)	4.00	0.00	Y	Arm J1:6 Left	12.20	100.0 %	1794	1794
J1:5/2 (London Road)	3.50	0.00	Y	Arm J1:2 Ahead	30.80	100.0 %	1874	1874
				Arm J1:4 Right	48.90	0.0 %		
J1:5/3 (London Road)	3.50	0.00	Y	Arm J1:4 Right	55.13	100.0 %	1913	1913
J1:6/1 (Crayford High St WB)	4.00	0.00	Y				2015	2015

Junction: J2: London Road / Roman Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (London Road EB)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J2:2/1 (Roman Way)	3.00	0.00	Y	Arm J2:3 Left	11.85	100.0 %	1700	1700
J2:2/2 (Roman Way)	3.00	0.00	Y	Arm J1:5 Right	20.05	100.0 %	1782	1782
J2:2/3 (Roman Way)	3.00	0.00	Y	Arm J1:5 Right	15.88	100.0 %	1750	1750
J2:3/1 (London Road WB Lane 1)				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Junction: J3: Crayford Road / Roman Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1915	1915
J3:1/2 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1915	1915
J3:1/3 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:3 Right	15.19	100.0 %	1743	1743
J3:1/4 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:3 Right	11.83	100.0 %	1700	1700
J3:2/1	3.00	0.00	Y	Arm J3:3 Left	15.44	100.0 %	1745	1745
J3:2/2	3.00	0.00	Y	Arm J3:3 Left	18.53	100.0 %	1772	1772
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:3/2	Infinite Saturation Flow						Inf	Inf
J3:4/1	Infinite Saturation Flow						Inf	Inf
J3:4/2	Infinite Saturation Flow						Inf	Inf

Scenario 5: '2038 Local Plan Case AM - No LTC' (FG5: '2038 Local Plan Case AM - No LTC', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
	A	B	C	D	E	F	Tot.	
Origin	A	0	9	190	0	0	0	199
	B	0	0	1384	0	0	0	1384
	C	0	0	0	0	0	0	0
	D	9	0	0	0	1284	413	1706
	E	383	248	0	0	0	280	911
	F	0	436	130	0	0	0	566
	Tot.	392	693	1704	0	1284	693	4766

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: 2038 Local Plan Case AM - No LTC
Junction: J1: Crayford High St / Crayford Way / Crayford Rd	
J1:1/1 (short)	47
J1:1/2 (with short)	566(In) 519(Out)
J1:2/1	392
J1:3/1	199
J1:4/1	56
J1:4/2	637
J1:4/3	320
J1:5/1	693
J1:5/2	392
J1:5/3	248
J1:6/1	693
Junction: J2: London Road / Roman Way	
J2:1/1	911
J2:2/1	1284
J2:2/2	413
J2:2/3	9
J2:3/1	1284
Junction: J3: Crayford Road / Roman Way	
J3:1/1	56
J3:1/2	637
J3:1/3 (with short)	320(In) 162(Out)
J3:1/4 (short)	158
J3:2/1	685
J3:2/2	699
J3:3/1	847
J3:3/2	857
J3:4/1	56
J3:4/2	637

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Crayford High St / Crayford Way / Crayford Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Crayford High St EB)	3.50	0.00	Y	Arm J1:2 Left	10.00	0.0 %	1965	1965
				Arm J1:4 Ahead	Inf	100.0 %		
J1:1/2 (Crayford High St EB)	3.75	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2130	2130
J1:2/1 (Crayford Way NB)	5.00	0.00	Y				2115	2115
J1:3/1 (Crayford Way SB)	5.00	0.00	Y	Arm J1:4 Left	16.90	100.0 %	1943	1943
J1:4/1	3.00	0.00	Y	Arm J3:1 Ahead	Inf	100.0 %	1915	1915
J1:4/2	3.00	0.00	N	Arm J3:1 Ahead	Inf	100.0 %	2055	2055
J1:4/3	3.00	0.00	Y	Arm J3:1 Ahead	Inf	100.0 %	1915	1915
J1:5/1 (London Road)	4.00	0.00	Y	Arm J1:6 Left	12.20	100.0 %	1794	1794
J1:5/2 (London Road)	3.50	0.00	Y	Arm J1:2 Ahead	30.80	100.0 %	1874	1874
				Arm J1:4 Right	48.90	0.0 %		
J1:5/3 (London Road)	3.50	0.00	Y	Arm J1:4 Right	55.13	100.0 %	1913	1913
J1:6/1 (Crayford High St WB)	4.00	0.00	Y				2015	2015

Junction: J2: London Road / Roman Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (London Road EB)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J2:2/1 (Roman Way)	3.00	0.00	Y	Arm J2:3 Left	11.85	100.0 %	1700	1700
J2:2/2 (Roman Way)	3.00	0.00	Y	Arm J1:5 Right	20.05	100.0 %	1782	1782
J2:2/3 (Roman Way)	3.00	0.00	Y	Arm J1:5 Right	15.88	100.0 %	1750	1750
J2:3/1 (London Road WB Lane 1)				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Junction: J3: Crayford Road / Roman Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1915	1915
J3:1/2 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1915	1915
J3:1/3 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:3 Right	15.19	100.0 %	1743	1743
J3:1/4 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:3 Right	11.83	100.0 %	1700	1700
J3:2/1	3.00	0.00	Y	Arm J3:3 Left	15.44	100.0 %	1745	1745
J3:2/2	3.00	0.00	Y	Arm J3:3 Left	18.53	100.0 %	1772	1772
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:3/2	Infinite Saturation Flow						Inf	Inf
J3:4/1	Infinite Saturation Flow						Inf	Inf
J3:4/2	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2038 Local Plan Case PM - No LTC' (FG6: '2038 Local Plan Case PM - No LTC', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
	A	B	C	D	E	F	Tot.	
Origin	A	0	6	133	0	0	0	139
	B	0	0	1494	0	0	0	1494
	C	0	0	0	0	0	0	0
	D	7	0	0	0	1194	496	1697
	E	236	273	0	0	0	182	691
	F	0	492	81	0	0	0	573
	Tot.	243	771	1708	0	1194	678	4594

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 2038 Local Plan Case PM - No LTC
Junction: J1: Crayford High St / Crayford Way / Crayford Rd	
J1:1/1 (short)	311
J1:1/2 (with short)	573(In) 262(Out)
J1:2/1	243
J1:3/1	139
J1:4/1	325
J1:4/2	446
J1:4/3	214
J1:5/1	678
J1:5/2	253
J1:5/3	263
J1:6/1	678
Junction: J2: London Road / Roman Way	
J2:1/1	691
J2:2/1	1194
J2:2/2	496
J2:2/3	7
J2:3/1	1194
Junction: J3: Crayford Road / Roman Way	
J3:1/1	325
J3:1/2	446
J3:1/3 (with short)	214(In) 108(Out)
J3:1/4 (short)	106
J3:2/1	739
J3:2/2	755
J3:3/1	847
J3:3/2	861
J3:4/1	325
J3:4/2	446

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Crayford High St / Crayford Way / Crayford Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Crayford High St EB)	3.50	0.00	Y	Arm J1:2 Left	10.00	0.0 %	1965	1965
				Arm J1:4 Ahead	Inf	100.0 %		
J1:1/2 (Crayford High St EB)	3.75	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2130	2130
J1:2/1 (Crayford Way NB)	5.00	0.00	Y				2115	2115
J1:3/1 (Crayford Way SB)	5.00	0.00	Y	Arm J1:4 Left	16.90	100.0 %	1943	1943
J1:4/1	3.00	0.00	Y	Arm J3:1 Ahead	Inf	100.0 %	1915	1915
J1:4/2	3.00	0.00	N	Arm J3:1 Ahead	Inf	100.0 %	2055	2055
J1:4/3	3.00	0.00	Y	Arm J3:1 Ahead	Inf	100.0 %	1915	1915
J1:5/1 (London Road)	4.00	0.00	Y	Arm J1:6 Left	12.20	100.0 %	1794	1794
J1:5/2 (London Road)	3.50	0.00	Y	Arm J1:2 Ahead	30.80	96.0 %	1875	1875
				Arm J1:4 Right	48.90	4.0 %		
J1:5/3 (London Road)	3.50	0.00	Y	Arm J1:4 Right	55.13	100.0 %	1913	1913
J1:6/1 (Crayford High St WB)	4.00	0.00	Y				2015	2015

Junction: J2: London Road / Roman Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (London Road EB)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J2:2/1 (Roman Way)	3.00	0.00	Y	Arm J2:3 Left	11.85	100.0 %	1700	1700
J2:2/2 (Roman Way)	3.00	0.00	Y	Arm J1:5 Right	20.05	100.0 %	1782	1782
J2:2/3 (Roman Way)	3.00	0.00	Y	Arm J1:5 Right	15.88	100.0 %	1750	1750
J2:3/1 (London Road WB Lane 1)				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Junction: J3: Crayford Road / Roman Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1915	1915
J3:1/2 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1915	1915
J3:1/3 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:3 Right	15.19	100.0 %	1743	1743
J3:1/4 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:3 Right	11.83	100.0 %	1700	1700
J3:2/1	3.00	0.00	Y	Arm J3:3 Left	15.44	100.0 %	1745	1745
J3:2/2	3.00	0.00	Y	Arm J3:3 Left	18.53	100.0 %	1772	1772
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:3/2	Infinite Saturation Flow						Inf	Inf
J3:4/1	Infinite Saturation Flow						Inf	Inf
J3:4/2	Infinite Saturation Flow						Inf	Inf

Scenario 7: '2038 Local Plan Case AM - With LTC' (FG7: '2038 Local Plan Case AM - With LTC', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
	A	B	C	D	E	F	Tot.	
Origin	A	0	9	144	0	0	0	153
	B	0	0	1509	0	0	0	1509
	C	0	0	0	0	0	0	0
	D	8	0	0	0	1386	392	1786
	E	347	260	0	0	0	272	879
	F	0	420	126	0	0	0	546
	Tot.	355	689	1779	0	1386	664	4873

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: 2038 Local Plan Case AM - With LTC
Junction: J1: Crayford High St / Crayford Way / Crayford Rd	
J1:1/1 (short)	291
J1:1/2 (with short)	546(In) 255(Out)
J1:2/1	355
J1:3/1	153
J1:4/1	299
J1:4/2	390
J1:4/3	270
J1:5/1	664
J1:5/2	355
J1:5/3	260
J1:6/1	664
Junction: J2: London Road / Roman Way	
J2:1/1	879
J2:2/1	1386
J2:2/2	392
J2:2/3	8
J2:3/1	1386
Junction: J3: Crayford Road / Roman Way	
J3:1/1	299
J3:1/2	390
J3:1/3 (with short)	270(In) 136(Out)
J3:1/4 (short)	134
J3:2/1	747
J3:2/2	762
J3:3/1	883
J3:3/2	896
J3:4/1	299
J3:4/2	390

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Crayford High St / Crayford Way / Crayford Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Crayford High St EB)	3.50	0.00	Y	Arm J1:2 Left	10.00	0.0 %	1965	1965
				Arm J1:4 Ahead	Inf	100.0 %		
J1:1/2 (Crayford High St EB)	3.75	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2130	2130
J1:2/1 (Crayford Way NB)	5.00	0.00	Y				2115	2115
J1:3/1 (Crayford Way SB)	5.00	0.00	Y	Arm J1:4 Left	16.90	100.0 %	1943	1943
J1:4/1	3.00	0.00	Y	Arm J3:1 Ahead	Inf	100.0 %	1915	1915
J1:4/2	3.00	0.00	N	Arm J3:1 Ahead	Inf	100.0 %	2055	2055
J1:4/3	3.00	0.00	Y	Arm J3:1 Ahead	Inf	100.0 %	1915	1915
J1:5/1 (London Road)	4.00	0.00	Y	Arm J1:6 Left	12.20	100.0 %	1794	1794
J1:5/2 (London Road)	3.50	0.00	Y	Arm J1:2 Ahead	30.80	100.0 %	1874	1874
				Arm J1:4 Right	48.90	0.0 %		
J1:5/3 (London Road)	3.50	0.00	Y	Arm J1:4 Right	55.13	100.0 %	1913	1913
J1:6/1 (Crayford High St WB)	4.00	0.00	Y				2015	2015

Junction: J2: London Road / Roman Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (London Road EB)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J2:2/1 (Roman Way)	3.00	0.00	Y	Arm J2:3 Left	11.85	100.0 %	1700	1700
J2:2/2 (Roman Way)	3.00	0.00	Y	Arm J1:5 Right	20.05	100.0 %	1782	1782
J2:2/3 (Roman Way)	3.00	0.00	Y	Arm J1:5 Right	15.88	100.0 %	1750	1750
J2:3/1 (London Road WB Lane 1)				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Junction: J3: Crayford Road / Roman Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1915	1915
J3:1/2 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1915	1915
J3:1/3 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:3 Right	15.19	100.0 %	1743	1743
J3:1/4 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:3 Right	11.83	100.0 %	1700	1700
J3:2/1	3.00	0.00	Y	Arm J3:3 Left	15.44	100.0 %	1745	1745
J3:2/2	3.00	0.00	Y	Arm J3:3 Left	18.53	100.0 %	1772	1772
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:3/2	Infinite Saturation Flow						Inf	Inf
J3:4/1	Infinite Saturation Flow						Inf	Inf
J3:4/2	Infinite Saturation Flow						Inf	Inf

Scenario 8: '2038 Local Plan Case PM - With LTC' (FG8: '2038 Local Plan Case PM - With LTC', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
	A	B	C	D	E	F	Tot.	
Origin	A	0	6	126	0	0	0	132
	B	0	0	1527	0	0	0	1527
	C	0	0	0	0	0	0	0
	D	7	0	0	0	1264	471	1742
	E	238	278	0	0	0	178	694
	F	0	510	56	0	0	0	566
	Tot.	245	794	1709	0	1264	649	4661

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: 2038 Local Plan Case PM - With LTC
Junction: J1: Crayford High St / Crayford Way / Crayford Rd	
J1:1/1 (short)	309
J1:1/2 (with short)	566(In) 257(Out)
J1:2/1	245
J1:3/1	132
J1:4/1	328
J1:4/2	466
J1:4/3	182
J1:5/1	649
J1:5/2	259
J1:5/3	264
J1:6/1	649
Junction: J2: London Road / Roman Way	
J2:1/1	694
J2:2/1	1264
J2:2/2	471
J2:2/3	7
J2:3/1	1264
Junction: J3: Crayford Road / Roman Way	
J3:1/1	328
J3:1/2	466
J3:1/3 (with short)	182(In) 92(Out)
J3:1/4 (short)	90
J3:2/1	755
J3:2/2	772
J3:3/1	847
J3:3/2	862
J3:4/1	328
J3:4/2	466

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Crayford High St / Crayford Way / Crayford Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Crayford High St EB)	3.50	0.00	Y	Arm J1:2 Left	10.00	0.0 %	1965	1965
				Arm J1:4 Ahead	Inf	100.0 %		
J1:1/2 (Crayford High St EB)	3.75	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2130	2130
J1:2/1 (Crayford Way NB)	5.00	0.00	Y				2115	2115
J1:3/1 (Crayford Way SB)	5.00	0.00	Y	Arm J1:4 Left	16.90	100.0 %	1943	1943
J1:4/1	3.00	0.00	Y	Arm J3:1 Ahead	Inf	100.0 %	1915	1915
J1:4/2	3.00	0.00	N	Arm J3:1 Ahead	Inf	100.0 %	2055	2055
J1:4/3	3.00	0.00	Y	Arm J3:1 Ahead	Inf	100.0 %	1915	1915
J1:5/1 (London Road)	4.00	0.00	Y	Arm J1:6 Left	12.20	100.0 %	1794	1794
J1:5/2 (London Road)	3.50	0.00	Y	Arm J1:2 Ahead	30.80	94.6 %	1875	1875
				Arm J1:4 Right	48.90	5.4 %		
J1:5/3 (London Road)	3.50	0.00	Y	Arm J1:4 Right	55.13	100.0 %	1913	1913
J1:6/1 (Crayford High St WB)	4.00	0.00	Y				2015	2015

Junction: J2: London Road / Roman Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (London Road EB)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J2:2/1 (Roman Way)	3.00	0.00	Y	Arm J2:3 Left	11.85	100.0 %	1700	1700
J2:2/2 (Roman Way)	3.00	0.00	Y	Arm J1:5 Right	20.05	100.0 %	1782	1782
J2:2/3 (Roman Way)	3.00	0.00	Y	Arm J1:5 Right	15.88	100.0 %	1750	1750
J2:3/1 (London Road WB Lane 1)				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Junction: J3: Crayford Road / Roman Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1915	1915
J3:1/2 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1915	1915
J3:1/3 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:3 Right	15.19	100.0 %	1743	1743
J3:1/4 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:3 Right	11.83	100.0 %	1700	1700
J3:2/1	3.00	0.00	Y	Arm J3:3 Left	15.44	100.0 %	1745	1745
J3:2/2	3.00	0.00	Y	Arm J3:3 Left	18.53	100.0 %	1772	1772
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:3/2	Infinite Saturation Flow						Inf	Inf
J3:4/1	Infinite Saturation Flow						Inf	Inf
J3:4/2	Infinite Saturation Flow						Inf	Inf

Scenario 9: '2038 Local Plan Case AM - No LTC - Sensitivity Test' (FG9: '2038 Local Plan Case AM - No LTC - Sensitivity Test', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
	A	B	C	D	E	F	Tot.	
Origin	A	0	9	190	0	0	0	199
	B	0	0	1352	0	0	0	1352
	C	0	0	0	0	0	0	0
	D	8	0	0	0	1258	403	1669
	E	371	245	0	0	0	270	886
	F	0	418	124	0	0	0	542
	Tot.	379	672	1666	0	1258	673	4648

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 9: 2038 Local Plan Case AM - No LTC - Sensitivity Test
Junction: J1: Crayford High St / Crayford Way / Crayford Rd	
J1:1/1 (short)	261
J1:1/2 (with short)	542(In) 281(Out)
J1:2/1	379
J1:3/1	199
J1:4/1	267
J1:4/2	405
J1:4/3	314
J1:5/1	673
J1:5/2	379
J1:5/3	245
J1:6/1	673
Junction: J2: London Road / Roman Way	
J2:1/1	886
J2:2/1	1258
J2:2/2	403
J2:2/3	8
J2:3/1	1258
Junction: J3: Crayford Road / Roman Way	
J3:1/1	267
J3:1/2	405
J3:1/3 (with short)	314(In) 159(Out)
J3:1/4 (short)	155
J3:2/1	669
J3:2/2	683
J3:3/1	828
J3:3/2	838
J3:4/1	267
J3:4/2	405

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Crayford High St / Crayford Way / Crayford Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Crayford High St EB)	3.50	0.00	Y	Arm J1:2 Left	10.00	0.0 %	1965	1965
				Arm J1:4 Ahead	Inf	100.0 %		
J1:1/2 (Crayford High St EB)	3.75	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2130	2130
J1:2/1 (Crayford Way NB)	5.00	0.00	Y				2115	2115
J1:3/1 (Crayford Way SB)	5.00	0.00	Y	Arm J1:4 Left	16.90	100.0 %	1943	1943
J1:4/1	3.00	0.00	Y	Arm J3:1 Ahead	Inf	100.0 %	1915	1915
J1:4/2	3.00	0.00	N	Arm J3:1 Ahead	Inf	100.0 %	2055	2055
J1:4/3	3.00	0.00	Y	Arm J3:1 Ahead	Inf	100.0 %	1915	1915
J1:5/1 (London Road)	4.00	0.00	Y	Arm J1:6 Left	12.20	100.0 %	1794	1794
J1:5/2 (London Road)	3.50	0.00	Y	Arm J1:2 Ahead	30.80	100.0 %	1874	1874
				Arm J1:4 Right	48.90	0.0 %		
J1:5/3 (London Road)	3.50	0.00	Y	Arm J1:4 Right	55.13	100.0 %	1913	1913
J1:6/1 (Crayford High St WB)	4.00	0.00	Y				2015	2015

Junction: J2: London Road / Roman Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (London Road EB)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J2:2/1 (Roman Way)	3.00	0.00	Y	Arm J2:3 Left	11.85	100.0 %	1700	1700
J2:2/2 (Roman Way)	3.00	0.00	Y	Arm J1:5 Right	20.05	100.0 %	1782	1782
J2:2/3 (Roman Way)	3.00	0.00	Y	Arm J1:5 Right	15.88	100.0 %	1750	1750
J2:3/1 (London Road WB Lane 1)				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Junction: J3: Crayford Road / Roman Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1915	1915
J3:1/2 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1915	1915
J3:1/3 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:3 Right	15.19	100.0 %	1743	1743
J3:1/4 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:3 Right	11.83	100.0 %	1700	1700
J3:2/1	3.00	0.00	Y	Arm J3:3 Left	15.44	100.0 %	1745	1745
J3:2/2	3.00	0.00	Y	Arm J3:3 Left	18.53	100.0 %	1772	1772
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:3/2	Infinite Saturation Flow						Inf	Inf
J3:4/1	Infinite Saturation Flow						Inf	Inf
J3:4/2	Infinite Saturation Flow						Inf	Inf

Scenario 10: '2038 Local Plan Case PM - No LTC - Sensitivity Test' (FG10: '2038 Local Plan Case PM - No LTC - Sensitivity Test', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
	A	B	C	D	E	F	Tot.	
Origin	A	0	5	133	0	0	0	138
	B	0	0	1454	0	0	0	1454
	C	0	0	0	0	0	0	0
	D	7	0	0	0	1194	479	1680
	E	227	263	0	0	0	184	674
	F	0	485	82	0	0	0	567
	Tot.	234	753	1669	0	1194	663	4513

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 10: 2038 Local Plan Case PM - No LTC - Sensitivity Test
Junction: J1: Crayford High St / Crayford Way / Crayford Rd	
J1:1/1 (short)	279
J1:1/2 (with short)	567(In) 288(Out)
J1:2/1	234
J1:3/1	138
J1:4/1	295
J1:4/2	458
J1:4/3	215
J1:5/1	663
J1:5/2	246
J1:5/3	251
J1:6/1	663
Junction: J2: London Road / Roman Way	
J2:1/1	674
J2:2/1	1194
J2:2/2	479
J2:2/3	7
J2:3/1	1194
Junction: J3: Crayford Road / Roman Way	
J3:1/1	295
J3:1/2	458
J3:1/3 (with short)	215(In) 108(Out)
J3:1/4 (short)	107
J3:2/1	719
J3:2/2	735
J3:3/1	827
J3:3/2	842
J3:4/1	295
J3:4/2	458

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Crayford High St / Crayford Way / Crayford Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Crayford High St EB)	3.50	0.00	Y	Arm J1:2 Left	10.00	0.0 %	1965	1965
				Arm J1:4 Ahead	Inf	100.0 %		
J1:1/2 (Crayford High St EB)	3.75	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2130	2130
J1:2/1 (Crayford Way NB)	5.00	0.00	Y				2115	2115
J1:3/1 (Crayford Way SB)	5.00	0.00	Y	Arm J1:4 Left	16.90	100.0 %	1943	1943
J1:4/1	3.00	0.00	Y	Arm J3:1 Ahead	Inf	100.0 %	1915	1915
J1:4/2	3.00	0.00	N	Arm J3:1 Ahead	Inf	100.0 %	2055	2055
J1:4/3	3.00	0.00	Y	Arm J3:1 Ahead	Inf	100.0 %	1915	1915
J1:5/1 (London Road)	4.00	0.00	Y	Arm J1:6 Left	12.20	100.0 %	1794	1794
J1:5/2 (London Road)	3.50	0.00	Y	Arm J1:2 Ahead	30.80	95.1 %	1875	1875
				Arm J1:4 Right	48.90	4.9 %		
J1:5/3 (London Road)	3.50	0.00	Y	Arm J1:4 Right	55.13	100.0 %	1913	1913
J1:6/1 (Crayford High St WB)	4.00	0.00	Y				2015	2015

Junction: J2: London Road / Roman Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (London Road EB)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J2:2/1 (Roman Way)	3.00	0.00	Y	Arm J2:3 Left	11.85	100.0 %	1700	1700
J2:2/2 (Roman Way)	3.00	0.00	Y	Arm J1:5 Right	20.05	100.0 %	1782	1782
J2:2/3 (Roman Way)	3.00	0.00	Y	Arm J1:5 Right	15.88	100.0 %	1750	1750
J2:3/1 (London Road WB Lane 1)				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Junction: J3: Crayford Road / Roman Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1915	1915
J3:1/2 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1915	1915
J3:1/3 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:3 Right	15.19	100.0 %	1743	1743
J3:1/4 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:3 Right	11.83	100.0 %	1700	1700
J3:2/1	3.00	0.00	Y	Arm J3:3 Left	15.44	100.0 %	1745	1745
J3:2/2	3.00	0.00	Y	Arm J3:3 Left	18.53	100.0 %	1772	1772
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:3/2	Infinite Saturation Flow						Inf	Inf
J3:4/1	Infinite Saturation Flow						Inf	Inf
J3:4/2	Infinite Saturation Flow						Inf	Inf

Scenario 11: '2038 Local Plan Case AM - With LTC - Sensitivity Test' (FG11: '2038 Local Plan Case AM - With LTC - Sensitivity Test', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
	A	B	C	D	E	F	Tot.	
Origin	A	0	9	143	0	0	0	152
	B	0	0	1481	0	0	0	1481
	C	0	0	0	0	0	0	0
	D	8	0	0	0	1362	385	1755
	E	338	253	0	0	0	262	853
	F	0	400	121	0	0	0	521
	Tot.	346	662	1745	0	1362	647	4762

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 11: 2038 Local Plan Case AM - With LTC - Sensitivity Test
Junction: J1: Crayford High St / Crayford Way / Crayford Rd	
J1:1/1 (short)	254
J1:1/2 (with short)	521(In) 267(Out)
J1:2/1	346
J1:3/1	152
J1:4/1	261
J1:4/2	401
J1:4/3	264
J1:5/1	647
J1:5/2	346
J1:5/3	253
J1:6/1	647
Junction: J2: London Road / Roman Way	
J2:1/1	853
J2:2/1	1362
J2:2/2	385
J2:2/3	8
J2:3/1	1362
Junction: J3: Crayford Road / Roman Way	
J3:1/1	261
J3:1/2	401
J3:1/3 (with short)	264(In) 134(Out)
J3:1/4 (short)	130
J3:2/1	733
J3:2/2	748
J3:3/1	867
J3:3/2	878
J3:4/1	261
J3:4/2	401

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Crayford High St / Crayford Way / Crayford Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Crayford High St EB)	3.50	0.00	Y	Arm J1:2 Left	10.00	0.0 %	1965	1965
				Arm J1:4 Ahead	Inf	100.0 %		
J1:1/2 (Crayford High St EB)	3.75	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2130	2130
J1:2/1 (Crayford Way NB)	5.00	0.00	Y				2115	2115
J1:3/1 (Crayford Way SB)	5.00	0.00	Y	Arm J1:4 Left	16.90	100.0 %	1943	1943
J1:4/1	3.00	0.00	Y	Arm J3:1 Ahead	Inf	100.0 %	1915	1915
J1:4/2	3.00	0.00	N	Arm J3:1 Ahead	Inf	100.0 %	2055	2055
J1:4/3	3.00	0.00	Y	Arm J3:1 Ahead	Inf	100.0 %	1915	1915
J1:5/1 (London Road)	4.00	0.00	Y	Arm J1:6 Left	12.20	100.0 %	1794	1794
J1:5/2 (London Road)	3.50	0.00	Y	Arm J1:2 Ahead	30.80	100.0 %	1874	1874
				Arm J1:4 Right	48.90	0.0 %		
J1:5/3 (London Road)	3.50	0.00	Y	Arm J1:4 Right	55.13	100.0 %	1913	1913
J1:6/1 (Crayford High St WB)	4.00	0.00	Y				2015	2015

Junction: J2: London Road / Roman Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (London Road EB)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J2:2/1 (Roman Way)	3.00	0.00	Y	Arm J2:3 Left	11.85	100.0 %	1700	1700
J2:2/2 (Roman Way)	3.00	0.00	Y	Arm J1:5 Right	20.05	100.0 %	1782	1782
J2:2/3 (Roman Way)	3.00	0.00	Y	Arm J1:5 Right	15.88	100.0 %	1750	1750
J2:3/1 (London Road WB Lane 1)				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Junction: J3: Crayford Road / Roman Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1915	1915
J3:1/2 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1915	1915
J3:1/3 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:3 Right	15.19	100.0 %	1743	1743
J3:1/4 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:3 Right	11.83	100.0 %	1700	1700
J3:2/1	3.00	0.00	Y	Arm J3:3 Left	15.44	100.0 %	1745	1745
J3:2/2	3.00	0.00	Y	Arm J3:3 Left	18.53	100.0 %	1772	1772
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:3/2	Infinite Saturation Flow						Inf	Inf
J3:4/1	Infinite Saturation Flow						Inf	Inf
J3:4/2	Infinite Saturation Flow						Inf	Inf

Scenario 12: '2038 Local Plan Case PM - With LTC - Sensitivity Test' (FG12: '2038 Local Plan Case PM - With LTC - Sensitivity Test', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
	A	B	C	D	E	F	Tot.	
Origin	A	0	6	130	0	0	0	136
	B	0	0	1477	0	0	0	1477
	C	0	0	0	0	0	0	0
	D	7	0	0	0	1232	466	1705
	E	239	265	0	0	0	178	682
	F	0	501	59	0	0	0	560
	Tot.	246	772	1666	0	1232	644	4560

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 12: 2038 Local Plan Case PM - With LTC - Sensitivity Test
Junction: J1: Crayford High St / Crayford Way / Crayford Rd	
J1:1/1 (short)	278
J1:1/2 (with short)	560(In) 282(Out)
J1:2/1	246
J1:3/1	136
J1:4/1	291
J1:4/2	481
J1:4/3	189
J1:5/1	644
J1:5/2	254
J1:5/3	257
J1:6/1	644
Junction: J2: London Road / Roman Way	
J2:1/1	682
J2:2/1	1232
J2:2/2	466
J2:2/3	7
J2:3/1	1232
Junction: J3: Crayford Road / Roman Way	
J3:1/1	291
J3:1/2	481
J3:1/3 (with short)	189(In) 96(Out)
J3:1/4 (short)	93
J3:2/1	731
J3:2/2	746
J3:3/1	827
J3:3/2	839
J3:4/1	291
J3:4/2	481

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Crayford High St / Crayford Way / Crayford Rd								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Crayford High St EB)	3.50	0.00	Y	Arm J1:2 Left	10.00	0.0 %	1965	1965
				Arm J1:4 Ahead	Inf	100.0 %		
J1:1/2 (Crayford High St EB)	3.75	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2130	2130
J1:2/1 (Crayford Way NB)	5.00	0.00	Y				2115	2115
J1:3/1 (Crayford Way SB)	5.00	0.00	Y	Arm J1:4 Left	16.90	100.0 %	1943	1943
J1:4/1	3.00	0.00	Y	Arm J3:1 Ahead	Inf	100.0 %	1915	1915
J1:4/2	3.00	0.00	N	Arm J3:1 Ahead	Inf	100.0 %	2055	2055
J1:4/3	3.00	0.00	Y	Arm J3:1 Ahead	Inf	100.0 %	1915	1915
J1:5/1 (London Road)	4.00	0.00	Y	Arm J1:6 Left	12.20	100.0 %	1794	1794
J1:5/2 (London Road)	3.50	0.00	Y	Arm J1:2 Ahead	30.80	96.9 %	1875	1875
				Arm J1:4 Right	48.90	3.1 %		
J1:5/3 (London Road)	3.50	0.00	Y	Arm J1:4 Right	55.13	100.0 %	1913	1913
J1:6/1 (Crayford High St WB)	4.00	0.00	Y				2015	2015

Junction: J2: London Road / Roman Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (London Road EB)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J2:2/1 (Roman Way)	3.00	0.00	Y	Arm J2:3 Left	11.85	100.0 %	1700	1700
J2:2/2 (Roman Way)	3.00	0.00	Y	Arm J1:5 Right	20.05	100.0 %	1782	1782
J2:2/3 (Roman Way)	3.00	0.00	Y	Arm J1:5 Right	15.88	100.0 %	1750	1750
J2:3/1 (London Road WB Lane 1)				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

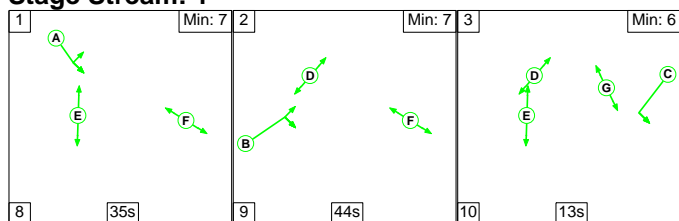
Junction: J3: Crayford Road / Roman Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1915	1915
J3:1/2 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1915	1915
J3:1/3 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:3 Right	15.19	100.0 %	1743	1743
J3:1/4 (Crayford Rd EB)	3.00	0.00	Y	Arm J3:3 Right	11.83	100.0 %	1700	1700
J3:2/1	3.00	0.00	Y	Arm J3:3 Left	15.44	100.0 %	1745	1745
J3:2/2	3.00	0.00	Y	Arm J3:3 Left	18.53	100.0 %	1772	1772
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:3/2	Infinite Saturation Flow						Inf	Inf
J3:4/1	Infinite Saturation Flow						Inf	Inf
J3:4/2	Infinite Saturation Flow						Inf	Inf

Scenario 1: '2038 Reference Case AM - No LTC' (FG1: '2038 Reference Case AM - No LTC', Plan 1: 'Network Control Plan 1')

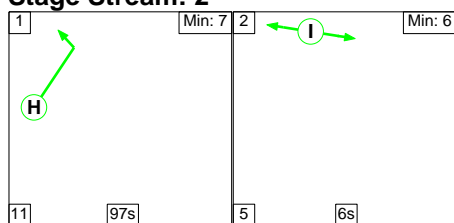
C1

Stage Sequence Diagram

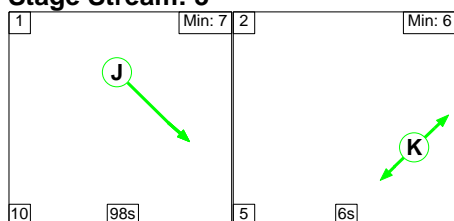
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Full Input Data And Results

Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	35	44	13
Change Point	16	59	112

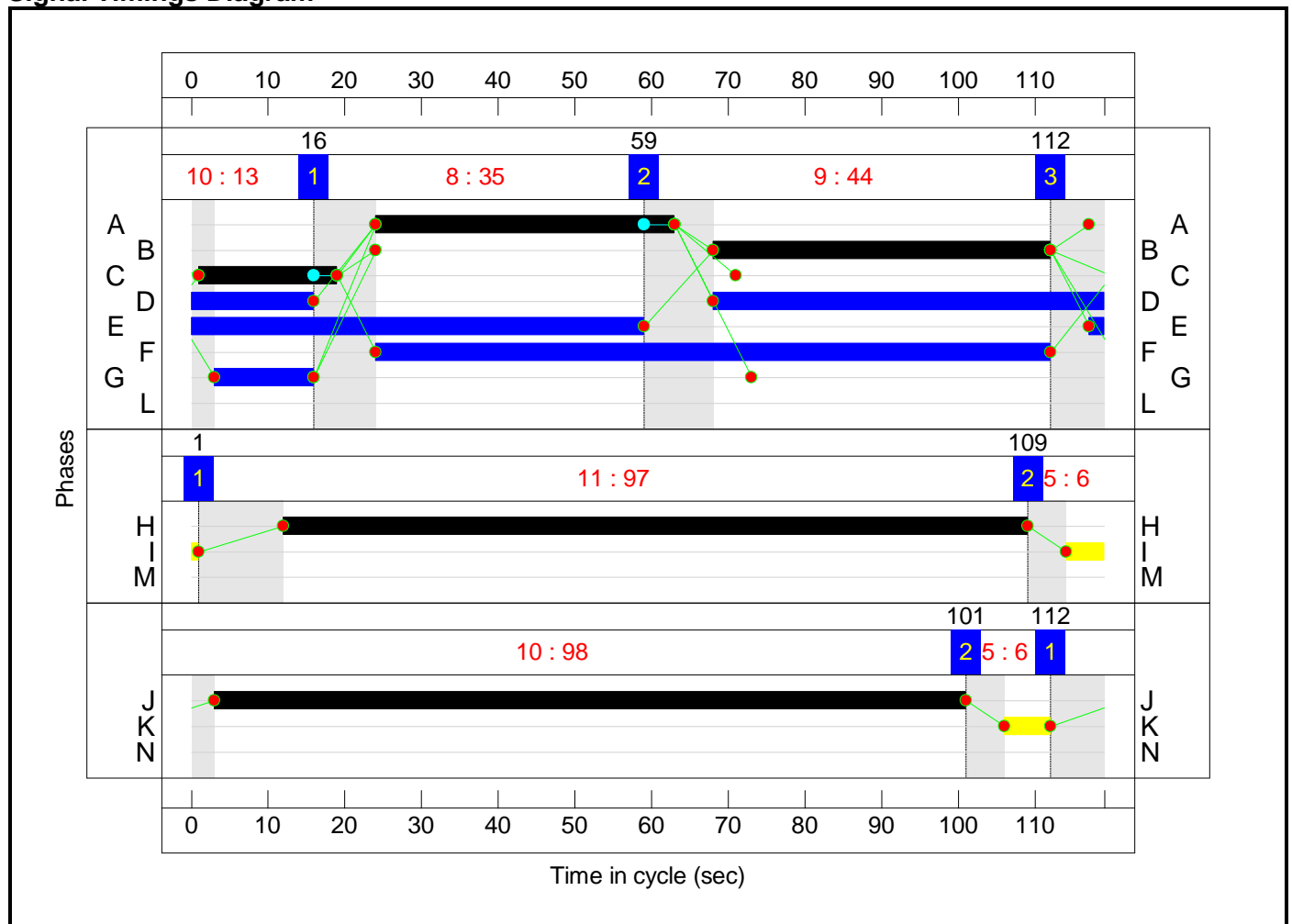
Stage Stream: 2

Stage	1	2
Duration	97	6
Change Point	1	109

Stage Stream: 3

Stage	1	2
Duration	98	6
Change Point	112	101

Signal Timings Diagram

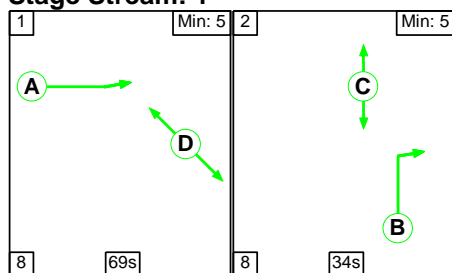


Full Input Data And Results

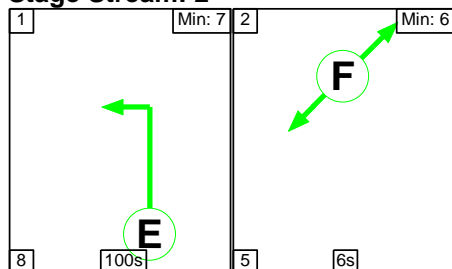
C2

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

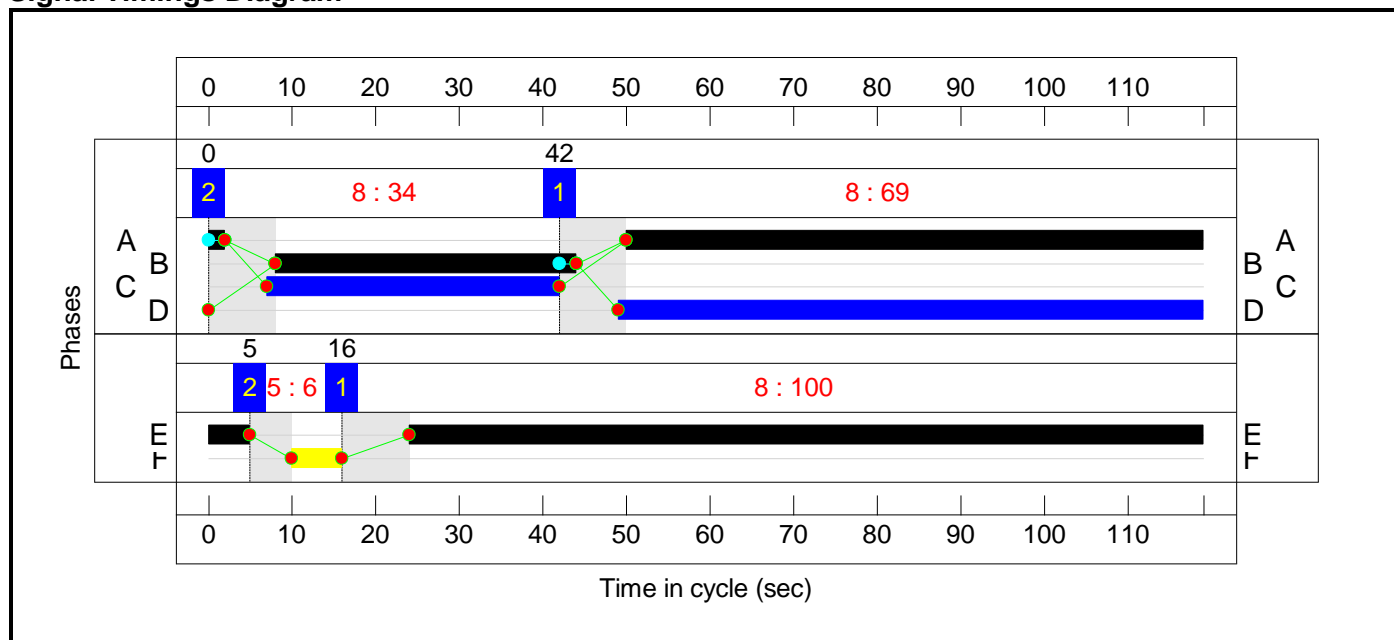
Stage Stream: 1

Stage	1	2
Duration	69	34
Change Point	42	0

Stage Stream: 2

Stage	1	2
Duration	100	6
Change Point	16	5

Signal Timings Diagram

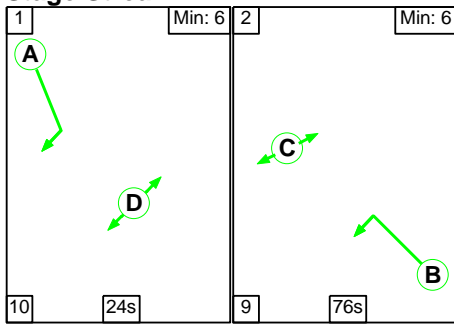


Full Input Data And Results

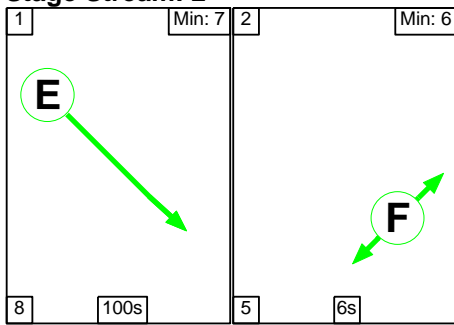
C3

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

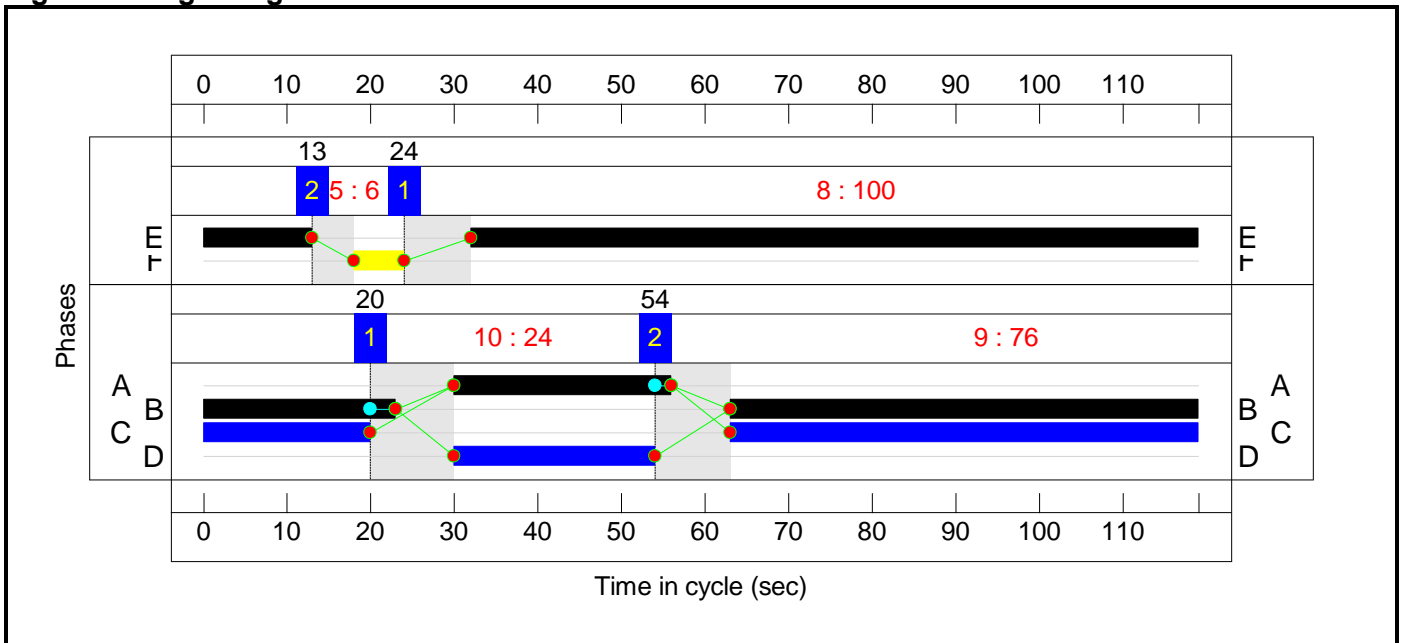
Stage Stream: 1

Stage	1	2
Duration	24	76
Change Point	20	54

Stage Stream: 2

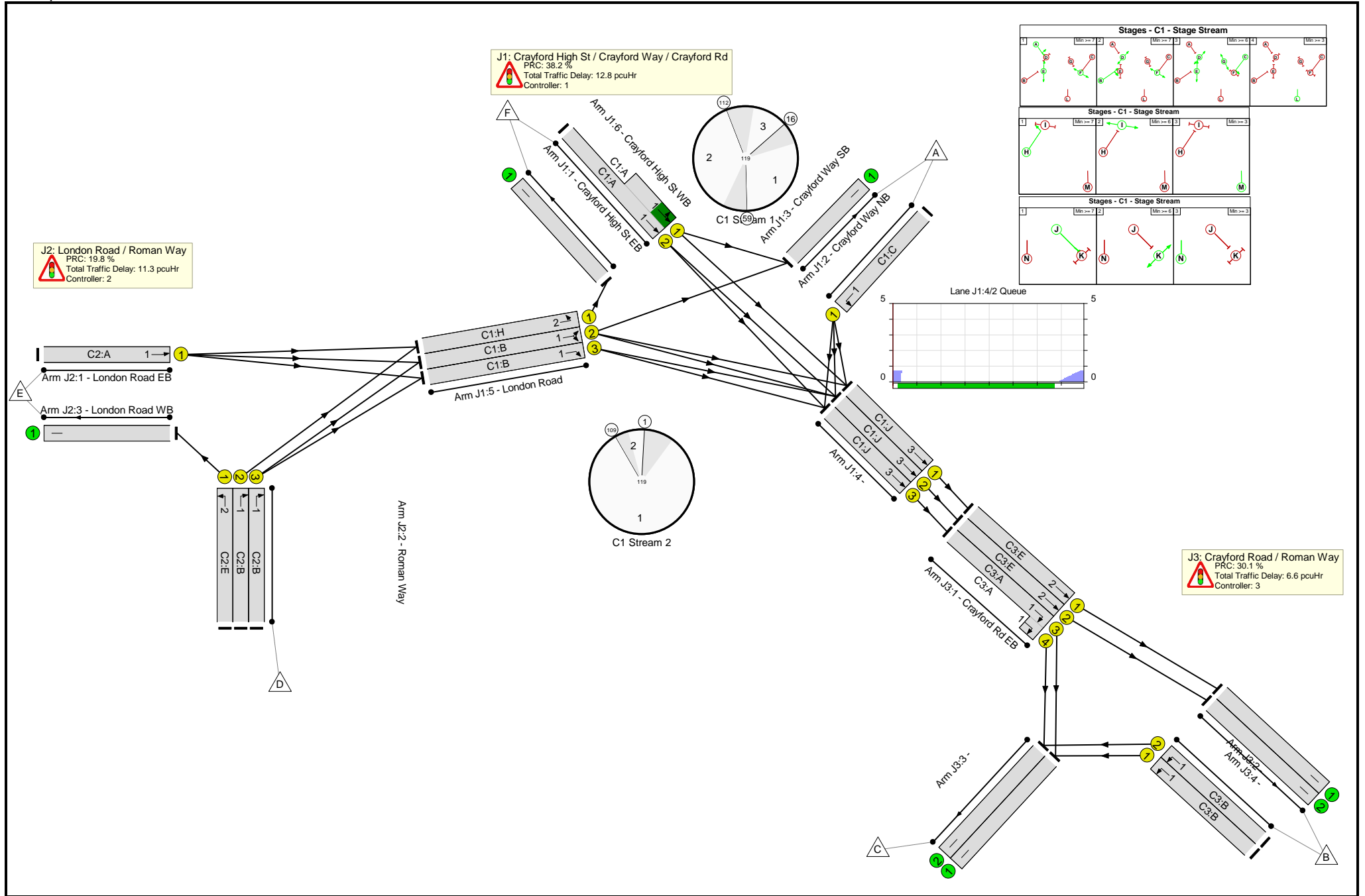
Stage	1	2
Duration	100	6
Change Point	24	13

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	75.1%
J1: Crayford High St / Crayford Way / Crayford Rd	-	-	N/A	-	-		-	-	-	-	-	-	65.1%
1/2+1/1	Crayford High St EB Left Ahead	U	1:1	N/A	C1:A		1	39	-	477	2130:1965	695+47	64.3 : 64.3%
2/1	Crayford Way NB	U	N/A	N/A	-		-	-	-	361	2115	2115	17.1%
3/1	Crayford Way SB Left	U	1:1	N/A	C1:C		1	18	-	202	1943	310	65.1%
4/1	Ahead	U	1:3	N/A	C1:J		1	98	-	38	1915	1593	2.4%
4/2	Ahead	U	1:3	N/A	C1:J		1	98	-	512	2055	1710	29.9%
4/3	Ahead	U	1:3	N/A	C1:J		1	98	-	314	1915	1593	19.7%
5/1	London Road Left	U	1:2	N/A	C1:H		1	97	-	589	1794	1477	39.9%
5/2	London Road Ahead Right	U	1:1	N/A	C1:B		1	44	-	361	1874	709	50.9%
5/3	London Road Right	U	1:1	N/A	C1:B		1	44	-	185	1913	723	25.6%
6/1	Crayford High St WB	U	N/A	N/A	-		-	-	-	589	2015	2015	29.2%
J2: London Road / Roman Way	-	-	N/A	-	-		-	-	-	-	-	-	75.1%
1/1	London Road EB Ahead	U	2:1	N/A	C2:A		1	71	-	782	1915	1159	67.5%
2/1	Roman Way Left	U	2:2	N/A	C2:E		1	100	-	1084	1700	1443	75.1%
2/2	Roman Way Right	U	2:1	N/A	C2:B		1	36	-	345	1782	554	62.3%
2/3	Roman Way Right	U	2:1	N/A	C2:B		1	36	-	8	1750	544	1.5%

Full Input Data And Results

3/1	London Road WB	U	N/A	N/A	-	-	-	-	1084	Inf	Inf	0.0%
J3: Crayford Road / Roman Way	-	-	N/A	-	-	-	-	-	-	-	-	69.2%
1/1	Crayford Rd EB Ahead	U	3:2	N/A	C3:E	1	100	-	38	1915	1625	2.3%
1/2	Crayford Rd EB Ahead	U	3:2	N/A	C3:E	1	100	-	512	1915	1625	31.5%
1/3+1/4	Crayford Rd EB Right	U	3:1	N/A	C3:A	1	26	-	314	1743:1700	230+224	69.2 : 69.2%
2/1	Left	U	3:1	N/A	C3:B	1	79	-	554	1745	1173	47.2%
2/2	Left	U	3:1	N/A	C3:B	1	79	-	567	1772	1191	47.6%
3/1		U	N/A	N/A	-	-	-	-	713	Inf	Inf	0.0%
3/2		U	N/A	N/A	-	-	-	-	722	Inf	Inf	0.0%
4/1		U	N/A	N/A	-	-	-	-	38	Inf	Inf	0.0%
4/2		U	N/A	N/A	-	-	-	-	512	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	21.6	9.1	0.0	30.7	-	-	-	-
J1: Crayford High St / Crayford Way / Crayford Rd	-	-	0	0	0	9.3	3.5	0.0	12.8	-	-	-	-
1/2+1/1	477	477	-	-	-	4.4	0.9	-	5.3 (5.0+0.3)	40.0 (39.9:41.1)	12.7	0.9	13.6
2/1	361	361	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
3/1	202	202	-	-	-	2.6	0.9	-	3.5	63.3	6.2	0.9	7.1
4/1	38	38	-	-	-	0.0	0.0	-	0.0	1.2	0.0	0.0	0.0
4/2	512	512	-	-	-	0.1	0.2	-	0.3	2.1	0.7	0.2	0.9
4/3	314	314	-	-	-	0.0	0.1	-	0.1	1.4	0.0	0.1	0.1
5/1	589	589	-	-	-	0.1	0.3	-	0.5	2.9	1.4	0.3	1.7
5/2	361	361	-	-	-	1.4	0.5	-	1.9	19.3	7.5	0.5	8.0
5/3	185	185	-	-	-	0.6	0.2	-	0.8	15.0	2.5	0.2	2.7
6/1	589	589	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
J2: London Road / Roman Way	-	-	0	0	0	8.0	3.4	0.0	11.3	-	-	-	-
1/1	782	782	-	-	-	3.4	1.0	-	4.4	20.4	17.2	1.0	18.2
2/1	1084	1084	-	-	-	1.1	1.5	-	2.6	8.7	14.8	1.5	16.3
2/2	345	345	-	-	-	3.4	0.8	-	4.2	43.6	9.7	0.8	10.5
2/3	8	8	-	-	-	0.1	0.0	-	0.1	32.0	0.2	0.0	0.2
3/1	1084	1084	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Crayford Road / Roman Way	-	-	0	0	0	4.4	2.2	0.0	6.6	-	-	-	-
1/1	38	38	-	-	-	0.0	0.0	-	0.0	3.2	0.2	0.0	0.2
1/2	512	512	-	-	-	0.0	0.2	-	0.2	1.7	0.1	0.2	0.3
1/3+1/4	314	314	-	-	-	1.4	1.1	-	2.5 (1.3+1.2)	28.7 (28.7:28.7)	6.5	1.1	7.6

Full Input Data And Results

2/1	554	554	-	-	-	1.4	0.4	-	1.9	12.3	8.8	0.4	9.2
2/2	567	567	-	-	-	1.5	0.5	-	1.9	12.3	9.0	0.5	9.4
3/1	713	713	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	722	722	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	38	38	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	512	512	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1 PRC for Signalled Lanes (%)	38.2	Total Delay for Signalled Lanes (pcuHr):	11.56	Cycle Time (s):	119
C1	Stream: 2 PRC for Signalled Lanes (%)	125.8	Total Delay for Signalled Lanes (pcuHr):	0.47	Cycle Time (s):	119
C1	Stream: 3 PRC for Signalled Lanes (%)	200.5	Total Delay for Signalled Lanes (pcuHr):	0.43	Cycle Time (s):	119
C2	Stream: 1 PRC for Signalled Lanes (%)	33.3	Total Delay for Signalled Lanes (pcuHr):	8.69	Cycle Time (s):	119
C2	Stream: 2 PRC for Signalled Lanes (%)	19.8	Total Delay for Signalled Lanes (pcuHr):	2.63	Cycle Time (s):	119
C3	Stream: 1 PRC for Signalled Lanes (%)	30.1	Total Delay for Signalled Lanes (pcuHr):	6.32	Cycle Time (s):	119
C3	Stream: 2 PRC for Signalled Lanes (%)	185.7	Total Delay for Signalled Lanes (pcuHr):	0.28	Cycle Time (s):	119
	PRC Over All Lanes (%)	19.8	Total Delay Over All Lanes(pcuHr):	30.69		

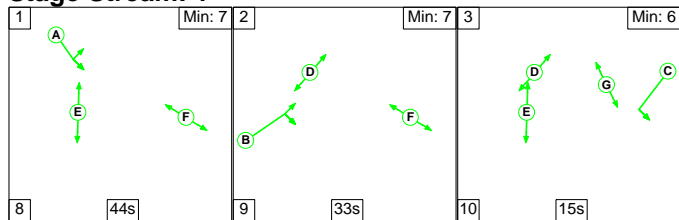
Full Input Data And Results

Scenario 2: '2038 Reference Case PM - No LTC' (FG2: '2038 Reference Case PM - No LTC', Plan 1: 'Network Control Plan 1')

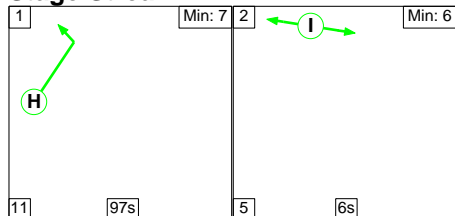
C1

Stage Sequence Diagram

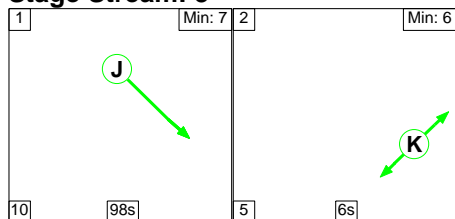
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	44	33	15
Change Point	51	103	26

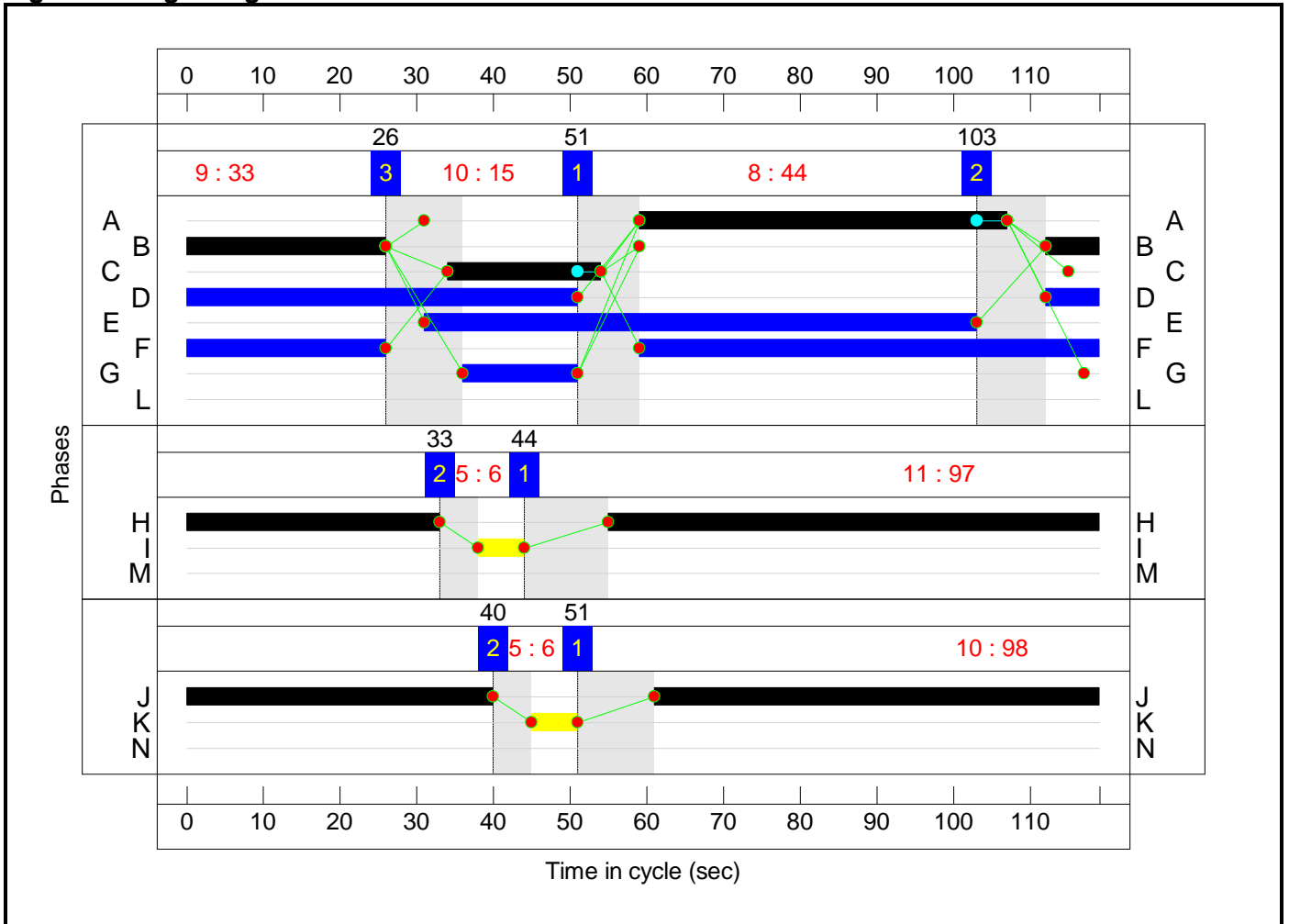
Stage Stream: 2

Stage	1	2
Duration	97	6
Change Point	44	33

Stage Stream: 3

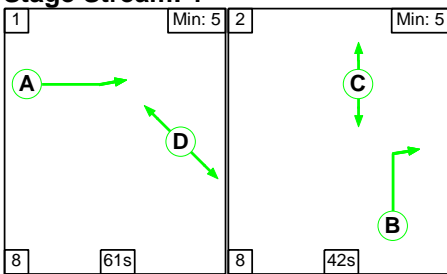
Stage	1	2
Duration	98	6
Change Point	51	40

Signal Timings Diagram

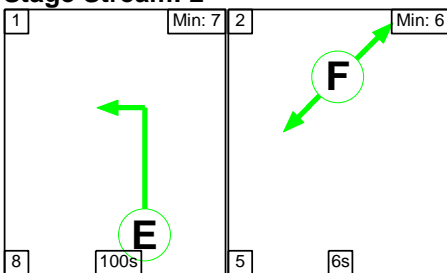


C2 Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Full Input Data And Results

Stage Timings

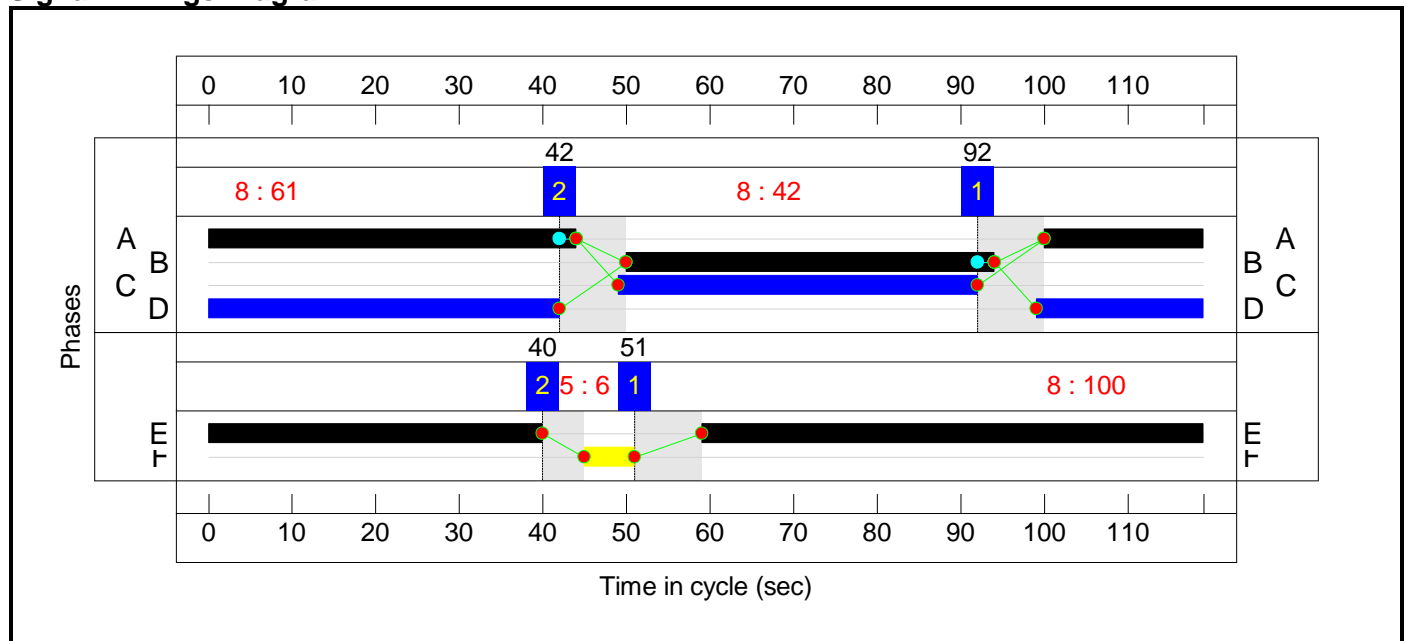
Stage Stream: 1

Stage	1	2
Duration	61	42
Change Point	92	42

Stage Stream: 2

Stage	1	2
Duration	100	6
Change Point	51	40

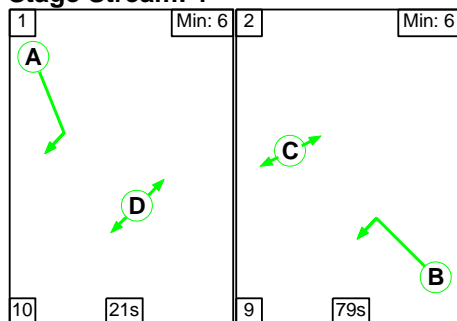
Signal Timings Diagram



C3

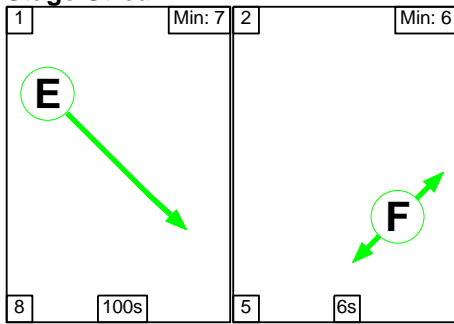
Stage Sequence Diagram

Stage Stream: 1



Full Input Data And Results

Stage Stream: 2



Stage Timings

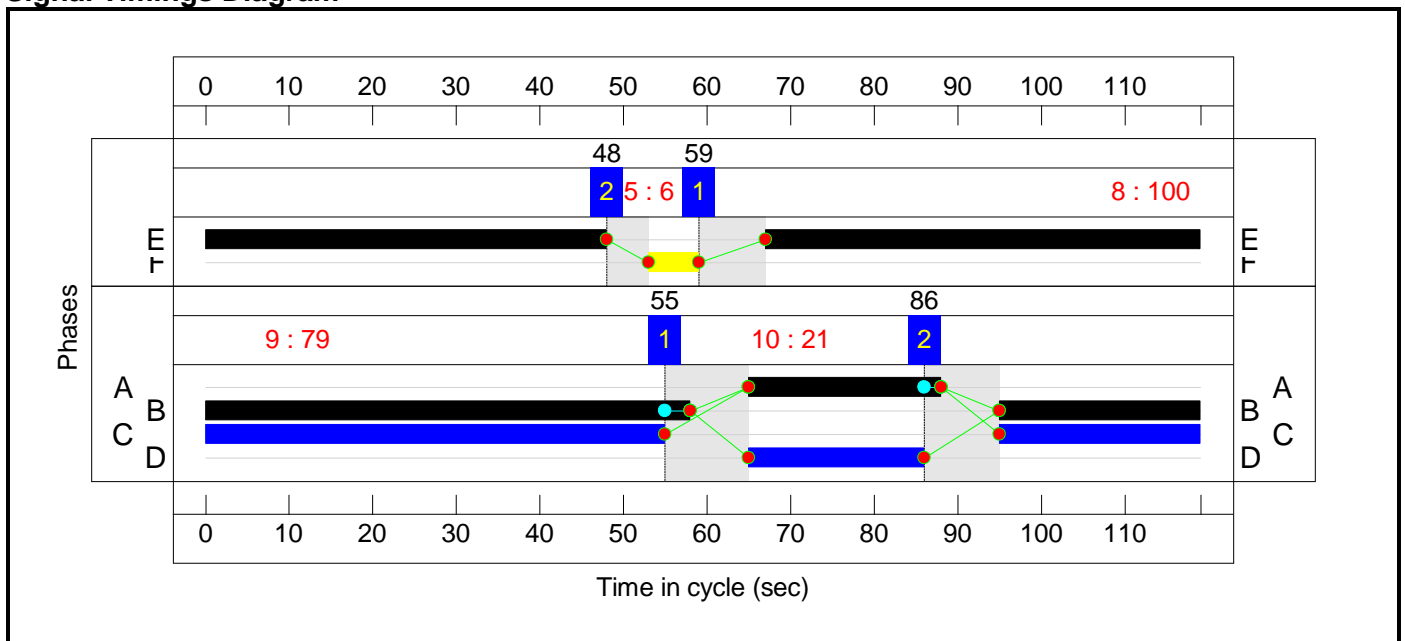
Stage Stream: 1

Stage	1	2
Duration	21	79
Change Point	55	86

Stage Stream: 2

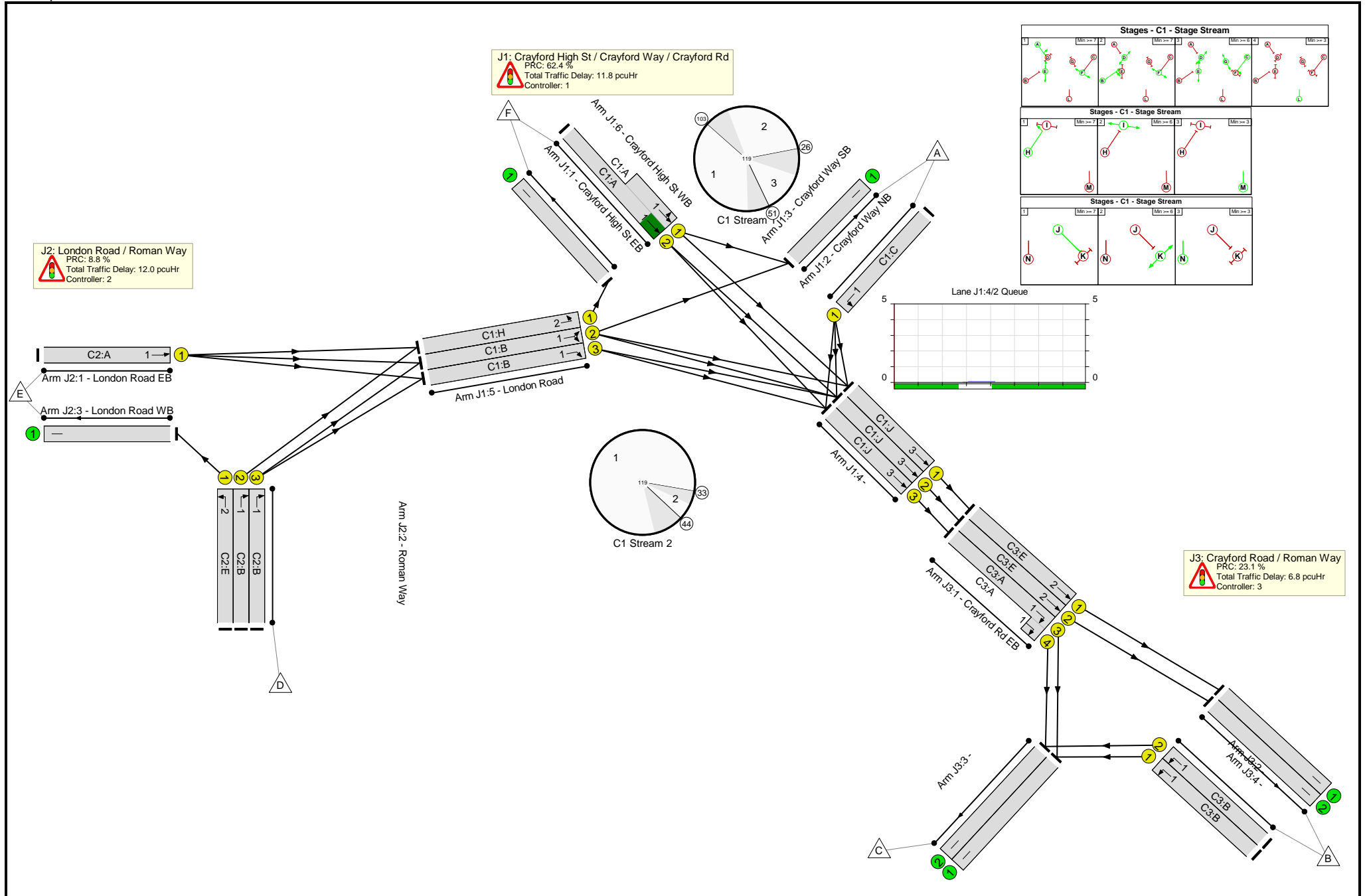
Stage	1	2
Duration	100	6
Change Point	59	48

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	82.7%
J1: Crayford High St / Crayford Way / Crayford Rd	-	-	N/A	-	-		-	-	-	-	-	-	55.4%
1/2+1/1	Crayford High St EB Left Ahead	U	1:1	N/A	C1:A		1	48	-	540	2130:1965	478+527	53.7 : 53.7%
2/1	Crayford Way NB	U	N/A	N/A	-		-	-	-	238	2115	2115	11.3%
3/1	Crayford Way SB Left	U	1:1	N/A	C1:C		1	20	-	190	1943	343	55.4%
4/1	Ahead	U	1:3	N/A	C1:J		1	98	-	286	1915	1593	18.0%
4/2	Ahead	U	1:3	N/A	C1:J		1	98	-	333	2055	1710	19.5%
4/3	Ahead	U	1:3	N/A	C1:J		1	98	-	300	1915	1593	18.8%
5/1	London Road Left	U	1:2	N/A	C1:H		1	97	-	610	1794	1477	41.3%
5/2	London Road Ahead Right	U	1:1	N/A	C1:B		1	33	-	238	1874	535	44.5%
5/3	London Road Right	U	1:1	N/A	C1:B		1	33	-	189	1913	547	34.6%
6/1	Crayford High St WB	U	N/A	N/A	-		-	-	-	610	2015	2015	30.3%
J2: London Road / Roman Way	-	-	N/A	-	-		-	-	-	-	-	-	82.7%
1/1	London Road EB Ahead	U	2:1	N/A	C2:A		1	63	-	626	1915	1030	60.8%
2/1	Roman Way Left	U	2:2	N/A	C2:E		1	100	-	1193	1700	1443	82.7%
2/2	Roman Way Right	U	2:1	N/A	C2:B		1	44	-	404	1782	674	60.0%
2/3	Roman Way Right	U	2:1	N/A	C2:B		1	44	-	7	1750	662	1.1%

Full Input Data And Results

3/1	London Road WB	U	N/A	N/A	-	-	-	-	1193	Inf	Inf	0.0%
J3: Crayford Road / Roman Way	-	-	N/A	-	-	-	-	-	-	-	-	73.1%
1/1	Crayford Rd EB Ahead	U	3:2	N/A	C3:E	1	100	-	286	1915	1625	17.6%
1/2	Crayford Rd EB Ahead	U	3:2	N/A	C3:E	1	100	-	333	1915	1625	20.5%
1/3+1/4	Crayford Rd EB Right	U	3:1	N/A	C3:A	1	23	-	300	1743:1700	208+202	73.1 : 73.1%
2/1	Left	U	3:1	N/A	C3:B	1	82	-	640	1745	1217	52.6%
2/2	Left	U	3:1	N/A	C3:B	1	82	-	653	1772	1236	52.8%
3/1		U	N/A	N/A	-	-	-	-	792	Inf	Inf	0.0%
3/2		U	N/A	N/A	-	-	-	-	801	Inf	Inf	0.0%
4/1		U	N/A	N/A	-	-	-	-	286	Inf	Inf	0.0%
4/2		U	N/A	N/A	-	-	-	-	333	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	21.3	9.4	0.0	30.7	-	-	-	-
J1: Crayford High St / Crayford Way / Crayford Rd	-	-	0	0	0	9.0	2.8	0.0	11.8	-	-	-	-
1/2+1/1	540	540	-	-	-	3.6	0.6	-	4.2 (2.0+2.2)	27.9 (28.0:27.9)	7.1	0.6	7.7
2/1	238	238	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
3/1	190	190	-	-	-	2.4	0.6	-	3.0	56.4	5.7	0.6	6.3
4/1	286	286	-	-	-	0.0	0.1	-	0.1	1.5	4.3	0.1	4.4
4/2	333	333	-	-	-	0.0	0.1	-	0.1	1.4	0.1	0.1	0.2
4/3	300	300	-	-	-	0.7	0.1	-	0.8	9.8	6.4	0.1	6.6
5/1	610	610	-	-	-	0.1	0.4	-	0.5	2.8	1.1	0.4	1.5
5/2	238	238	-	-	-	1.2	0.4	-	1.6	24.7	3.9	0.4	4.3
5/3	189	189	-	-	-	0.9	0.3	-	1.2	22.4	2.7	0.3	2.9
6/1	610	610	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
J2: London Road / Roman Way	-	-	0	0	0	8.2	3.9	0.0	12.0	-	-	-	-
1/1	626	626	-	-	-	3.3	0.8	-	4.1	23.3	14.1	0.8	14.9
2/1	1193	1193	-	-	-	1.5	2.3	-	3.9	11.6	19.9	2.3	22.2
2/2	404	404	-	-	-	3.3	0.7	-	4.1	36.4	10.7	0.7	11.4
2/3	7	7	-	-	-	0.0	0.0	-	0.1	26.1	0.1	0.0	0.1
3/1	1193	1193	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Crayford Road / Roman Way	-	-	0	0	0	4.2	2.7	0.0	6.8	-	-	-	-
1/1	286	286	-	-	-	0.0	0.1	-	0.1	1.4	0.0	0.1	0.1
1/2	333	333	-	-	-	0.0	0.1	-	0.1	1.4	0.0	0.1	0.1
1/3+1/4	300	300	-	-	-	1.1	1.3	-	2.4 (1.2+1.2)	28.6 (28.6:28.6)	5.7	1.3	7.0

Full Input Data And Results

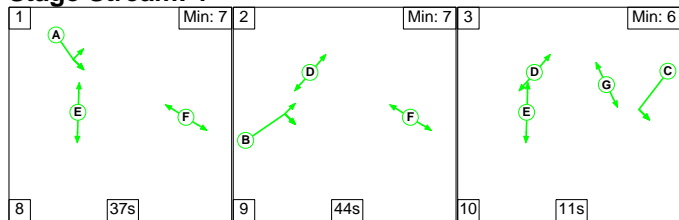
2/1	640	640	-	-	-	1.5	0.6	-	2.1	11.7	10.0	0.6	10.5
2/2	653	653	-	-	-	1.6	0.6	-	2.1	11.7	10.3	0.6	10.9
3/1	792	792	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	801	801	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	286	286	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	333	333	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1 PRC for Signalled Lanes (%)	62.4	Total Delay for Signalled Lanes (pcuHr):	9.98	Cycle Time (s):	119
C1	Stream: 2 PRC for Signalled Lanes (%)	118.0	Total Delay for Signalled Lanes (pcuHr):	0.47	Cycle Time (s):	119
C1	Stream: 3 PRC for Signalled Lanes (%)	362.1	Total Delay for Signalled Lanes (pcuHr):	1.07	Cycle Time (s):	119
C2	Stream: 1 PRC for Signalled Lanes (%)	48.1	Total Delay for Signalled Lanes (pcuHr):	8.19	Cycle Time (s):	119
C2	Stream: 2 PRC for Signalled Lanes (%)	8.8	Total Delay for Signalled Lanes (pcuHr):	3.86	Cycle Time (s):	119
C3	Stream: 1 PRC for Signalled Lanes (%)	23.1	Total Delay for Signalled Lanes (pcuHr):	6.59	Cycle Time (s):	119
C3	Stream: 2 PRC for Signalled Lanes (%)	339.3	Total Delay for Signalled Lanes (pcuHr):	0.24	Cycle Time (s):	119
	PRC Over All Lanes (%)	8.8	Total Delay Over All Lanes(pcuHr):	30.67		

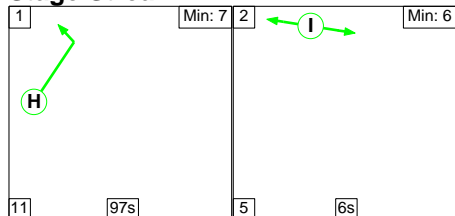
C1

Stage Sequence Diagram

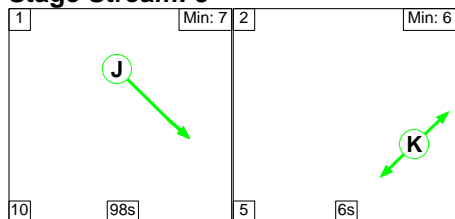
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	37	44	11
Change Point	12	57	110

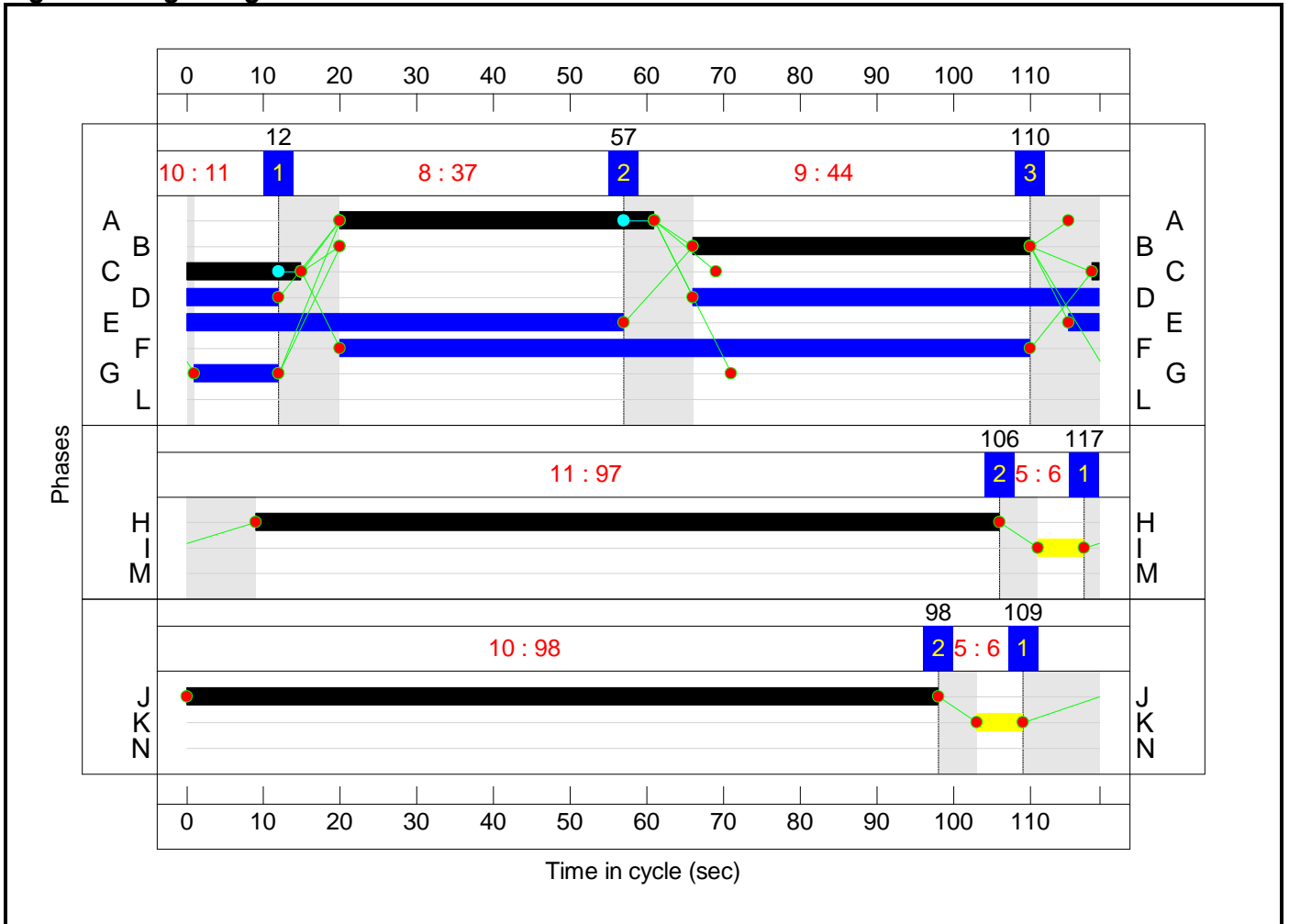
Stage Stream: 2

Stage	1	2
Duration	97	6
Change Point	117	106

Stage Stream: 3

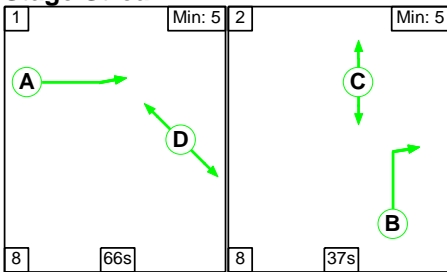
Stage	1	2
Duration	98	6
Change Point	109	98

Signal Timings Diagram

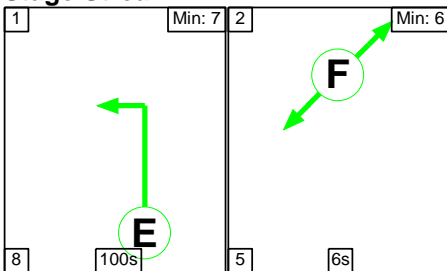


C2 Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Full Input Data And Results

Stage Timings

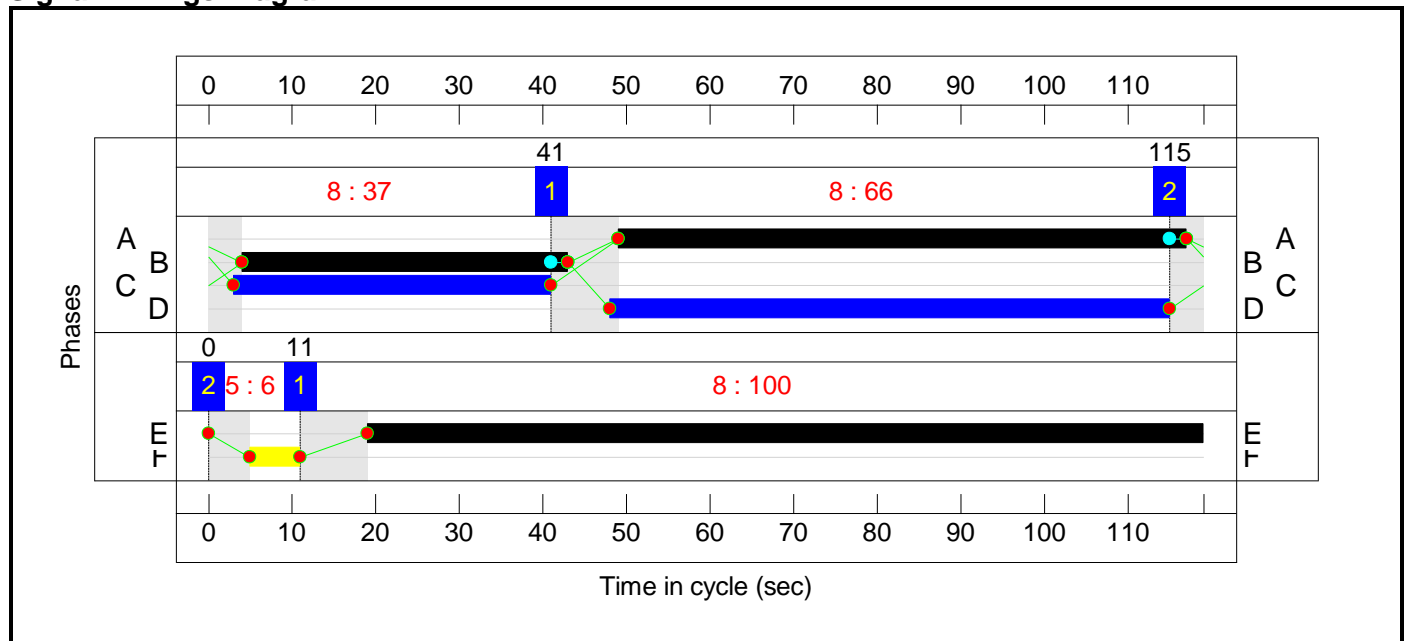
Stage Stream: 1

Stage	1	2
Duration	66	37
Change Point	41	115

Stage Stream: 2

Stage	1	2
Duration	100	6
Change Point	11	0

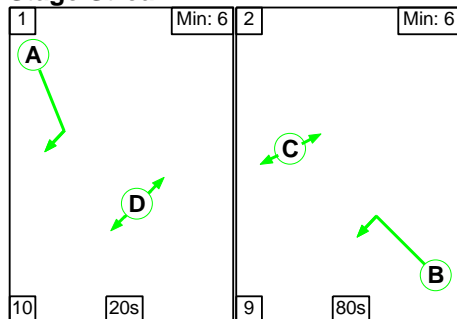
Signal Timings Diagram



C3

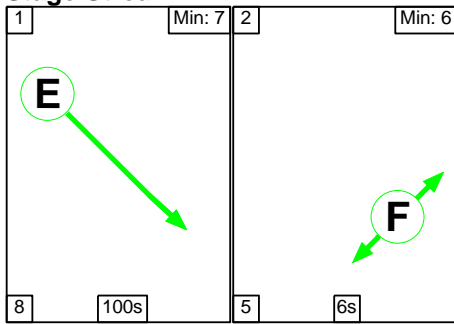
Stage Sequence Diagram

Stage Stream: 1



Full Input Data And Results

Stage Stream: 2



Stage Timings

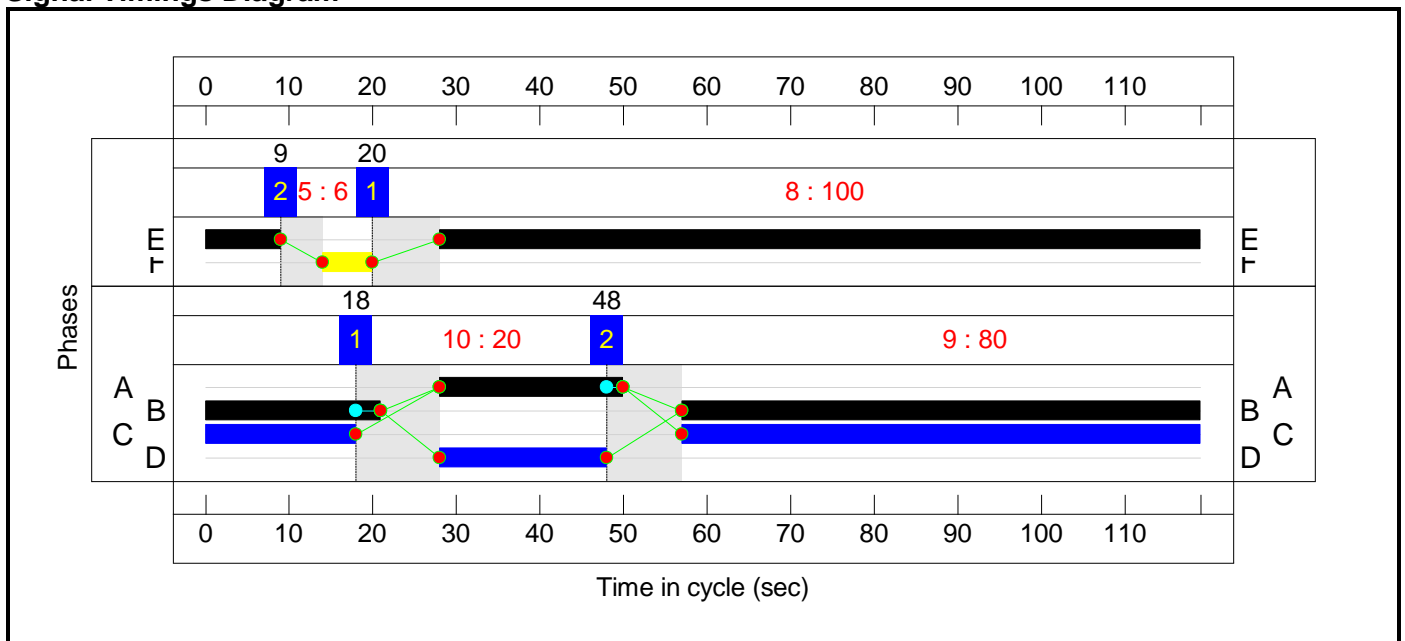
Stage Stream: 1

Stage	1	2
Duration	20	80
Change Point	18	48

Stage Stream: 2

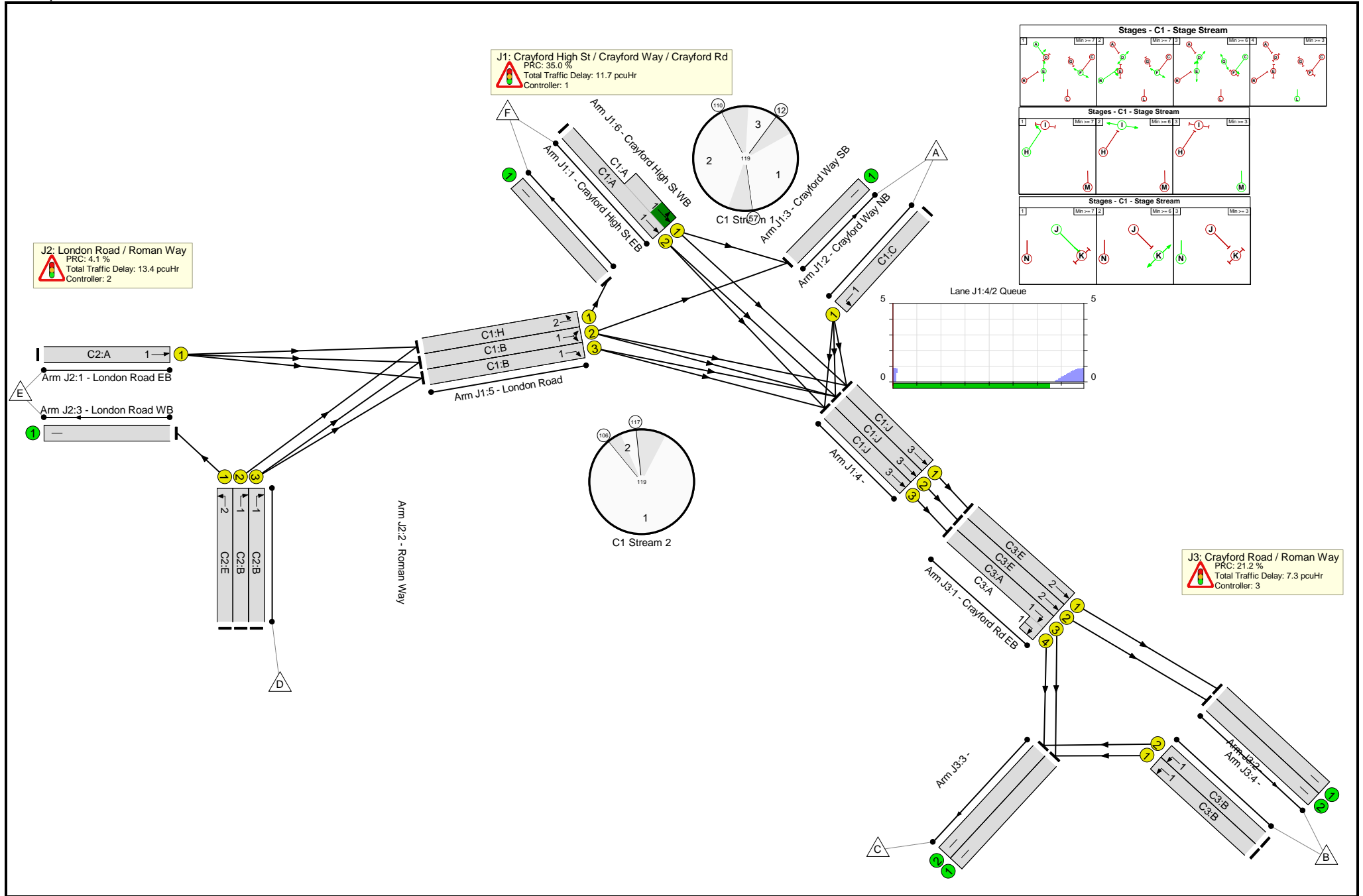
Stage	1	2
Duration	100	6
Change Point	20	9

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	86.5%
J1: Crayford High St / Crayford Way / Crayford Rd	-	-	N/A	-	-		-	-	-	-	-	-	66.6%
1/2+1/1	Crayford High St EB Left Ahead	U	1:1	N/A	C1:A		1	41	-	467	2130:1965	714+67	59.8 : 59.8%
2/1	Crayford Way NB	U	N/A	N/A	-		-	-	-	313	2115	2115	14.8%
3/1	Crayford Way SB Left	U	1:1	N/A	C1:C		1	16	-	185	1943	278	66.6%
4/1	Ahead	U	1:3	N/A	C1:J		1	98	-	48	1915	1593	3.0%
4/2	Ahead	U	1:3	N/A	C1:J		1	98	-	514	2055	1710	30.1%
4/3	Ahead	U	1:3	N/A	C1:J		1	98	-	294	1915	1593	18.5%
5/1	London Road Left	U	1:2	N/A	C1:H		1	97	-	588	1794	1477	39.8%
5/2	London Road Ahead Right	U	1:1	N/A	C1:B		1	44	-	313	1874	709	44.2%
5/3	London Road Right	U	1:1	N/A	C1:B		1	44	-	204	1913	723	28.2%
6/1	Crayford High St WB	U	N/A	N/A	-		-	-	-	588	2015	2015	29.2%
J2: London Road / Roman Way	-	-	N/A	-	-		-	-	-	-	-	-	86.5%
1/1	London Road EB Ahead	U	2:1	N/A	C2:A		1	68	-	748	1915	1110	67.4%
2/1	Roman Way Left	U	2:2	N/A	C2:E		1	100	-	1248	1700	1443	86.5%
2/2	Roman Way Right	U	2:1	N/A	C2:B		1	39	-	349	1782	599	58.3%
2/3	Roman Way Right	U	2:1	N/A	C2:B		1	39	-	8	1750	588	1.4%

Full Input Data And Results

3/1	London Road WB	U	N/A	N/A	-	-	-	-	1248	Inf	Inf	0.0%
J3: Crayford Road / Roman Way	-	-	N/A	-	-	-	-	-	-	-	-	74.2%
1/1	Crayford Rd EB Ahead	U	3:2	N/A	C3:E	1	100	-	48	1915	1625	3.0%
1/2	Crayford Rd EB Ahead	U	3:2	N/A	C3:E	1	100	-	514	1915	1625	31.6%
1/3+1/4	Crayford Rd EB Right	U	3:1	N/A	C3:A	1	22	-	294	1743:1700	201+195	74.2 : 74.2%
2/1	Left	U	3:1	N/A	C3:B	1	83	-	647	1745	1232	52.5%
2/2	Left	U	3:1	N/A	C3:B	1	83	-	661	1772	1251	52.8%
3/1		U	N/A	N/A	-	-	-	-	796	Inf	Inf	0.0%
3/2		U	N/A	N/A	-	-	-	-	806	Inf	Inf	0.0%
4/1		U	N/A	N/A	-	-	-	-	48	Inf	Inf	0.0%
4/2		U	N/A	N/A	-	-	-	-	514	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	21.5	10.9	0.0	32.4	-	-	-	-
J1: Crayford High St / Crayford Way / Crayford Rd	-	-	0	0	0	8.4	3.3	0.0	11.7	-	-	-	-
1/2+1/1	467	467	-	-	-	4.1	0.7	-	4.8 (4.4+0.4)	37.0 (36.9:37.9)	11.9	0.7	12.7
2/1	313	313	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
3/1	185	185	-	-	-	2.5	1.0	-	3.5	67.4	5.8	1.0	6.7
4/1	48	48	-	-	-	0.0	0.0	-	0.0	1.2	0.0	0.0	0.0
4/2	514	514	-	-	-	0.1	0.2	-	0.3	2.2	0.8	0.2	1.1
4/3	294	294	-	-	-	0.0	0.1	-	0.1	1.4	0.0	0.1	0.1
5/1	588	588	-	-	-	0.1	0.3	-	0.5	2.9	1.3	0.3	1.7
5/2	313	313	-	-	-	1.1	0.4	-	1.5	16.9	5.5	0.4	5.9
5/3	204	204	-	-	-	0.6	0.2	-	0.8	14.0	2.8	0.2	3.0
6/1	588	588	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
J2: London Road / Roman Way	-	-	0	0	0	8.6	4.8	0.0	13.4	-	-	-	-
1/1	748	748	-	-	-	3.6	1.0	-	4.6	22.2	17.0	1.0	18.1
2/1	1248	1248	-	-	-	1.8	3.1	-	4.9	14.1	23.2	3.1	26.3
2/2	349	349	-	-	-	3.2	0.7	-	3.9	39.8	9.5	0.7	10.2
2/3	8	8	-	-	-	0.1	0.0	-	0.1	29.7	0.2	0.0	0.2
3/1	1248	1248	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Crayford Road / Roman Way	-	-	0	0	0	4.5	2.8	0.0	7.3	-	-	-	-
1/1	48	48	-	-	-	0.0	0.0	-	0.0	3.0	0.2	0.0	0.3
1/2	514	514	-	-	-	0.0	0.2	-	0.3	1.8	0.2	0.2	0.4
1/3+1/4	294	294	-	-	-	1.5	1.4	-	2.9 (1.5+1.4)	35.1 (35.1:35.1)	6.4	1.4	7.8

Full Input Data And Results

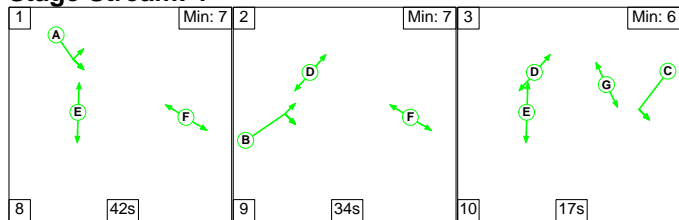
2/1	647	647	-	-	-	1.5	0.6	-	2.0	11.3	9.9	0.6	10.4
2/2	661	661	-	-	-	1.5	0.6	-	2.1	11.3	10.1	0.6	10.7
3/1	796	796	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	806	806	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	48	48	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	514	514	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1 PRC for Signalled Lanes (%)	35.0	Total Delay for Signalled Lanes (pcuHr):	10.52	Cycle Time (s):	119
C1	Stream: 2 PRC for Signalled Lanes (%)	126.1	Total Delay for Signalled Lanes (pcuHr):	0.47	Cycle Time (s):	119
C1	Stream: 3 PRC for Signalled Lanes (%)	199.4	Total Delay for Signalled Lanes (pcuHr):	0.44	Cycle Time (s):	119
C2	Stream: 1 PRC for Signalled Lanes (%)	33.6	Total Delay for Signalled Lanes (pcuHr):	8.53	Cycle Time (s):	119
C2	Stream: 2 PRC for Signalled Lanes (%)	4.1	Total Delay for Signalled Lanes (pcuHr):	4.88	Cycle Time (s):	119
C3	Stream: 1 PRC for Signalled Lanes (%)	21.2	Total Delay for Signalled Lanes (pcuHr):	6.96	Cycle Time (s):	119
C3	Stream: 2 PRC for Signalled Lanes (%)	184.6	Total Delay for Signalled Lanes (pcuHr):	0.30	Cycle Time (s):	119
	PRC Over All Lanes (%)	4.1	Total Delay Over All Lanes(pcuHr):	32.39		

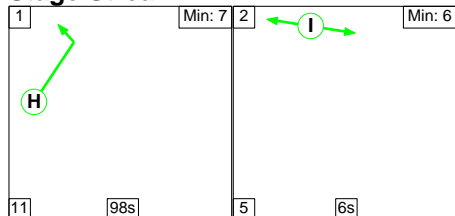
C1

Stage Sequence Diagram

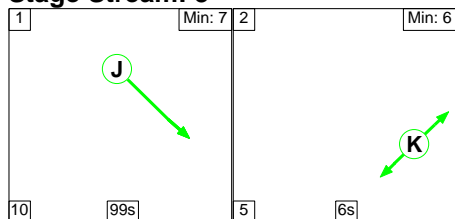
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	42	34	17
Change Point	45	95	18

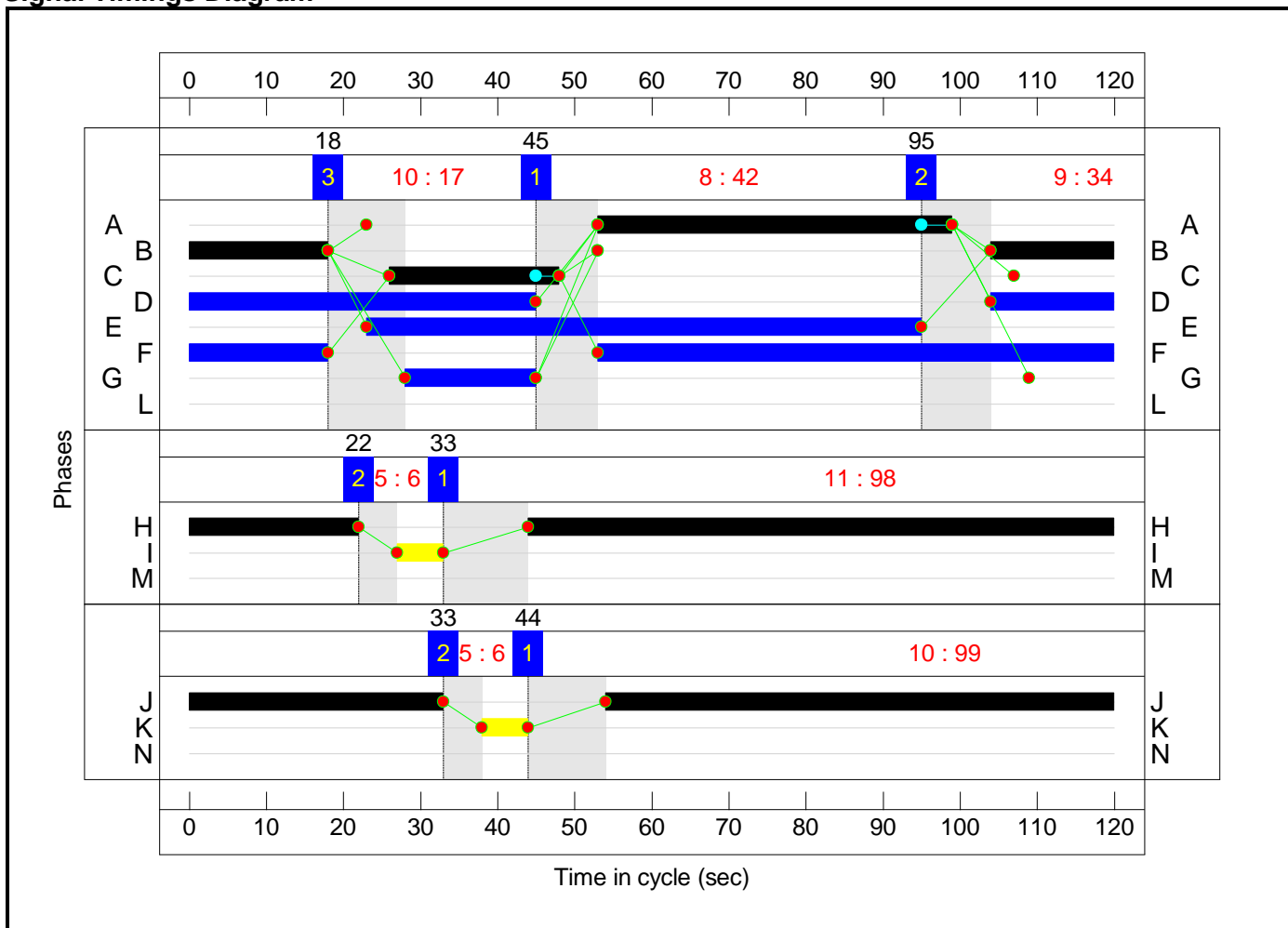
Stage Stream: 2

Stage	1	2
Duration	98	6
Change Point	33	22

Stage Stream: 3

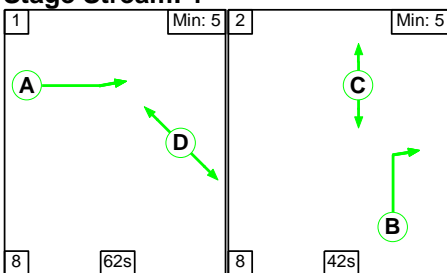
Stage	1	2
Duration	99	6
Change Point	44	33

Signal Timings Diagram

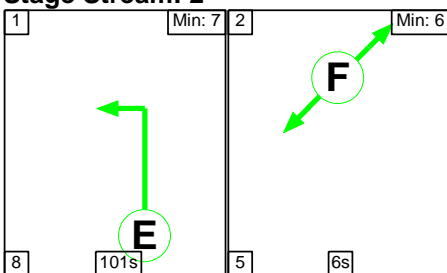


C2 Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Full Input Data And Results

Stage Timings

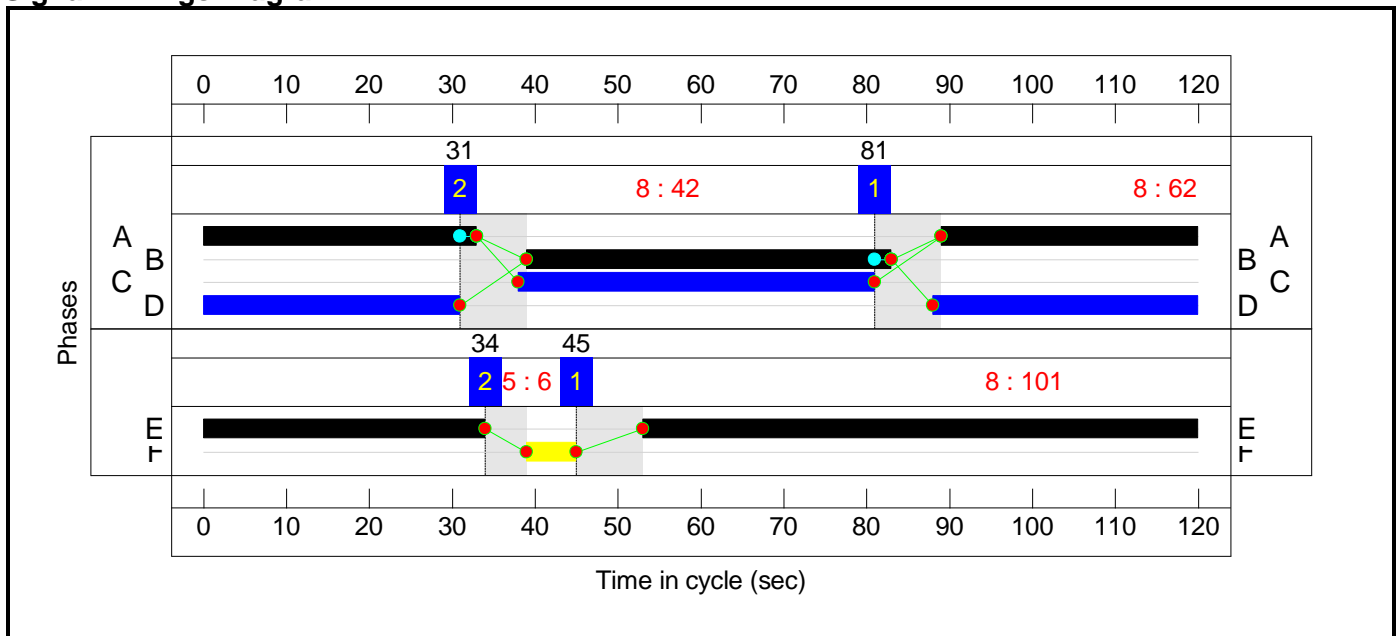
Stage Stream: 1

Stage	1	2
Duration	62	42
Change Point	81	31

Stage Stream: 2

Stage	1	2
Duration	101	6
Change Point	45	34

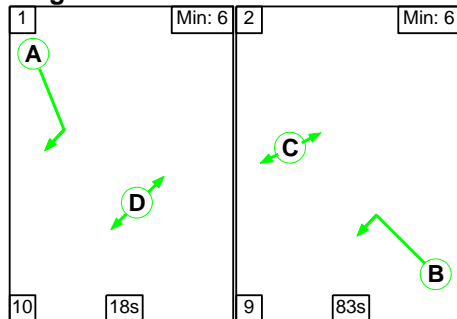
Signal Timings Diagram



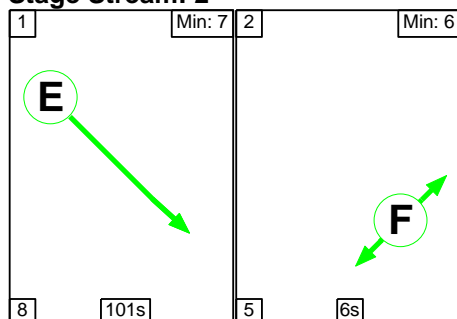
C3

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Full Input Data And Results

Stage Timings

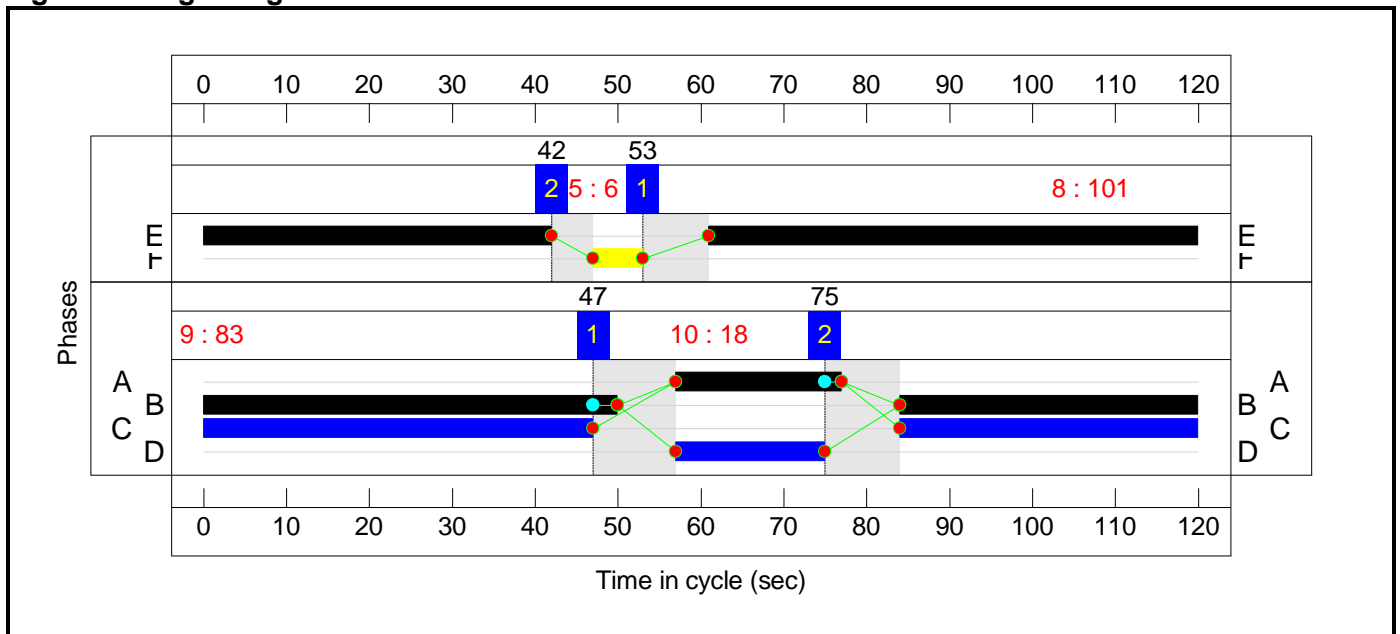
Stage Stream: 1

Stage	1	2
Duration	18	83
Change Point	47	75

Stage Stream: 2

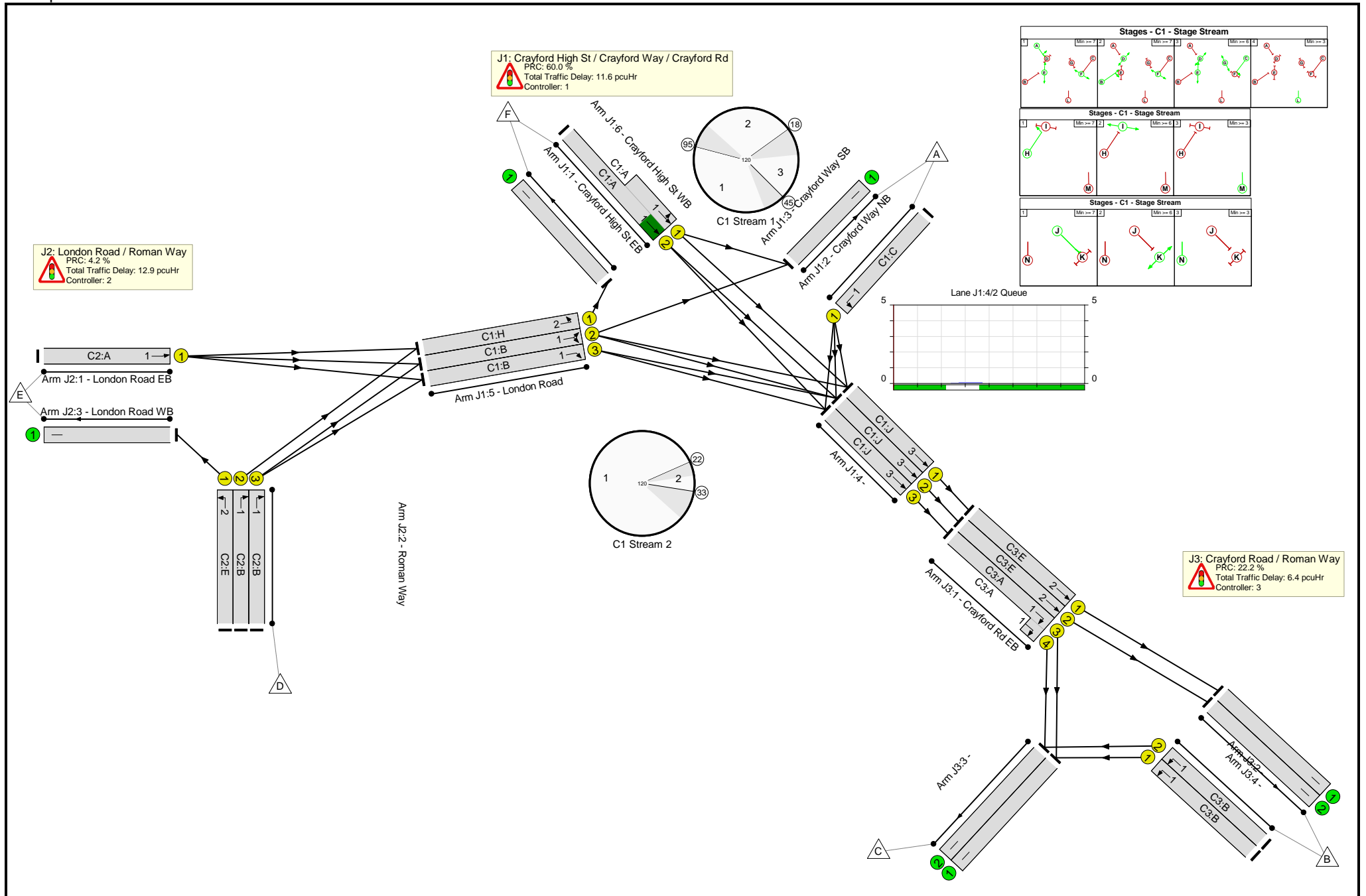
Stage	1	2
Duration	101	6
Change Point	53	42

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	86.4%
J1: Crayford High St / Crayford Way / Crayford Rd	-	-	N/A	-	-		-	-	-	-	-	-	56.2%
1/2+1/1	Crayford High St EB Left Ahead	U	1:1	N/A	C1:A		1	46	-	539	2130:1965	450+509	56.2 : 56.2%
2/1	Crayford Way NB	U	N/A	N/A	-		-	-	-	234	2115	2115	11.1%
3/1	Crayford Way SB Left	U	1:1	N/A	C1:C		1	22	-	186	1943	372	49.9%
4/1	Ahead	U	1:3	N/A	C1:J		1	99	-	290	1915	1596	18.2%
4/2	Ahead	U	1:3	N/A	C1:J		1	99	-	367	2055	1712	21.4%
4/3	Ahead	U	1:3	N/A	C1:J		1	99	-	268	1915	1596	16.8%
5/1	London Road Left	U	1:2	N/A	C1:H		1	98	-	599	1794	1480	40.5%
5/2	London Road Ahead Right	U	1:1	N/A	C1:B		1	34	-	234	1874	547	42.8%
5/3	London Road Right	U	1:1	N/A	C1:B		1	34	-	200	1913	558	35.8%
6/1	Crayford High St WB	U	N/A	N/A	-		-	-	-	599	2015	2015	29.7%
J2: London Road / Roman Way	-	-	N/A	-	-		-	-	-	-	-	-	86.4%
1/1	London Road EB Ahead	U	2:1	N/A	C2:A		1	64	-	639	1915	1037	61.6%
2/1	Roman Way Left	U	2:2	N/A	C2:E		1	101	-	1248	1700	1445	86.4%
2/2	Roman Way Right	U	2:1	N/A	C2:B		1	44	-	387	1782	668	57.9%
2/3	Roman Way Right	U	2:1	N/A	C2:B		1	44	-	7	1750	656	1.1%

Full Input Data And Results

3/1	London Road WB	U	N/A	N/A	-	-	-	-	1248	Inf	Inf	0.0%
J3: Crayford Road / Roman Way	-	-	N/A	-	-	-	-	-	-	-	-	73.6%
1/1	Crayford Rd EB Ahead	U	3:2	N/A	C3:E	1	101	-	290	1915	1628	17.8%
1/2	Crayford Rd EB Ahead	U	3:2	N/A	C3:E	1	101	-	367	1915	1628	22.5%
1/3+1/4	Crayford Rd EB Right	U	3:1	N/A	C3:A	1	20	-	268	1743:1700	185+179	73.6 : 73.6%
2/1	Left	U	3:1	N/A	C3:B	1	86	-	647	1745	1265	51.1%
2/2	Left	U	3:1	N/A	C3:B	1	86	-	661	1772	1285	51.5%
3/1		U	N/A	N/A	-	-	-	-	783	Inf	Inf	0.0%
3/2		U	N/A	N/A	-	-	-	-	793	Inf	Inf	0.0%
4/1		U	N/A	N/A	-	-	-	-	290	Inf	Inf	0.0%
4/2		U	N/A	N/A	-	-	-	-	367	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	21.0	10.0	0.0	30.9	-	-	-	-
J1: Crayford High St / Crayford Way / Crayford Rd	-	-	0	0	0	8.9	2.8	0.0	11.6	-	-	-	-
1/2+1/1	539	539	-	-	-	3.9	0.6	-	4.5 (2.1+2.4)	30.3 (30.3:30.3)	7.8	0.6	8.5
2/1	234	234	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
3/1	186	186	-	-	-	2.2	0.5	-	2.7	53.0	5.5	0.5	6.0
4/1	290	290	-	-	-	0.0	0.1	-	0.1	1.5	4.3	0.1	4.4
4/2	367	367	-	-	-	0.0	0.1	-	0.1	1.4	0.1	0.1	0.2
4/3	268	268	-	-	-	0.5	0.1	-	0.6	8.4	4.5	0.1	4.6
5/1	599	599	-	-	-	0.1	0.3	-	0.5	2.8	1.2	0.3	1.5
5/2	234	234	-	-	-	1.2	0.4	-	1.5	23.5	4.3	0.4	4.7
5/3	200	200	-	-	-	0.9	0.3	-	1.2	21.4	3.3	0.3	3.6
6/1	599	599	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
J2: London Road / Roman Way	-	-	0	0	0	8.4	4.6	0.0	12.9	-	-	-	-
1/1	639	639	-	-	-	3.4	0.8	-	4.2	23.4	14.6	0.8	15.4
2/1	1248	1248	-	-	-	1.8	3.1	-	4.8	13.9	23.2	3.1	26.3
2/2	387	387	-	-	-	3.2	0.7	-	3.9	36.3	10.2	0.7	10.9
2/3	7	7	-	-	-	0.0	0.0	-	0.1	26.5	0.1	0.0	0.2
3/1	1248	1248	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Crayford Road / Roman Way	-	-	0	0	0	3.7	2.7	0.0	6.4	-	-	-	-
1/1	290	290	-	-	-	0.0	0.1	-	0.1	1.4	0.0	0.1	0.1
1/2	367	367	-	-	-	0.0	0.1	-	0.1	1.4	0.0	0.1	0.2
1/3+1/4	268	268	-	-	-	1.1	1.4	-	2.4 (1.2+1.2)	32.8 (32.8:32.8)	3.7	1.4	5.0

Full Input Data And Results

2/1	647	647	-	-	-	1.3	0.5	-	1.8	10.1	9.3	0.5	9.9
2/2	661	661	-	-	-	1.3	0.5	-	1.9	10.1	9.5	0.5	10.1
3/1	783	783	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	793	793	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	290	290	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	367	367	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1 PRC for Signalled Lanes (%)	60.0	Total Delay for Signalled Lanes (pcuHr):	9.99	Cycle Time (s):	120
C1	Stream: 2 PRC for Signalled Lanes (%)	122.4	Total Delay for Signalled Lanes (pcuHr):	0.46	Cycle Time (s):	120
C1	Stream: 3 PRC for Signalled Lanes (%)	320.0	Total Delay for Signalled Lanes (pcuHr):	0.90	Cycle Time (s):	120
C2	Stream: 1 PRC for Signalled Lanes (%)	46.1	Total Delay for Signalled Lanes (pcuHr):	8.11	Cycle Time (s):	120
C2	Stream: 2 PRC for Signalled Lanes (%)	4.2	Total Delay for Signalled Lanes (pcuHr):	4.83	Cycle Time (s):	120
C3	Stream: 1 PRC for Signalled Lanes (%)	22.2	Total Delay for Signalled Lanes (pcuHr):	6.12	Cycle Time (s):	120
C3	Stream: 2 PRC for Signalled Lanes (%)	299.2	Total Delay for Signalled Lanes (pcuHr):	0.26	Cycle Time (s):	120
	PRC Over All Lanes (%)	4.2	Total Delay Over All Lanes(pcuHr):	30.94		

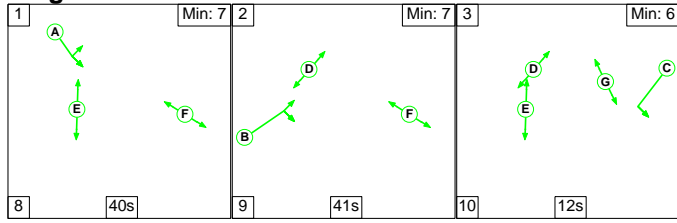
Full Input Data And Results

Scenario 5: '2038 Local Plan Case AM - No LTC' (FG5: '2038 Local Plan Case AM - No LTC', Plan 1: 'Network Control Plan 1')

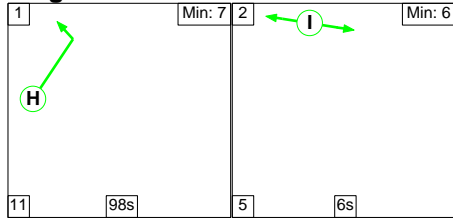
C1

Stage Sequence Diagram

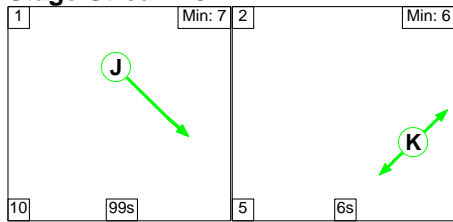
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	40	41	12
Change Point	3	51	101

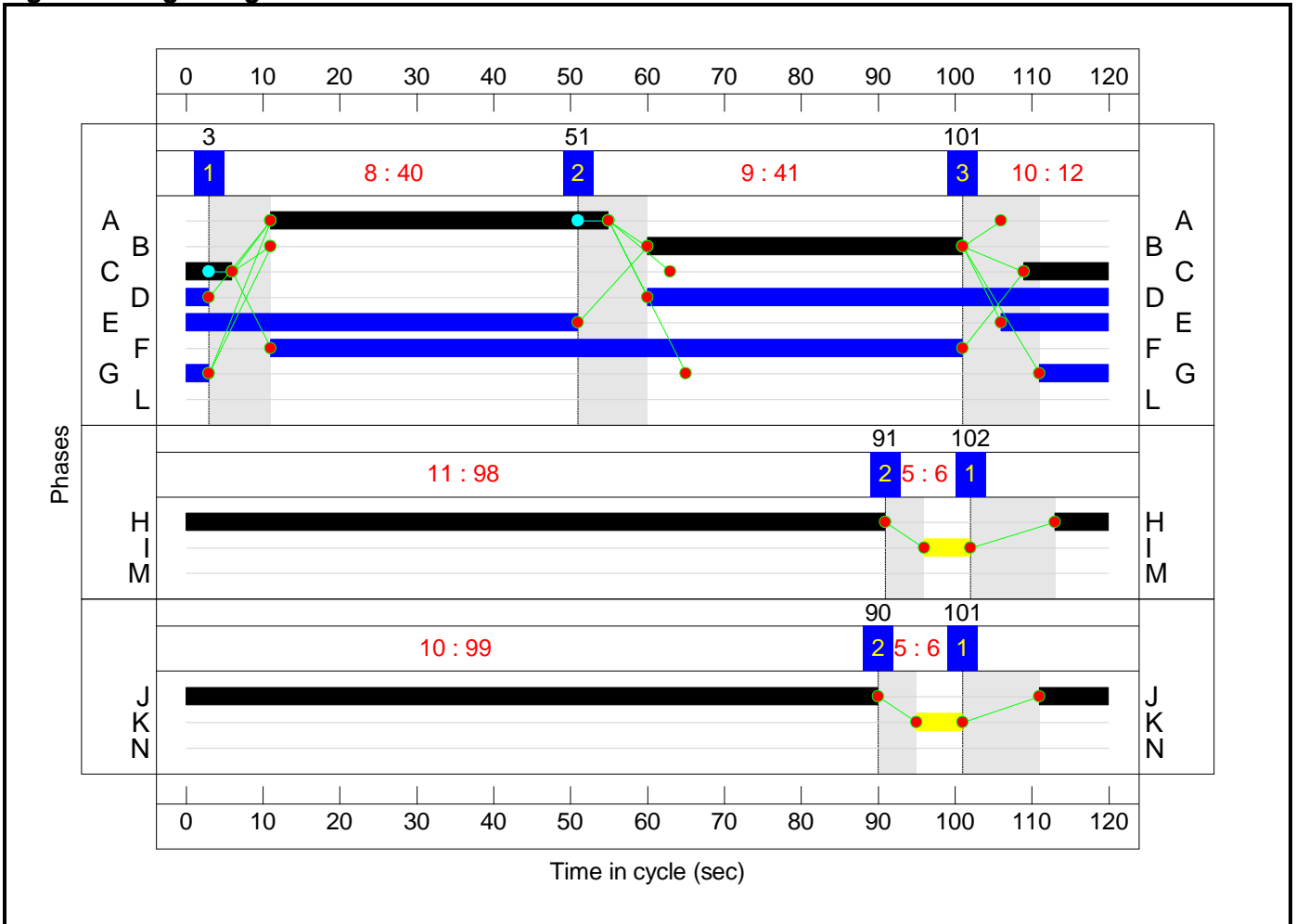
Stage Stream: 2

Stage	1	2
Duration	98	6
Change Point	102	91

Stage Stream: 3

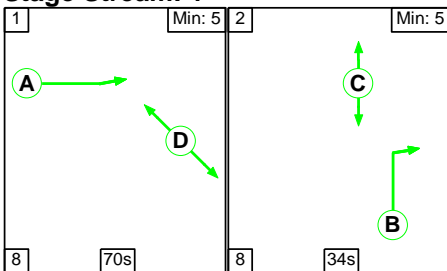
Stage	1	2
Duration	99	6
Change Point	101	90

Signal Timings Diagram

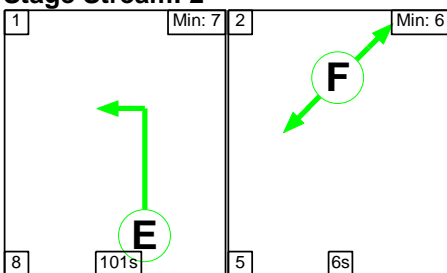


C2 Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Full Input Data And Results

Stage Timings

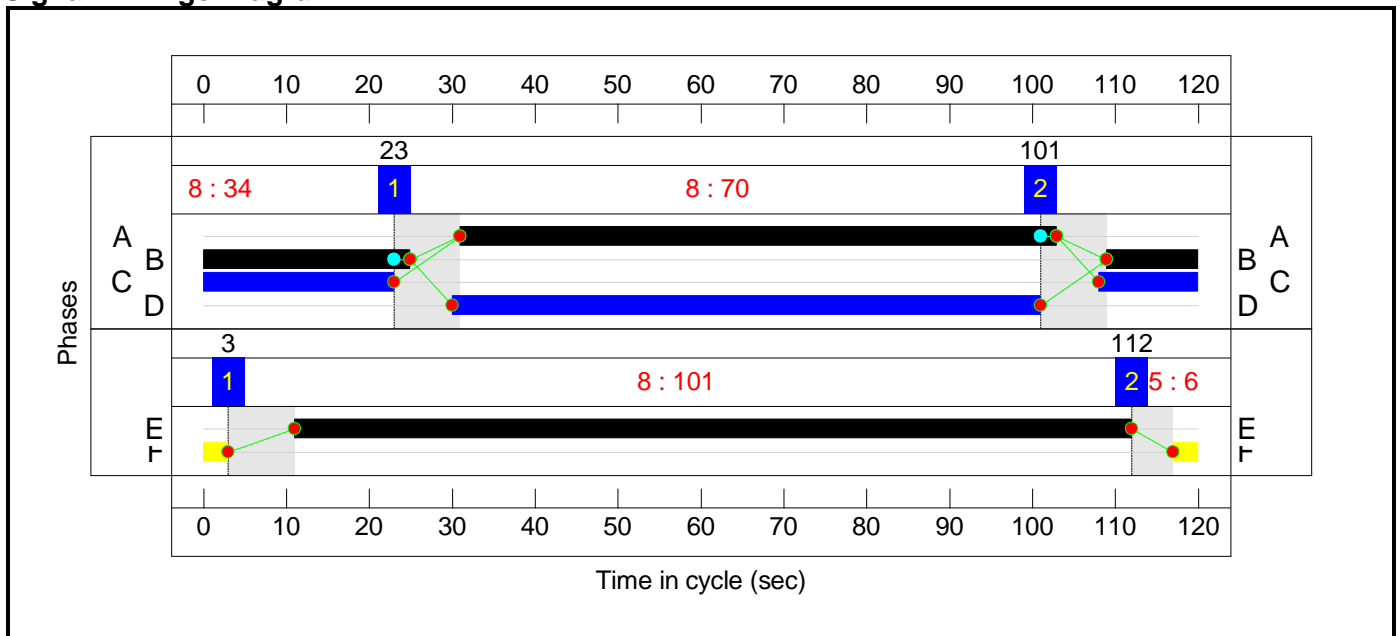
Stage Stream: 1

Stage	1	2
Duration	70	34
Change Point	23	101

Stage Stream: 2

Stage	1	2
Duration	101	6
Change Point	3	112

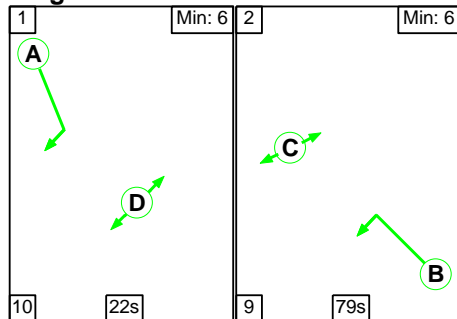
Signal Timings Diagram



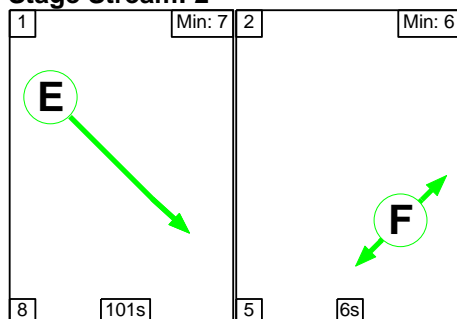
C3

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Full Input Data And Results

Stage Timings

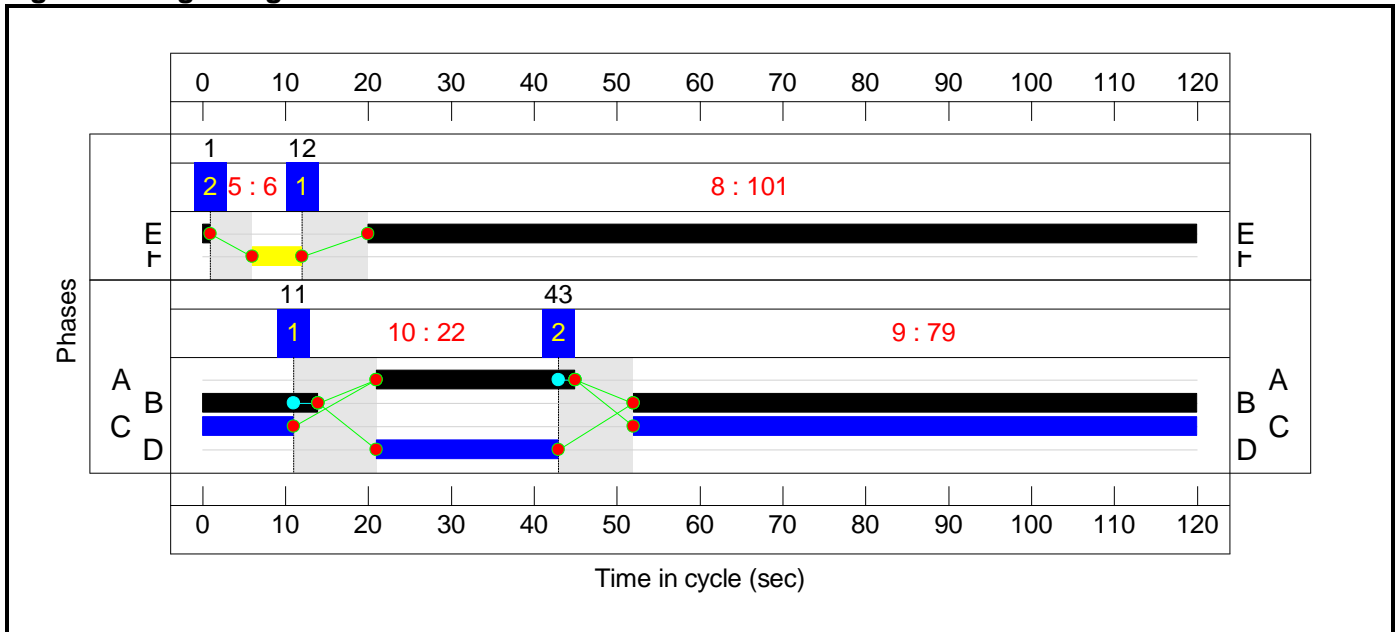
Stage Stream: 1

Stage	1	2
Duration	22	79
Change Point	11	43

Stage Stream: 2

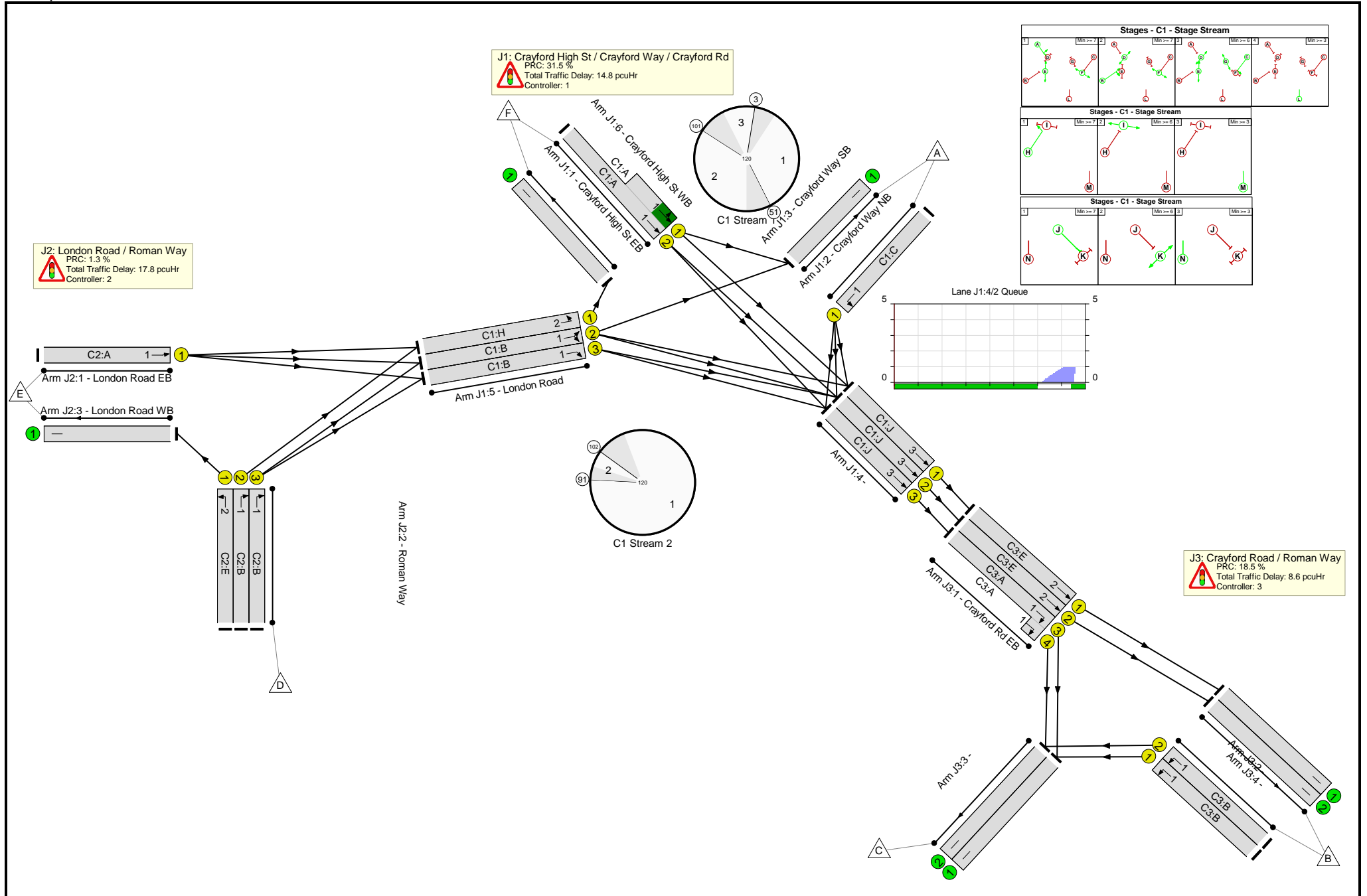
Stage	1	2
Duration	101	6
Change Point	12	1

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	88.9%
J1: Crayford High St / Crayford Way / Crayford Rd	-	-	N/A	-	-		-	-	-	-	-	-	68.5%
1/2+1/1	Crayford High St EB Left Ahead	U	1:1	N/A	C1:A		1	44	-	566	2130:1965	758+69	68.5 : 68.5%
2/1	Crayford Way NB	U	N/A	N/A	-		-	-	-	392	2115	2115	18.5%
3/1	Crayford Way SB Left	U	1:1	N/A	C1:C		1	17	-	199	1943	291	68.3%
4/1	Ahead	U	1:3	N/A	C1:J		1	99	-	56	1915	1596	3.5%
4/2	Ahead	U	1:3	N/A	C1:J		1	99	-	637	2055	1712	37.2%
4/3	Ahead	U	1:3	N/A	C1:J		1	99	-	320	1915	1596	20.1%
5/1	London Road Left	U	1:2	N/A	C1:H		1	98	-	693	1794	1480	46.8%
5/2	London Road Ahead Right	U	1:1	N/A	C1:B		1	41	-	392	1874	656	59.8%
5/3	London Road Right	U	1:1	N/A	C1:B		1	41	-	248	1913	670	37.0%
6/1	Crayford High St WB	U	N/A	N/A	-		-	-	-	693	2015	2015	34.4%
J2: London Road / Roman Way	-	-	N/A	-	-		-	-	-	-	-	-	88.9%
1/1	London Road EB Ahead	U	2:1	N/A	C2:A		1	72	-	911	1915	1165	78.2%
2/1	Roman Way Left	U	2:2	N/A	C2:E		1	101	-	1284	1700	1445	88.9%
2/2	Roman Way Right	U	2:1	N/A	C2:B		1	36	-	413	1782	549	75.2%
2/3	Roman Way Right	U	2:1	N/A	C2:B		1	36	-	9	1750	540	1.7%

Full Input Data And Results

3/1	London Road WB	U	N/A	N/A	-	-	-	-	1284	Inf	Inf	0.0%
J3: Crayford Road / Roman Way	-	-	N/A	-	-	-	-	-	-	-	-	75.9%
1/1	Crayford Rd EB Ahead	U	3:2	N/A	C3:E	1	101	-	56	1915	1628	3.4%
1/2	Crayford Rd EB Ahead	U	3:2	N/A	C3:E	1	101	-	637	1915	1628	39.1%
1/3+1/4	Crayford Rd EB Right	U	3:1	N/A	C3:A	1	24	-	320	1743:1700	213+208	75.9 : 75.9%
2/1	Left	U	3:1	N/A	C3:B	1	82	-	685	1745	1207	56.8%
2/2	Left	U	3:1	N/A	C3:B	1	82	-	699	1772	1226	57.0%
3/1		U	N/A	N/A	-	-	-	-	847	Inf	Inf	0.0%
3/2		U	N/A	N/A	-	-	-	-	857	Inf	Inf	0.0%
4/1		U	N/A	N/A	-	-	-	-	56	Inf	Inf	0.0%
4/2		U	N/A	N/A	-	-	-	-	637	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	26.6	14.7	0.0	41.3	-	-	-	-
J1: Crayford High St / Crayford Way / Crayford Rd	-	-	0	0	0	10.4	4.4	0.0	14.8	-	-	-	-
1/2+1/1	566	566	-	-	-	4.9	1.1	-	6.0 (5.5+0.5)	38.0 (37.9:39.2)	15.0	1.1	16.1
2/1	392	392	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
3/1	199	199	-	-	-	2.7	1.1	-	3.7	67.3	6.2	1.1	7.3
4/1	56	56	-	-	-	0.0	0.0	-	0.0	1.2	0.0	0.0	0.0
4/2	637	637	-	-	-	0.1	0.3	-	0.4	2.3	1.0	0.3	1.3
4/3	320	320	-	-	-	0.0	0.1	-	0.1	1.4	0.0	0.1	0.1
5/1	693	693	-	-	-	0.2	0.4	-	0.6	3.1	1.6	0.4	2.1
5/2	392	392	-	-	-	1.7	0.7	-	2.5	22.6	10.1	0.7	10.9
5/3	248	248	-	-	-	0.9	0.3	-	1.1	16.6	4.9	0.3	5.2
6/1	693	693	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
J2: London Road / Roman Way	-	-	0	0	0	10.8	7.1	0.0	17.8	-	-	-	-
1/1	911	911	-	-	-	4.4	1.8	-	6.2	24.5	22.5	1.8	24.3
2/1	1284	1284	-	-	-	2.0	3.8	-	5.8	16.2	26.0	3.8	29.8
2/2	413	413	-	-	-	4.3	1.5	-	5.8	50.3	12.4	1.5	13.9
2/3	9	9	-	-	-	0.1	0.0	-	0.1	32.4	0.2	0.0	0.2
3/1	1284	1284	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Crayford Road / Roman Way	-	-	0	0	0	5.4	3.2	0.0	8.6	-	-	-	-
1/1	56	56	-	-	-	0.0	0.0	-	0.0	2.8	0.3	0.0	0.4
1/2	637	637	-	-	-	0.0	0.3	-	0.3	1.9	0.2	0.3	0.6
1/3+1/4	320	320	-	-	-	1.8	1.5	-	3.3 (1.7+1.6)	37.3 (37.3:37.3)	7.5	1.5	9.0

Full Input Data And Results

2/1	685	685	-	-	-	1.8	0.7	-	2.4	12.8	11.4	0.7	12.1
2/2	699	699	-	-	-	1.8	0.7	-	2.5	12.8	11.8	0.7	12.5
3/1	847	847	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	857	857	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	56	56	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	637	637	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
			C1	Stream: 1 PRC for Signalled Lanes (%)	31.5	Total Delay for Signalled Lanes (pcuHr):			13.30	Cycle Time (s): 120			
			C1	Stream: 2 PRC for Signalled Lanes (%)	92.2	Total Delay for Signalled Lanes (pcuHr):			0.61	Cycle Time (s): 120			
			C1	Stream: 3 PRC for Signalled Lanes (%)	142.0	Total Delay for Signalled Lanes (pcuHr):			0.55	Cycle Time (s): 120			
			C2	Stream: 1 PRC for Signalled Lanes (%)	15.1	Total Delay for Signalled Lanes (pcuHr):			12.06	Cycle Time (s): 120			
			C2	Stream: 2 PRC for Signalled Lanes (%)	1.3	Total Delay for Signalled Lanes (pcuHr):			5.78	Cycle Time (s): 120			
			C3	Stream: 1 PRC for Signalled Lanes (%)	18.5	Total Delay for Signalled Lanes (pcuHr):			8.25	Cycle Time (s): 120			
			C3	Stream: 2 PRC for Signalled Lanes (%)	130.0	Total Delay for Signalled Lanes (pcuHr):			0.39	Cycle Time (s): 120			
			PRC Over All Lanes (%)		1.3	Total Delay Over All Lanes(pcuHr):			41.30				

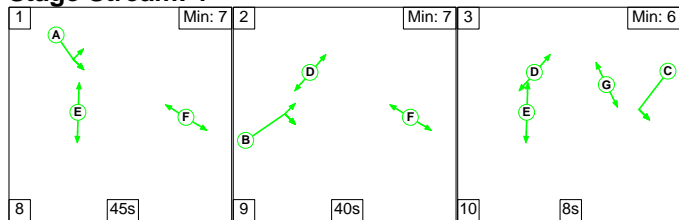
Full Input Data And Results

Scenario 6: '2038 Local Plan Case PM - No LTC' (FG6: '2038 Local Plan Case PM - No LTC', Plan 1: 'Network Control Plan 1')

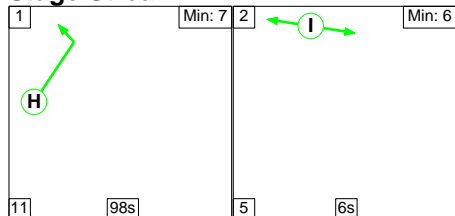
C1

Stage Sequence Diagram

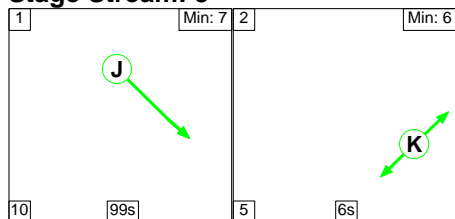
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	45	40	8
Change Point	45	98	27

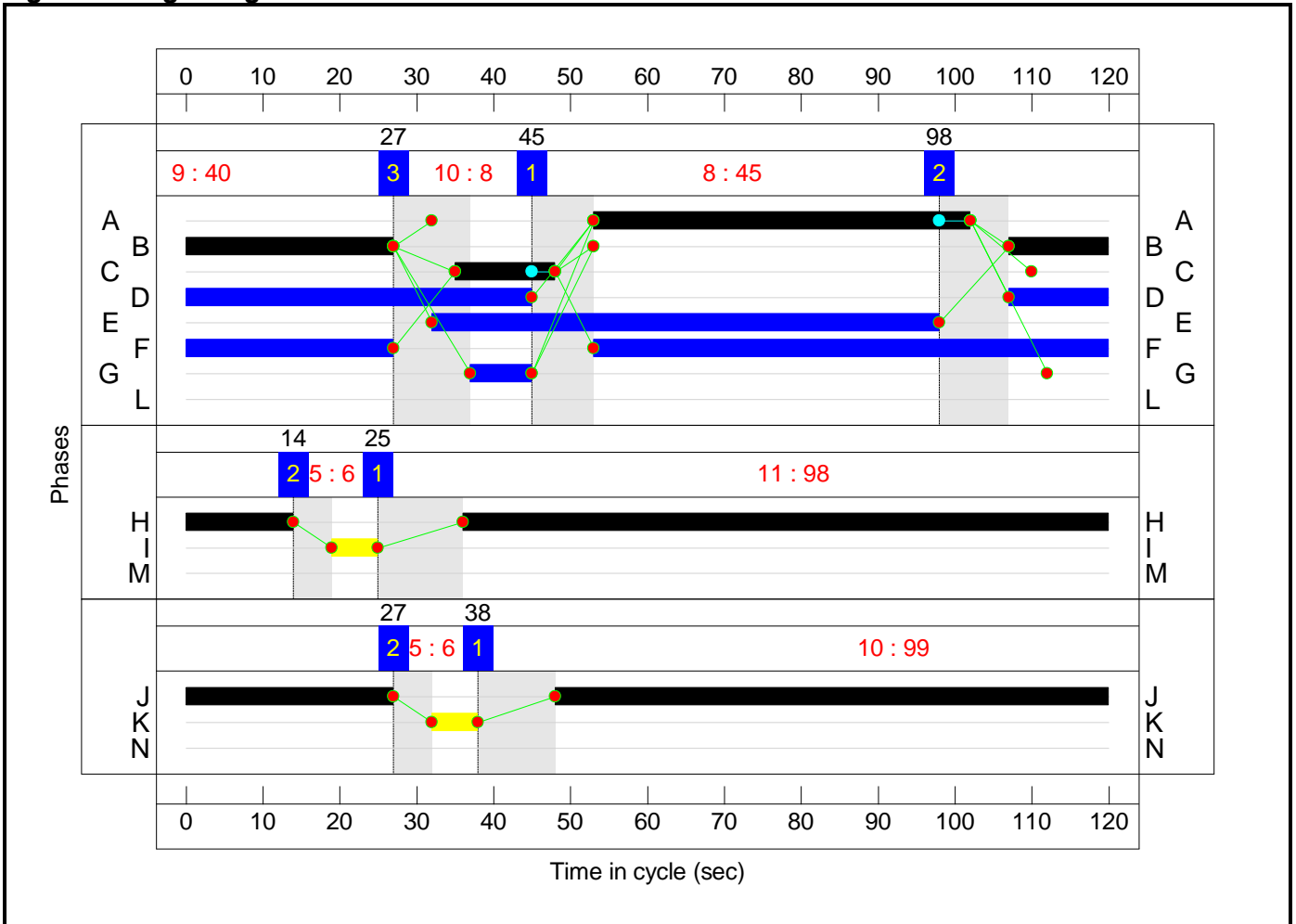
Stage Stream: 2

Stage	1	2
Duration	98	6
Change Point	25	14

Stage Stream: 3

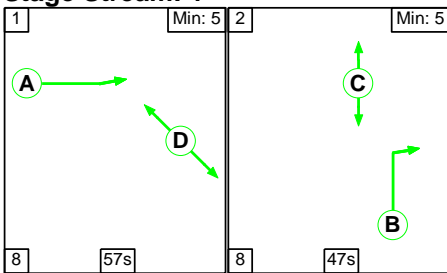
Stage	1	2
Duration	99	6
Change Point	38	27

Signal Timings Diagram

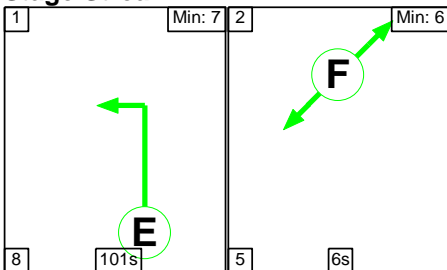


C2 Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Full Input Data And Results

Stage Timings

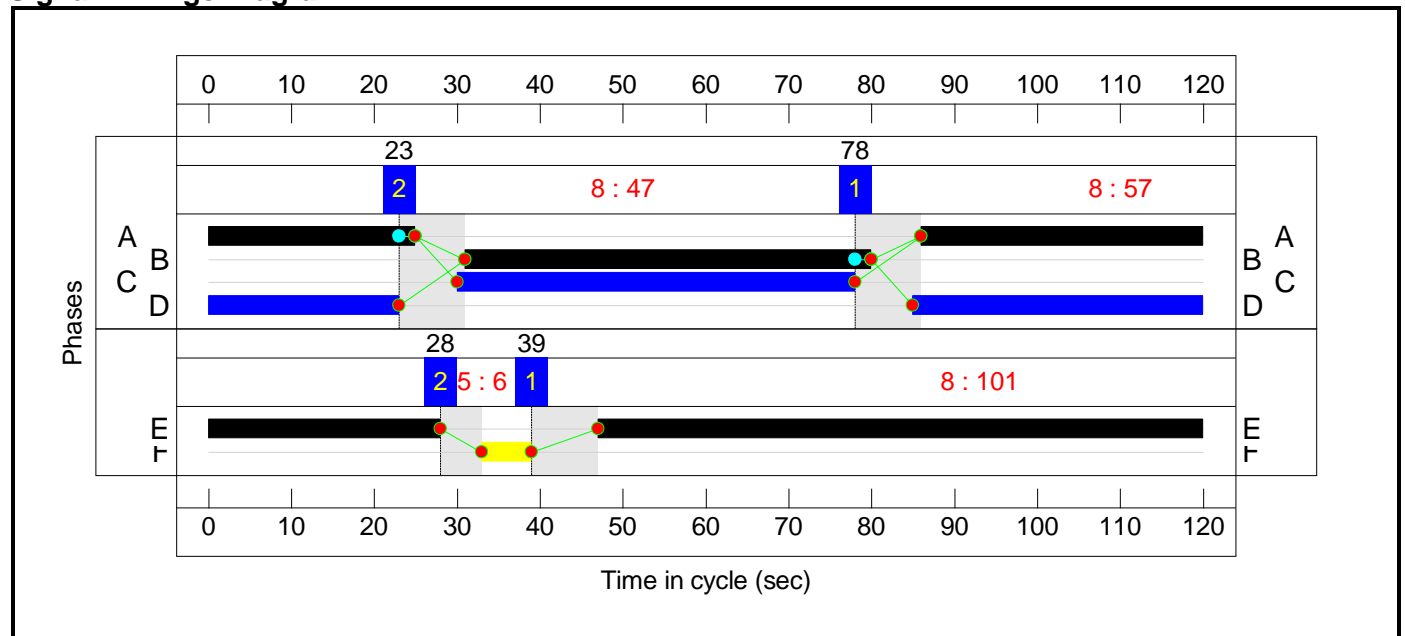
Stage Stream: 1

Stage	1	2
Duration	57	47
Change Point	78	23

Stage Stream: 2

Stage	1	2
Duration	101	6
Change Point	39	28

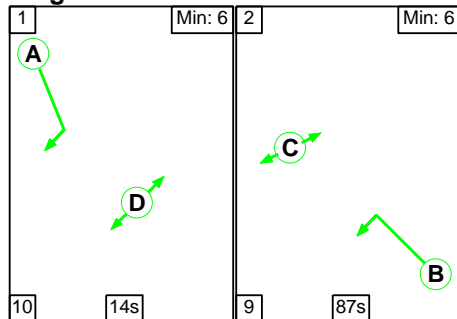
Signal Timings Diagram



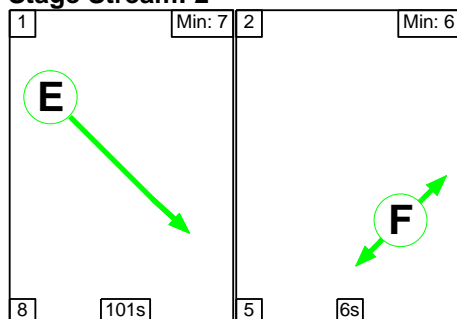
C3

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Full Input Data And Results

Stage Timings

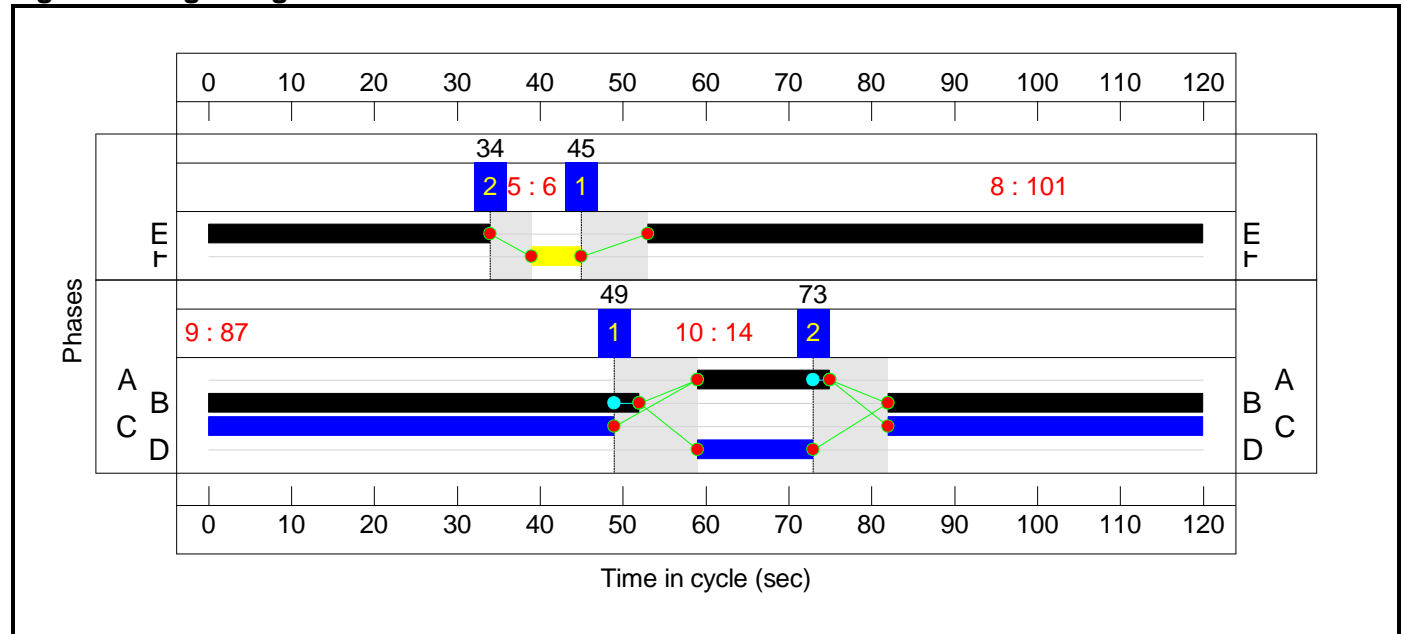
Stage Stream: 1

Stage	1	2
Duration	14	87
Change Point	49	73

Stage Stream: 2

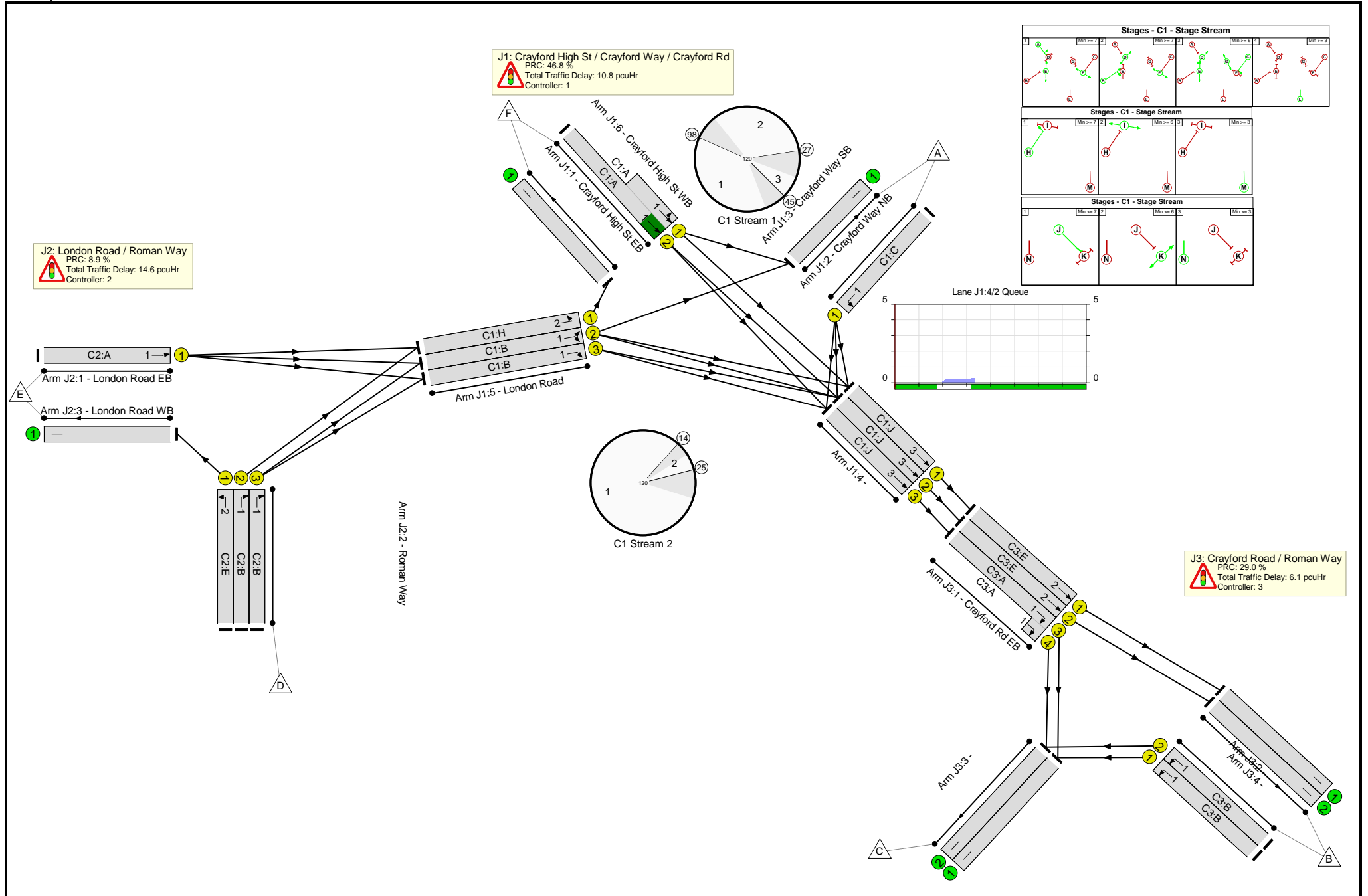
Stage	1	2
Duration	101	6
Change Point	45	34

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	82.6%
J1: Crayford High St / Crayford Way / Crayford Rd	-	-	N/A	-	-		-	-	-	-	-	-	61.3%
1/2+1/1	Crayford High St EB Left Ahead	U	1:1	N/A	C1:A		1	49	-	573	2130:1965	458+544	57.2 : 57.2%
2/1	Crayford Way NB	U	N/A	N/A	-		-	-	-	243	2115	2115	11.5%
3/1	Crayford Way SB Left	U	1:1	N/A	C1:C		1	13	-	139	1943	227	61.3%
4/1	Ahead	U	1:3	N/A	C1:J		1	99	-	325	1915	1596	20.4%
4/2	Ahead	U	1:3	N/A	C1:J		1	99	-	446	2055	1712	26.0%
4/3	Ahead	U	1:3	N/A	C1:J		1	99	-	214	1915	1596	13.4%
5/1	London Road Left	U	1:2	N/A	C1:H		1	98	-	678	1794	1480	45.8%
5/2	London Road Ahead Right	U	1:1	N/A	C1:B		1	40	-	253	1875	641	39.5%
5/3	London Road Right	U	1:1	N/A	C1:B		1	40	-	263	1913	654	40.2%
6/1	Crayford High St WB	U	N/A	N/A	-		-	-	-	678	2015	2015	33.6%
J2: London Road / Roman Way	-	-	N/A	-	-		-	-	-	-	-	-	82.6%
1/1	London Road EB Ahead	U	2:1	N/A	C2:A		1	59	-	691	1915	957	72.2%
2/1	Roman Way Left	U	2:2	N/A	C2:E		1	101	-	1194	1700	1445	82.6%
2/2	Roman Way Right	U	2:1	N/A	C2:B		1	49	-	496	1782	743	66.8%
2/3	Roman Way Right	U	2:1	N/A	C2:B		1	49	-	7	1750	729	1.0%

Full Input Data And Results

3/1	London Road WB	U	N/A	N/A	-	-	-	-	1194	Inf	Inf	0.0%
J3: Crayford Road / Roman Way	-	-	N/A	-	-	-	-	-	-	-	-	69.8%
1/1	Crayford Rd EB Ahead	U	3:2	N/A	C3:E	1	101	-	325	1915	1628	20.0%
1/2	Crayford Rd EB Ahead	U	3:2	N/A	C3:E	1	101	-	446	1915	1628	27.4%
1/3+1/4	Crayford Rd EB Right	U	3:1	N/A	C3:A	1	16	-	214	1743:1700	155+152	69.8 : 69.8%
2/1	Left	U	3:1	N/A	C3:B	1	90	-	739	1745	1323	55.8%
2/2	Left	U	3:1	N/A	C3:B	1	90	-	755	1772	1344	56.2%
3/1		U	N/A	N/A	-	-	-	-	847	Inf	Inf	0.0%
3/2		U	N/A	N/A	-	-	-	-	861	Inf	Inf	0.0%
4/1		U	N/A	N/A	-	-	-	-	325	Inf	Inf	0.0%
4/2		U	N/A	N/A	-	-	-	-	446	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	20.9	10.6	0.0	31.4	-	-	-	-
J1: Crayford High St / Crayford Way / Crayford Rd	-	-	0	0	0	7.5	3.2	0.0	10.8	-	-	-	-
1/2+1/1	573	573	-	-	-	3.9	0.7	-	4.5 (2.1+2.5)	28.5 (28.4:28.5)	8.6	0.7	9.2
2/1	243	243	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
3/1	139	139	-	-	-	1.9	0.8	-	2.7	70.6	4.4	0.8	5.2
4/1	325	325	-	-	-	0.0	0.1	-	0.1	1.5	4.3	0.1	4.4
4/2	446	446	-	-	-	0.0	0.2	-	0.2	1.7	0.3	0.2	0.4
4/3	214	214	-	-	-	0.4	0.1	-	0.4	7.6	4.5	0.1	4.6
5/1	678	678	-	-	-	0.1	0.4	-	0.5	2.8	1.0	0.4	1.4
5/2	253	253	-	-	-	0.6	0.3	-	1.0	13.8	4.4	0.3	4.8
5/3	263	263	-	-	-	0.6	0.3	-	0.9	12.3	4.5	0.3	4.8
6/1	678	678	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3
J2: London Road / Roman Way	-	-	0	0	0	9.9	4.6	0.0	14.6	-	-	-	-
1/1	691	691	-	-	-	4.5	1.3	-	5.8	30.2	17.9	1.3	19.1
2/1	1194	1194	-	-	-	1.5	2.3	-	3.8	11.6	19.9	2.3	22.2
2/2	496	496	-	-	-	3.9	1.0	-	4.9	35.5	13.2	1.0	14.2
2/3	7	7	-	-	-	0.0	0.0	-	0.0	23.2	0.1	0.0	0.1
3/1	1194	1194	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Crayford Road / Roman Way	-	-	0	0	0	3.4	2.7	0.0	6.1	-	-	-	-
1/1	325	325	-	-	-	0.0	0.1	-	0.1	1.4	0.0	0.1	0.1
1/2	446	446	-	-	-	0.0	0.2	-	0.2	1.6	0.1	0.2	0.3
1/3+1/4	214	214	-	-	-	0.8	1.1	-	1.9 (1.0+1.0)	32.7 (32.8:32.7)	4.1	1.1	5.2

Full Input Data And Results

2/1	739	739	-	-	-	1.2	0.6	-	1.9	9.2	10.3	0.6	10.9
2/2	755	755	-	-	-	1.3	0.6	-	1.9	9.2	10.5	0.6	11.1
3/1	847	847	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	861	861	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	325	325	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	446	446	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
			C1	Stream: 1 PRC for Signalled Lanes (%)	46.8	Total Delay for Signalled Lanes (pcuHr):			9.13	Cycle Time (s): 120			
			C1	Stream: 2 PRC for Signalled Lanes (%)	96.5	Total Delay for Signalled Lanes (pcuHr):			0.53	Cycle Time (s): 120			
			C1	Stream: 3 PRC for Signalled Lanes (%)	245.6	Total Delay for Signalled Lanes (pcuHr):			0.80	Cycle Time (s): 120			
			C2	Stream: 1 PRC for Signalled Lanes (%)	24.7	Total Delay for Signalled Lanes (pcuHr):			10.73	Cycle Time (s): 120			
			C2	Stream: 2 PRC for Signalled Lanes (%)	8.9	Total Delay for Signalled Lanes (pcuHr):			3.84	Cycle Time (s): 120			
			C3	Stream: 1 PRC for Signalled Lanes (%)	29.0	Total Delay for Signalled Lanes (pcuHr):			5.74	Cycle Time (s): 120			
			C3	Stream: 2 PRC for Signalled Lanes (%)	228.5	Total Delay for Signalled Lanes (pcuHr):			0.33	Cycle Time (s): 120			
			PRC Over All Lanes (%)		8.9	Total Delay Over All Lanes(pcuHr):			31.41				

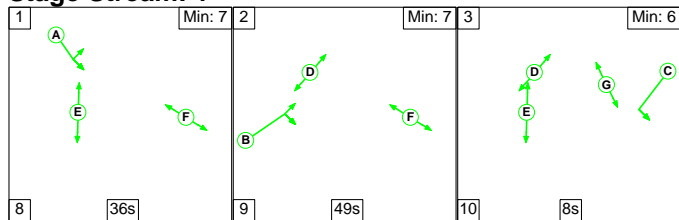
Full Input Data And Results

Scenario 7: '2038 Local Plan Case AM - With LTC' (FG7: '2038 Local Plan Case AM - With LTC', Plan 1: 'Network Control Plan 1')

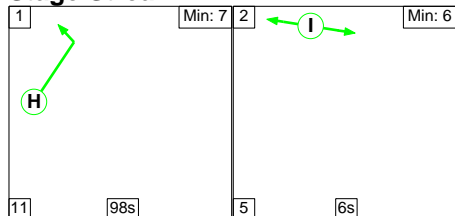
C1

Stage Sequence Diagram

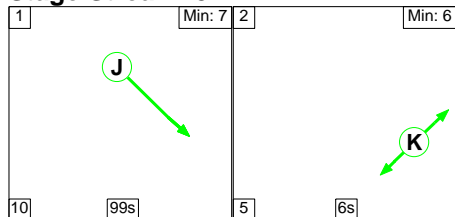
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	36	49	8
Change Point	7	51	109

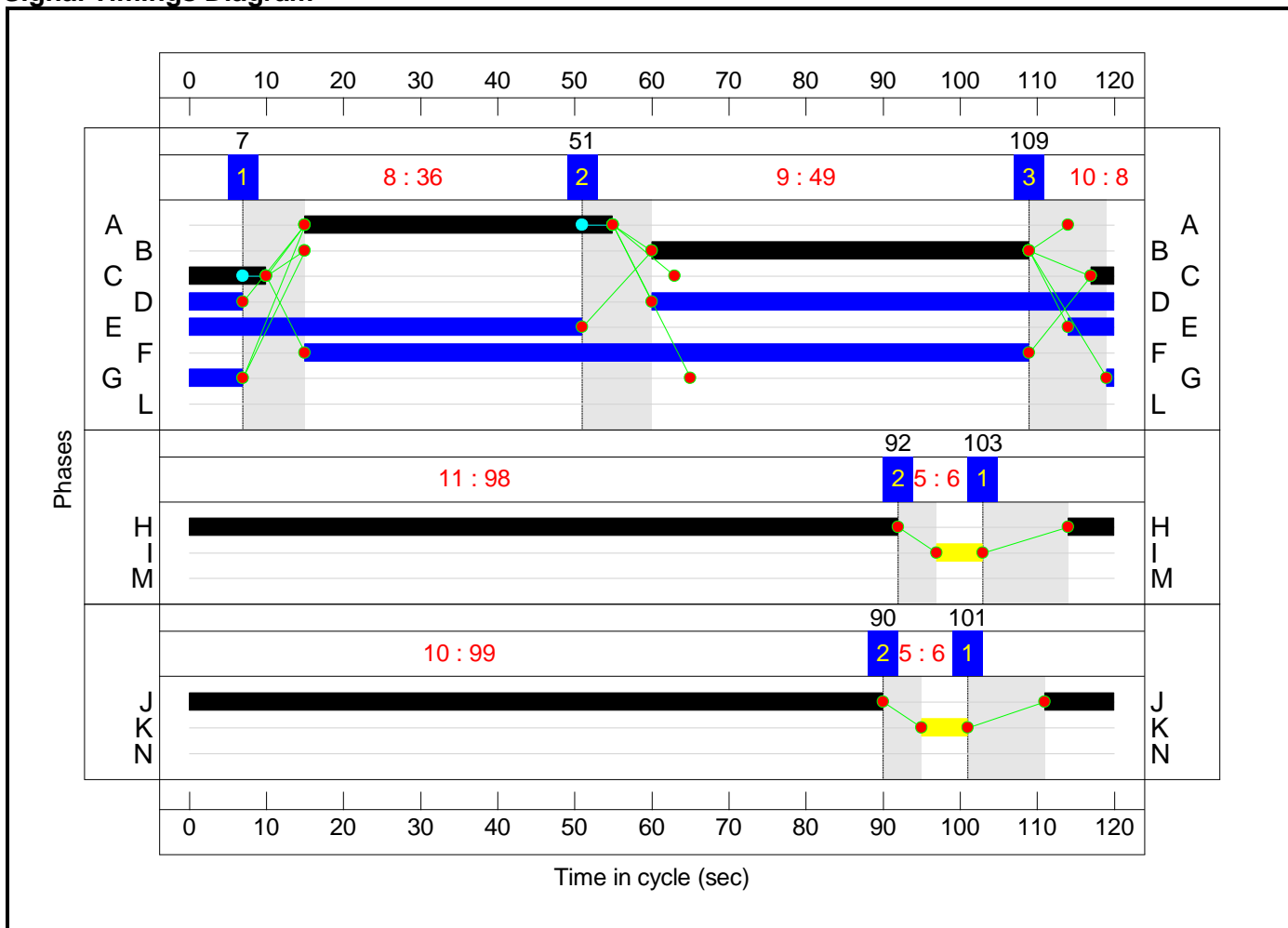
Stage Stream: 2

Stage	1	2
Duration	98	6
Change Point	103	92

Stage Stream: 3

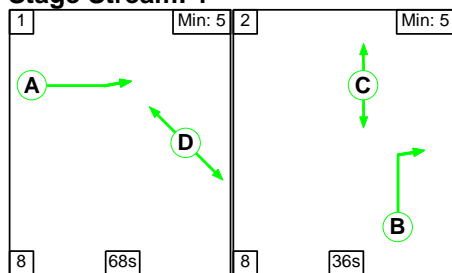
Stage	1	2
Duration	99	6
Change Point	101	90

Signal Timings Diagram

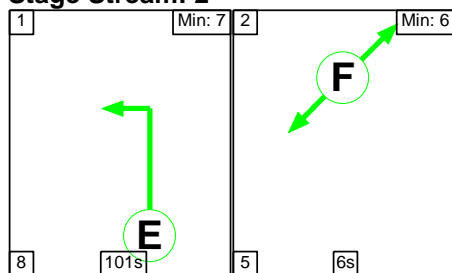


C2 Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

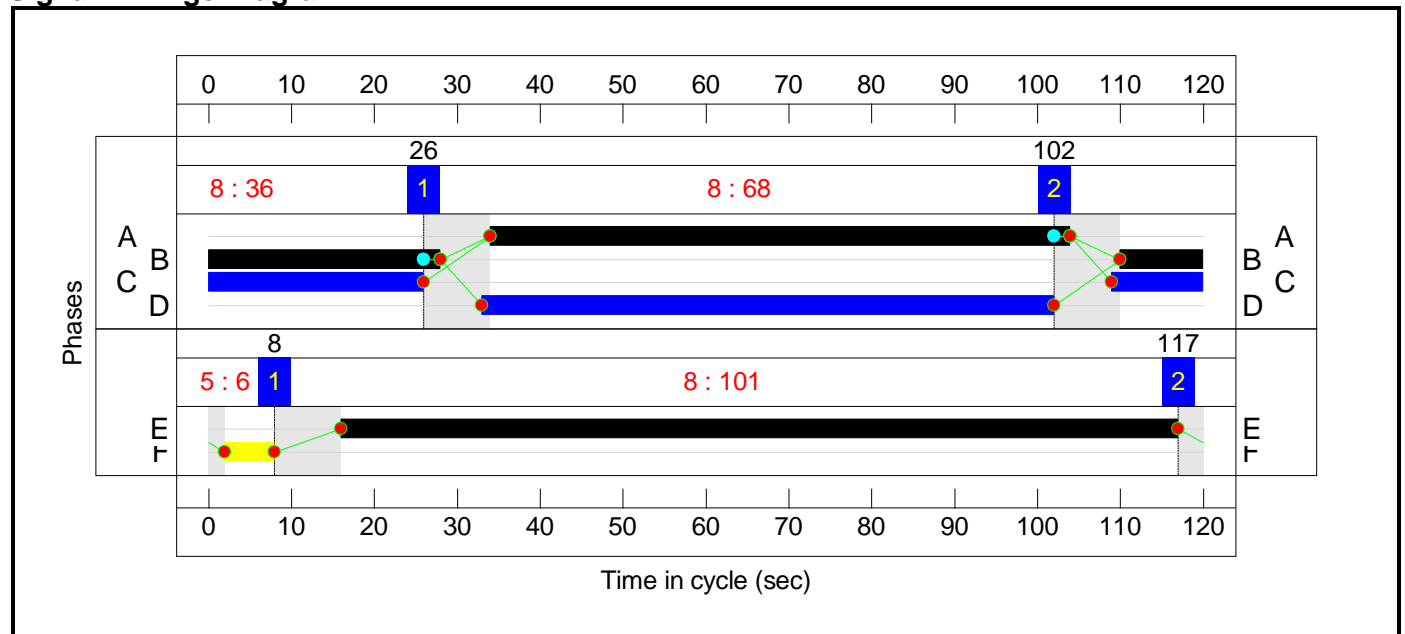
Stage Stream: 1

Stage	1	2
Duration	68	36
Change Point	26	102

Stage Stream: 2

Stage	1	2
Duration	101	6
Change Point	8	117

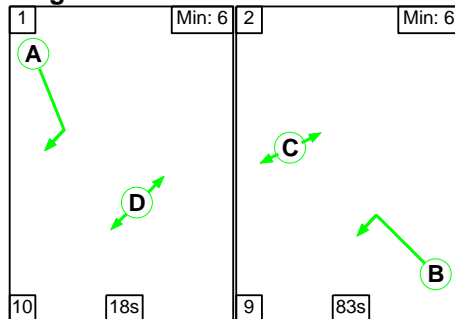
Signal Timings Diagram



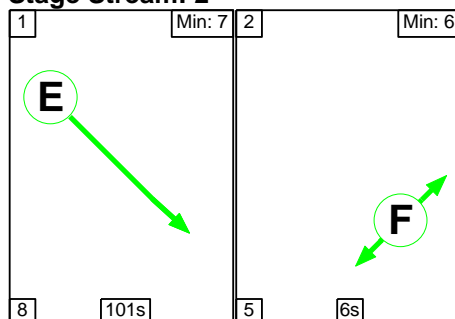
C3

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Full Input Data And Results

Stage Timings

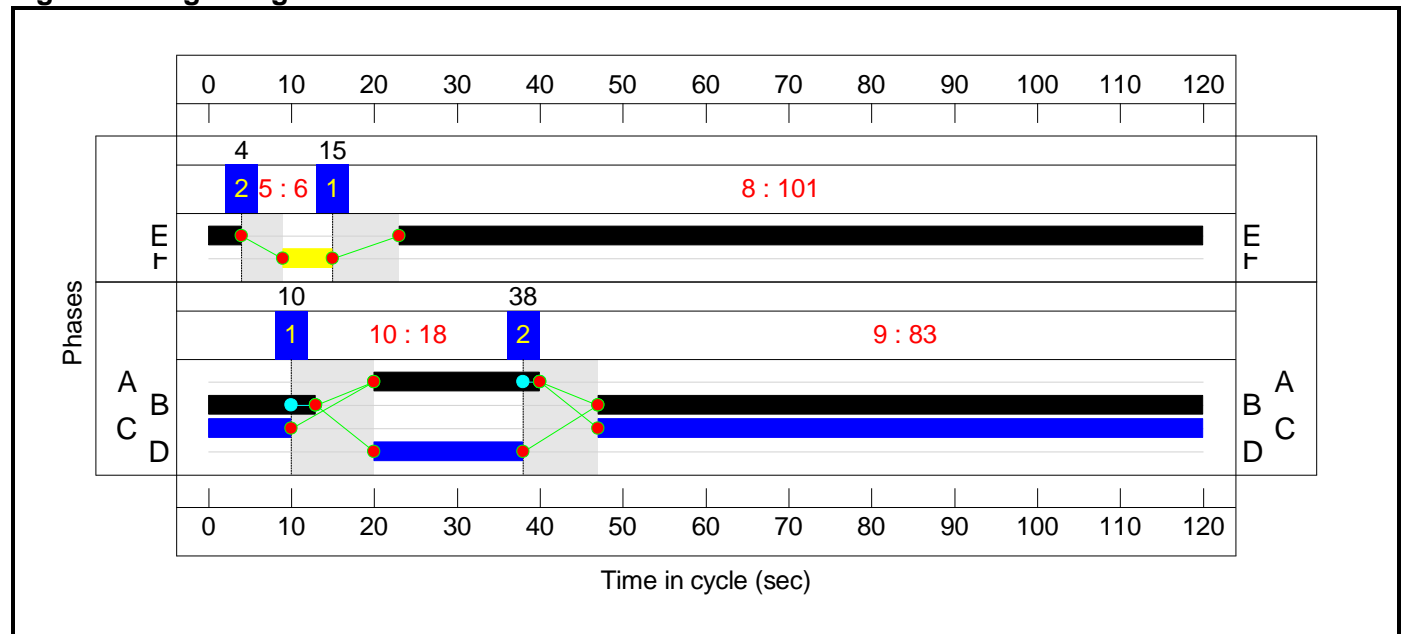
Stage Stream: 1

Stage	1	2
Duration	18	83
Change Point	10	38

Stage Stream: 2

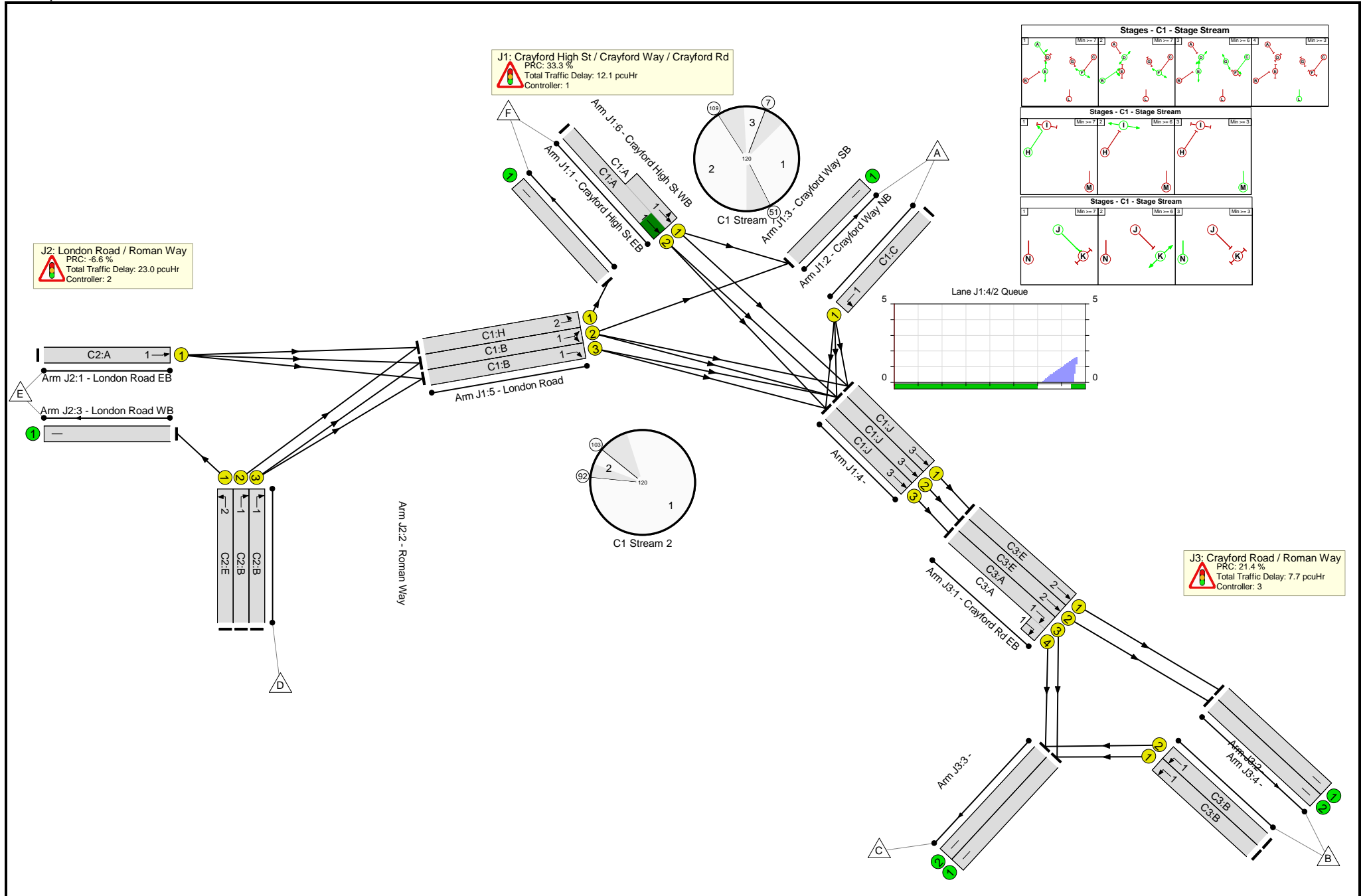
Stage	1	2
Duration	101	6
Change Point	15	4

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	95.9%
J1: Crayford High St / Crayford Way / Crayford Rd	-	-	N/A	-	-		-	-	-	-	-	-	67.5%
1/2+1/1	Crayford High St EB Left Ahead	U	1:1	N/A	C1:A		1	40	-	546	2130:1965	399+456	63.9 : 63.9%
2/1	Crayford Way NB	U	N/A	N/A	-		-	-	-	355	2115	2115	16.8%
3/1	Crayford Way SB Left	U	1:1	N/A	C1:C		1	13	-	153	1943	227	67.5%
4/1	Ahead	U	1:3	N/A	C1:J		1	99	-	299	1915	1596	18.7%
4/2	Ahead	U	1:3	N/A	C1:J		1	99	-	390	2055	1712	22.8%
4/3	Ahead	U	1:3	N/A	C1:J		1	99	-	270	1915	1596	16.9%
5/1	London Road Left	U	1:2	N/A	C1:H		1	98	-	664	1794	1480	44.9%
5/2	London Road Ahead Right	U	1:1	N/A	C1:B		1	49	-	355	1874	781	45.5%
5/3	London Road Right	U	1:1	N/A	C1:B		1	49	-	260	1913	797	32.6%
6/1	Crayford High St WB	U	N/A	N/A	-		-	-	-	664	2015	2015	33.0%
J2: London Road / Roman Way	-	-	N/A	-	-		-	-	-	-	-	-	95.9%
1/1	London Road EB Ahead	U	2:1	N/A	C2:A		1	70	-	879	1915	1133	77.6%
2/1	Roman Way Left	U	2:2	N/A	C2:E		1	101	-	1386	1700	1445	95.9%
2/2	Roman Way Right	U	2:1	N/A	C2:B		1	38	-	392	1782	579	67.7%
2/3	Roman Way Right	U	2:1	N/A	C2:B		1	38	-	8	1750	569	1.4%

Full Input Data And Results

3/1	London Road WB	U	N/A	N/A	-	-	-	-	1386	Inf	Inf	0.0%
J3: Crayford Road / Roman Way	-	-	N/A	-	-	-	-	-	-	-	-	74.1%
1/1	Crayford Rd EB Ahead	U	3:2	N/A	C3:E	1	101	-	299	1915	1628	18.4%
1/2	Crayford Rd EB Ahead	U	3:2	N/A	C3:E	1	101	-	390	1915	1628	24.0%
1/3+1/4	Crayford Rd EB Right	U	3:1	N/A	C3:A	1	20	-	270	1743:1700	183+181	74.1 : 74.1%
2/1	Left	U	3:1	N/A	C3:B	1	86	-	747	1745	1265	59.0%
2/2	Left	U	3:1	N/A	C3:B	1	86	-	762	1772	1285	59.3%
3/1		U	N/A	N/A	-	-	-	-	883	Inf	Inf	0.0%
3/2		U	N/A	N/A	-	-	-	-	896	Inf	Inf	0.0%
4/1		U	N/A	N/A	-	-	-	-	299	Inf	Inf	0.0%
4/2		U	N/A	N/A	-	-	-	-	390	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	24.2	18.5	0.0	42.7	-	-	-	-
J1: Crayford High St / Crayford Way / Crayford Rd	-	-	0	0	0	8.4	3.7	0.0	12.1	-	-	-	-
1/2+1/1	546	546	-	-	-	4.6	0.9	-	5.5 (2.6+2.9)	36.4 (36.4:36.5)	9.4	0.9	10.3
2/1	355	355	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
3/1	153	153	-	-	-	2.2	1.0	-	3.2	74.6	4.9	1.0	5.9
4/1	299	299	-	-	-	0.0	0.1	-	0.1	1.4	4.3	0.1	4.4
4/2	390	390	-	-	-	0.1	0.1	-	0.3	2.7	1.6	0.1	1.7
4/3	270	270	-	-	-	0.0	0.1	-	0.1	1.4	0.0	0.1	0.1
5/1	664	664	-	-	-	0.2	0.4	-	0.6	3.1	1.6	0.4	2.0
5/2	355	355	-	-	-	0.8	0.4	-	1.3	12.7	6.9	0.4	7.3
5/3	260	260	-	-	-	0.5	0.2	-	0.7	9.7	4.0	0.2	4.3
6/1	664	664	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
J2: London Road / Roman Way	-	-	0	0	0	11.2	11.8	0.0	23.0	-	-	-	-
1/1	879	879	-	-	-	4.5	1.7	-	6.2	25.5	22.0	1.7	23.7
2/1	1386	1386	-	-	-	2.8	9.0	-	11.8	30.7	37.3	9.0	46.3
2/2	392	392	-	-	-	3.8	1.0	-	4.9	44.6	11.2	1.0	12.3
2/3	8	8	-	-	-	0.1	0.0	-	0.1	30.9	0.2	0.0	0.2
3/1	1386	1386	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Crayford Road / Roman Way	-	-	0	0	0	4.6	3.1	0.0	7.7	-	-	-	-
1/1	299	299	-	-	-	0.0	0.1	-	0.1	1.6	0.3	0.1	0.4
1/2	390	390	-	-	-	0.0	0.2	-	0.2	1.6	0.1	0.2	0.3
1/3+1/4	270	270	-	-	-	1.2	1.4	-	2.6 (1.3+1.3)	34.6 (34.5:34.6)	5.0	1.4	6.3

Full Input Data And Results

2/1	747	747	-	-	-	1.6	0.7	-	2.4	11.4	11.8	0.7	12.5																																																								
2/2	762	762	-	-	-	1.7	0.7	-	2.4	11.4	12.1	0.7	12.8																																																								
3/1	883	883	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																																																								
3/2	896	896	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																																																								
4/1	299	299	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																																																								
4/2	390	390	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																																																								
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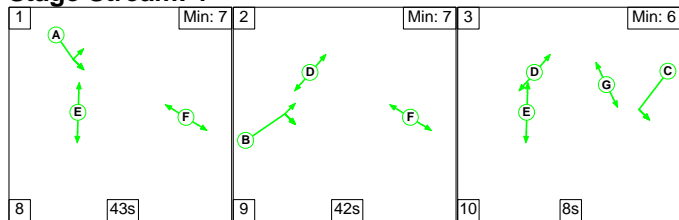
Full Input Data And Results

Scenario 8: '2038 Local Plan Case PM - With LTC' (FG8: '2038 Local Plan Case PM - With LTC', Plan 1: 'Network Control Plan 1')

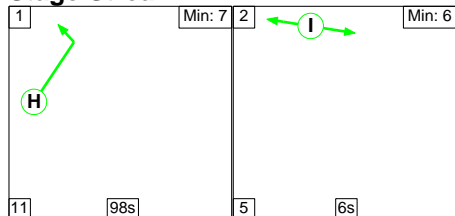
C1

Stage Sequence Diagram

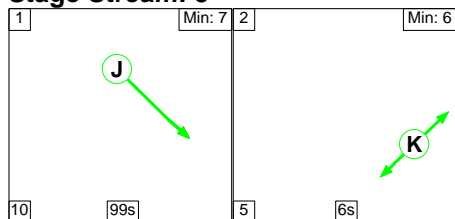
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	43	42	8
Change Point	44	95	26

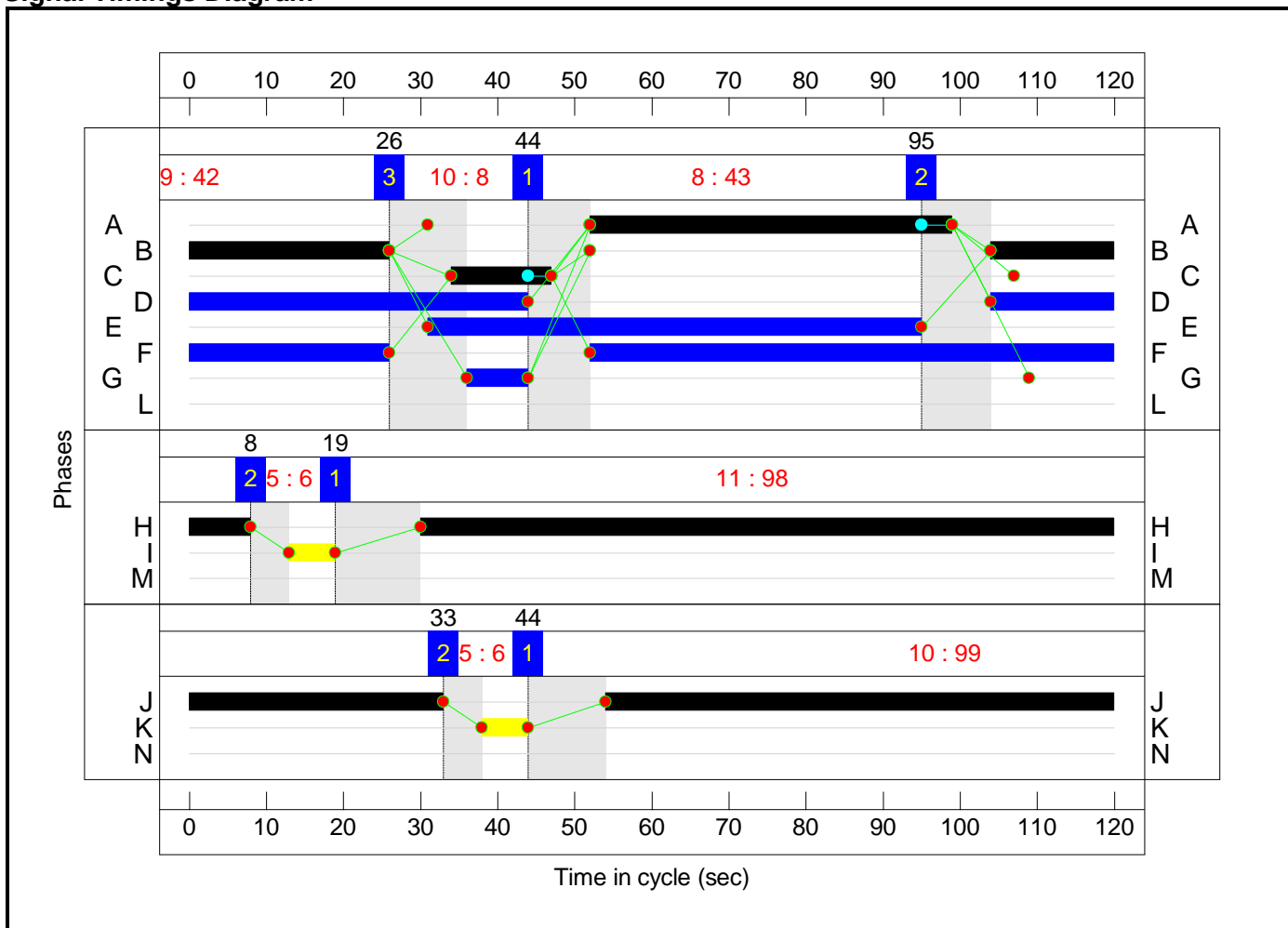
Stage Stream: 2

Stage	1	2
Duration	98	6
Change Point	19	8

Stage Stream: 3

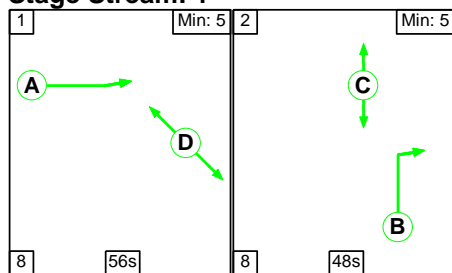
Stage	1	2
Duration	99	6
Change Point	44	33

Signal Timings Diagram

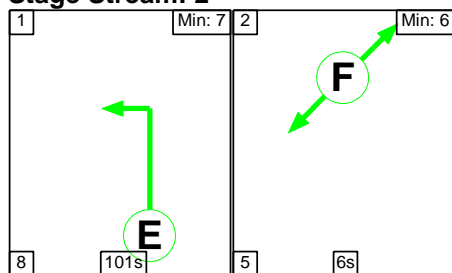


C2 Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Full Input Data And Results

Stage Timings

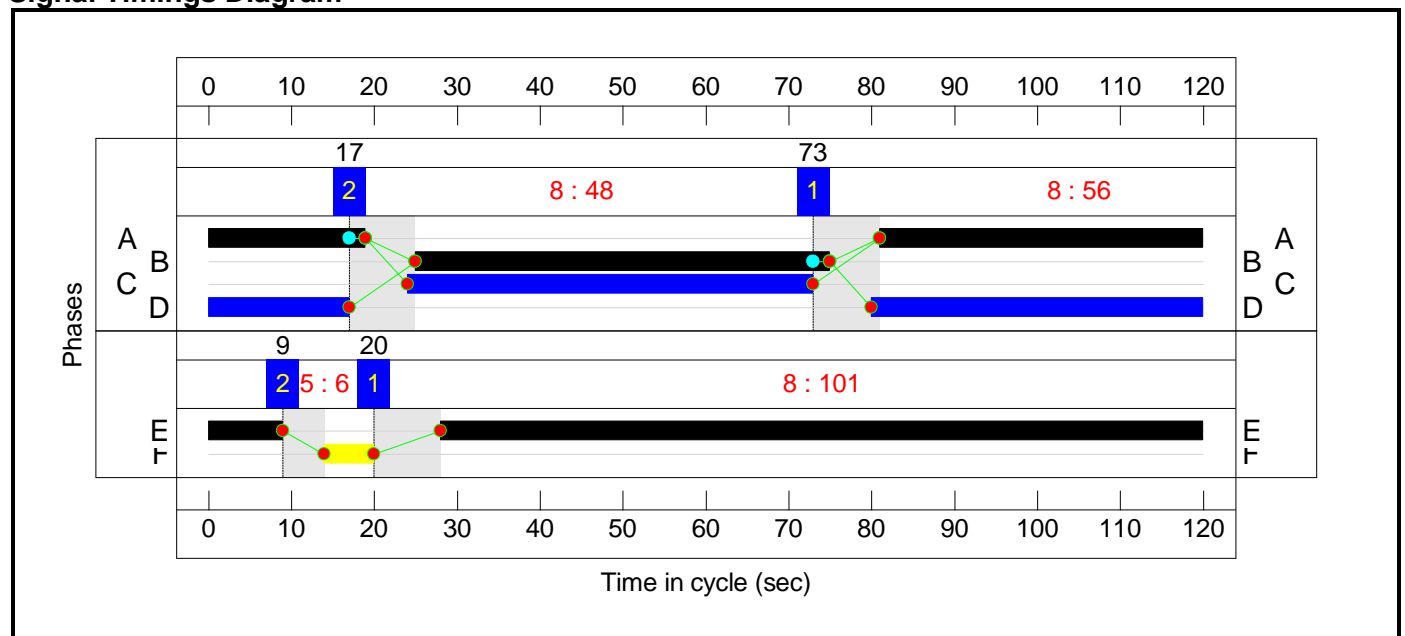
Stage Stream: 1

Stage	1	2
Duration	56	48
Change Point	73	17

Stage Stream: 2

Stage	1	2
Duration	101	6
Change Point	20	9

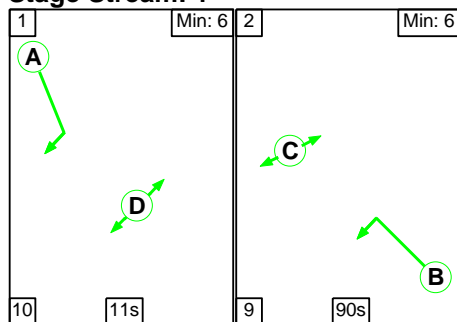
Signal Timings Diagram



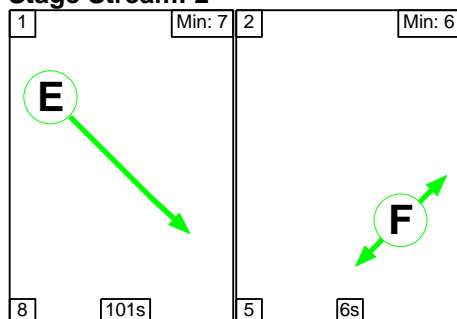
C3

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Full Input Data And Results

Stage Timings

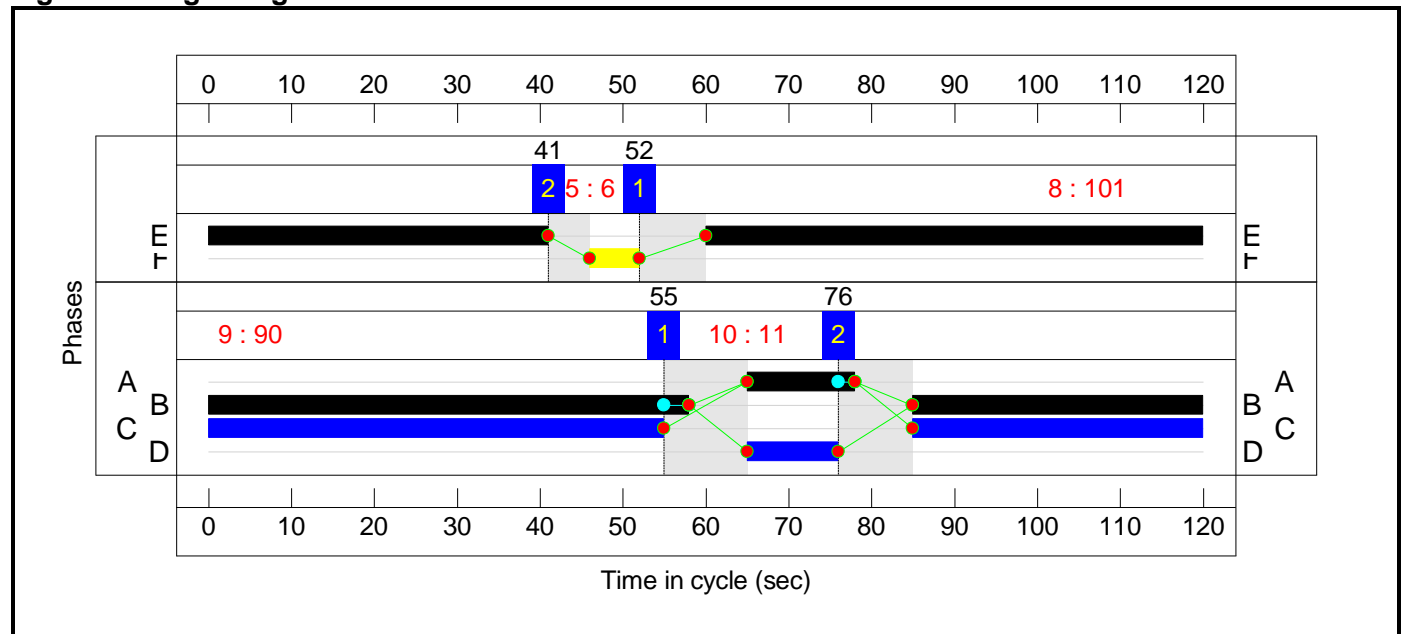
Stage Stream: 1

Stage	1	2
Duration	11	90
Change Point	55	76

Stage Stream: 2

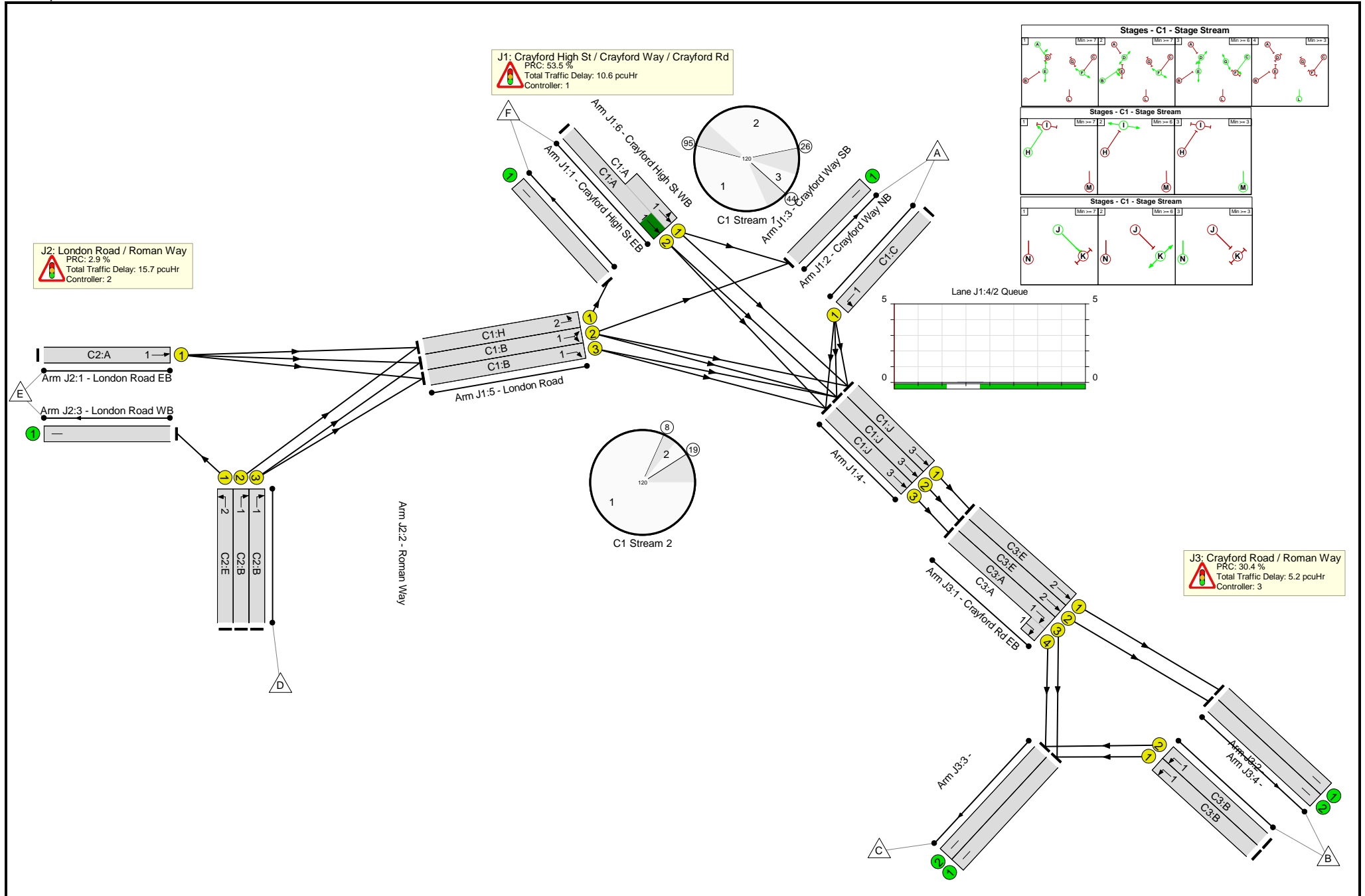
Stage	1	2
Duration	101	6
Change Point	52	41

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	87.5%
J1: Crayford High St / Crayford Way / Crayford Rd	-	-	N/A	-	-		-	-	-	-	-	-	58.6%
1/2+1/1	Crayford High St EB Left Ahead	U	1:1	N/A	C1:A		1	47	-	566	2130:1965	438+527	58.6 : 58.6%
2/1	Crayford Way NB	U	N/A	N/A	-		-	-	-	245	2115	2115	11.6%
3/1	Crayford Way SB Left	U	1:1	N/A	C1:C		1	13	-	132	1943	227	58.2%
4/1	Ahead	U	1:3	N/A	C1:J		1	99	-	328	1915	1596	20.6%
4/2	Ahead	U	1:3	N/A	C1:J		1	99	-	466	2055	1712	27.2%
4/3	Ahead	U	1:3	N/A	C1:J		1	99	-	182	1915	1596	11.4%
5/1	London Road Left	U	1:2	N/A	C1:H		1	98	-	649	1794	1480	43.8%
5/2	London Road Ahead Right	U	1:1	N/A	C1:B		1	42	-	259	1875	672	38.5%
5/3	London Road Right	U	1:1	N/A	C1:B		1	42	-	264	1913	685	38.5%
6/1	Crayford High St WB	U	N/A	N/A	-		-	-	-	649	2015	2015	32.2%
J2: London Road / Roman Way	-	-	N/A	-	-		-	-	-	-	-	-	87.5%
1/1	London Road EB Ahead	U	2:1	N/A	C2:A		1	58	-	694	1915	942	73.7%
2/1	Roman Way Left	U	2:2	N/A	C2:E		1	101	-	1264	1700	1445	87.5%
2/2	Roman Way Right	U	2:1	N/A	C2:B		1	50	-	471	1782	757	62.2%
2/3	Roman Way Right	U	2:1	N/A	C2:B		1	50	-	7	1750	744	0.9%

Full Input Data And Results

3/1	London Road WB	U	N/A	N/A	-	-	-	-	1264	Inf	Inf	0.0%
J3: Crayford Road / Roman Way	-	-	N/A	-	-	-	-	-	-	-	-	69.0%
1/1	Crayford Rd EB Ahead	U	3:2	N/A	C3:E	1	101	-	328	1915	1628	20.2%
1/2	Crayford Rd EB Ahead	U	3:2	N/A	C3:E	1	101	-	466	1915	1628	28.6%
1/3+1/4	Crayford Rd EB Right	U	3:1	N/A	C3:A	1	13	-	182	1743:1700	133+130	69.0 : 69.0%
2/1	Left	U	3:1	N/A	C3:B	1	93	-	755	1745	1367	55.2%
2/2	Left	U	3:1	N/A	C3:B	1	93	-	772	1772	1388	55.6%
3/1		U	N/A	N/A	-	-	-	-	847	Inf	Inf	0.0%
3/2		U	N/A	N/A	-	-	-	-	862	Inf	Inf	0.0%
4/1		U	N/A	N/A	-	-	-	-	328	Inf	Inf	0.0%
4/2		U	N/A	N/A	-	-	-	-	466	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	20.2	11.3	0.0	31.5	-	-	-	-
J1: Crayford High St / Crayford Way / Crayford Rd	-	-	0	0	0	7.5	3.1	0.0	10.6	-	-	-	-
1/2+1/1	566	566	-	-	-	4.0	0.7	-	4.7 (2.1+2.6)	30.1 (30.1:30.2)	8.9	0.7	9.6
2/1	245	245	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
3/1	132	132	-	-	-	1.8	0.7	-	2.5	69.0	4.1	0.7	4.8
4/1	328	328	-	-	-	0.0	0.1	-	0.2	1.7	4.3	0.1	4.4
4/2	466	466	-	-	-	0.0	0.2	-	0.2	1.5	0.0	0.2	0.2
4/3	182	182	-	-	-	0.6	0.1	-	0.7	13.8	5.2	0.1	5.3
5/1	649	649	-	-	-	0.1	0.4	-	0.5	2.7	1.0	0.4	1.4
5/2	259	259	-	-	-	0.5	0.3	-	0.8	11.2	4.8	0.3	5.1
5/3	264	264	-	-	-	0.4	0.3	-	0.7	9.5	4.5	0.3	4.9
6/1	649	649	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
J2: London Road / Roman Way	-	-	0	0	0	10.1	5.6	0.0	15.7	-	-	-	-
1/1	694	694	-	-	-	4.7	1.4	-	6.1	31.5	18.3	1.4	19.7
2/1	1264	1264	-	-	-	1.8	3.4	-	5.2	14.9	24.6	3.4	27.9
2/2	471	471	-	-	-	3.5	0.8	-	4.3	33.2	12.2	0.8	13.0
2/3	7	7	-	-	-	0.0	0.0	-	0.0	22.6	0.1	0.0	0.1
3/1	1264	1264	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Crayford Road / Roman Way	-	-	0	0	0	2.6	2.7	0.0	5.2	-	-	-	-
1/1	328	328	-	-	-	0.0	0.1	-	0.1	1.4	0.0	0.1	0.1
1/2	466	466	-	-	-	0.0	0.2	-	0.2	1.6	0.0	0.2	0.2
1/3+1/4	182	182	-	-	-	0.5	1.1	-	1.6 (0.8+0.8)	31.0 (30.9:31.1)	4.2	1.1	5.3

Full Input Data And Results

2/1	755	755	-	-	-	1.0	0.6	-	1.7	7.9	9.4	0.6	10.1																																																								
2/2	772	772	-	-	-	1.1	0.6	-	1.7	7.9	9.9	0.6	10.5																																																								
3/1	847	847	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																																																								
3/2	862	862	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																																																								
4/1	328	328	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																																																								
4/2	466	466	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																																																								
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C3	Stream: 2 PRC for Signalled Lanes (%)	214.4	Total Delay for Signalled Lanes (pcuHr):	0.33	Cycle Time (s):	120																																																															
	PRC Over All Lanes (%)	2.9	Total Delay Over All Lanes(pcuHr):	31.53																																																																	

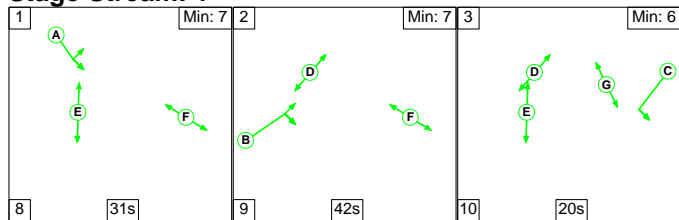
Full Input Data And Results

Scenario 9: '2038 Local Plan Case AM - No LTC - Sensitivity Test' (FG9: '2038 Local Plan Case AM - No LTC - Sensitivity Test', Plan 1: 'Network Control Plan 1')

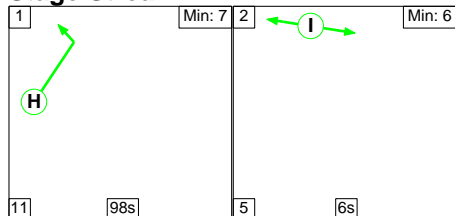
C1

Stage Sequence Diagram

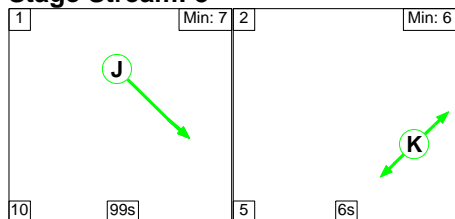
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	31	42	20
Change Point	9	48	99

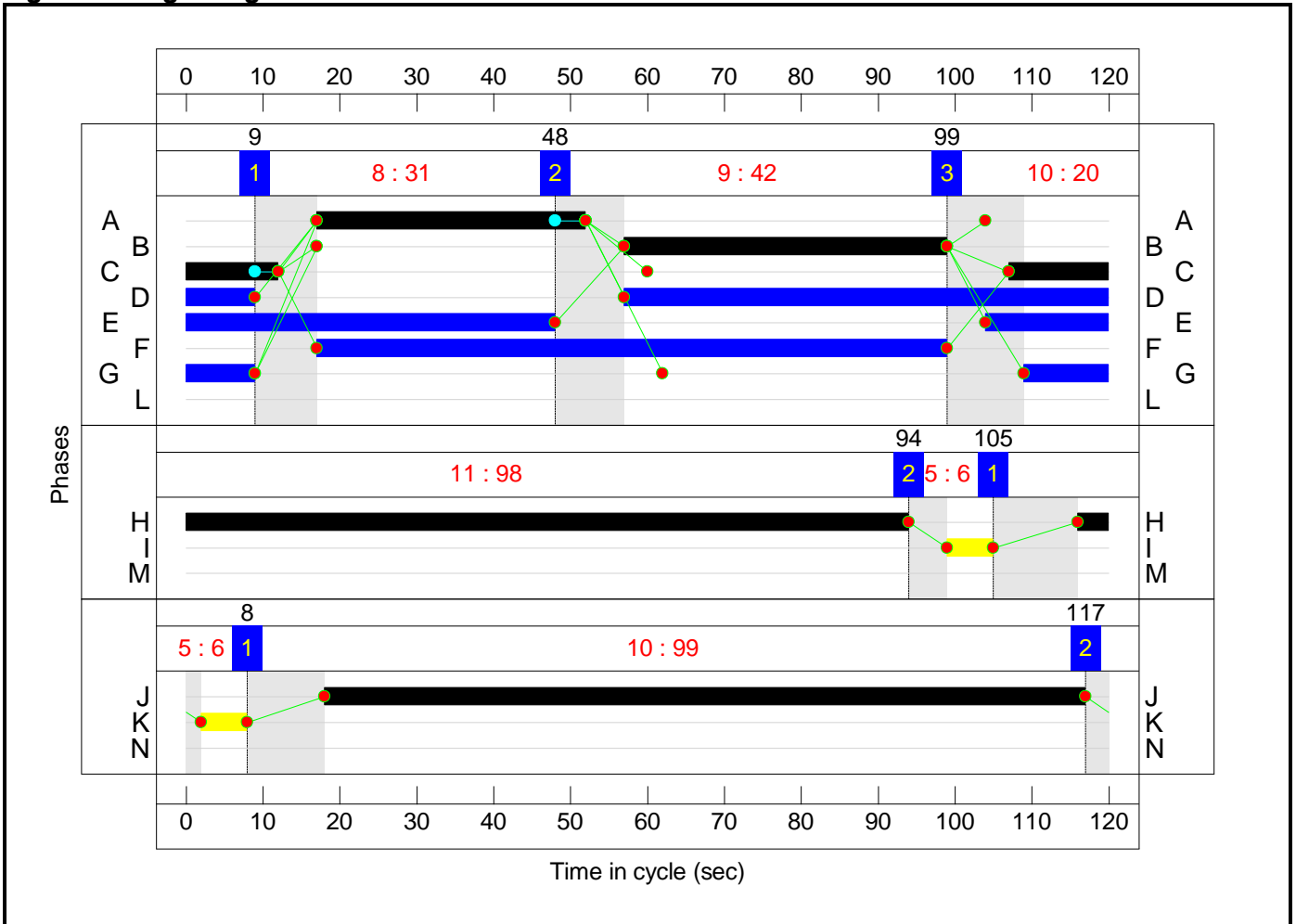
Stage Stream: 2

Stage	1	2
Duration	98	6
Change Point	105	94

Stage Stream: 3

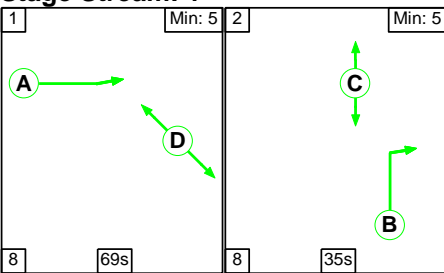
Stage	1	2
Duration	99	6
Change Point	8	117

Signal Timings Diagram

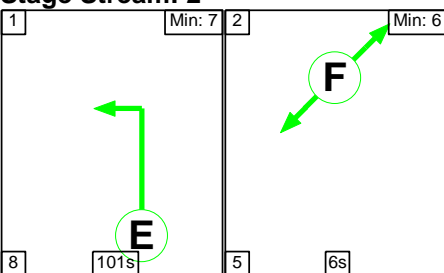


C2 Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Full Input Data And Results

Stage Timings

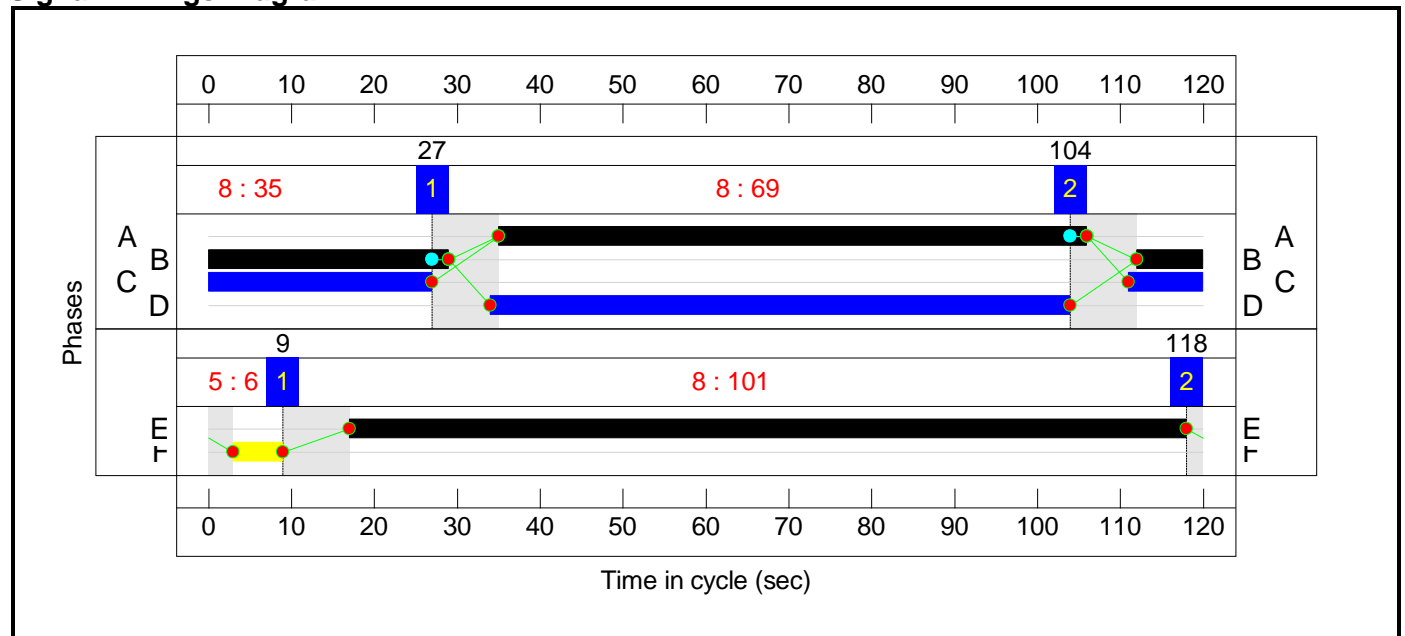
Stage Stream: 1

Stage	1	2
Duration	69	35
Change Point	27	104

Stage Stream: 2

Stage	1	2
Duration	101	6
Change Point	9	118

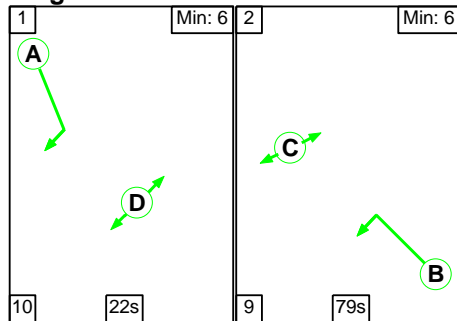
Signal Timings Diagram



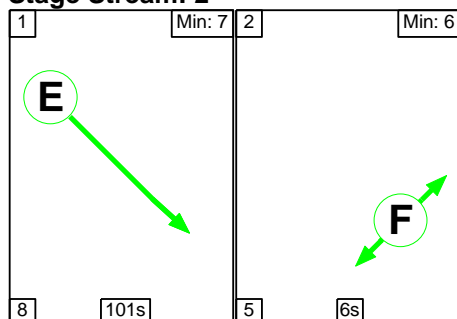
C3

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Full Input Data And Results

Stage Timings

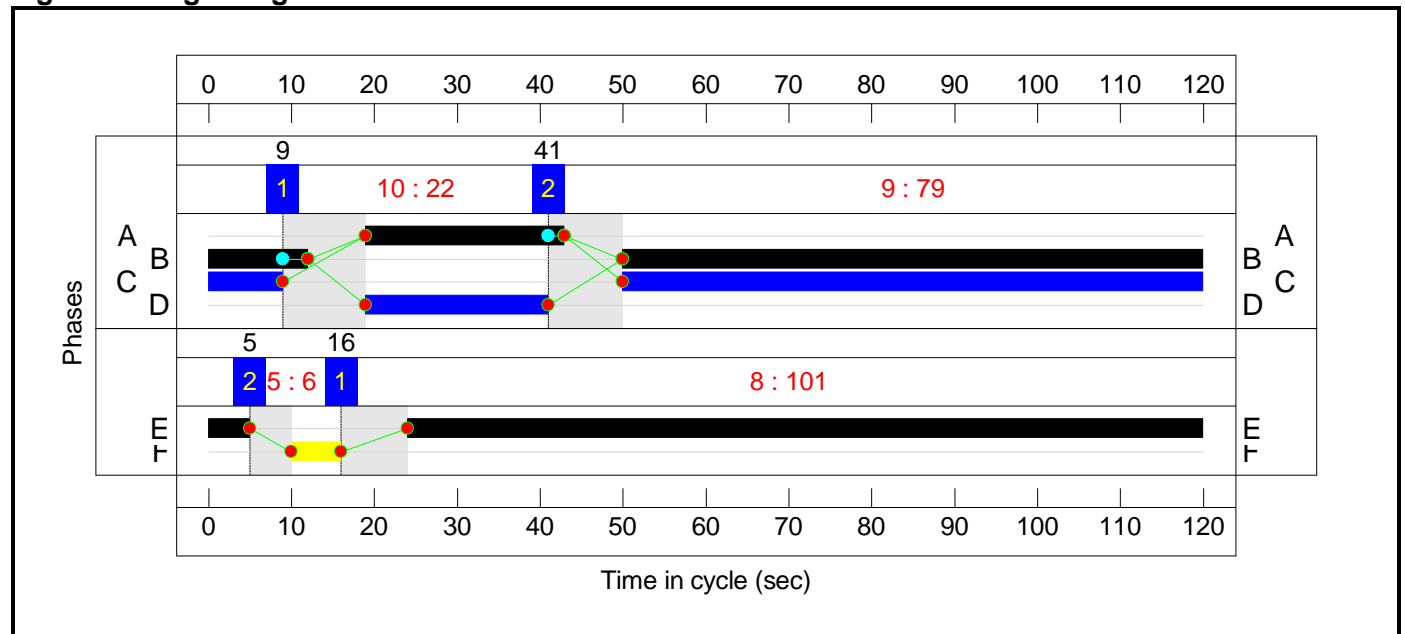
Stage Stream: 1

Stage	1	2
Duration	22	79
Change Point	9	41

Stage Stream: 2

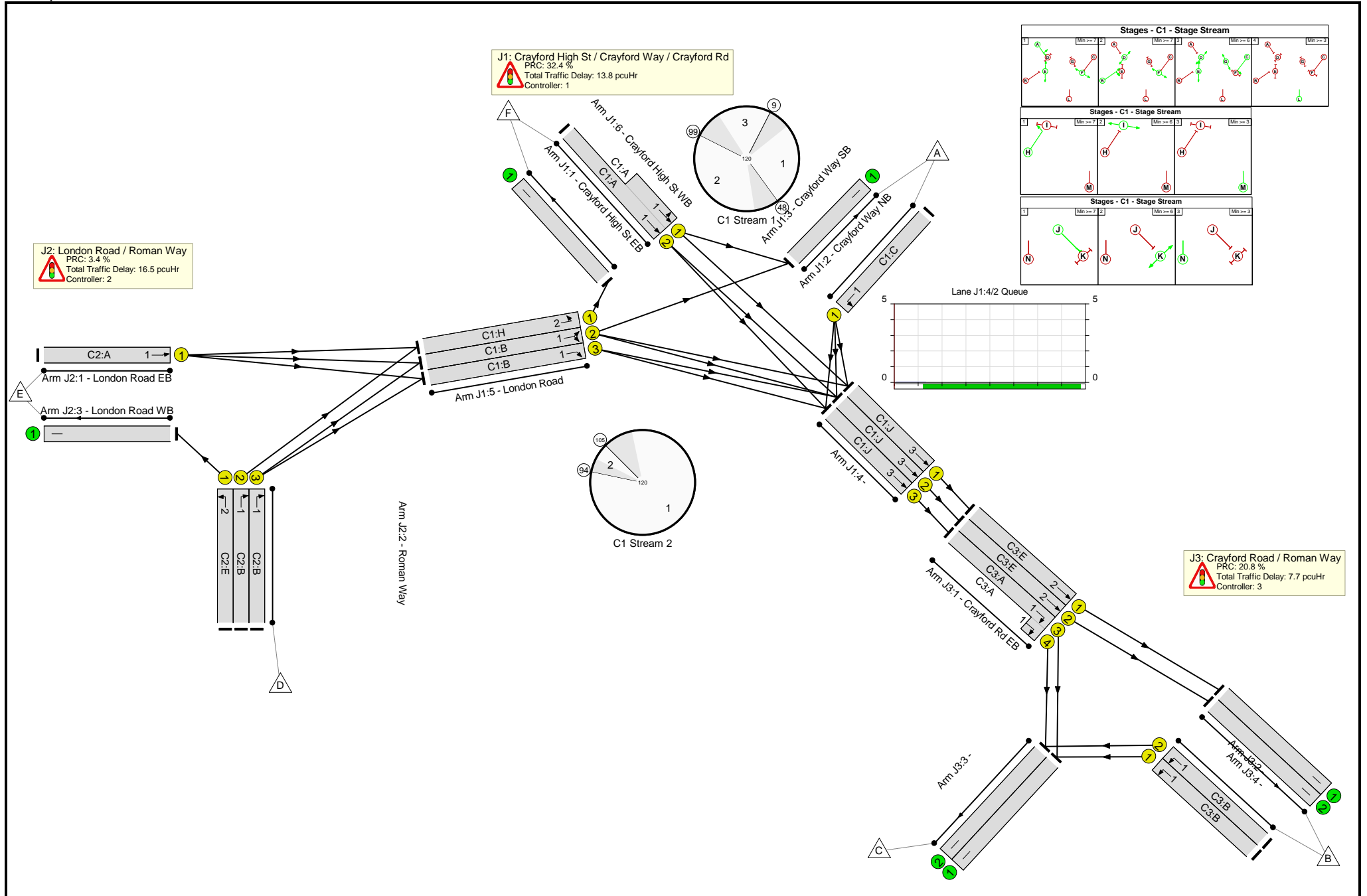
Stage	1	2
Duration	101	6
Change Point	16	5

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	87.1%
J1: Crayford High St / Crayford Way / Crayford Rd	-	-	N/A	-	-		-	-	-	-	-	-	68.0%
1/2+1/1	Crayford High St EB Left Ahead	U	1:1	N/A	C1:A		1	35	-	542	2130:1965	413+384	68.0 : 68.0%
2/1	Crayford Way NB	U	N/A	N/A	-		-	-	-	379	2115	2115	17.9%
3/1	Crayford Way SB Left	U	1:1	N/A	C1:C		1	25	-	199	1943	421	47.3%
4/1	Ahead	U	1:3	N/A	C1:J		1	99	-	267	1915	1596	16.7%
4/2	Ahead	U	1:3	N/A	C1:J		1	99	-	405	2055	1712	23.6%
4/3	Ahead	U	1:3	N/A	C1:J		1	99	-	314	1915	1596	19.7%
5/1	London Road Left	U	1:2	N/A	C1:H		1	98	-	673	1794	1480	45.5%
5/2	London Road Ahead Right	U	1:1	N/A	C1:B		1	42	-	379	1874	672	56.4%
5/3	London Road Right	U	1:1	N/A	C1:B		1	42	-	245	1913	685	35.7%
6/1	Crayford High St WB	U	N/A	N/A	-		-	-	-	673	2015	2015	33.4%
J2: London Road / Roman Way	-	-	N/A	-	-		-	-	-	-	-	-	87.1%
1/1	London Road EB Ahead	U	2:1	N/A	C2:A		1	71	-	886	1915	1149	77.1%
2/1	Roman Way Left	U	2:2	N/A	C2:E		1	101	-	1258	1700	1445	87.1%
2/2	Roman Way Right	U	2:1	N/A	C2:B		1	37	-	403	1782	564	71.4%
2/3	Roman Way Right	U	2:1	N/A	C2:B		1	37	-	8	1750	554	1.4%

Full Input Data And Results

3/1	London Road WB	U	N/A	N/A	-	-	-	-	1258	Inf	Inf	0.0%
J3: Crayford Road / Roman Way	-	-	N/A	-	-	-	-	-	-	-	-	74.5%
1/1	Crayford Rd EB Ahead	U	3:2	N/A	C3:E	1	101	-	267	1915	1628	16.4%
1/2	Crayford Rd EB Ahead	U	3:2	N/A	C3:E	1	101	-	405	1915	1628	24.9%
1/3+1/4	Crayford Rd EB Right	U	3:1	N/A	C3:A	1	24	-	314	1743:1700	213+208	74.5 : 74.5%
2/1	Left	U	3:1	N/A	C3:B	1	82	-	669	1745	1207	55.4%
2/2	Left	U	3:1	N/A	C3:B	1	82	-	683	1772	1226	55.7%
3/1		U	N/A	N/A	-	-	-	-	828	Inf	Inf	0.0%
3/2		U	N/A	N/A	-	-	-	-	838	Inf	Inf	0.0%
4/1		U	N/A	N/A	-	-	-	-	267	Inf	Inf	0.0%
4/2		U	N/A	N/A	-	-	-	-	405	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	25.4	12.7	0.0	38.0	-	-	-	-
J1: Crayford High St / Crayford Way / Crayford Rd	-	-	0	0	0	10.3	3.6	0.0	13.8	-	-	-	-
1/2+1/1	542	542	-	-	-	5.1	1.1	-	6.2 (3.2+3.0)	41.1 (41.0:41.2)	9.6	1.1	10.7
2/1	379	379	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
3/1	199	199	-	-	-	2.3	0.4	-	2.7	49.1	5.7	0.4	6.2
4/1	267	267	-	-	-	0.0	0.1	-	0.1	1.5	3.3	0.1	3.4
4/2	405	405	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
4/3	314	314	-	-	-	0.3	0.1	-	0.4	4.9	2.9	0.1	3.0
5/1	673	673	-	-	-	0.2	0.4	-	0.6	3.1	1.6	0.4	2.0
5/2	379	379	-	-	-	1.5	0.6	-	2.2	20.8	8.1	0.6	8.7
5/3	245	245	-	-	-	0.8	0.3	-	1.1	16.4	4.0	0.3	4.3
6/1	673	673	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3
J2: London Road / Roman Way	-	-	0	0	0	10.3	6.2	0.0	16.5	-	-	-	-
1/1	886	886	-	-	-	4.4	1.7	-	6.1	24.6	21.9	1.7	23.6
2/1	1258	1258	-	-	-	1.8	3.3	-	5.1	14.5	24.1	3.3	27.4
2/2	403	403	-	-	-	4.1	1.2	-	5.3	47.2	11.8	1.2	13.0
2/3	8	8	-	-	-	0.1	0.0	-	0.1	31.7	0.2	0.0	0.2
3/1	1258	1258	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Crayford Road / Roman Way	-	-	0	0	0	4.8	2.9	0.0	7.7	-	-	-	-
1/1	267	267	-	-	-	0.0	0.1	-	0.1	1.3	0.0	0.1	0.1
1/2	405	405	-	-	-	0.0	0.2	-	0.2	1.5	0.0	0.2	0.2
1/3+1/4	314	314	-	-	-	1.3	1.4	-	2.7 (1.4+1.3)	31.3 (31.3:31.3)	3.5	1.4	4.9

Full Input Data And Results

2/1	669	669	-	-	-	1.7	0.6	-	2.3	12.6	11.1	0.6	11.8
2/2	683	683	-	-	-	1.8	0.6	-	2.4	12.6	11.4	0.6	12.0
3/1	828	828	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	838	838	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	267	267	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	405	405	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
			C1	Stream: 1 PRC for Signalled Lanes (%)	32.4	Total Delay for Signalled Lanes (pcuHr):			12.21	Cycle Time (s): 120			
			C1	Stream: 2 PRC for Signalled Lanes (%)	97.9	Total Delay for Signalled Lanes (pcuHr):			0.58	Cycle Time (s): 120			
			C1	Stream: 3 PRC for Signalled Lanes (%)	280.6	Total Delay for Signalled Lanes (pcuHr):			0.70	Cycle Time (s): 120			
			C2	Stream: 1 PRC for Signalled Lanes (%)	16.7	Total Delay for Signalled Lanes (pcuHr):			11.41	Cycle Time (s): 120			
			C2	Stream: 2 PRC for Signalled Lanes (%)	3.4	Total Delay for Signalled Lanes (pcuHr):			5.07	Cycle Time (s): 120			
			C3	Stream: 1 PRC for Signalled Lanes (%)	20.8	Total Delay for Signalled Lanes (pcuHr):			7.46	Cycle Time (s): 120			
			C3	Stream: 2 PRC for Signalled Lanes (%)	261.7	Total Delay for Signalled Lanes (pcuHr):			0.27	Cycle Time (s): 120			
			PRC Over All Lanes (%)		3.4	Total Delay Over All Lanes(pcuHr):			38.05				

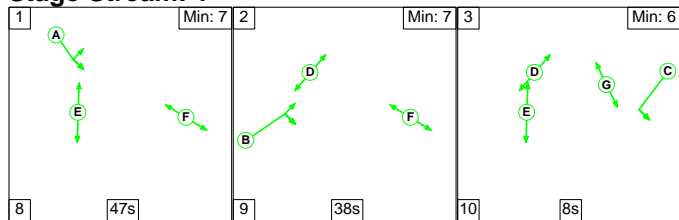
Full Input Data And Results

Scenario 10: '2038 Local Plan Case PM - No LTC - Sensitivity Test' (FG10: '2038 Local Plan Case PM - No LTC - Sensitivity Test', Plan 1: 'Network Control Plan 1')

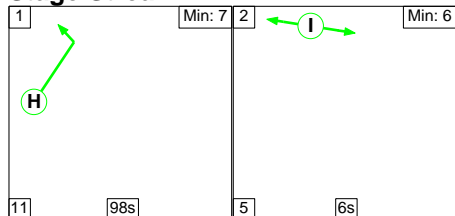
C1

Stage Sequence Diagram

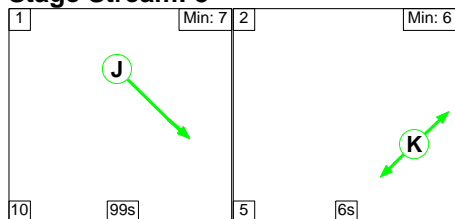
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	47	38	8
Change Point	47	102	29

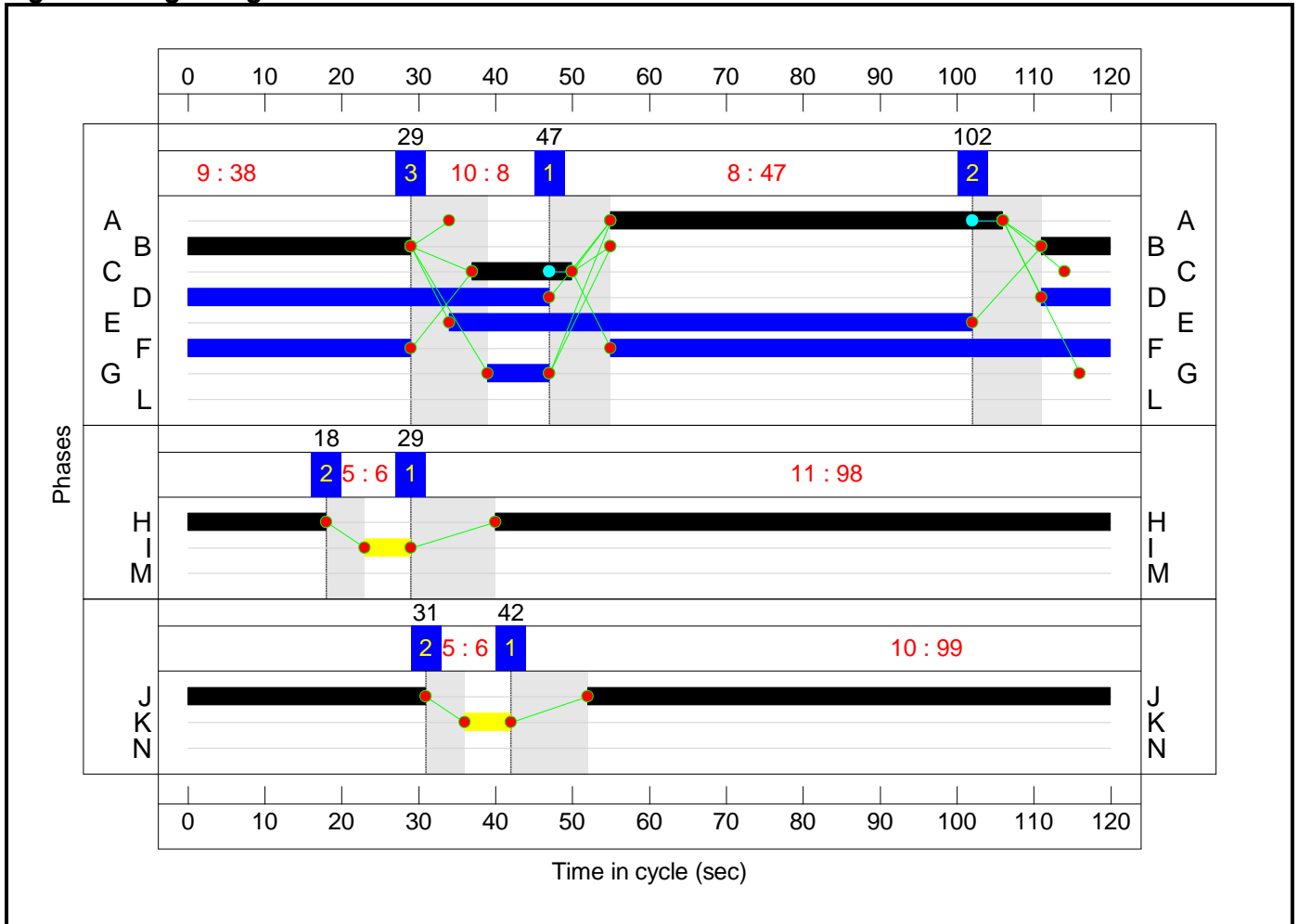
Stage Stream: 2

Stage	1	2
Duration	98	6
Change Point	29	18

Stage Stream: 3

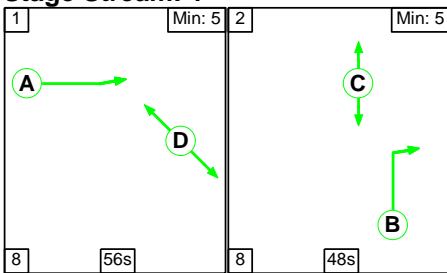
Stage	1	2
Duration	99	6
Change Point	42	31

Signal Timings Diagram

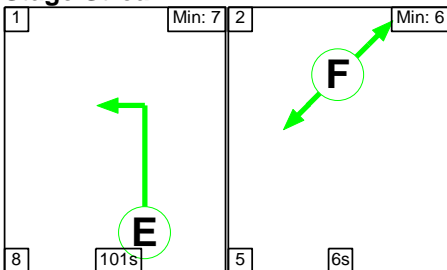


C2 Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Full Input Data And Results

Stage Timings

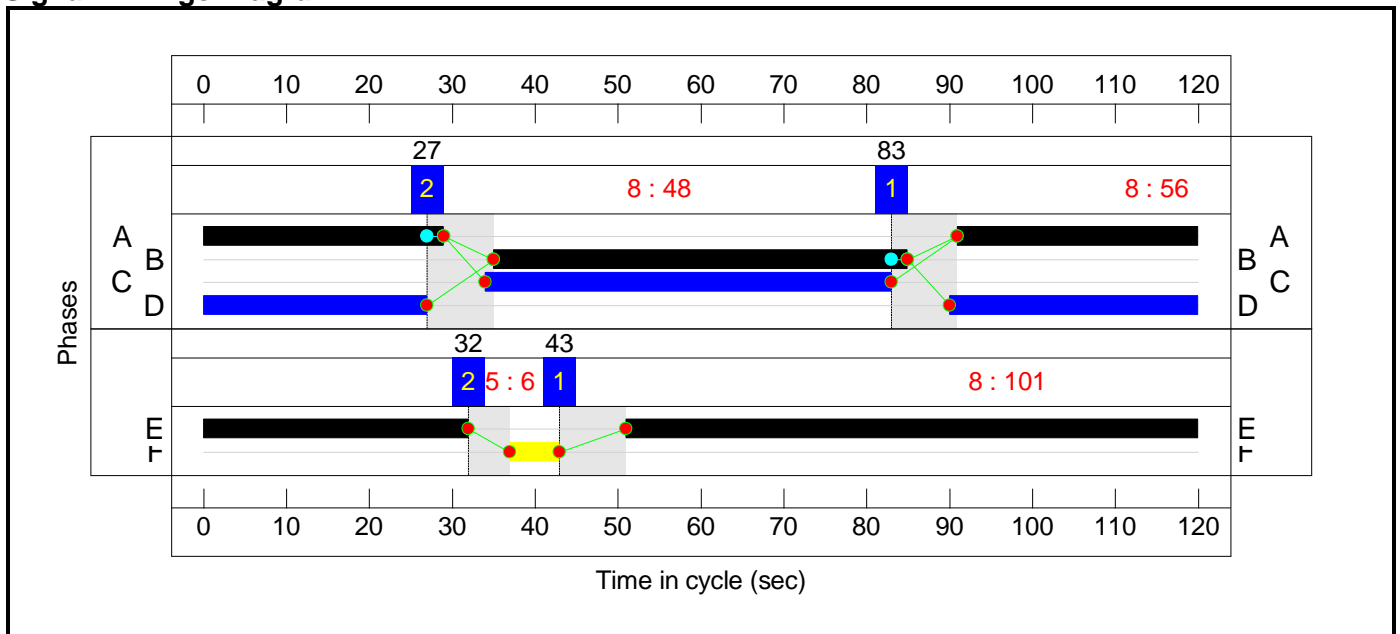
Stage Stream: 1

Stage	1	2
Duration	56	48
Change Point	83	27

Stage Stream: 2

Stage	1	2
Duration	101	6
Change Point	43	32

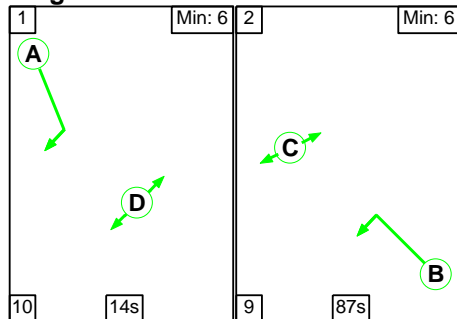
Signal Timings Diagram



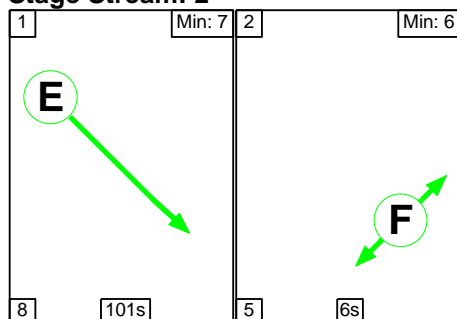
C3

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Full Input Data And Results

Stage Timings

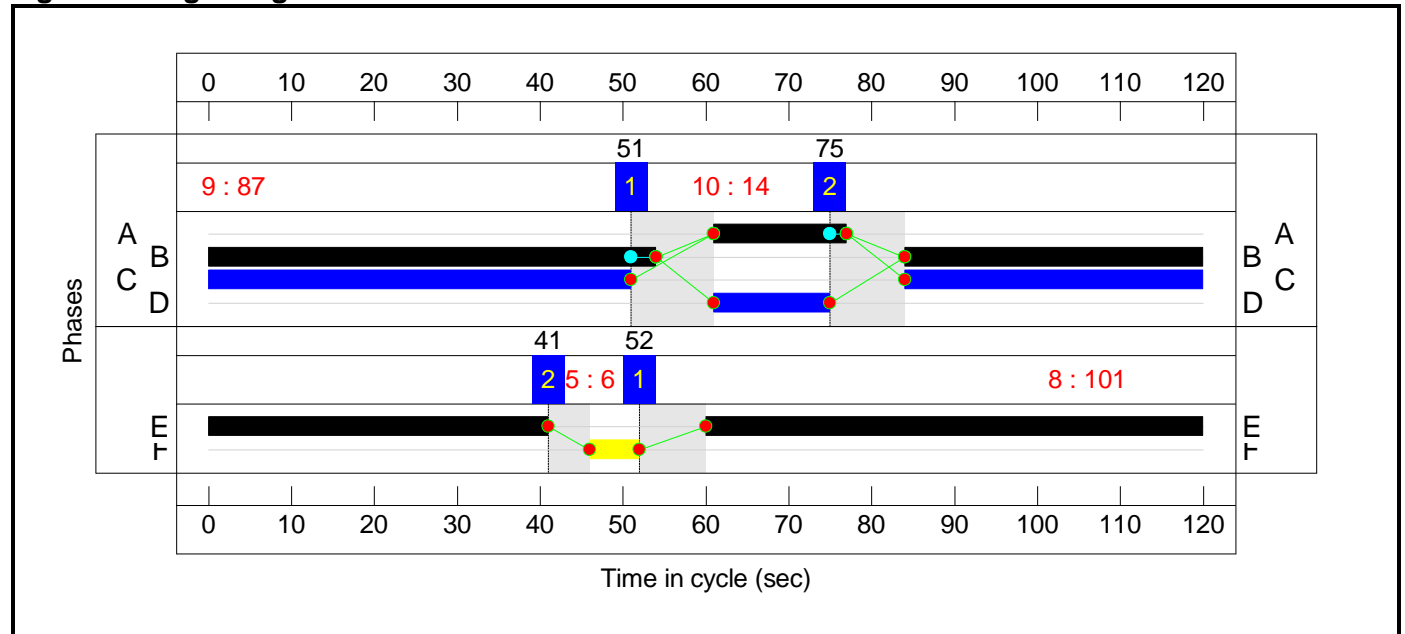
Stage Stream: 1

Stage	1	2
Duration	14	87
Change Point	51	75

Stage Stream: 2

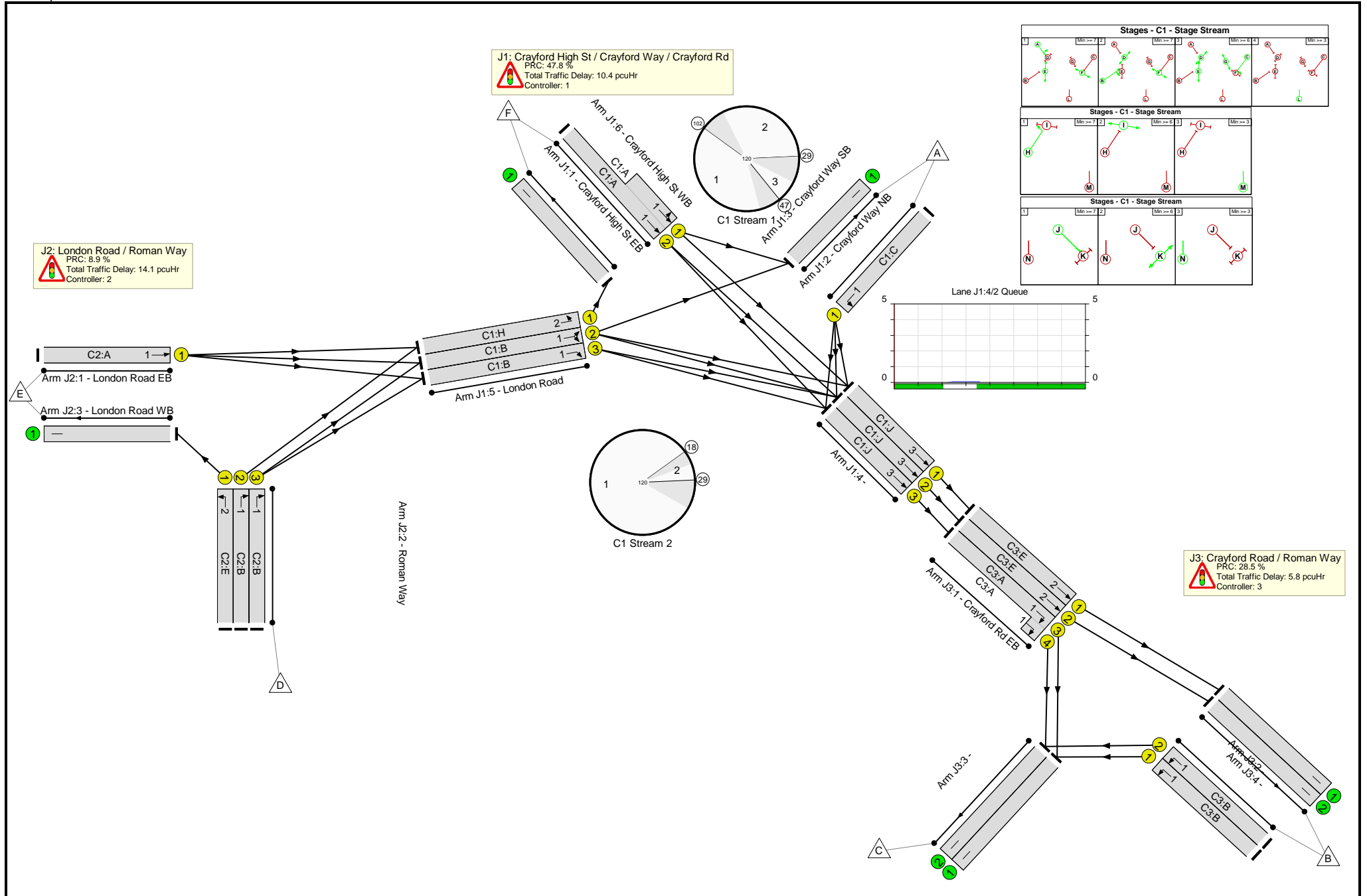
Stage	1	2
Duration	101	6
Change Point	52	41

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	82.6%
J1: Crayford High St / Crayford Way / Crayford Rd	-	-	N/A	-	-		-	-	-	-	-	-	60.9%
1/2+1/1	Crayford High St EB Left Ahead	U	1:1	N/A	C1:A		1	51	-	567	2130:1965	544+527	53.0 : 53.0%
2/1	Crayford Way NB	U	N/A	N/A	-		-	-	-	234	2115	2115	11.1%
3/1	Crayford Way SB Left	U	1:1	N/A	C1:C		1	13	-	138	1943	227	60.9%
4/1	Ahead	U	1:3	N/A	C1:J		1	99	-	295	1915	1596	18.5%
4/2	Ahead	U	1:3	N/A	C1:J		1	99	-	458	2055	1712	26.7%
4/3	Ahead	U	1:3	N/A	C1:J		1	99	-	215	1915	1596	13.5%
5/1	London Road Left	U	1:2	N/A	C1:H		1	98	-	663	1794	1480	44.8%
5/2	London Road Ahead Right	U	1:1	N/A	C1:B		1	38	-	246	1875	609	40.4%
5/3	London Road Right	U	1:1	N/A	C1:B		1	38	-	251	1913	622	40.4%
6/1	Crayford High St WB	U	N/A	N/A	-		-	-	-	663	2015	2015	32.9%
J2: London Road / Roman Way	-	-	N/A	-	-		-	-	-	-	-	-	82.6%
1/1	London Road EB Ahead	U	2:1	N/A	C2:A		1	58	-	674	1915	942	71.6%
2/1	Roman Way Left	U	2:2	N/A	C2:E		1	101	-	1194	1700	1445	82.6%
2/2	Roman Way Right	U	2:1	N/A	C2:B		1	50	-	479	1782	757	63.2%
2/3	Roman Way Right	U	2:1	N/A	C2:B		1	50	-	7	1750	744	0.9%

Full Input Data And Results

3/1	London Road WB	U	N/A	N/A	-	-	-	-	1194	Inf	Inf	0.0%
J3: Crayford Road / Roman Way	-	-	N/A	-	-	-	-	-	-	-	-	70.0%
1/1	Crayford Rd EB Ahead	U	3:2	N/A	C3:E	1	101	-	295	1915	1628	18.1%
1/2	Crayford Rd EB Ahead	U	3:2	N/A	C3:E	1	101	-	458	1915	1628	28.1%
1/3+1/4	Crayford Rd EB Right	U	3:1	N/A	C3:A	1	16	-	215	1743:1700	154+153	70.0 : 70.0%
2/1	Left	U	3:1	N/A	C3:B	1	90	-	719	1745	1323	54.3%
2/2	Left	U	3:1	N/A	C3:B	1	90	-	735	1772	1344	54.7%
3/1		U	N/A	N/A	-	-	-	-	827	Inf	Inf	0.0%
3/2		U	N/A	N/A	-	-	-	-	842	Inf	Inf	0.0%
4/1		U	N/A	N/A	-	-	-	-	295	Inf	Inf	0.0%
4/2		U	N/A	N/A	-	-	-	-	458	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	20.2	10.2	0.0	30.4	-	-	-	-
J1: Crayford High St / Crayford Way / Crayford Rd	-	-	0	0	0	7.3	3.1	0.0	10.4	-	-	-	-
1/2+1/1	567	567	-	-	-	3.5	0.6	-	4.1 (2.1+2.0)	25.9 (25.9:26.0)	6.8	0.6	7.4
2/1	234	234	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
3/1	138	138	-	-	-	1.9	0.8	-	2.7	70.4	4.4	0.8	5.1
4/1	295	295	-	-	-	0.0	0.1	-	0.1	1.5	3.8	0.1	3.9
4/2	458	458	-	-	-	0.0	0.2	-	0.2	1.5	0.1	0.2	0.3
4/3	215	215	-	-	-	0.5	0.1	-	0.5	8.9	5.0	0.1	5.1
5/1	663	663	-	-	-	0.1	0.4	-	0.5	2.8	1.0	0.4	1.4
5/2	246	246	-	-	-	0.7	0.3	-	1.0	15.2	4.4	0.3	4.7
5/3	251	251	-	-	-	0.6	0.3	-	0.9	13.6	4.3	0.3	4.7
6/1	663	663	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
J2: London Road / Roman Way	-	-	0	0	0	9.6	4.4	0.0	14.1	-	-	-	-
1/1	674	674	-	-	-	4.5	1.2	-	5.7	30.6	17.6	1.2	18.8
2/1	1194	1194	-	-	-	1.5	2.3	-	3.8	11.6	19.9	2.3	22.2
2/2	479	479	-	-	-	3.6	0.9	-	4.5	33.6	12.5	0.9	13.4
2/3	7	7	-	-	-	0.0	0.0	-	0.0	22.6	0.1	0.0	0.1
3/1	1194	1194	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Crayford Road / Roman Way	-	-	0	0	0	3.2	2.6	0.0	5.8	-	-	-	-
1/1	295	295	-	-	-	0.0	0.1	-	0.1	1.4	0.1	0.1	0.2
1/2	458	458	-	-	-	0.0	0.2	-	0.2	1.6	0.1	0.2	0.3
1/3+1/4	215	215	-	-	-	0.8	1.1	-	1.9 (1.0+1.0)	32.2 (32.1:32.2)	4.2	1.1	5.3

Full Input Data And Results

2/1	719	719	-	-	-	1.2	0.6	-	1.8	8.9	9.8	0.6	10.4																																																								
2/2	735	735	-	-	-	1.2	0.6	-	1.8	8.9	10.0	0.6	10.6																																																								
3/1	827	827	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																																																								
3/2	842	842	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																																																								
4/1	295	295	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																																																								
4/2	458	458	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																																																								
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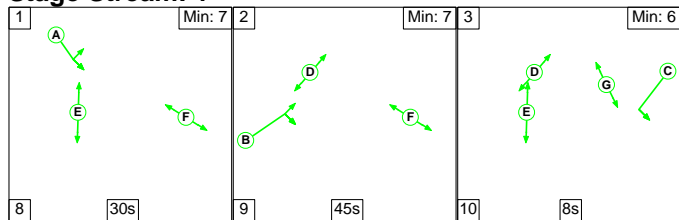
Full Input Data And Results

Scenario 11: '2038 Local Plan Case AM - With LTC - Sensivity Test' (FG11: '2038 Local Plan Case AM - With LTC - Sensivity Test', Plan 1: 'Network Control Plan 1')

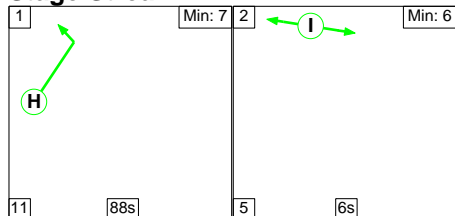
C1

Stage Sequence Diagram

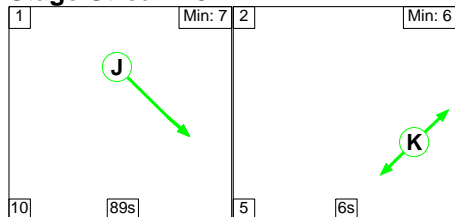
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	30	45	8
Change Point	0	38	92

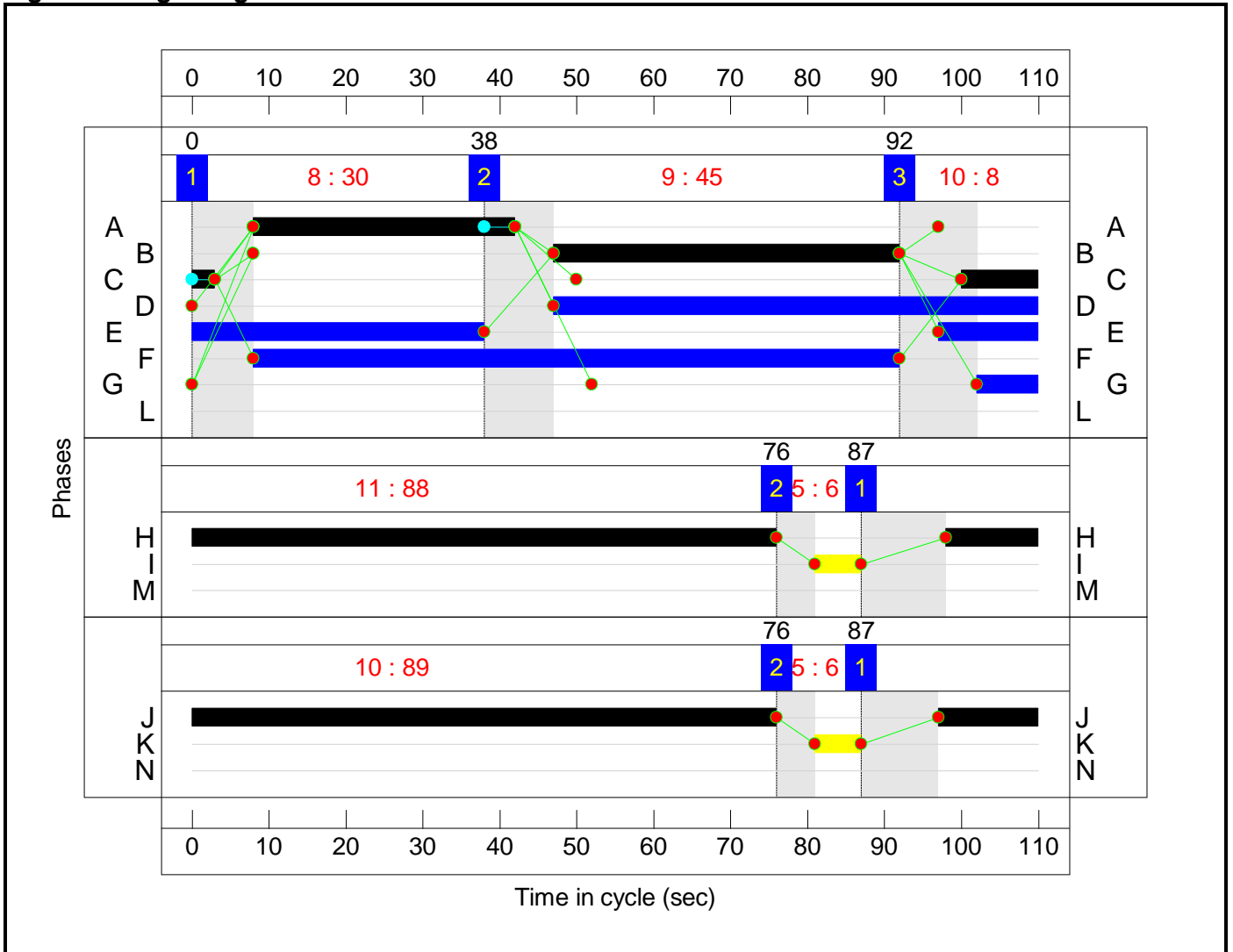
Stage Stream: 2

Stage	1	2
Duration	88	6
Change Point	87	76

Stage Stream: 3

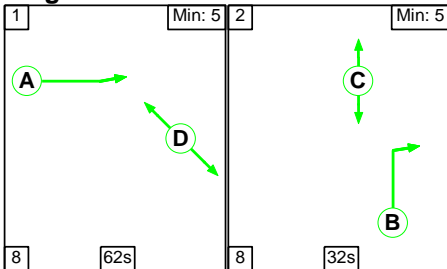
Stage	1	2
Duration	89	6
Change Point	87	76

Signal Timings Diagram

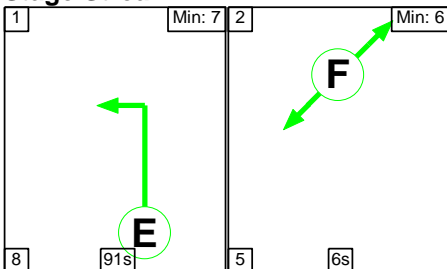


C2 Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Full Input Data And Results

Stage Timings

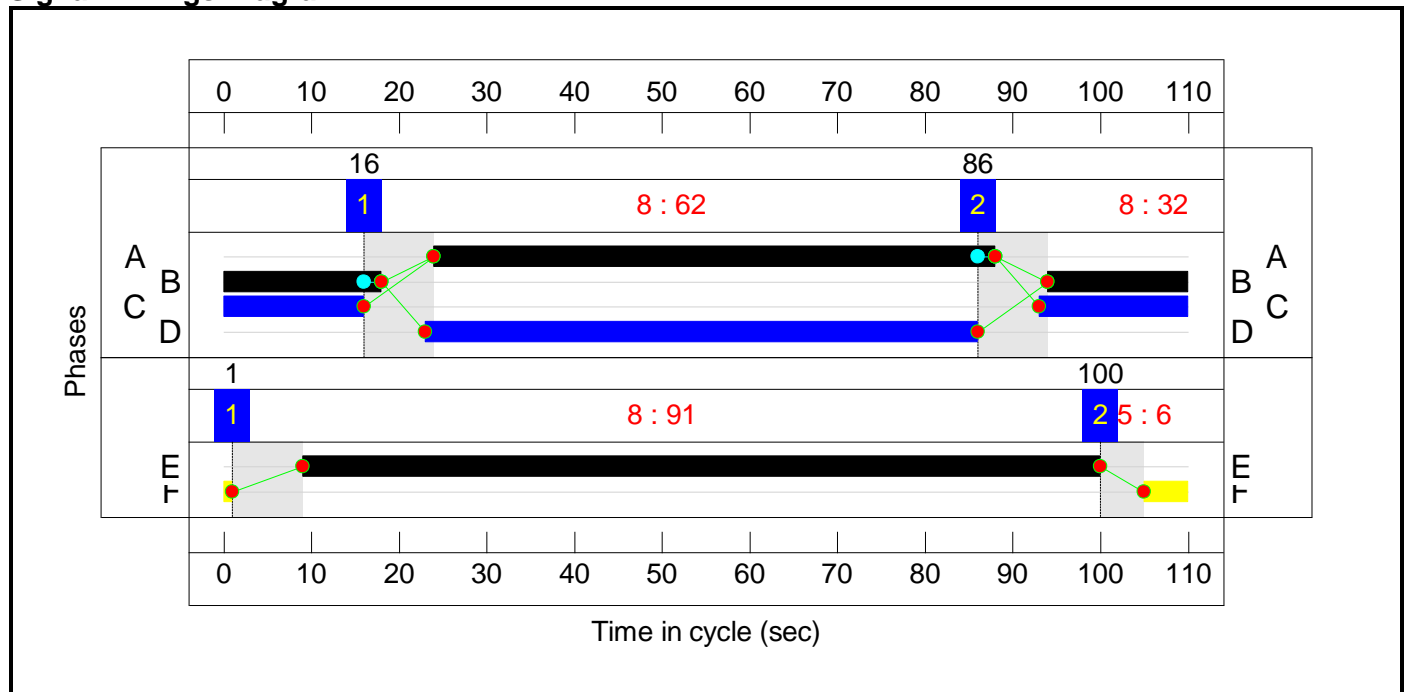
Stage Stream: 1

Stage	1	2
Duration	62	32
Change Point	16	86

Stage Stream: 2

Stage	1	2
Duration	91	6
Change Point	1	100

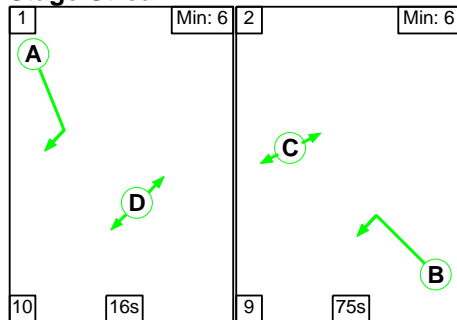
Signal Timings Diagram



C3

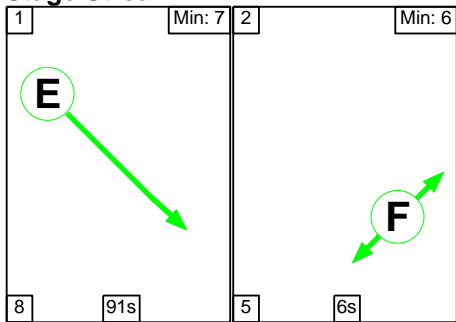
Stage Sequence Diagram

Stage Stream: 1



Full Input Data And Results

Stage Stream: 2



Stage Timings

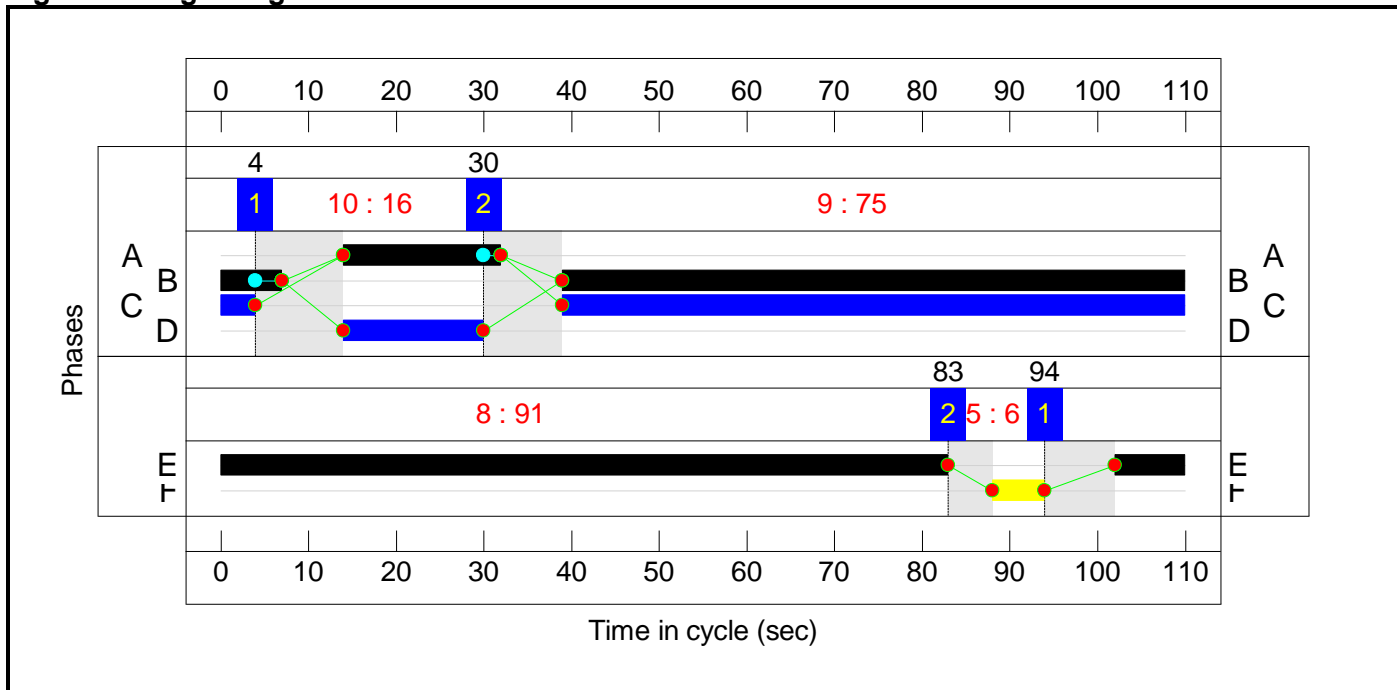
Stage Stream: 1

Stage	1	2
Duration	16	75
Change Point	4	30

Stage Stream: 2

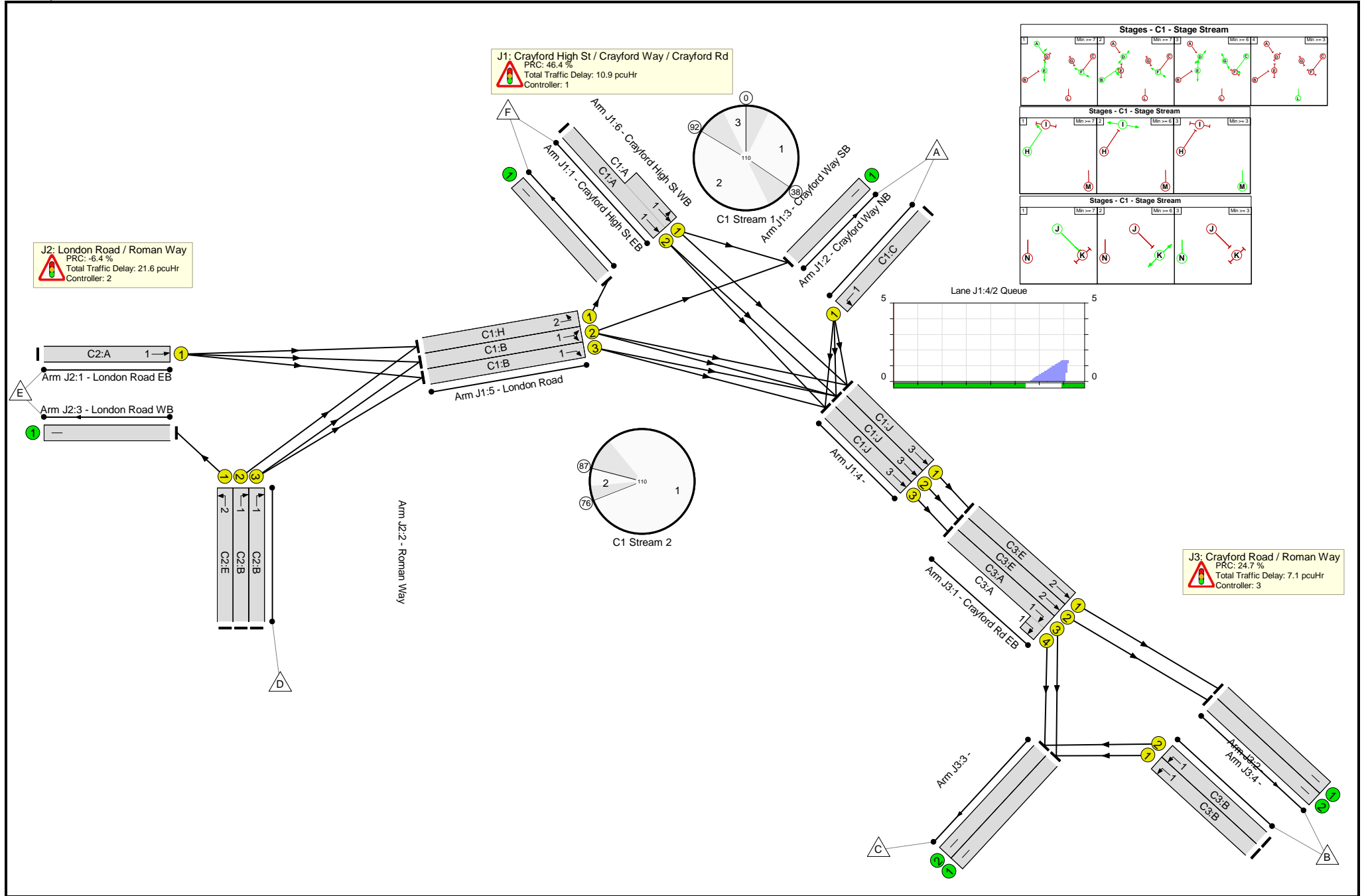
Stage	1	2
Duration	91	6
Change Point	94	83

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	95.8%
J1: Crayford High St / Crayford Way / Crayford Rd	-	-	N/A	-	-		-	-	-	-	-	-	61.5%
1/2+1/1	Crayford High St EB Left Ahead	U	1:1	N/A	C1:A		1	34	-	521	2130:1965	437+416	61.1 : 61.1%
2/1	Crayford Way NB	U	N/A	N/A	-		-	-	-	346	2115	2115	16.4%
3/1	Crayford Way SB Left	U	1:1	N/A	C1:C		1	13	-	152	1943	247	61.5%
4/1	Ahead	U	1:3	N/A	C1:J		1	89	-	261	1915	1567	16.7%
4/2	Ahead	U	1:3	N/A	C1:J		1	89	-	401	2055	1681	23.8%
4/3	Ahead	U	1:3	N/A	C1:J		1	89	-	264	1915	1567	16.8%
5/1	London Road Left	U	1:2	N/A	C1:H		1	88	-	647	1794	1452	44.6%
5/2	London Road Ahead Right	U	1:1	N/A	C1:B		1	45	-	346	1874	784	44.2%
5/3	London Road Right	U	1:1	N/A	C1:B		1	45	-	253	1913	800	31.6%
6/1	Crayford High St WB	U	N/A	N/A	-		-	-	-	647	2015	2015	32.1%
J2: London Road / Roman Way	-	-	N/A	-	-		-	-	-	-	-	-	95.8%
1/1	London Road EB Ahead	U	2:1	N/A	C2:A		1	64	-	853	1915	1132	75.4%
2/1	Roman Way Left	U	2:2	N/A	C2:E		1	91	-	1362	1700	1422	95.8%
2/2	Roman Way Right	U	2:1	N/A	C2:B		1	34	-	385	1782	567	67.9%
2/3	Roman Way Right	U	2:1	N/A	C2:B		1	34	-	8	1750	557	1.4%

Full Input Data And Results

3/1	London Road WB	U	N/A	N/A	-	-	-	-	1362	Inf	Inf	0.0%
J3: Crayford Road / Roman Way	-	-	N/A	-	-	-	-	-	-	-	-	72.2%
1/1	Crayford Rd EB Ahead	U	3:2	N/A	C3:E	1	91	-	261	1915	1602	16.3%
1/2	Crayford Rd EB Ahead	U	3:2	N/A	C3:E	1	91	-	401	1915	1602	25.0%
1/3+1/4	Crayford Rd EB Right	U	3:1	N/A	C3:A	1	18	-	264	1743:1700	186+180	72.2 : 72.2%
2/1	Left	U	3:1	N/A	C3:B	1	78	-	733	1745	1253	58.5%
2/2	Left	U	3:1	N/A	C3:B	1	78	-	748	1772	1273	58.8%
3/1		U	N/A	N/A	-	-	-	-	867	Inf	Inf	0.0%
3/2		U	N/A	N/A	-	-	-	-	878	Inf	Inf	0.0%
4/1		U	N/A	N/A	-	-	-	-	261	Inf	Inf	0.0%
4/2		U	N/A	N/A	-	-	-	-	401	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	22.1	17.6	0.0	39.7	-	-	-	-
J1: Crayford High St / Crayford Way / Crayford Rd	-	-	0	0	0	7.7	3.3	0.0	10.9	-	-	-	-
1/2+1/1	521	521	-	-	-	4.2	0.8	-	5.0 (2.6+2.5)	34.7 (34.6:34.8)	6.9	0.8	7.7
2/1	346	346	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
3/1	152	152	-	-	-	1.9	0.8	-	2.7	64.0	4.4	0.8	5.2
4/1	261	261	-	-	-	0.0	0.1	-	0.1	1.4	3.7	0.1	3.8
4/2	401	401	-	-	-	0.1	0.2	-	0.3	2.7	1.3	0.2	1.5
4/3	264	264	-	-	-	0.0	0.1	-	0.1	1.4	0.0	0.1	0.1
5/1	647	647	-	-	-	0.2	0.4	-	0.6	3.2	1.5	0.4	1.9
5/2	346	346	-	-	-	0.8	0.4	-	1.2	12.0	5.9	0.4	6.3
5/3	253	253	-	-	-	0.4	0.2	-	0.7	9.4	3.5	0.2	3.7
6/1	647	647	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
J2: London Road / Roman Way	-	-	0	0	0	10.3	11.4	0.0	21.6	-	-	-	-
1/1	853	853	-	-	-	3.9	1.5	-	5.4	23.0	19.2	1.5	20.7
2/1	1362	1362	-	-	-	2.8	8.8	-	11.6	30.7	34.0	8.8	42.8
2/2	385	385	-	-	-	3.5	1.0	-	4.5	42.4	10.2	1.0	11.2
2/3	8	8	-	-	-	0.1	0.0	-	0.1	29.2	0.2	0.0	0.2
3/1	1362	1362	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Crayford Road / Roman Way	-	-	0	0	0	4.2	2.9	0.0	7.1	-	-	-	-
1/1	261	261	-	-	-	0.0	0.1	-	0.1	1.3	0.0	0.1	0.1
1/2	401	401	-	-	-	0.0	0.2	-	0.2	1.7	0.1	0.2	0.3
1/3+1/4	264	264	-	-	-	1.1	1.3	-	2.3 (1.2+1.1)	31.7 (31.7:31.7)	4.0	1.3	5.3

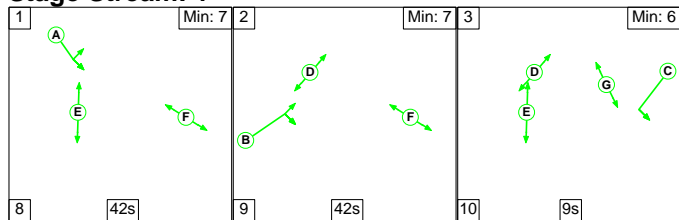
Full Input Data And Results

2/1	733	733	-	-	-	1.5	0.7	-	2.2	11.0	10.8	0.7	11.5																																																								
2/2	748	748	-	-	-	1.6	0.7	-	2.3	11.0	11.0	0.7	11.7																																																								
3/1	867	867	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																																																								
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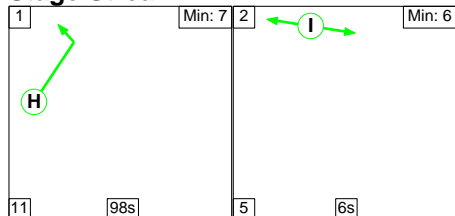
C1

Stage Sequence Diagram

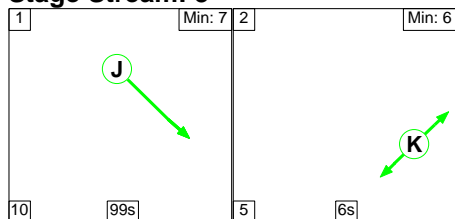
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	42	42	9
Change Point	53	103	34

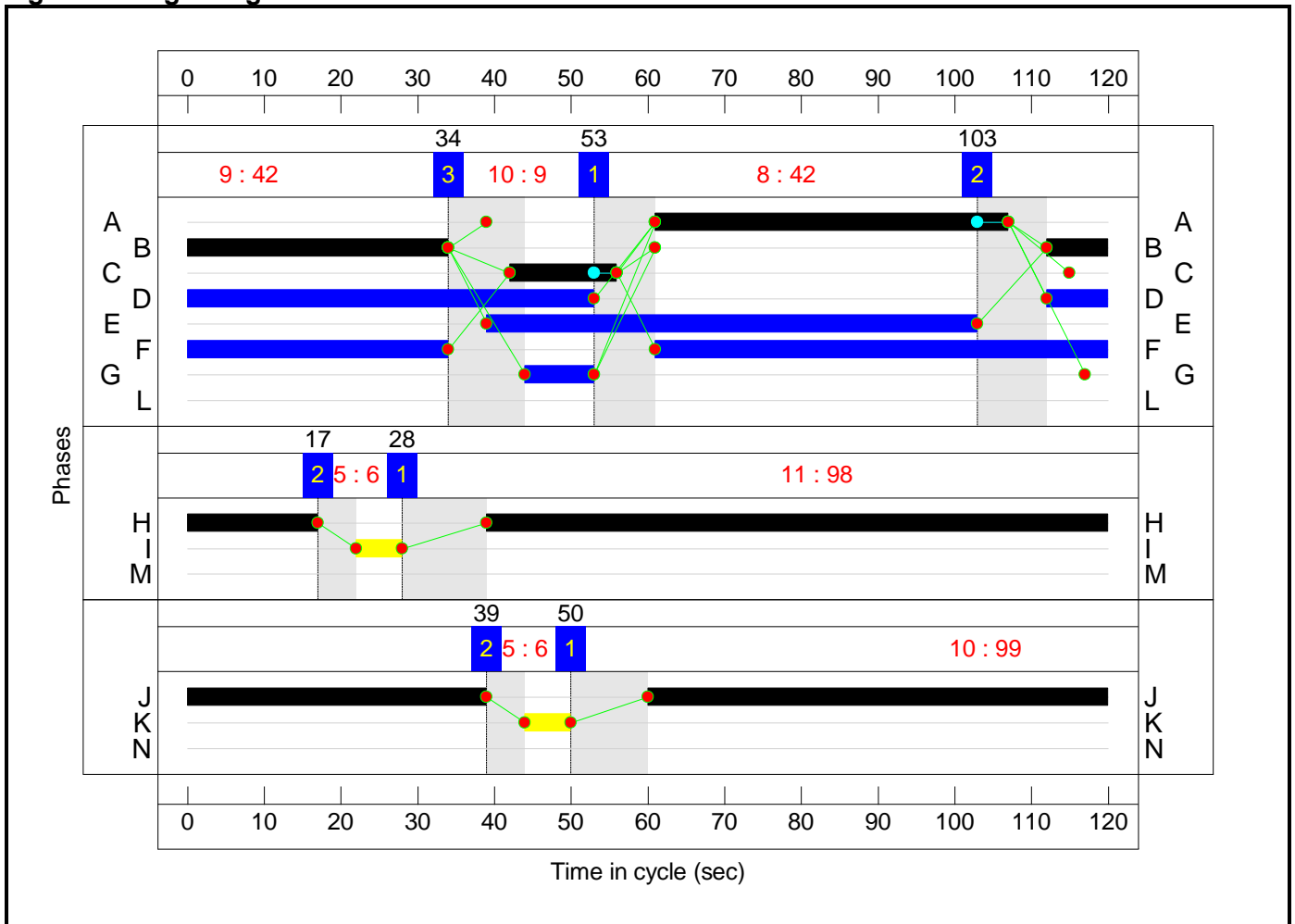
Stage Stream: 2

Stage	1	2
Duration	98	6
Change Point	28	17

Stage Stream: 3

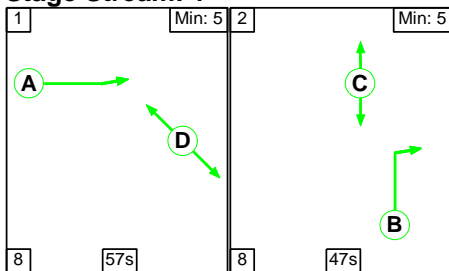
Stage	1	2
Duration	99	6
Change Point	50	39

Signal Timings Diagram

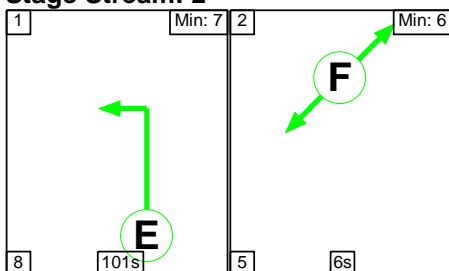


C2 Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Full Input Data And Results

Stage Timings

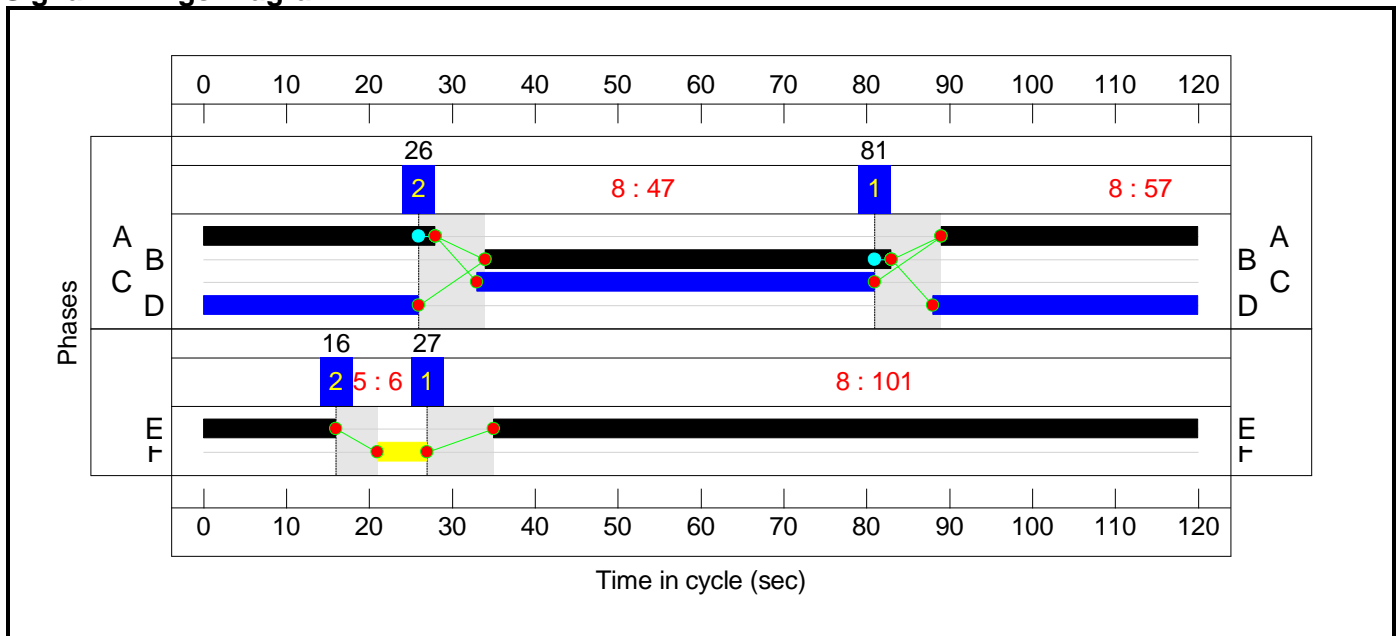
Stage Stream: 1

Stage	1	2
Duration	57	47
Change Point	81	26

Stage Stream: 2

Stage	1	2
Duration	101	6
Change Point	27	16

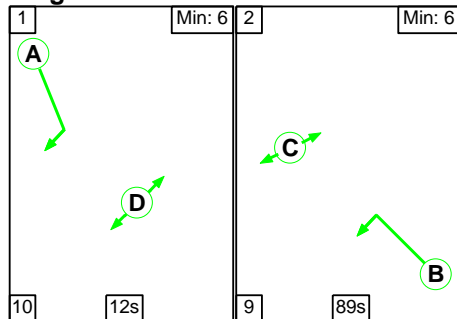
Signal Timings Diagram



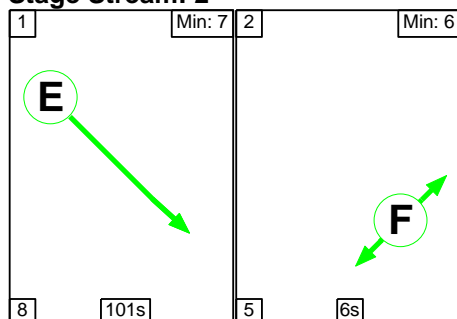
C3

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Full Input Data And Results

Stage Timings

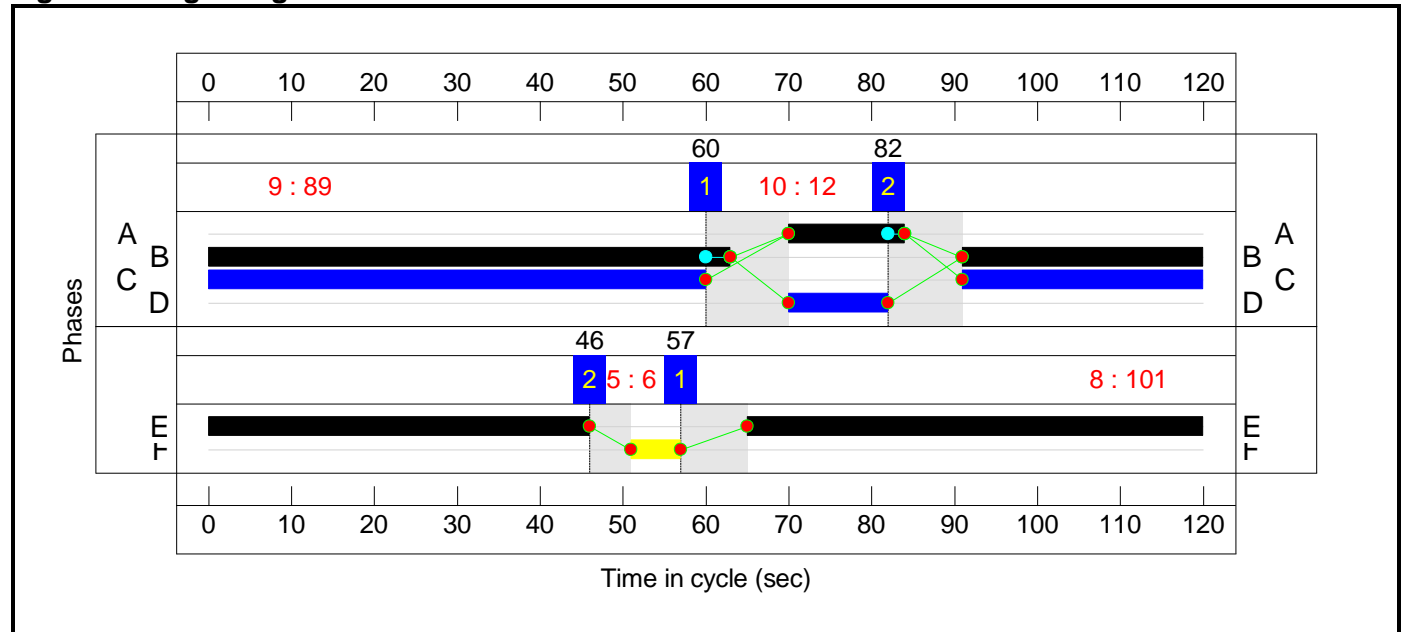
Stage Stream: 1

Stage	1	2
Duration	12	89
Change Point	60	82

Stage Stream: 2

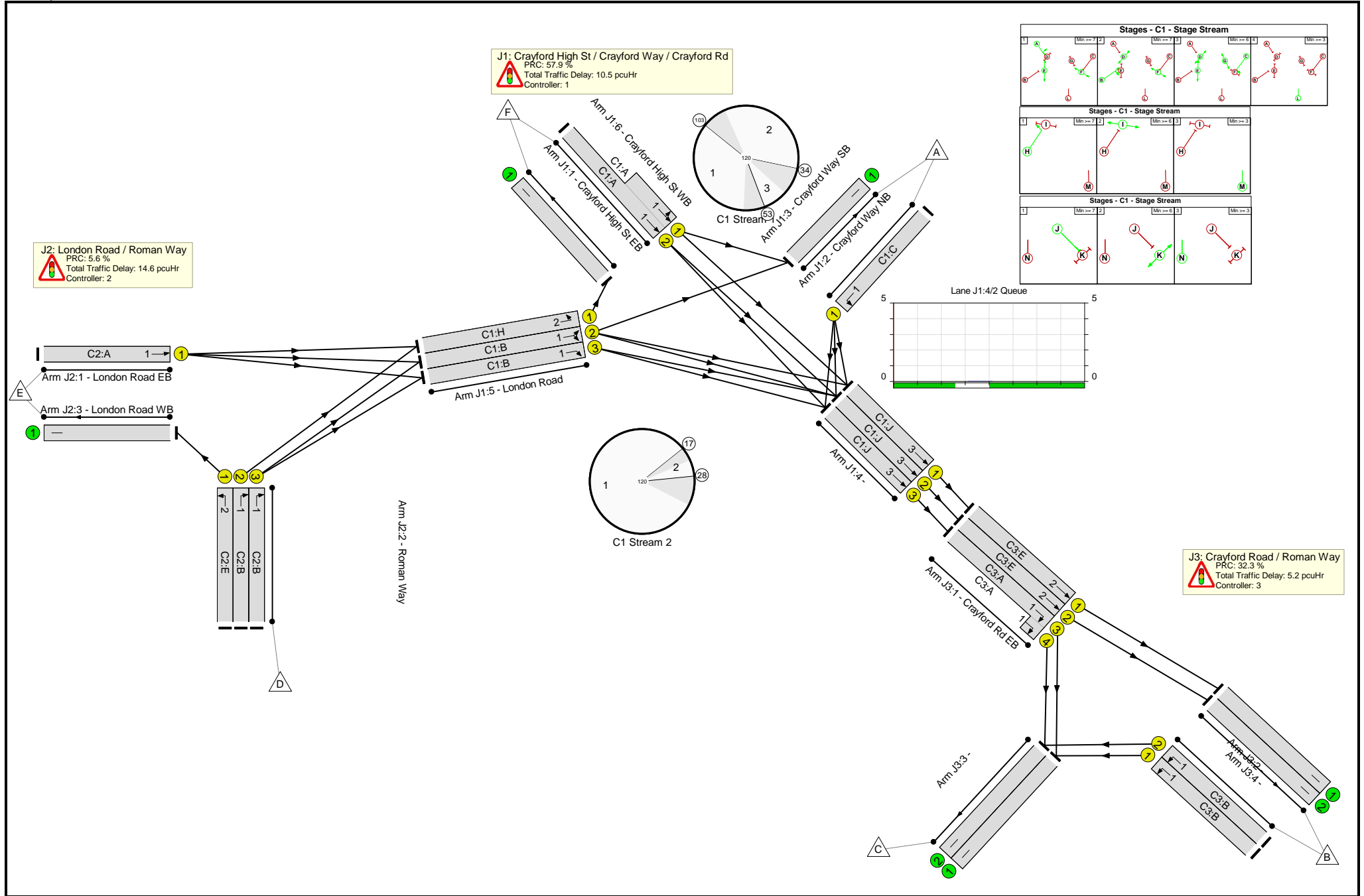
Stage	1	2
Duration	101	6
Change Point	57	46

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	85.3%
J1: Crayford High St / Crayford Way / Crayford Rd	-	-	N/A	-	-		-	-	-	-	-	-	57.0%
1/2+1/1	Crayford High St EB Left Ahead	U	1:1	N/A	C1:A		1	46	-	560	2130:1965	495+488	57.0 : 57.0%
2/1	Crayford Way NB	U	N/A	N/A	-		-	-	-	246	2115	2115	11.6%
3/1	Crayford Way SB Left	U	1:1	N/A	C1:C		1	14	-	136	1943	243	56.0%
4/1	Ahead	U	1:3	N/A	C1:J		1	99	-	291	1915	1596	18.2%
4/2	Ahead	U	1:3	N/A	C1:J		1	99	-	481	2055	1712	28.1%
4/3	Ahead	U	1:3	N/A	C1:J		1	99	-	189	1915	1596	11.8%
5/1	London Road Left	U	1:2	N/A	C1:H		1	98	-	644	1794	1480	43.5%
5/2	London Road Ahead Right	U	1:1	N/A	C1:B		1	42	-	254	1875	672	37.8%
5/3	London Road Right	U	1:1	N/A	C1:B		1	42	-	257	1913	685	37.5%
6/1	Crayford High St WB	U	N/A	N/A	-		-	-	-	644	2015	2015	32.0%
J2: London Road / Roman Way	-	-	N/A	-	-		-	-	-	-	-	-	85.3%
1/1	London Road EB Ahead	U	2:1	N/A	C2:A		1	59	-	682	1915	957	71.2%
2/1	Roman Way Left	U	2:2	N/A	C2:E		1	101	-	1232	1700	1445	85.3%
2/2	Roman Way Right	U	2:1	N/A	C2:B		1	49	-	466	1782	743	62.8%
2/3	Roman Way Right	U	2:1	N/A	C2:B		1	49	-	7	1750	729	1.0%

Full Input Data And Results

3/1	London Road WB	U	N/A	N/A	-	-	-	-	1232	Inf	Inf	0.0%
J3: Crayford Road / Roman Way	-	-	N/A	-	-	-	-	-	-	-	-	68.0%
1/1	Crayford Rd EB Ahead	U	3:2	N/A	C3:E	1	101	-	291	1915	1628	17.9%
1/2	Crayford Rd EB Ahead	U	3:2	N/A	C3:E	1	101	-	481	1915	1628	29.5%
1/3+1/4	Crayford Rd EB Right	U	3:1	N/A	C3:A	1	14	-	189	1743:1700	141+137	68.0 : 68.0%
2/1	Left	U	3:1	N/A	C3:B	1	92	-	731	1745	1352	54.1%
2/2	Left	U	3:1	N/A	C3:B	1	92	-	746	1772	1373	54.3%
3/1		U	N/A	N/A	-	-	-	-	827	Inf	Inf	0.0%
3/2		U	N/A	N/A	-	-	-	-	839	Inf	Inf	0.0%
4/1		U	N/A	N/A	-	-	-	-	291	Inf	Inf	0.0%
4/2		U	N/A	N/A	-	-	-	-	481	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	19.9	10.4	0.0	30.3	-	-	-	-
J1: Crayford High St / Crayford Way / Crayford Rd	-	-	0	0	0	7.5	3.0	0.0	10.5	-	-	-	-
1/2+1/1	560	560	-	-	-	4.0	0.7	-	4.7 (2.3+2.3)	30.0 (29.9:30.1)	7.6	0.7	8.3
2/1	246	246	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
3/1	136	136	-	-	-	1.9	0.6	-	2.5	66.0	4.2	0.6	4.9
4/1	291	291	-	-	-	0.0	0.1	-	0.1	1.6	3.8	0.1	3.9
4/2	481	481	-	-	-	0.0	0.2	-	0.2	1.5	0.0	0.2	0.2
4/3	189	189	-	-	-	0.6	0.1	-	0.6	11.9	5.0	0.1	5.1
5/1	644	644	-	-	-	0.1	0.4	-	0.5	2.7	1.0	0.4	1.4
5/2	254	254	-	-	-	0.5	0.3	-	0.8	11.9	4.8	0.3	5.1
5/3	257	257	-	-	-	0.4	0.3	-	0.7	10.1	4.6	0.3	4.9
6/1	644	644	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
J2: London Road / Roman Way	-	-	0	0	0	9.7	4.9	0.0	14.6	-	-	-	-
1/1	682	682	-	-	-	4.4	1.2	-	5.6	29.8	17.6	1.2	18.8
2/1	1232	1232	-	-	-	1.7	2.8	-	4.5	13.1	22.2	2.8	25.1
2/2	466	466	-	-	-	3.6	0.8	-	4.4	34.1	12.2	0.8	13.0
2/3	7	7	-	-	-	0.0	0.0	-	0.0	23.2	0.1	0.0	0.1
3/1	1232	1232	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Crayford Road / Roman Way	-	-	0	0	0	2.7	2.5	0.0	5.2	-	-	-	-
1/1	291	291	-	-	-	0.0	0.1	-	0.1	1.3	0.0	0.1	0.1
1/2	481	481	-	-	-	0.0	0.2	-	0.2	1.6	0.0	0.2	0.3
1/3+1/4	189	189	-	-	-	0.5	1.0	-	1.6 (0.8+0.8)	30.0 (30.1:30.0)	4.2	1.0	5.2

Full Input Data And Results

2/1	731	731	-	-	-	1.1	0.6	-	1.6	8.1	9.3	0.6	9.9
2/2	746	746	-	-	-	1.1	0.6	-	1.7	8.1	9.5	0.6	10.1
3/1	827	827	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	839	839	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	291	291	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	481	481	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
			C1	Stream: 1 PRC for Signalled Lanes (%)	57.9	Total Delay for Signalled Lanes (pcuHr):			8.72	Cycle Time (s): 120			
			C1	Stream: 2 PRC for Signalled Lanes (%)	106.8	Total Delay for Signalled Lanes (pcuHr):			0.48	Cycle Time (s): 120			
			C1	Stream: 3 PRC for Signalled Lanes (%)	220.4	Total Delay for Signalled Lanes (pcuHr):			0.95	Cycle Time (s): 120			
			C2	Stream: 1 PRC for Signalled Lanes (%)	26.4	Total Delay for Signalled Lanes (pcuHr):			10.10	Cycle Time (s): 120			
			C2	Stream: 2 PRC for Signalled Lanes (%)	5.6	Total Delay for Signalled Lanes (pcuHr):			4.50	Cycle Time (s): 120			
			C3	Stream: 1 PRC for Signalled Lanes (%)	32.3	Total Delay for Signalled Lanes (pcuHr):			4.91	Cycle Time (s): 120			
			C3	Stream: 2 PRC for Signalled Lanes (%)	204.6	Total Delay for Signalled Lanes (pcuHr):			0.32	Cycle Time (s): 120			
			PRC Over All Lanes (%)		5.6	Total Delay Over All Lanes(pcuHr):			30.29				

Appendix I Thames Road / Crayford Way Modelling results

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.0.1499

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Filename: Crayford Way RBT v07 - AM.j10

Path: J:\50923 - GH - LB Bexley Local Plan\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10\2022
Modelling Update

Report generation date: 23/03/2022 15:16:16

-
- »2015 Observed, AM
 - »2038 Reference Case - No LTC, AM
 - »2038 Reference Case - With LTC, AM
 - »2038 Local Plan - No LTC, AM
 - »2038 Local Plan - With LTC, AM
 - »2038 Local Plan - No LTC - Sens Test, AM
 - »2038 Local Plan - With LTC - Sens Test, AM

Summary of junction performance

AM					
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2015 Observed					
1 - London Loop	D1	0.1	10.91	0.11	B
2 - Thames Road East		7.1	12.74	0.88	B
3 - Crayford Way		10.0	80.05	0.95	F
4 - Thames Road West		16.7	41.02	0.96	E
2038 Reference Case - No LTC					
1 - London Loop	D2	26.4	250.15	1.09	F
2 - Thames Road East		151.3	219.82	1.13	F
3 - Crayford Way		83.9	561.17	1.28	F
4 - Thames Road West		339.6	731.69	1.32	F
2038 Reference Case - With LTC					
1 - London Loop	D3	22.4	207.66	1.07	F
2 - Thames Road East		178.0	268.91	1.15	F
3 - Crayford Way		89.7	658.59	1.32	F
4 - Thames Road West		300.7	637.51	1.29	F
2038 Local Plan - No LTC					
1 - London Loop	D4	46.0	454.47	1.19	F
2 - Thames Road East		182.3	281.91	1.16	F
3 - Crayford Way		104.3	724.09	1.34	F
4 - Thames Road West		496.2	1059.98	1.42	F
2038 Local Plan - With LTC					
1 - London Loop	D5	38.9	357.90	1.15	F
2 - Thames Road East		226.9	367.59	1.19	F
3 - Crayford Way		122.4	976.70	1.42	F
4 - Thames Road West		490.5	1004.93	1.40	F
2038 Local Plan - No LTC - Sens Test					
1 - London Loop	D6	42.7	420.71	1.18	F
2 - Thames Road East		178.9	275.21	1.15	F
3 - Crayford Way		99.9	689.04	1.33	F
4 - Thames Road West		482.5	1035.87	1.41	F
2038 Local Plan - With LTC - Sens Test					
1 - London Loop	D7	34.5	313.55	1.13	F
2 - Thames Road East		219.9	352.55	1.19	F
3 - Crayford Way		116.6	925.89	1.40	F
4 - Thames Road West		462.4	947.73	1.39	F

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

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

File summary

File Description

Title	
Location	
Site number	
Date	17/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\hwenman
Description	

Units

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

Analysis Options

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
D1	2015 Observed	AM	ONE HOUR	07:45	09:15	15	✓
D2	2038 Reference Case - No LTC	AM	ONE HOUR	07:45	09:15	15	✓
D3	2038 Reference Case - With LTC	AM	ONE HOUR	07:45	09:15	15	✓
D4	2038 Local Plan - No LTC	AM	ONE HOUR	07:45	09:15	15	✓
D5	2038 Local Plan - With LTC	AM	ONE HOUR	07:45	09:15	15	✓
D6	2038 Local Plan - No LTC - Sens Test	AM	ONE HOUR	07:45	09:15	15	✓
D7	2038 Local Plan - With LTC - Sens Test	AM	ONE HOUR	07:45	09:15	15	✓

Analysis Set Details

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

2015 Observed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Thames Road East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Crayford Way RBT	Standard Roundabout		1, 2, 3, 4	30.89	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	30.89	D

Arms

Arms

Arm	Name	Description	No give-way line
1	London Loop		
2	Thames Road East		
3	Crayford Way		
4	Thames Road West		

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 - London Loop	2.63	3.91	11.4	19.4	51.0	34.3		
2 - Thames Road East	4.11	9.34	119.1	18.9	51.3	58.1		
3 - Crayford Way	4.88	7.03	3.6	17.8	51.2	44.3		
4 - Thames Road West	7.62	9.50	8.4	15.6	51.0	66.6		

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - London Loop	None		
2 - Thames Road East	Direct		150
3 - Crayford Way	None		
4 - Thames Road West	Direct		-470

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final slope	Final intercept (PCU/hr)
1 - London Loop	✓	0.472	1252	0.472	1252
2 - Thames Road East				0.700	2521
3 - Crayford Way				0.571	1610
4 - Thames Road West				0.671	1800

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	2015 Observed	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - London Loop		ONE HOUR	✓	41	100.000
2 - Thames Road East		ONE HOUR	✓	1900	100.000
3 - Crayford Way		ONE HOUR	✓	429	100.000
4 - Thames Road West		ONE HOUR	✓	1404	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	24	3	14
	2 - Thames Road East	3	13	189	1695
	3 - Crayford Way	1	244	0	184
	4 - Thames Road West	2	1246	108	48

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	10	5	3
	2 - Thames Road East	0	0	6	7
	3 - Crayford Way	0	6	0	3
	4 - Thames Road West	0	10	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - London Loop	0.11	10.91	0.1	B	38	56
2 - Thames Road East	0.88	12.74	7.1	B	1743	2615
3 - Crayford Way	0.95	80.05	10.0	F	394	590
4 - Thames Road West	0.96	41.02	16.7	E	1288	1933

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	31	8	1240	667	0.046	31	4	0.0	0.1	6.063	A
2 - Thames Road East	1430	358	129	2431	0.588	1424	1141	0.0	1.5	3.799	A
3 - Crayford Way	323	81	1329	852	0.379	320	225	0.0	0.6	7.062	A
4 - Thames Road West	1057	264	195	1669	0.633	1050	1454	0.0	1.9	6.293	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	37	9	1484	552	0.067	37	5	0.1	0.1	7.489	A
2 - Thames Road East	1708	427	155	2413	0.708	1704	1366	1.5	2.5	5.393	A
3 - Crayford Way	386	96	1590	703	0.549	383	269	0.6	1.2	11.701	B
4 - Thames Road West	1262	316	233	1643	0.768	1256	1740	1.9	3.5	10.005	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	45	11	1773	415	0.109	45	6	0.1	0.1	10.409	B
2 - Thames Road East	2092	523	186	2391	0.875	2075	1632	2.5	6.8	11.588	B
3 - Crayford Way	472	118	1935	506	0.934	448	326	1.2	7.4	51.579	F
4 - Thames Road West	1546	386	273	1617	0.956	1506	2110	3.5	13.4	28.693	D

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	45	11	1808	399	0.113	45	7	0.1	0.1	10.906	B
2 - Thames Road East	2092	523	189	2389	0.876	2091	1664	6.8	7.1	12.738	B
3 - Crayford Way	472	118	1950	497	0.950	462	329	7.4	10.0	80.047	F
4 - Thames Road West	1546	386	281	1611	0.960	1533	2131	13.4	16.7	41.021	E

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	37	9	1562	515	0.072	37	6	0.1	0.1	8.077	A
2 - Thames Road East	1708	427	161	2408	0.709	1726	1438	7.1	2.7	5.776	A
3 - Crayford Way	386	96	1612	690	0.559	420	275	10.0	1.4	15.694	C
4 - Thames Road West	1262	316	255	1629	0.775	1313	1778	16.7	4.0	14.259	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	31	8	1259	658	0.047	31	5	0.1	0.1	6.153	A
2 - Thames Road East	1430	358	131	2429	0.589	1435	1159	2.7	1.5	3.885	A
3 - Crayford Way	323	81	1339	846	0.382	326	227	1.4	0.7	7.286	A
4 - Thames Road West	1057	264	198	1667	0.634	1065	1467	4.0	1.9	6.640	A

2038 Reference Case - No LTC, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Thames Road East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Crayford Way RBT	Standard Roundabout		1, 2, 3, 4	455.50	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	455.50	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2038 Reference Case - No LTC	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - London Loop		ONE HOUR	✓	355	100.000
2 - Thames Road East		ONE HOUR	✓	2222	100.000
3 - Crayford Way		ONE HOUR	✓	604	100.000
4 - Thames Road West		ONE HOUR	✓	1929	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	174	143	38
	2 - Thames Road East	0	0	301	1921
	3 - Crayford Way	0	339	0	265
	4 - Thames Road West	0	1541	388	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	18	8	5
	2 - Thames Road East	0	0	12	13
	3 - Crayford Way	0	12	0	3
	4 - Thames Road West	0	18	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - London Loop	1.09	250.15	26.4	F	326	489
2 - Thames Road East	1.13	219.82	151.3	F	2039	3058
3 - Crayford Way	1.28	561.17	83.9	F	554	831
4 - Thames Road West	1.32	731.69	339.6	F	1770	2655

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	267	67	1673	463	0.578	261	0	0.0	1.5	19.587	C
2 - Thames Road East	1673	418	419	2228	0.751	1660	1515	0.0	3.3	6.998	A
3 - Crayford Way	455	114	1463	775	0.586	449	616	0.0	1.5	11.690	B
4 - Thames Road West	1452	363	252	1631	0.890	1421	1660	0.0	7.9	17.938	C

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	319	80	1874	368	0.868	305	0	1.5	5.0	55.344	F
2 - Thames Road East	1998	499	473	2190	0.912	1972	1706	3.3	9.6	16.950	C
3 - Crayford Way	543	136	1738	619	0.878	526	708	1.5	5.7	36.773	E
4 - Thames Road West	1734	434	295	1602	1.083	1578	1968	7.9	46.8	73.569	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	391	98	1895	358	1.093	344	0	5.0	16.7	139.699	F
2 - Thames Road East	2446	612	498	2173	1.126	2158	1741	9.6	81.7	84.497	F
3 - Crayford Way	665	166	1903	524	1.268	519	753	5.7	42.4	185.941	F
4 - Thames Road West	2124	531	291	1605	1.324	1604	2130	46.8	176.9	257.844	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	391	98	1895	357	1.094	352	0	16.7	26.4	243.018	F
2 - Thames Road East	2446	612	502	2170	1.128	2168	1745	81.7	151.3	198.973	F
3 - Crayford Way	665	166	1912	519	1.281	518	758	42.4	79.0	434.072	F
4 - Thames Road West	2124	531	291	1605	1.324	1604	2139	176.9	306.7	547.420	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	319	80	1896	357	0.894	342	0	26.4	20.6	250.147	F
2 - Thames Road East	1998	499	497	2173	0.919	2157	1742	151.3	111.3	219.816	F
3 - Crayford Way	543	136	1902	525	1.034	523	752	79.0	83.9	561.170	F
4 - Thames Road West	1734	434	294	1603	1.082	1603	2131	306.7	339.6	731.693	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	267	67	1895	357	0.748	331	0	20.6	4.6	141.172	F
2 - Thames Road East	1673	418	488	2179	0.768	2101	1738	111.3	4.4	90.460	F
3 - Crayford Way	455	114	1851	554	0.821	547	737	83.9	61.0	478.950	F
4 - Thames Road West	1452	363	307	1594	0.911	1589	2091	339.6	305.5	731.251	F

2038 Reference Case - With LTC, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Thames Road East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Crayford Way RBT	Standard Roundabout		1, 2, 3, 4	446.00	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	446.00	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2038 Reference Case - With LTC	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - London Loop		ONE HOUR	✓	355	100.000
2 - Thames Road East		ONE HOUR	✓	2289	100.000
3 - Crayford Way		ONE HOUR	✓	567	100.000
4 - Thames Road West		ONE HOUR	✓	1929	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	179	138	38
	2 - Thames Road East	0	0	249	2040
	3 - Crayford Way	0	275	0	292
	4 - Thames Road West	0	1585	344	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From 1 - London Loop	0	18	8	5
2 - Thames Road East	0	0	13	13
3 - Crayford Way	0	14	0	3
4 - Thames Road West	0	19	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - London Loop	1.07	207.66	22.4	F	326	489
2 - Thames Road East	1.15	268.91	178.0	F	2100	3151
3 - Crayford Way	1.32	658.59	89.7	F	520	780
4 - Thames Road West	1.29	637.51	300.7	F	1770	2655

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	267	67	1628	483	0.553	262	0	0.0	1.3	17.883	C
2 - Thames Road East	1723	431	384	2253	0.765	1709	1506	0.0	3.6	7.305	A
3 - Crayford Way	427	107	1551	725	0.589	421	542	0.0	1.5	12.562	B
4 - Thames Road West	1452	363	204	1663	0.873	1424	1768	0.0	7.0	16.244	C

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	319	80	1845	381	0.837	307	0	1.3	4.3	48.531	E
2 - Thames Road East	2058	514	439	2214	0.929	2026	1713	3.6	11.4	19.121	C
3 - Crayford Way	510	127	1839	561	0.909	489	627	1.5	6.8	44.976	E
4 - Thames Road West	1734	434	237	1641	1.057	1608	2091	7.0	38.5	62.265	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	391	98	1874	367	1.064	350	0	4.3	14.6	122.623	F
2 - Thames Road East	2520	630	467	2195	1.148	2184	1757	11.4	95.5	95.999	F
3 - Crayford Way	624	156	1984	478	1.306	474	667	6.8	44.4	214.174	F
4 - Thames Road West	2124	531	230	1646	1.291	1644	2228	38.5	158.4	222.812	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	391	98	1875	367	1.065	360	0	14.6	22.4	207.660	F
2 - Thames Road East	2520	630	472	2191	1.150	2190	1763	95.5	178.0	229.873	F
3 - Crayford Way	624	156	1990	474	1.316	474	671	44.4	82.0	492.815	F
4 - Thames Road West	2124	531	230	1646	1.291	1645	2234	158.4	278.0	482.462	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	319	80	1876	367	0.871	352	0	22.4	14.2	198.081	F
2 - Thames Road East	2058	514	468	2194	0.938	2180	1760	178.0	147.4	268.909	F
3 - Crayford Way	510	127	1981	480	1.062	479	667	82.0	89.7	658.585	F
4 - Thames Road West	1734	434	232	1644	1.055	1644	2227	278.0	300.7	637.506	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	267	67	1869	370	0.722	310	0	14.2	3.5	83.306	F
2 - Thames Road East	1723	431	446	2209	0.780	2192	1732	147.4	30.2	148.784	F
3 - Crayford Way	427	107	1987	476	0.896	471	652	89.7	78.7	644.859	F
4 - Thames Road West	1452	363	228	1647	0.882	1640	2229	300.7	253.7	608.664	F

2038 Local Plan - No LTC, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Thames Road East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Crayford Way RBT	Standard Roundabout		1, 2, 3, 4	652.08	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	652.08	F

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	2038 Local Plan - No LTC	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - London Loop		ONE HOUR	✓	403	100.000
2 - Thames Road East		ONE HOUR	✓	2268	100.000
3 - Crayford Way		ONE HOUR	✓	603	100.000
4 - Thames Road West		ONE HOUR	✓	2147	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	194	163	46
	2 - Thames Road East	0	0	259	2009
	3 - Crayford Way	0	238	0	365
	4 - Thames Road West	0	1733	414	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	16	7	4
	2 - Thames Road East	0	0	13	12
	3 - Crayford Way	0	17	0	2
	4 - Thames Road West	0	16	11	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - London Loop	1.19	454.47	46.0	F	370	555
2 - Thames Road East	1.16	281.91	182.3	F	2081	3122
3 - Crayford Way	1.34	724.09	104.3	F	553	830
4 - Thames Road West	1.42	1059.98	496.2	F	1970	2955

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	303	76	1735	433	0.700	294	0	0.0	2.3	27.122	D
2 - Thames Road East	1707	427	453	2204	0.775	1693	1576	0.0	3.7	7.682	A
3 - Crayford Way	454	113	1533	735	0.617	447	613	0.0	1.7	13.141	B
4 - Thames Road West	1616	404	177	1681	0.961	1558	1804	0.0	14.5	26.639	D

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	362	91	1859	375	0.967	338	0	2.3	8.5	79.043	F
2 - Thames Road East	2039	510	494	2175	0.937	2005	1702	3.7	12.2	20.513	C
3 - Crayford Way	542	136	1815	575	0.943	515	685	1.7	8.4	51.022	F
4 - Thames Road West	1930	483	203	1663	1.160	1656	2126	14.5	83.2	115.707	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	444	111	1864	372	1.192	367	0	8.5	27.7	202.565	F
2 - Thames Road East	2497	624	512	2163	1.154	2153	1718	12.2	98.1	100.086	F
3 - Crayford Way	664	166	1949	498	1.334	494	716	8.4	50.8	234.229	F
4 - Thames Road West	2364	591	195	1669	1.416	1669	2249	83.2	257.0	372.212	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	444	111	1864	372	1.192	371	0	27.7	46.0	378.341	F
2 - Thames Road East	2497	624	514	2161	1.155	2160	1720	98.1	182.3	238.641	F
3 - Crayford Way	664	166	1956	494	1.344	494	718	50.8	93.4	537.274	F
4 - Thames Road West	2364	591	195	1669	1.416	1669	2255	257.0	430.7	745.756	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	362	91	1865	372	0.974	362	0	46.0	46.0	454.469	F
2 - Thames Road East	2039	510	510	2165	0.942	2151	1717	182.3	154.2	281.912	F
3 - Crayford Way	542	136	1947	499	1.086	498	714	93.4	104.3	724.095	F
4 - Thames Road West	1930	483	197	1668	1.157	1668	2249	430.7	496.2	1003.856	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	303	76	1860	374	0.811	365	0	46.0	30.6	381.187	F
2 - Thames Road East	1707	427	510	2164	0.789	2148	1715	154.2	44.0	168.422	F
3 - Crayford Way	454	113	1945	500	0.907	495	714	104.3	93.9	720.944	F
4 - Thames Road West	1616	404	195	1669	0.969	1665	2245	496.2	484.1	1059.979	F

2038 Local Plan - With LTC, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Thames Road East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Crayford Way RBT	Standard Roundabout		1, 2, 3, 4	683.84	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	683.84	F

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	2038 Local Plan - With LTC	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - London Loop		ONE HOUR	✓	404	100.000
2 - Thames Road East		ONE HOUR	✓	2351	100.000
3 - Crayford Way		ONE HOUR	✓	572	100.000
4 - Thames Road West		ONE HOUR	✓	2204	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	198	160	46
	2 - Thames Road East	0	0	196	2155
	3 - Crayford Way	0	132	0	440
	4 - Thames Road West	0	1815	375	14

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	16	7	4
	2 - Thames Road East	0	0	15	12
	3 - Crayford Way	0	19	0	2
	4 - Thames Road West	0	17	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - London Loop	1.15	357.90	38.9	F	371	556
2 - Thames Road East	1.19	367.59	226.9	F	2157	3236
3 - Crayford Way	1.42	976.70	122.4	F	525	787
4 - Thames Road West	1.40	1004.93	490.5	F	2022	3034

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	304	76	1700	449	0.677	296	0	0.0	2.1	24.773	C
2 - Thames Road East	1770	442	434	2218	0.798	1753	1562	0.0	4.2	8.414	A
3 - Crayford Way	431	108	1651	668	0.645	423	536	0.0	1.8	15.097	C
4 - Thames Road West	1659	415	98	1734	0.957	1603	1976	0.0	14.1	25.467	D

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	363	91	1826	390	0.932	343	0	2.1	7.1	67.413	F
2 - Thames Road East	2114	528	478	2186	0.967	2063	1692	4.2	16.8	25.911	D
3 - Crayford Way	514	129	1941	502	1.024	470	600	1.8	12.9	76.707	F
4 - Thames Road West	1981	495	108	1727	1.147	1718	2303	14.1	79.9	108.115	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	445	111	1833	387	1.150	378	0	7.1	23.7	170.914	F
2 - Thames Road East	2588	647	498	2172	1.192	2167	1713	16.8	122.2	122.696	F
3 - Crayford Way	630	157	2040	446	1.412	444	625	12.9	59.3	311.091	F
4 - Thames Road West	2427	607	103	1731	1.402	1731	2382	79.9	253.9	352.540	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	445	111	1834	387	1.151	384	0	23.7	38.9	313.440	F
2 - Thames Road East	2588	647	501	2170	1.193	2170	1716	122.2	226.9	294.050	F
3 - Crayford Way	630	157	2044	444	1.418	444	628	59.3	105.8	680.448	F
4 - Thames Road West	2427	607	102	1731	1.402	1731	2385	253.9	427.8	712.843	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	363	91	1834	386	0.940	376	0	38.9	35.7	357.901	F
2 - Thames Road East	2114	528	497	2173	0.972	2163	1713	226.9	214.6	367.593	F
3 - Crayford Way	514	129	2036	448	1.147	448	624	105.8	122.4	928.306	F
4 - Thames Road West	1981	495	103	1731	1.145	1730	2381	427.8	490.5	958.541	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	304	76	1830	388	0.783	377	0	35.7	17.6	261.447	F
2 - Thames Road East	1770	442	497	2173	0.814	2162	1709	214.6	116.6	276.835	F
3 - Crayford Way	431	108	2036	448	0.960	445	623	122.4	118.9	976.698	F
4 - Thames Road West	1659	415	103	1731	0.959	1727	2378	490.5	473.6	1004.930	F

2038 Local Plan - No LTC - Sens Test, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Thames Road East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Crayford Way RBT	Standard Roundabout		1, 2, 3, 4	632.11	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	632.11	F

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	2038 Local Plan - No LTC - Sens Test	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - London Loop		ONE HOUR	✓	395	100.000
2 - Thames Road East		ONE HOUR	✓	2263	100.000
3 - Crayford Way		ONE HOUR	✓	604	100.000
4 - Thames Road West		ONE HOUR	✓	2122	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	192	159	44
	2 - Thames Road East	0	0	269	1994
	3 - Crayford Way	0	257	0	347
	4 - Thames Road West	0	1707	415	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	16	7	5
	2 - Thames Road East	0	0	13	12
	3 - Crayford Way	0	15	0	2
	4 - Thames Road West	0	16	11	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - London Loop	1.18	420.71	42.7	F	362	544
2 - Thames Road East	1.15	275.21	178.9	F	2077	3115
3 - Crayford Way	1.33	689.04	99.9	F	554	831
4 - Thames Road West	1.41	1035.87	482.5	F	1947	2921

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	297	74	1733	434	0.685	289	0	0.0	2.2	26.139	D
2 - Thames Road East	1704	426	450	2206	0.772	1689	1572	0.0	3.7	7.602	A
3 - Crayford Way	455	114	1520	743	0.612	448	619	0.0	1.6	12.840	B
4 - Thames Road West	1598	399	191	1672	0.956	1543	1778	0.0	13.7	25.739	D

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	355	89	1864	372	0.954	333	0	2.2	7.8	75.368	F
2 - Thames Road East	2034	509	492	2177	0.935	2002	1704	3.7	11.9	20.072	C
3 - Crayford Way	543	136	1801	583	0.932	518	693	1.6	7.9	48.086	E
4 - Thames Road West	1908	477	220	1652	1.155	1643	2098	13.7	79.8	112.063	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	435	109	1870	370	1.177	363	0	7.8	25.8	192.091	F
2 - Thames Road East	2492	623	511	2164	1.151	2154	1722	11.9	96.3	98.314	F
3 - Crayford Way	665	166	1938	504	1.319	500	726	7.9	49.0	223.307	F
4 - Thames Road West	2336	584	213	1657	1.410	1657	2226	79.8	249.7	363.374	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	435	109	1870	369	1.177	368	0	25.8	42.7	355.903	F
2 - Thames Road East	2492	623	513	2162	1.152	2161	1724	96.3	178.9	234.290	F
3 - Crayford Way	665	166	1945	500	1.330	500	729	49.0	90.4	513.741	F
4 - Thames Road West	2336	584	213	1657	1.410	1657	2232	249.7	419.5	731.137	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	355	89	1870	369	0.962	360	0	42.7	41.5	420.706	F
2 - Thames Road East	2034	509	509	2165	0.940	2152	1721	178.9	149.6	275.212	F
3 - Crayford Way	543	136	1936	505	1.074	505	724	90.4	99.9	689.044	F
4 - Thames Road West	1908	477	215	1656	1.152	1656	2226	419.5	482.5	984.082	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	297	74	1866	371	0.801	362	0	41.5	25.5	338.471	F
2 - Thames Road East	1704	426	509	2165	0.787	2149	1719	149.6	38.3	159.983	F
3 - Crayford Way	455	114	1934	507	0.897	501	724	99.9	88.3	676.508	F
4 - Thames Road West	1598	399	213	1657	0.964	1653	2222	482.5	468.7	1035.869	F

2038 Local Plan - With LTC - Sens Test, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Thames Road East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Crayford Way RBT	Standard Roundabout		1, 2, 3, 4	644.64	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	644.64	F

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	2038 Local Plan - With LTC - Sens Test	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - London Loop		ONE HOUR	✓	394	100.000
2 - Thames Road East		ONE HOUR	✓	2346	100.000
3 - Crayford Way		ONE HOUR	✓	566	100.000
4 - Thames Road West		ONE HOUR	✓	2166	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	195	156	43
	2 - Thames Road East	0	0	198	2148
	3 - Crayford Way	0	151	0	415
	4 - Thames Road West	0	1789	365	12

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	16	7	5
	2 - Thames Road East	0	0	15	12
	3 - Crayford Way	0	19	0	2
	4 - Thames Road West	0	17	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - London Loop	1.13	313.55	34.5	F	362	542
2 - Thames Road East	1.19	352.55	219.9	F	2153	3229
3 - Crayford Way	1.40	925.89	116.6	F	519	779
4 - Thames Road West	1.39	947.73	462.4	F	1988	2981

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	297	74	1692	453	0.654	289	0	0.0	1.9	23.318	C
2 - Thames Road East	1766	442	421	2227	0.793	1750	1560	0.0	4.1	8.211	A
3 - Crayford Way	426	107	1642	673	0.633	419	528	0.0	1.8	14.666	B
4 - Thames Road West	1631	408	112	1725	0.945	1580	1950	0.0	12.7	23.740	C

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	354	89	1830	388	0.913	337	0	1.9	6.4	62.788	F
2 - Thames Road East	2109	527	467	2195	0.961	2062	1700	4.1	15.8	24.661	C
3 - Crayford Way	509	127	1935	506	1.005	469	595	1.8	11.6	71.064	F
4 - Thames Road West	1947	487	125	1716	1.135	1705	2279	12.7	73.2	100.502	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	434	108	1838	384	1.129	374	0	6.4	21.3	157.722	F
2 - Thames Road East	2583	646	488	2179	1.185	2173	1724	15.8	118.2	118.293	F
3 - Crayford Way	623	156	2040	446	1.397	444	621	11.6	56.4	294.815	F
4 - Thames Road West	2385	596	118	1720	1.386	1720	2366	73.2	239.4	332.678	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	434	108	1839	384	1.129	381	0	21.3	34.5	284.314	F
2 - Thames Road East	2583	646	492	2177	1.187	2176	1728	118.2	219.9	284.107	F
3 - Crayford Way	623	156	2044	444	1.404	444	624	56.4	101.3	651.260	F
4 - Thames Road West	2385	596	118	1721	1.386	1720	2369	239.4	405.5	678.869	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	354	89	1839	384	0.923	372	0	34.5	30.0	313.553	F
2 - Thames Road East	2109	527	487	2180	0.967	2169	1724	219.9	204.8	352.554	F
3 - Crayford Way	509	127	2036	448	1.135	448	620	101.3	116.6	887.272	F
4 - Thames Road West	1947	487	119	1720	1.132	1720	2365	405.5	462.4	911.847	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	297	74	1835	386	0.768	372	0	30.0	11.1	208.594	F
2 - Thames Road East	1766	442	487	2181	0.810	2169	1720	204.8	104.2	257.745	F
3 - Crayford Way	426	107	2036	448	0.950	444	620	116.6	112.0	925.889	F
4 - Thames Road West	1631	408	119	1720	0.948	1716	2362	462.4	441.1	947.727	F

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.0.1499

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Filename: Crayford Way RBT v07 - PM.j10

Path: J:\50923 - GH - LB Bexley Local Plan\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10\2022
Modelling Update

Report generation date: 23/03/2022 15:11:54

-
- »2015 Observed, PM
 - »2038 Reference Case - No LTC, PM
 - »2038 Reference Case - With LTC, PM
 - »2038 Local Plan - No LTC, PM
 - »2038 Local Plan - With LTC, PM
 - »2038 Local Plan - No LTC - Sens Test, PM
 - »2038 Local Plan - With LTC - Sens Test, PM

Summary of junction performance

PM					
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2015 Observed					
1 - London Loop	D1	0.3	17.22	0.21	C
2 - Thames Road East		5.4	10.24	0.84	B
3 - Crayford Way		6.2	71.24	0.89	F
4 - Thames Road West		10.3	20.74	0.92	C
2038 Reference Case - No LTC					
1 - London Loop	D2	100.3	1055.55	1.87	F
2 - Thames Road East		36.2	59.52	1.00	F
3 - Crayford Way		160.8	1089.25	1.76	F
4 - Thames Road West		27.6	49.40	0.99	E
2038 Reference Case - With LTC					
1 - London Loop	D3	99.3	1030.90	1.85	F
2 - Thames Road East		34.8	57.27	1.00	F
3 - Crayford Way		163.6	1122.57	1.81	F
4 - Thames Road West		25.3	45.81	0.98	E
2038 Local Plan - No LTC					
1 - London Loop	D4	125.6	1833.29	1.87	F
2 - Thames Road East		75.6	109.56	1.06	F
3 - Crayford Way		235.5	1648.29	2.00	F
4 - Thames Road West		132.4	189.25	1.11	F
2038 Local Plan - With LTC					
1 - London Loop	D5	123.7	2170.92	1.79	F
2 - Thames Road East		73.4	106.20	1.05	F
3 - Crayford Way		236.5	1672.32	2.05	F
4 - Thames Road West		154.0	232.52	1.13	F
2038 Local Plan - No LTC - Sens Test					
1 - London Loop	D6	129.7	1657.83	1.92	F
2 - Thames Road East		67.6	98.93	1.05	F
3 - Crayford Way		228.0	1587.71	2.01	F
4 - Thames Road West		110.5	151.95	1.09	F
2038 Local Plan - With LTC - Sens Test					
1 - London Loop	D7	122.0	1693.57	1.86	F
2 - Thames Road East		68.4	99.56	1.05	F
3 - Crayford Way		228.9	1646.50	2.06	F
4 - Thames Road West		125.6	176.26	1.11	F

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

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

File summary

File Description

Title	
Location	
Site number	
Date	17/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\hwenman
Description	

Units

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

Analysis Options

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
D1	2015 Observed	PM	ONE HOUR	16:45	18:15	15	✓
D2	2038 Reference Case - No LTC	PM	ONE HOUR	16:45	18:15	15	✓
D3	2038 Reference Case - With LTC	PM	ONE HOUR	16:45	18:15	15	✓
D4	2038 Local Plan - No LTC	PM	ONE HOUR	16:45	18:15	15	✓
D5	2038 Local Plan - With LTC	PM	ONE HOUR	16:45	18:15	15	✓
D6	2038 Local Plan - No LTC - Sens Test	PM	ONE HOUR	16:45	18:15	15	✓
D7	2038 Local Plan - With LTC - Sens Test	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2015 Observed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Thames Road East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	19.89	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	19.89	C

Arms

Arms

Arm	Name	Description	No give-way line
1	London Loop		
2	Thames Road East		
3	Crayford Way		
4	Thames Road West		

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 - London Loop	2.63	3.91	11.4	19.4	51.0	34.3		
2 - Thames Road East	4.11	9.34	119.1	18.9	51.3	58.1		
3 - Crayford Way	4.88	7.03	3.6	17.8	51.2	44.3		
4 - Thames Road West	7.62	9.50	8.4	15.6	51.0	66.6		

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - London Loop	None		
2 - Thames Road East	Direct		200
3 - Crayford Way	Direct		-225
4 - Thames Road West	Direct		-75

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final slope	Final intercept (PCU/hr)
1 - London Loop	✓	0.472	1252	0.472	1252
2 - Thames Road East				0.700	2571
3 - Crayford Way				0.571	1385
4 - Thames Road West				0.671	2195

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	2015 Observed	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - London Loop		ONE HOUR	✓	52	100.000
2 - Thames Road East		ONE HOUR	✓	1784	100.000
3 - Crayford Way		ONE HOUR	✓	309	100.000
4 - Thames Road West		ONE HOUR	✓	1729	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	28	10	14
	2 - Thames Road East	7	5	221	1551
	3 - Crayford Way	0	150	1	158
	4 - Thames Road West	0	1441	266	22

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	5	2	5
	2 - Thames Road East	0	0	5	5
	3 - Crayford Way	0	6	0	2
	4 - Thames Road West	0	7	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - London Loop	0.21	17.22	0.3	C	48	72
2 - Thames Road East	0.84	10.24	5.4	B	1637	2456
3 - Crayford Way	0.89	71.24	6.2	F	284	425
4 - Thames Road West	0.92	20.74	10.3	C	1587	2380

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	39	10	1411	586	0.067	39	5	0.0	0.1	6.869	A
2 - Thames Road East	1343	336	234	2407	0.558	1338	1216	0.0	1.3	3.516	A
3 - Crayford Way	233	58	1199	701	0.332	231	373	0.0	0.5	7.920	A
4 - Thames Road West	1302	325	122	2113	0.616	1295	1308	0.0	1.7	4.645	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	47	12	1689	455	0.103	47	6	0.1	0.1	9.199	A
2 - Thames Road East	1604	401	280	2375	0.675	1600	1455	1.3	2.1	4.857	A
3 - Crayford Way	278	69	1434	567	0.490	276	446	0.5	1.0	12.788	B
4 - Thames Road West	1554	389	146	2097	0.741	1549	1565	1.7	3.0	6.927	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	57	14	2042	288	0.199	57	8	0.1	0.3	16.198	C
2 - Thames Road East	1964	491	340	2333	0.842	1952	1759	2.1	5.2	9.609	A
3 - Crayford Way	340	85	1749	387	0.879	324	543	1.0	5.0	50.503	F
4 - Thames Road West	1904	476	171	2080	0.915	1878	1902	3.0	9.4	17.159	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	57	14	2069	275	0.208	57	8	0.3	0.3	17.219	C
2 - Thames Road East	1964	491	344	2331	0.843	1963	1782	5.2	5.4	10.240	B
3 - Crayford Way	340	85	1760	381	0.893	335	548	5.0	6.2	71.236	F
4 - Thames Road West	1904	476	177	2076	0.917	1900	1918	9.4	10.3	20.740	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	47	12	1733	434	0.108	47	6	0.3	0.1	9.739	A
2 - Thames Road East	1604	401	286	2371	0.676	1617	1494	5.4	2.2	5.094	A
3 - Crayford Way	278	69	1449	558	0.498	298	454	6.2	1.1	15.494	C
4 - Thames Road West	1554	389	157	2090	0.744	1583	1591	10.3	3.2	7.964	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	39	10	1426	579	0.068	39	5	0.1	0.1	6.967	A
2 - Thames Road East	1343	336	237	2406	0.558	1347	1229	2.2	1.3	3.579	A
3 - Crayford Way	233	58	1207	696	0.334	235	376	1.1	0.5	8.140	A
4 - Thames Road West	1302	325	124	2112	0.616	1307	1318	3.2	1.7	4.798	A

2038 Reference Case - No LTC, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Thames Road East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	259.98	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	259.98	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2038 Reference Case - No LTC	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - London Loop		ONE HOUR	✓	371	100.000
2 - Thames Road East		ONE HOUR	✓	1963	100.000
3 - Crayford Way		ONE HOUR	✓	595	100.000
4 - Thames Road West		ONE HOUR	✓	1876	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	201	166	4
	2 - Thames Road East	0	0	320	1643
	3 - Crayford Way	0	239	0	356
	4 - Thames Road West	0	1419	457	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From				
1 - London Loop	0	9	4	9
2 - Thames Road East	0	0	9	11
3 - Crayford Way	0	12	0	1
4 - Thames Road West	0	13	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - London Loop	1.87	1055.55	100.3	F	340	511
2 - Thames Road East	1.00	59.52	36.2	F	1801	2702
3 - Crayford Way	1.76	1089.25	160.8	F	546	819
4 - Thames Road West	0.99	49.40	27.6	E	1721	2582

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	279	70	1580	506	0.552	274	0	0.0	1.3	16.230	C
2 - Thames Road East	1478	369	467	2244	0.659	1469	1387	0.0	2.1	5.089	A
3 - Crayford Way	448	112	1233	682	0.657	440	704	0.0	1.9	15.243	C
4 - Thames Road West	1412	353	177	2076	0.680	1403	1496	0.0	2.3	5.869	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	334	83	1878	366	0.912	315	0	1.3	6.0	60.991	F
2 - Thames Road East	1765	441	553	2184	0.808	1755	1640	2.1	4.4	9.100	A
3 - Crayford Way	535	134	1473	545	0.982	501	835	1.9	10.4	63.106	F
4 - Thames Road West	1686	422	201	2060	0.819	1677	1772	2.3	4.7	10.197	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	408	102	2157	234	1.745	233	0	6.0	50.0	474.100	F
2 - Thames Road East	2161	540	594	2156	1.003	2078	1796	4.4	25.1	34.529	D
3 - Crayford Way	655	164	1742	391	1.676	390	930	10.4	76.7	428.471	F
4 - Thames Road West	2066	516	157	2090	0.988	2000	1975	4.7	21.1	31.882	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	408	102	2189	219	1.868	219	0	50.0	97.4	978.561	F
2 - Thames Road East	2161	540	597	2153	1.004	2117	1811	25.1	36.2	59.519	F
3 - Crayford Way	655	164	1774	373	1.758	373	940	76.7	147.3	944.214	F
4 - Thames Road West	2066	516	150	2094	0.986	2040	1997	21.1	27.6	49.399	E

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	334	83	1969	323	1.033	322	0	97.4	100.3	1055.548	F
2 - Thames Road East	1765	441	580	2165	0.815	1889	1711	36.2	5.2	20.080	C
3 - Crayford Way	535	134	1584	481	1.112	481	885	147.3	160.8	1089.252	F
4 - Thames Road West	1686	422	193	2065	0.817	1776	1872	27.6	5.3	17.454	C

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	279	70	1691	454	0.615	449	0	100.3	57.8	636.686	F
2 - Thames Road East	1478	369	552	2185	0.677	1489	1587	5.2	2.4	5.823	A
3 - Crayford Way	448	112	1251	671	0.668	667	790	160.8	106.2	722.500	F
4 - Thames Road West	1412	353	268	2015	0.701	1423	1650	5.3	2.7	6.877	A

2038 Reference Case - With LTC, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Thames Road East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	258.33	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	258.33	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2038 Reference Case - With LTC	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - London Loop		ONE HOUR	✓	376	100.000
2 - Thames Road East		ONE HOUR	✓	1972	100.000
3 - Crayford Way		ONE HOUR	✓	583	100.000
4 - Thames Road West		ONE HOUR	✓	1872	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	207	168	1
	2 - Thames Road East	0	0	300	1672
	3 - Crayford Way	0	229	0	354
	4 - Thames Road West	0	1437	435	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	9	4	27
	2 - Thames Road East	0	0	9	11
	3 - Crayford Way	0	12	0	1
	4 - Thames Road West	0	13	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - London Loop	1.85	1030.90	99.3	F	345	518
2 - Thames Road East	1.00	57.27	34.8	F	1810	2714
3 - Crayford Way	1.81	1122.57	163.6	F	535	802
4 - Thames Road West	0.98	45.81	25.3	E	1718	2577

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	283	71	1570	511	0.554	278	0	0.0	1.3	16.156	C
2 - Thames Road East	1485	371	450	2256	0.658	1476	1397	0.0	2.1	5.058	A
3 - Crayford Way	439	110	1252	670	0.655	431	674	0.0	1.9	15.372	C
4 - Thames Road West	1409	352	169	2081	0.677	1400	1514	0.0	2.3	5.781	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	338	85	1866	371	0.910	319	0	1.3	6.0	59.963	F
2 - Thames Road East	1773	443	532	2199	0.806	1764	1653	2.1	4.4	8.974	A
3 - Crayford Way	524	131	1496	531	0.986	489	800	1.9	10.6	65.291	F
4 - Thames Road West	1683	421	192	2066	0.815	1674	1793	2.3	4.6	9.935	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	414	103	2147	239	1.733	237	0	6.0	50.1	465.007	F
2 - Thames Road East	2171	543	572	2171	1.000	2091	1812	4.4	24.5	33.659	D
3 - Crayford Way	642	160	1773	373	1.720	372	889	10.6	78.0	456.837	F
4 - Thames Road West	2061	515	146	2097	0.983	2000	1999	4.6	19.8	30.344	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	414	103	2178	224	1.849	224	0	50.1	97.7	959.325	F
2 - Thames Road East	2171	543	574	2169	1.001	2130	1828	24.5	34.8	57.270	F
3 - Crayford Way	642	160	1806	354	1.812	354	898	78.0	149.9	987.108	F
4 - Thames Road West	2061	515	139	2102	0.981	2039	2022	19.8	25.3	45.807	E

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	338	85	1948	333	1.016	332	0	97.7	99.3	1030.899	F
2 - Thames Road East	1773	443	559	2180	0.813	1891	1721	34.8	5.2	18.854	C
3 - Crayford Way	524	131	1604	470	1.116	469	846	149.9	163.6	1122.570	F
4 - Thames Road West	1683	421	184	2071	0.813	1763	1889	25.3	5.1	15.921	C

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	283	71	1677	460	0.615	455	0	99.3	56.2	617.653	F
2 - Thames Road East	1485	371	535	2197	0.676	1496	1598	5.2	2.3	5.773	A
3 - Crayford Way	439	110	1270	661	0.664	656	761	163.6	109.2	749.718	F
4 - Thames Road West	1409	352	258	2022	0.697	1419	1668	5.1	2.6	6.728	A

2038 Local Plan - No LTC, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Thames Road East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	439.50	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	439.50	F

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	2038 Local Plan - No LTC	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - London Loop		ONE HOUR	✓	342	100.000
2 - Thames Road East		ONE HOUR	✓	2030	100.000
3 - Crayford Way		ONE HOUR	✓	604	100.000
4 - Thames Road West		ONE HOUR	✓	2146	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	213	129	0
	2 - Thames Road East	0	0	254	1776
	3 - Crayford Way	0	182	0	422
	4 - Thames Road West	0	1568	577	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	9	3	0
	2 - Thames Road East	0	0	10	10
	3 - Crayford Way	0	14	0	1
	4 - Thames Road West	0	11	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - London Loop	1.87	1833.29	125.6	F	314	471
2 - Thames Road East	1.06	109.56	75.6	F	1863	2794
3 - Crayford Way	2.00	1648.29	235.5	F	554	831
4 - Thames Road West	1.11	189.25	132.4	F	1969	2954

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	257	64	1736	433	0.595	252	0	0.0	1.5	20.580	C
2 - Thames Road East	1528	382	526	2203	0.694	1519	1461	0.0	2.4	5.709	A
3 - Crayford Way	455	114	1329	627	0.726	445	716	0.0	2.6	19.720	C
4 - Thames Road West	1616	404	134	2105	0.768	1602	1640	0.0	3.5	7.622	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	307	77	2044	287	1.070	267	0	1.5	11.6	120.238	F
2 - Thames Road East	1825	466	614	2142	0.852	1811	1697	2.4	5.8	11.533	B
3 - Crayford Way	543	136	1586	480	1.130	465	839	2.6	22.1	122.039	F
4 - Thames Road West	1929	482	140	2101	0.918	1904	1910	3.5	9.9	17.965	C

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	377	94	2214	207	1.818	206	0	11.6	54.1	609.074	F
2 - Thames Road East	2235	559	646	2119	1.055	2082	1774	5.8	44.1	52.483	F
3 - Crayford Way	665	166	1823	345	1.927	345	906	22.1	102.2	679.506	F
4 - Thames Road West	2363	591	104	2125	1.112	2110	2063	9.9	73.1	79.355	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	377	94	2226	201	1.869	201	0	54.1	97.9	1382.354	F
2 - Thames Road East	2235	559	649	2117	1.056	2109	1779	44.1	75.6	109.561	F
3 - Crayford Way	665	166	1846	332	2.005	332	911	102.2	185.5	1576.004	F
4 - Thames Road West	2363	591	100	2128	1.110	2126	2078	73.1	132.4	179.894	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	307	77	2212	208	1.477	208	0	97.9	122.7	1770.691	F
2 - Thames Road East	1825	456	646	2119	0.861	2086	1773	75.6	10.3	78.636	F
3 - Crayford Way	543	136	1826	343	1.583	343	906	185.5	235.5	1648.291	F
4 - Thames Road West	1929	482	103	2126	0.908	2108	2066	132.4	87.6	189.254	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	257	64	2131	246	1.045	246	0	122.7	125.6	1833.289	F
2 - Thames Road East	1528	382	618	2139	0.715	1558	1759	10.3	2.8	7.156	A
3 - Crayford Way	455	114	1364	607	0.750	604	812	235.5	198.2	1293.225	F
4 - Thames Road West	1616	404	182	2073	0.779	1949	1786	87.6	4.4	67.527	F

2038 Local Plan - With LTC, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Thames Road East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	472.14	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	472.14	F

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	2038 Local Plan - With LTC	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - London Loop		ONE HOUR	✓	327	100.000
2 - Thames Road East		ONE HOUR	✓	2038	100.000
3 - Crayford Way		ONE HOUR	✓	595	100.000
4 - Thames Road West		ONE HOUR	✓	2186	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	207	120	0
	2 - Thames Road East	0	0	249	1789
	3 - Crayford Way	0	180	0	415
	4 - Thames Road West	0	1617	564	5

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	9	4	0
	2 - Thames Road East	0	0	10	10
	3 - Crayford Way	0	14	0	1
	4 - Thames Road West	0	12	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - London Loop	1.79	2170.92	123.7	F	300	450
2 - Thames Road East	1.05	106.20	73.4	F	1870	2805
3 - Crayford Way	2.05	1672.32	236.5	F	546	819
4 - Thames Road West	1.13	232.52	154.0	F	2006	3009

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	246	62	1763	420	0.586	240	0	0.0	1.4	20.891	C
2 - Thames Road East	1534	384	513	2212	0.694	1525	1491	0.0	2.4	5.679	A
3 - Crayford Way	448	112	1342	619	0.723	438	695	0.0	2.5	19.796	C
4 - Thames Road West	1646	411	132	2106	0.781	1631	1647	0.0	3.8	8.097	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	294	73	2072	274	1.072	254	0	1.4	11.3	123.132	F
2 - Thames Road East	1832	458	597	2154	0.851	1819	1729	2.4	5.8	11.390	B
3 - Crayford Way	535	134	1601	472	1.134	456	814	2.5	22.2	124.675	F
4 - Thames Road West	1965	491	138	2102	0.935	1934	1919	3.8	11.6	20.457	C

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	360	90	2216	206	1.749	205	0	11.3	50.1	574.004	F
2 - Thames Road East	2244	561	626	2133	1.052	2095	1796	5.8	43.1	51.296	F
3 - Crayford Way	655	164	1844	333	1.967	333	877	22.2	102.8	708.160	F
4 - Thames Road West	2407	602	101	2127	1.131	2116	2076	11.6	84.4	89.969	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	360	90	2225	202	1.785	202	0	50.1	89.7	1272.684	F
2 - Thames Road East	2244	561	628	2132	1.053	2123	1799	43.1	73.4	106.201	F
3 - Crayford Way	655	164	1868	319	2.053	319	883	102.8	186.8	1648.355	F
4 - Thames Road West	2407	602	97	2130	1.130	2129	2091	84.4	154.0	207.075	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	294	73	2213	207	1.418	207	0	89.7	111.4	1813.880	F
2 - Thames Road East	1832	458	626	2133	0.859	2089	1795	73.4	9.3	73.569	F
3 - Crayford Way	535	134	1838	336	1.591	336	876	186.8	236.5	1672.316	F
4 - Thames Road West	1965	491	102	2127	0.924	2112	2073	154.0	117.3	232.518	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	246	62	2235	197	1.250	197	0	111.4	123.7	2170.918	F
2 - Thames Road East	1534	384	607	2146	0.715	1560	1825	9.3	2.8	7.041	A
3 - Crayford Way	448	112	1374	601	0.745	598	793	236.5	198.9	1310.520	F
4 - Thames Road West	1646	411	181	2073	0.794	2054	1792	117.3	15.2	119.991	F

2038 Local Plan - No LTC - Sens Test, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Thames Road East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	404.54	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	404.54	F

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	2038 Local Plan - No LTC - Sens Test	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - London Loop		ONE HOUR	✓	352	100.000
2 - Thames Road East		ONE HOUR	✓	2021	100.000
3 - Crayford Way		ONE HOUR	✓	599	100.000
4 - Thames Road West		ONE HOUR	✓	2107	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	220	132	0
	2 - Thames Road East	0	0	256	1765
	3 - Crayford Way	0	183	0	416
	4 - Thames Road West	0	1549	553	5

Vehicle Mix

Heavy Vehicle Percentages

	To			
	1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From				
1 - London Loop	0	21	3	0
2 - Thames Road East	17	0	13	3
3 - Crayford Way	3	14	0	0
4 - Thames Road West	0	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - London Loop	1.92	1657.83	129.7	F	323	485
2 - Thames Road East	1.05	98.93	67.6	F	1855	2782
3 - Crayford Way	2.01	1587.71	228.0	F	550	824
4 - Thames Road West	1.09	151.95	110.5	F	1933	2900

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	265	66	1709	445	0.595	259	0	0.0	1.6	21.254	C
2 - Thames Road East	1522	380	514	2212	0.688	1512	1454	0.0	2.3	5.298	A
3 - Crayford Way	451	113	1325	629	0.717	441	702	0.0	2.4	19.029	C
4 - Thames Road West	1586	397	135	2104	0.754	1574	1631	0.0	3.0	6.790	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	316	79	2016	300	1.054	277	0	1.6	11.4	116.501	F
2 - Thames Road East	1817	454	600	2151	0.845	1805	1693	2.3	5.3	10.478	B
3 - Crayford Way	538	135	1581	483	1.114	466	824	2.4	20.6	114.731	F
4 - Thames Road West	1894	474	142	2099	0.902	1874	1904	3.0	8.1	15.118	C

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	388	97	2210	209	1.855	208	0	11.4	56.2	624.420	F
2 - Thames Road East	2225	556	636	2126	1.047	2086	1782	5.3	40.0	48.121	E
3 - Crayford Way	660	165	1827	343	1.925	342	895	20.6	99.9	664.153	F
4 - Thames Road West	2320	580	105	2125	1.092	2105	2065	8.1	61.7	68.124	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	388	97	2225	202	1.920	202	0	56.2	102.6	1442.901	F
2 - Thames Road East	2225	556	638	2124	1.047	2115	1788	40.0	67.6	98.926	F
3 - Crayford Way	660	165	1852	328	2.008	328	901	99.9	182.7	1563.452	F
4 - Thames Road West	2320	580	100	2128	1.090	2125	2080	61.7	110.5	151.945	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	316	79	2211	208	1.520	208	0	102.6	129.7	1657.833	F
2 - Thames Road East	1817	454	635	2127	0.854	2057	1785	67.6	7.7	63.216	F
3 - Crayford Way	538	135	1801	357	1.507	357	890	182.7	228.0	1587.710	F
4 - Thames Road West	1894	474	109	2122	0.893	2102	2049	110.5	58.5	146.461	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	265	66	1993	311	0.851	309	0	129.7	118.8	1449.518	F
2 - Thames Road East	1522	380	594	2155	0.706	1542	1707	7.7	2.6	6.310	A
3 - Crayford Way	451	113	1351	614	0.734	611	785	228.0	187.9	1225.097	F
4 - Thames Road West	1586	397	187	2070	0.766	1806	1776	58.5	3.6	27.497	D

2038 Local Plan - With LTC - Sens Test, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Thames Road East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	416.16	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	416.16	F

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	2038 Local Plan - With LTC - Sens Test	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - London Loop		ONE HOUR	✓	343	100.000
2 - Thames Road East		ONE HOUR	✓	2038	100.000
3 - Crayford Way		ONE HOUR	✓	585	100.000
4 - Thames Road West		ONE HOUR	✓	2137	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	218	125	0
	2 - Thames Road East	0	0	254	1784
	3 - Crayford Way	0	176	0	409
	4 - Thames Road West	0	1598	526	13

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	8	3	0
	2 - Thames Road East	0	0	10	10
	3 - Crayford Way	0	14	0	1
	4 - Thames Road West	0	12	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - London Loop	1.86	1693.57	122.0	F	315	472
2 - Thames Road East	1.05	99.56	68.4	F	1870	2805
3 - Crayford Way	2.06	1646.50	228.9	F	537	805
4 - Thames Road West	1.11	176.26	125.6	F	1961	2941

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	258	65	1725	438	0.590	252	0	0.0	1.4	20.033	C
2 - Thames Road East	1534	384	494	2225	0.690	1525	1483	0.0	2.4	5.581	A
3 - Crayford Way	440	110	1344	618	0.713	431	675	0.0	2.4	19.251	C
4 - Thames Road West	1609	402	130	2108	0.763	1595	1646	0.0	3.4	7.541	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	308	77	2033	292	1.055	270	0	1.4	10.9	113.627	F
2 - Thames Road East	1832	458	577	2167	0.845	1819	1727	2.4	5.6	10.994	B
3 - Crayford Way	526	131	1604	470	1.120	453	792	2.4	20.7	118.493	F
4 - Thames Road West	1921	480	136	2103	0.913	1897	1921	3.4	9.5	17.418	C

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	378	94	2210	209	1.809	208	0	10.9	53.3	592.774	F
2 - Thames Road East	2244	561	608	2145	1.046	2103	1810	5.6	40.7	48.886	E
3 - Crayford Way	644	161	1854	327	1.969	327	858	20.7	100.0	697.525	F
4 - Thames Road West	2353	588	98	2129	1.105	2112	2083	9.5	69.7	76.213	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	378	94	2223	203	1.864	202	0	53.3	97.1	1361.249	F
2 - Thames Road East	2244	561	611	2144	1.047	2133	1815	40.7	68.4	99.565	F
3 - Crayford Way	644	161	1880	312	2.063	312	864	100.0	183.0	1646.499	F
4 - Thames Road West	2353	588	94	2132	1.104	2129	2098	69.7	125.6	171.206	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	308	77	2210	209	1.477	209	0	97.1	122.0	1693.568	F
2 - Thames Road East	1832	458	608	2146	0.854	2073	1811	68.4	8.1	63.796	F
3 - Crayford Way	526	131	1828	342	1.537	342	853	183.0	228.9	1628.698	F
4 - Thames Road West	1921	480	103	2126	0.904	2107	2067	125.6	79.0	176.262	F

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	258	65	2088	266	0.970	264	0	122.0	120.6	1653.839	F
2 - Thames Road East	1534	384	578	2167	0.708	1556	1775	8.1	2.7	6.698	A
3 - Crayford Way	440	110	1374	601	0.732	599	760	228.9	189.4	1258.524	F
4 - Thames Road West	1609	402	180	2074	0.776	1908	1792	79.0	4.2	54.060	F

Junctions 10
ARCADY 10 - Roundabout Module
Version: 10.0.4.1693 © Copyright TRL Software Limited, 2021
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Filename: Crayford Way RBT v07 - AM - MIT.j10

Path: J:\50923 - GH - LB Bexley Local Plan\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10\2022 Modelling Update

Report generation date: 24/03/2022 14:54:20

- »2038 Local Plan - No LTC, AM
- »2038 Local Plan - With LTC, AM
- »2038 Local Plan - No LTC - Sens Test, AM
- »2038 Local Plan - With LTC - Sens Test, AM

Summary of junction performance

AM					
Set ID	Queue (PCU)	Delay (s)	RFC	LOS	
2038 Local Plan - No LTC					
1 - London Loop	D1	178.8	2641.16	1.89	F
2 - Thames Road East		113.7	145.08	1.09	F
3 - Crayford Way		58.6	352.04	1.20	F
4 - Thames Road West		237.3	445.76	1.22	F
2038 Local Plan - With LTC					
1 - London Loop	D2	161.1	2230.17	1.79	F
2 - Thames Road East		153.9	207.55	1.12	F
3 - Crayford Way		74.5	516.52	1.27	F
4 - Thames Road West		229.1	408.27	1.21	F
2038 Local Plan - No LTC - Sens Test					
1 - London Loop	D3	171.0	2547.47	1.87	F
2 - Thames Road East		111.1	142.12	1.08	F
3 - Crayford Way		55.7	327.39	1.18	F
4 - Thames Road West		229.3	432.45	1.22	F
2038 Local Plan - With LTC - Sens Test					
1 - London Loop	D4	150.7	2114.58	1.76	F
2 - Thames Road East		147.7	195.28	1.12	F
3 - Crayford Way		70.0	484.62	1.26	F
4 - Thames Road West		212.5	376.61	1.19	F

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

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

File summary

File Description

Title	
Location	
Site number	
Date	17/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\hwenman
Description	

Units

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

Analysis Options

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
D1	2038 Local Plan - No LTC	AM	ONE HOUR	07:45	09:15	15	✓
D2	2038 Local Plan - With LTC	AM	ONE HOUR	07:45	09:15	15	✓
D3	2038 Local Plan - No LTC - Sens Test	AM	ONE HOUR	07:45	09:15	15	✓
D4	2038 Local Plan - With LTC - Sens Test	AM	ONE HOUR	07:45	09:15	15	✓

Analysis Set Details

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

2038 Local Plan - No LTC, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Thames Road East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Crayford Way RBT	Standard Roundabout		1, 2, 3, 4	472.75	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	472.75	F

Arms

Arms

Arm	Name	Description	No give-way line
1	London Loop		
2	Thames Road East		
3	Crayford Way		
4	Thames Road West		

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 - London Loop	2.63	3.91	11.4	19.4	51.0	34.3		
2 - Thames Road East	4.11	10.01	154.9	18.9	51.3	63.0		
3 - Crayford Way	4.88	7.64	8.9	13.6	51.2	35.6		
4 - Thames Road West	7.62	10.51	25.5	15.6	51.0	63.7		

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - London Loop	None		
2 - Thames Road East	Direct		150
3 - Crayford Way	None		
4 - Thames Road West	Direct		-470

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final slope	Final intercept (PCU/hr)
1 - London Loop	✓	0.472	1252	0.472	1252
2 - Thames Road East				0.721	2656
3 - Crayford Way				0.613	1818
4 - Thames Road West				0.730	2095

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	2038 Local Plan - No LTC	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - London Loop		ONE HOUR	✓	403	100.000
2 - Thames Road East		ONE HOUR	✓	2268	100.000
3 - Crayford Way		ONE HOUR	✓	603	100.000
4 - Thames Road West		ONE HOUR	✓	2147	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	194	163	46
	2 - Thames Road East	0	0	259	2009
	3 - Crayford Way	0	238	0	365
	4 - Thames Road West	0	1733	414	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	16	7	4
	2 - Thames Road East	0	0	13	12
	3 - Crayford Way	0	17	0	2
	4 - Thames Road West	0	16	11	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - London Loop	1.89	2641.16	178.8	F	370	555
2 - Thames Road East	1.09	145.08	113.7	F	2081	3122
3 - Crayford Way	1.20	352.04	58.6	F	553	830
4 - Thames Road West	1.22	445.76	237.3	F	1970	2955

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	303	76	1774	415	0.732	293	0	0.0	2.7	30.534	D
2 - Thames Road East	1707	427	460	2325	0.734	1695	1607	0.0	3.0	6.297	A
3 - Crayford Way	454	113	1535	877	0.518	449	620	0.0	1.1	8.961	A
4 - Thames Road West	1616	404	177	1966	0.822	1597	1807	0.0	5.0	10.692	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	362	91	2072	274	1.322	267	0	2.7	26.4	232.318	F
2 - Thames Road East	2039	510	498	2297	0.887	2020	1842	3.0	7.8	13.671	B
3 - Crayford Way	542	136	1820	702	0.772	533	698	1.1	3.3	21.893	C
4 - Thames Road West	1930	483	211	1942	0.994	1861	2143	5.0	22.2	35.588	E

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	444	111	2151	237	1.874	237	0	26.4	78.2	822.641	F
2 - Thames Road East	2497	624	495	2299	1.086	2275	1892	7.8	63.3	64.892	F
3 - Crayford Way	664	166	2042	566	1.174	553	728	3.3	30.9	130.070	F
4 - Thames Road West	2364	591	218	1936	1.221	1932	2377	22.2	130.0	149.245	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	444	111	2154	235	1.886	235	0	78.2	130.3	1616.355	F
2 - Thames Road East	2497	624	495	2299	1.086	2295	1894	63.3	113.7	145.079	F
3 - Crayford Way	664	166	2060	555	1.197	553	731	30.9	58.6	305.296	F
4 - Thames Road West	2364	591	218	1936	1.221	1936	2395	130.0	237.1	346.119	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	362	91	2148	238	1.521	238	0	130.3	161.3	2250.092	F
2 - Thames Road East	2039	510	495	2299	0.887	2277	1891	113.7	54.3	134.793	F
3 - Crayford Way	542	136	2044	565	0.960	555	728	58.6	55.5	352.042	F
4 - Thames Road West	1930	483	219	1936	0.997	1929	2379	237.1	237.3	445.763	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	303	76	2158	234	1.299	234	0	161.3	178.8	2641.161	F
2 - Thames Road East	1707	427	486	2306	0.741	1911	1905	54.3	3.3	16.777	C
3 - Crayford Way	454	113	1720	763	0.595	669	678	55.5	1.7	105.974	F
4 - Thames Road West	1616	404	264	1903	0.849	1894	2125	237.3	168.0	385.997	F

2038 Local Plan - With LTC, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Thames Road East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Crayford Way RBT	Standard Roundabout		1, 2, 3, 4	467.22	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	467.22	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2038 Local Plan - With LTC	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - London Loop		ONE HOUR	✓	404	100.000
2 - Thames Road East		ONE HOUR	✓	2351	100.000
3 - Crayford Way		ONE HOUR	✓	572	100.000
4 - Thames Road West		ONE HOUR	✓	2204	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	198	160	46
	2 - Thames Road East	0	0	196	2155
	3 - Crayford Way	0	132	0	440
	4 - Thames Road West	0	1815	375	14

Vehicle Mix

Heavy Vehicle Percentages

	To			
	1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From 1 - London Loop	0	16	7	4
2 - Thames Road East	0	0	15	12
3 - Crayford Way	0	19	0	2
4 - Thames Road West	0	17	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - London Loop	1.79	2230.17	161.1	F	371	556
2 - Thames Road East	1.12	207.55	153.9	F	2157	3236
3 - Crayford Way	1.27	516.52	74.5	F	525	787
4 - Thames Road West	1.21	408.27	229.1	F	2022	3034

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	304	76	1738	432	0.704	295	0	0.0	2.4	27.496	D
2 - Thames Road East	1770	442	440	2339	0.757	1756	1593	0.0	3.4	6.786	A
3 - Crayford Way	431	108	1654	804	0.536	426	542	0.0	1.2	9.927	A
4 - Thames Road West	1659	415	98	2024	0.820	1639	1982	0.0	4.9	10.388	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	363	91	2035	292	1.245	283	0	2.4	22.5	192.909	F
2 - Thames Road East	2114	528	483	2308	0.916	2087	1834	3.4	10.0	16.583	C
3 - Crayford Way	514	129	1957	618	0.833	502	612	1.2	4.4	29.979	D
4 - Thames Road West	1981	495	116	2011	0.985	1919	2343	4.9	20.5	32.791	D

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	445	111	2122	250	1.776	250	0	22.5	71.2	701.979	F
2 - Thames Road East	2588	647	482	2309	1.121	2294	1890	10.0	83.6	81.490	F
3 - Crayford Way	630	157	2144	503	1.251	496	632	4.4	37.8	172.164	F
4 - Thames Road West	2427	607	114	2012	1.206	2008	2526	20.5	125.3	138.341	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	445	111	2126	249	1.789	249	0	71.2	120.3	1408.006	F
2 - Thames Road East	2588	647	482	2309	1.121	2307	1893	83.6	153.9	190.732	F
3 - Crayford Way	630	157	2156	496	1.270	495	633	37.8	71.4	409.585	F
4 - Thames Road West	2427	607	114	2012	1.206	2012	2537	125.3	229.1	321.974	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	363	91	2117	253	1.436	253	0	120.3	147.9	1933.864	F
2 - Thames Road East	2114	528	482	2309	0.915	2292	1887	153.9	109.3	207.548	F
3 - Crayford Way	514	129	2142	504	1.020	502	632	71.4	74.5	516.516	F
4 - Thames Road West	1981	495	116	2011	0.985	2001	2529	229.1	224.2	408.271	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	304	76	2120	252	1.209	251	0	147.9	161.1	2230.175	F
2 - Thames Road East	1770	442	480	2310	0.766	2191	1891	109.3	4.2	77.083	F
3 - Crayford Way	431	108	2049	561	0.767	553	621	74.5	43.8	387.415	F
4 - Thames Road West	1659	415	128	2002	0.829	1992	2475	224.2	141.1	330.995	F

2038 Local Plan - No LTC - Sens Test, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Thames Road East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Crayford Way RBT	Standard Roundabout		1, 2, 3, 4	453.80	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	453.80	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2038 Local Plan - No LTC - Sens Test	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - London Loop		ONE HOUR	✓	395	100.000
2 - Thames Road East		ONE HOUR	✓	2263	100.000
3 - Crayford Way		ONE HOUR	✓	604	100.000
4 - Thames Road West		ONE HOUR	✓	2122	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	192	159	44
	2 - Thames Road East	0	0	269	1994
	3 - Crayford Way	0	257	0	347
	4 - Thames Road West	0	1707	415	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	16	7	4
	2 - Thames Road East	0	0	13	12
	3 - Crayford Way	0	17	0	2
	4 - Thames Road West	0	16	11	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - London Loop	1.87	2547.47	171.0	F	362	544
2 - Thames Road East	1.08	142.12	111.1	F	2077	3115
3 - Crayford Way	1.18	327.39	55.7	F	554	831
4 - Thames Road West	1.22	432.45	229.3	F	1947	2921

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	297	74	1770	417	0.714	288	0	0.0	2.5	29.063	D
2 - Thames Road East	1704	426	456	2327	0.732	1692	1601	0.0	3.0	6.240	A
3 - Crayford Way	455	114	1523	884	0.514	450	625	0.0	1.1	8.859	A
4 - Thames Road West	1598	399	192	1956	0.817	1578	1781	0.0	4.8	10.492	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	355	89	2071	274	1.294	267	0	2.5	24.5	218.606	F
2 - Thames Road East	2034	509	498	2297	0.886	2016	1840	3.0	7.7	13.497	B
3 - Crayford Way	543	136	1806	711	0.764	535	708	1.1	3.2	21.156	C
4 - Thames Road West	1908	477	228	1929	0.989	1843	2113	4.8	20.8	34.236	D

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	435	109	2156	234	1.855	234	0	24.5	74.7	790.264	F
2 - Thames Road East	2492	623	495	2299	1.084	2274	1895	7.7	62.0	63.840	F
3 - Crayford Way	665	166	2030	573	1.160	560	740	3.2	29.5	123.870	F
4 - Thames Road West	2336	584	238	1922	1.216	1918	2351	20.8	125.5	144.989	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	435	109	2159	233	1.869	233	0	74.7	125.2	1568.283	F
2 - Thames Road East	2492	623	495	2299	1.084	2295	1897	62.0	111.1	142.120	F
3 - Crayford Way	665	166	2048	562	1.183	560	742	29.5	55.7	288.067	F
4 - Thames Road West	2336	584	238	1922	1.216	1921	2370	125.5	229.3	337.315	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	355	89	2149	238	1.495	237	0	125.2	154.7	2171.200	F
2 - Thames Road East	2034	509	496	2299	0.885	2276	1891	111.1	50.8	130.103	F
3 - Crayford Way	543	136	2032	572	0.949	561	740	55.7	51.2	327.395	F
4 - Thames Road West	1908	477	239	1921	0.993	1911	2354	229.3	228.6	432.454	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	297	74	2161	232	1.282	232	0	154.7	171.0	2547.474	F
2 - Thames Road East	1704	426	487	2305	0.739	1894	1906	50.8	3.3	15.281	C
3 - Crayford Way	455	114	1694	779	0.584	653	687	51.2	1.6	81.631	F
4 - Thames Road West	1598	399	278	1893	0.844	1883	2069	228.6	157.2	369.451	F

2038 Local Plan - With LTC - Sens Test, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Thames Road East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Crayford Way RBT	Standard Roundabout		1, 2, 3, 4	435.18	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	435.18	F

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	2038 Local Plan - With LTC - Sens Test	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - London Loop		ONE HOUR	✓	394	100.000
2 - Thames Road East		ONE HOUR	✓	2346	100.000
3 - Crayford Way		ONE HOUR	✓	566	100.000
4 - Thames Road West		ONE HOUR	✓	2166	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	195	156	43
	2 - Thames Road East	0	0	198	2148
	3 - Crayford Way	0	151	0	415
	4 - Thames Road West	0	1789	365	12

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	16	7	4
	2 - Thames Road East	0	0	15	12
	3 - Crayford Way	0	19	0	2
	4 - Thames Road West	0	17	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - London Loop	1.76	2114.58	150.7	F	362	542
2 - Thames Road East	1.12	195.28	147.7	F	2153	3229
3 - Crayford Way	1.26	484.62	70.0	F	519	779
4 - Thames Road West	1.19	376.61	212.5	F	1988	2981

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	297	74	1724	438	0.677	288	0	0.0	2.1	25.390	D
2 - Thames Road East	1766	442	426	2349	0.752	1753	1586	0.0	3.3	6.640	A
3 - Crayford Way	426	107	1645	809	0.527	422	534	0.0	1.2	9.739	A
4 - Thames Road West	1631	408	112	2013	0.810	1612	1954	0.0	4.7	9.988	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	354	89	2026	296	1.198	284	0	2.1	19.6	170.868	F
2 - Thames Road East	2109	527	473	2315	0.911	2084	1837	3.3	9.6	15.980	C
3 - Crayford Way	509	127	1950	623	0.817	497	608	1.2	4.0	28.263	D
4 - Thames Road West	1947	487	133	1999	0.974	1893	2314	4.7	18.1	30.115	D

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	434	108	2126	249	1.745	248	0	19.6	66.0	648.557	F
2 - Thames Road East	2583	646	472	2316	1.115	2300	1902	9.6	80.4	78.564	F
3 - Crayford Way	623	156	2144	503	1.238	496	628	4.0	36.0	164.788	F
4 - Thames Road West	2385	596	132	1999	1.193	1994	2507	18.1	115.9	128.861	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	434	108	2131	246	1.761	246	0	66.0	112.9	1328.152	F
2 - Thames Road East	2583	646	472	2316	1.115	2314	1905	80.4	147.7	182.979	F
3 - Crayford Way	623	156	2156	496	1.257	495	630	36.0	68.1	391.572	F
4 - Thames Road West	2385	596	132	1999	1.193	1999	2519	115.9	212.5	300.810	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	354	89	2121	251	1.411	251	0	112.9	138.7	1832.512	F
2 - Thames Road East	2109	527	473	2315	0.911	2298	1899	147.7	100.5	195.282	F
3 - Crayford Way	509	127	2142	504	1.009	501	628	68.1	70.0	484.619	F
4 - Thames Road West	1947	487	134	1998	0.975	1987	2510	212.5	202.5	376.611	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	297	74	2126	249	1.193	249	0	138.7	150.7	2114.577	F
2 - Thames Road East	1766	442	469	2318	0.762	2152	1906	100.5	3.9	63.028	F
3 - Crayford Way	426	107	2009	586	0.727	578	612	70.0	32.1	322.392	F
4 - Thames Road West	1631	408	154	1983	0.822	1972	2432	202.5	117.2	293.023	F

Junctions 10
ARCADY 10 - Roundabout Module
Version: 10.0.4.1693 © Copyright TRL Software Limited, 2021
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Filename: Crayford Way RBT v07 - PM - MIT.j10
Path: J:\50923 - GH - LB Bexley Local Plan\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10\2022 Modelling Update
Report generation date: 24/03/2022 14:57:22

- »2038 Local Plan - No LTC, PM
- »2038 Local Plan - With LTC, PM
- »2038 Local Plan - No LTC - Sens Test, PM
- »2038 Local Plan - With LTC - Sens Test, PM

Summary of junction performance

PM					
Set ID	Queue (PCU)	Delay (s)	RFC	LOS	
2038 Local Plan - No LTC					
1 - London Loop	D1	175.2	2195.51	4.20	F
2 - Thames Road East		36.5	57.93	1.00	F
3 - Crayford Way		124.8	725.19	1.59	F
4 - Thames Road West		28.1	44.09	0.99	E
2038 Local Plan - With LTC					
1 - London Loop	D2	177.3	2299.63	4.56	F
2 - Thames Road East		35.3	56.07	1.00	F
3 - Crayford Way		126.0	746.67	1.62	F
4 - Thames Road West		38.1	56.38	1.00	F
2038 Local Plan - No LTC - Sens Test					
1 - London Loop	D3	168.8	4061.81	3.73	F
2 - Thames Road East		31.6	51.44	0.99	F
3 - Crayford Way		121.8	702.30	1.58	F
4 - Thames Road West		21.1	34.59	0.97	D
2038 Local Plan - With LTC - Sens Test					
1 - London Loop	D4	170.3	4416.38	3.98	F
2 - Thames Road East		31.6	51.07	0.99	F
3 - Crayford Way		123.1	732.13	1.61	F
4 - Thames Road West		25.6	40.75	0.98	E

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

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

File summary

File Description

Title	
Location	
Site number	
Date	17/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\hwenman
Description	

Units

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

Analysis Options

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
D1	2038 Local Plan - No LTC	PM	ONE HOUR	16:45	18:15	15	✓
D2	2038 Local Plan - With LTC	PM	ONE HOUR	16:45	18:15	15	✓
D3	2038 Local Plan - No LTC - Sens Test	PM	ONE HOUR	16:45	18:15	15	✓
D4	2038 Local Plan - With LTC - Sens Test	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2038 Local Plan - No LTC, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Thames Road East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	273.54	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	273.54	F

Arms

Arms

Arm	Name	Description	No give-way line
1	London Loop		
2	Thames Road East		
3	Crayford Way		
4	Thames Road West		

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 - London Loop	2.63	3.91	11.4	19.4	51.0	34.3		
2 - Thames Road East	4.11	10.01	154.9	18.9	51.3	63.0		
3 - Crayford Way	4.88	7.64	8.9	13.6	51.2	35.6		
4 - Thames Road West	7.62	10.51	25.5	15.6	51.0	63.7		

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - London Loop	None		
2 - Thames Road East	Direct		200
3 - Crayford Way	Direct		-225
4 - Thames Road West	Direct		-75

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final slope	Final intercept (PCU/hr)
1 - London Loop	✓	0.472	1252	0.472	1252
2 - Thames Road East				0.721	2705
3 - Crayford Way				0.613	1594
4 - Thames Road West				0.730	2491

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	2038 Local Plan - No LTC	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - London Loop		ONE HOUR	✓	342	100.000
2 - Thames Road East		ONE HOUR	✓	2030	100.000
3 - Crayford Way		ONE HOUR	✓	604	100.000
4 - Thames Road West		ONE HOUR	✓	2146	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	213	129	0
	2 - Thames Road East	0	0	254	1776
	3 - Crayford Way	0	182	0	422
	4 - Thames Road West	0	1568	577	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	9	3	0
	2 - Thames Road East	0	0	10	10
	3 - Crayford Way	0	14	0	1
	4 - Thames Road West	0	11	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - London Loop	4.20	2195.51	175.2	F	314	471
2 - Thames Road East	1.00	57.93	36.5	F	1863	2794
3 - Crayford Way	1.59	725.19	124.8	F	554	831
4 - Thames Road West	0.99	44.09	28.1	E	1969	2954

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	257	64	1742	430	0.599	251	0	0.0	1.5	20.898	C
2 - Thames Road East	1528	382	528	2325	0.657	1520	1466	0.0	2.1	4.870	A
3 - Crayford Way	455	114	1331	778	0.585	449	717	0.0	1.4	11.275	B
4 - Thames Road West	1616	404	135	2392	0.675	1607	1644	0.0	2.2	4.957	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	307	77	2079	271	1.135	256	0	1.5	14.4	169.745	F
2 - Thames Road East	1825	456	614	2263	0.806	1816	1721	2.1	4.4	8.678	A
3 - Crayford Way	543	136	1589	619	0.878	526	840	1.4	5.6	35.802	E
4 - Thames Road West	1929	482	159	2375	0.812	1920	1957	2.2	4.5	8.482	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	377	94	2426	107	3.516	107	0	14.4	81.8	1433.280	F
2 - Thames Road East	2235	559	658	2231	1.002	2152	1874	4.4	25.3	33.507	D
3 - Crayford Way	665	166	1883	438	1.517	436	926	5.6	62.9	305.060	F
4 - Thames Road West	2363	591	131	2395	0.987	2294	2188	4.5	21.6	28.415	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	377	94	2463	90	4.204	90	0	81.8	153.5	2195.509	F
2 - Thames Road East	2235	559	663	2227	1.003	2190	1889	25.3	36.5	57.932	F
3 - Crayford Way	665	166	1917	418	1.592	418	936	62.9	124.7	725.192	F
4 - Thames Road West	2363	591	126	2399	0.985	2337	2209	21.6	28.1	44.086	E

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	307	77	2185	221	1.393	221	0	153.5	175.2	1956.571	F
2 - Thames Road East	1825	456	628	2253	0.810	1951	1778	36.5	5.0	18.155	C
3 - Crayford Way	543	136	1708	546	0.994	543	871	124.7	124.8	720.208	F
4 - Thames Road West	1929	482	164	2371	0.814	2021	2087	28.1	5.1	13.945	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	257	64	1855	376	0.684	374	0	175.2	146.0	1546.362	F
2 - Thames Road East	1528	382	579	2288	0.668	1539	1650	5.0	2.3	5.364	A
3 - Crayford Way	455	114	1347	767	0.593	761	771	124.8	48.3	412.632	F
4 - Thames Road West	1616	404	229	2323	0.695	1626	1879	5.1	2.5	5.717	A

2038 Local Plan - With LTC, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Thames Road East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	278.62	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	278.62	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2038 Local Plan - With LTC	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - London Loop		ONE HOUR	✓	327	100.000
2 - Thames Road East		ONE HOUR	✓	2038	100.000
3 - Crayford Way		ONE HOUR	✓	595	100.000
4 - Thames Road West		ONE HOUR	✓	2186	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	207	120	0
	2 - Thames Road East	0	0	249	1789
	3 - Crayford Way	0	180	0	415
	4 - Thames Road West	0	1617	564	5

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	9	4	0
	2 - Thames Road East	0	0	10	10
	3 - Crayford Way	0	14	0	1
	4 - Thames Road West	0	12	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - London Loop	4.56	2299.63	177.3	F	300	450
2 - Thames Road East	1.00	56.07	35.3	F	1870	2805
3 - Crayford Way	1.62	746.67	126.0	F	546	819
4 - Thames Road West	1.00	56.38	38.1	F	2006	3009

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	246	62	1770	417	0.591	240	0	0.0	1.5	21.249	C
2 - Thames Road East	1534	384	514	2335	0.657	1526	1496	0.0	2.1	4.847	A
3 - Crayford Way	448	112	1343	770	0.582	442	697	0.0	1.4	11.316	B
4 - Thames Road West	1646	411	134	2393	0.688	1636	1652	0.0	2.4	5.173	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	294	73	2112	255	1.151	241	0	1.5	14.6	184.752	F
2 - Thames Road East	1832	458	597	2275	0.805	1823	1756	2.1	4.3	8.596	A
3 - Crayford Way	535	134	1605	609	0.878	518	816	1.4	5.6	36.257	E
4 - Thames Road West	1965	491	157	2376	0.827	1955	1966	2.4	5.0	9.177	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	360	90	2447	97	3.708	97	0	14.6	80.3	1550.315	F
2 - Thames Road East	2244	561	639	2245	1.000	2163	1905	4.3	24.7	32.782	D
3 - Crayford Way	655	164	1904	426	1.538	424	898	5.6	63.5	316.536	F
4 - Thames Road West	2407	602	128	2397	1.004	2319	2199	5.0	27.0	33.275	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	360	90	2485	79	4.557	79	0	80.3	150.6	2299.630	F
2 - Thames Road East	2244	561	644	2241	1.001	2201	1920	24.7	35.3	56.069	F
3 - Crayford Way	655	164	1938	405	1.618	405	908	63.5	126.0	746.667	F
4 - Thames Road West	2407	602	122	2401	1.002	2363	2220	27.0	38.1	56.379	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	294	73	2256	187	1.572	187	0	150.6	177.3	2078.556	F
2 - Thames Road East	1832	458	614	2263	0.810	1953	1829	35.3	5.0	17.411	C
3 - Crayford Way	535	134	1719	539	0.992	535	848	126.0	126.0	733.153	F
4 - Thames Road West	1965	491	162	2373	0.828	2094	2092	38.1	5.7	19.897	C

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	246	62	1886	362	0.680	360	0	177.3	148.9	1633.174	F
2 - Thames Road East	1534	384	564	2299	0.667	1545	1682	5.0	2.2	5.326	A
3 - Crayford Way	448	112	1360	759	0.590	753	749	126.0	49.7	423.192	F
4 - Thames Road West	1646	411	228	2325	0.708	1658	1886	5.7	2.7	6.046	A

2038 Local Plan - No LTC - Sens Test, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Thames Road East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	399.15	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	399.15	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2038 Local Plan - No LTC - Sens Test	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - London Loop		ONE HOUR	✓	352	100.000
2 - Thames Road East		ONE HOUR	✓	2021	100.000
3 - Crayford Way		ONE HOUR	✓	599	100.000
4 - Thames Road West		ONE HOUR	✓	2107	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	220	132	0
	2 - Thames Road East	0	0	256	1765
	3 - Crayford Way	0	183	0	416
	4 - Thames Road West	0	1549	553	5

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	9	3	0
	2 - Thames Road East	0	0	10	10
	3 - Crayford Way	0	14	0	1
	4 - Thames Road West	0	11	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - London Loop	3.73	4061.81	168.8	F	323	485
2 - Thames Road East	0.99	51.44	31.6	F	1855	2782
3 - Crayford Way	1.58	702.30	121.8	F	550	824
4 - Thames Road West	0.97	34.59	21.1	D	1933	2900

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	265	66	1714	443	0.598	259	0	0.0	1.5	20.266	C
2 - Thames Road East	1522	380	515	2334	0.652	1513	1458	0.0	2.0	4.779	A
3 - Crayford Way	451	113	1325	781	0.578	445	703	0.0	1.4	11.062	B
4 - Thames Road West	1586	397	136	2391	0.663	1578	1635	0.0	2.1	4.788	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	316	79	2046	286	1.105	269	0	1.5	13.3	148.450	F
2 - Thames Road East	1817	454	600	2273	0.799	1808	1715	2.0	4.2	8.372	A
3 - Crayford Way	538	135	1584	622	0.865	523	825	1.4	5.2	33.879	D
4 - Thames Road West	1894	474	160	2374	0.798	1886	1947	2.1	4.1	7.934	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	388	97	2400	119	3.246	119	0	13.3	80.4	1287.838	F
2 - Thames Road East	2225	556	645	2241	0.993	2151	1874	4.2	22.8	31.045	D
3 - Crayford Way	660	165	1884	438	1.505	436	912	5.2	61.2	296.861	F
4 - Thames Road West	2320	580	133	2394	0.969	2267	2186	4.1	17.5	24.363	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	388	97	2433	104	3.735	104	0	80.4	151.4	4061.807	F
2 - Thames Road East	2225	556	649	2237	0.995	2190	1887	22.8	31.6	51.441	F
3 - Crayford Way	660	165	1918	417	1.581	417	921	61.2	121.8	702.300	F
4 - Thames Road West	2320	580	127	2398	0.968	2305	2208	17.5	21.1	34.588	D

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	316	79	2130	247	1.283	247	0	151.4	168.8	1823.131	F
2 - Thames Road East	1817	454	612	2265	0.802	1924	1765	31.6	4.7	15.108	C
3 - Crayford Way	538	135	1685	560	0.962	555	851	121.8	117.6	685.677	F
4 - Thames Road West	1894	474	170	2367	0.800	1960	2071	21.1	4.6	11.125	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	265	66	1828	389	0.681	387	0	168.8	138.4	1432.020	F
2 - Thames Road East	1522	380	567	2296	0.663	1532	1648	4.7	2.2	5.246	A
3 - Crayford Way	451	113	1341	771	0.585	764	758	117.6	39.4	373.399	F
4 - Thames Road West	1586	397	233	2320	0.684	1595	1872	4.6	2.4	5.489	A

2038 Local Plan - With LTC - Sens Test, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Thames Road East - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	418.24	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	418.24	F

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	2038 Local Plan - With LTC - Sens Test	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - London Loop		ONE HOUR	✓	343	100.000
2 - Thames Road East		ONE HOUR	✓	2038	100.000
3 - Crayford Way		ONE HOUR	✓	585	100.000
4 - Thames Road West		ONE HOUR	✓	2137	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	218	125	0
	2 - Thames Road East	0	0	254	1784
	3 - Crayford Way	0	176	0	409
	4 - Thames Road West	0	1598	526	13

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - London Loop	2 - Thames Road East	3 - Crayford Way	4 - Thames Road West
From	1 - London Loop	0	9	4	0
	2 - Thames Road East	0	0	10	10
	3 - Crayford Way	0	14	0	1
	4 - Thames Road West	0	12	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - London Loop	3.98	4416.38	170.3	F	315	472
2 - Thames Road East	0.99	51.07	31.6	F	1870	2805
3 - Crayford Way	1.61	732.13	123.1	F	537	805
4 - Thames Road West	0.98	40.75	25.6	E	1961	2941

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	258	65	1731	435	0.594	252	0	0.0	1.5	20.506	C
2 - Thames Road East	1534	384	496	2348	0.653	1526	1488	0.0	2.0	4.771	A
3 - Crayford Way	440	110	1346	768	0.573	435	676	0.0	1.4	11.124	B
4 - Thames Road West	1609	402	131	2395	0.672	1600	1650	0.0	2.2	4.931	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	308	77	2066	277	1.114	260	0	1.5	13.5	156.111	F
2 - Thames Road East	1832	458	577	2289	0.800	1823	1749	2.0	4.2	8.346	A
3 - Crayford Way	526	131	1608	607	0.866	511	793	1.4	5.2	34.559	D
4 - Thames Road West	1921	480	154	2379	0.808	1912	1965	2.2	4.4	8.343	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	378	94	2415	112	3.373	112	0	13.5	79.9	1356.894	F
2 - Thames Road East	2244	561	618	2260	0.993	2169	1909	4.2	22.8	30.862	D
3 - Crayford Way	644	161	1913	420	1.533	418	875	5.2	61.8	311.978	F
4 - Thames Road West	2353	588	126	2399	0.981	2290	2205	4.4	20.2	27.080	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	378	94	2451	95	3.978	95	0	79.9	150.6	4416.376	F
2 - Thames Road East	2244	561	623	2257	0.994	2209	1924	22.8	31.6	51.070	F
3 - Crayford Way	644	161	1948	399	1.614	399	884	61.8	123.1	732.126	F
4 - Thames Road West	2353	588	120	2403	0.979	2331	2226	20.2	25.6	40.755	E

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	308	77	2166	230	1.343	230	0	150.6	170.3	1885.828	F
2 - Thames Road East	1832	458	589	2281	0.803	1940	1807	31.6	4.8	15.043	C
3 - Crayford Way	526	131	1710	545	0.965	540	819	123.1	119.5	706.949	F
4 - Thames Road West	1921	480	163	2372	0.810	2004	2088	25.6	5.0	12.963	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - London Loop	258	65	1845	381	0.677	379	0	170.3	140.2	1476.246	F
2 - Thames Road East	1534	384	546	2312	0.664	1545	1677	4.8	2.2	5.228	A
3 - Crayford Way	440	110	1362	758	0.581	752	729	119.5	41.7	389.401	F
4 - Thames Road West	1609	402	226	2326	0.692	1619	1887	5.0	2.5	5.682	A

Appendix J Thames Road / Bob Dunn Way (Existing)

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.0.1499

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Filename: Burnham Road RBT v06 - AM.j10

Path: J:\50923 - GH - LB Bexley Local Plan\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10\2022
Modelling Update

Report generation date: 23/03/2022 11:20:51

-
- »2015 Observed, AM
 - »2038 Reference Case - No LTC, AM
 - »2038 Reference Case - With LTC, AM
 - »2038 Local Plan - No LTC, AM
 - »2038 Local Plan - With LTC, AM
 - »2038 Local Plan - No LTC - Sens Test, AM
 - »2038 Local Plan - With LTC - Sens Test, AM

Summary of junction performance

AM					
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2015 Observed					
1 - University Way	D1	54.1	109.64	1.07	F
2 - Burnham Road		31.3	118.25	1.06	F
3 - Thames Road		0.8	5.31	0.46	A
2038 Reference Case - No LTC					
1 - University Way	D2	275.8	596.18	1.31	F
2 - Burnham Road		207.3	841.67	1.41	F
3 - Thames Road		1.7	8.30	0.63	A
2038 Reference Case - With LTC					
1 - University Way	D3	438.3	823.05	1.39	F
2 - Burnham Road		150.2	738.74	1.36	F
3 - Thames Road		1.6	8.04	0.61	A
2038 Local Plan - No LTC					
1 - University Way	D4	320.4	656.54	1.33	F
2 - Burnham Road		241.6	1045.32	1.47	F
3 - Thames Road		2.3	10.20	0.69	B
2038 Local Plan - With LTC					
1 - University Way	D5	473.7	864.59	1.41	F
2 - Burnham Road		224.5	1151.28	1.50	F
3 - Thames Road		2.1	9.92	0.68	A
2038 Local Plan - No LTC - Sens Test					
1 - University Way	D6	315.0	648.67	1.33	F
2 - Burnham Road		237.3	1017.66	1.46	F
3 - Thames Road		2.2	9.91	0.68	A
2038 Local Plan - With LTC - Sens Test					
1 - University Way	D7	471.2	860.97	1.41	F
2 - Burnham Road		219.1	1126.32	1.50	F
3 - Thames Road		2.1	9.80	0.68	A

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

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

File summary

File Description

Title	
Location	
Site number	
Date	22/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\hwenman
Description	

Units

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

Analysis Options

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
D1	2015 Observed	AM	ONE HOUR	07:45	09:15	15	✓
D2	2038 Reference Case - No LTC	AM	ONE HOUR	07:45	09:15	15	✓
D3	2038 Reference Case - With LTC	AM	ONE HOUR	07:45	09:15	15	✓
D4	2038 Local Plan - No LTC	AM	ONE HOUR	07:45	09:15	15	✓
D5	2038 Local Plan - With LTC	AM	ONE HOUR	07:45	09:15	15	✓
D6	2038 Local Plan - No LTC - Sens Test	AM	ONE HOUR	07:45	09:15	15	✓
D7	2038 Local Plan - With LTC - Sens Test	AM	ONE HOUR	07:45	09:15	15	✓

Analysis Set Details

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

2015 Observed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - University Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Burnham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Burnham Road Roundabout	Standard Roundabout		1, 2, 3	69.88	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	69.88	F

Arms

Arms

Arm	Name	Description	No give-way line
1	University Way		
2	Burnham Road		
3	Thames Road		

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 - University Way	8.51	12.93	35.8	40.5	61.1	18.6		
2 - Burnham Road	3.44	13.11	43.4	53.1	55.9	48.6		
3 - Thames Road	4.09	4.39	2.6	45.6	60.8	28.2		

Bypass

Arm	Arm has bypass	Bypass utilisation (%)
1 - University Way		
2 - Burnham Road		
3 - Thames Road	✓	100

Exit Restrictions

Arm	Exit restriction present	Linked exit restriction present	Maximum capacity (PCU/hr)
1 - University Way			
2 - Burnham Road			
3 - Thames Road	✓		1860

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - University Way	0.921	3765
2 - Burnham Road	0.743	2658
3 - Thames Road	0.501	1349

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	2015 Observed	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - University Way		ONE HOUR	✓	1426	100.000
2 - Burnham Road		ONE HOUR	✓	797	100.000
3 - Thames Road		ONE HOUR	✓	1475	100.000

Origin-Destination Data

Demand (PCU/hr)

	From	To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
	1 - University Way	8	255	1163
	2 - Burnham Road	135	11	651
	3 - Thames Road	950	525	0

Vehicle Mix

Heavy Vehicle Percentages

	From	To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
	1 - University Way	4	4	10
	2 - Burnham Road	3	0	2
	3 - Thames Road	14	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - University Way	1.07	109.64	54.1	F	1309	1963
2 - Burnham Road	1.06	118.25	31.3	F	731	1097
3 - Thames Road	0.46	5.31	0.8	A	1353	723

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1074	1074	268	0	715	402	3395	0.316	1072	107	0.0	0.5	1.684	A
2 - Burnham Road	600	600	150	0	0	880	2004	0.299	598	593	0.0	0.4	2.612	A
3 - Thames Road	1110	395	99	715	0	116	1291	0.306	393	1363	0.0	0.4	4.082	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1282	1282	320	0	854	481	3321	0.386	1281	128	0.5	0.7	1.920	A
2 - Burnham Road	716	716	179	0	0	1052	1876	0.382	716	710	0.4	0.6	3.167	A
3 - Thames Road	1326	472	118	854	0	138	1280	0.369	471	1630	0.4	0.6	4.540	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1570	1570	393	0	1046	588	1521	1.032	1465	146	0.7	27.0	44.707	
2 - Burnham Road	878	878	219	0	0	1203	863	1.017	815	850	0.6	16.3	51.623	
3 - Thames Road	1624	578	145	1046	0	157	1270	0.455	577	1860	0.6	0.8	5.290	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1570	1570	393	0	1046	589	1471	1.067	1462	147	27.0	54.1	109.643	
2 - Burnham Road	878	878	219	0	0	1200	829	1.059	818	851	16.3	31.3	118.246	
3 - Thames Road	1624	578	145	1046	0	158	1270	0.455	578	1860	0.8	0.8	5.307	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1282	1282	320	0	854	484	1501	0.854	1462	147	54.1	9.0	80.752	
2 - Burnham Road	716	716	179	0	0	1201	868	0.826	817	746	31.3	6.2	79.772	
3 - Thames Road	1326	472	118	854	0	158	1270	0.372	473	1860	0.8	0.6	4.614	

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1074	1074	268	0	715	404	3392	0.316	1107	112	9.0	0.5	1.739	A
2 - Burnham Road	600	600	150	0	0	909	1982	0.303	623	602	6.2	0.4	2.751	A
3 - Thames Road	1110	395	99	715	0	120	1289	0.307	396	1412	0.6	0.5	4.117	A

2038 Reference Case - No LTC, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - University Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Burnham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Burnham Road Roundabout	Standard Roundabout		1, 2, 3	407.15	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	407.15	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2038 Reference Case - No LTC	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - University Way		ONE HOUR	✓	1888	100.000
2 - Burnham Road		ONE HOUR	✓	1064	100.000
3 - Thames Road		ONE HOUR	✓	2054	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	110	350	1428
	2 - Burnham Road	270	0	794
	3 - Thames Road	1378	676	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	8	8	17
	2 - Burnham Road	6	0	5
	3 - Thames Road	24	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - University Way	1.31	596.18	275.8	F	1732	2599
2 - Burnham Road	1.41	841.67	207.3	F	976	1465
3 - Thames Road	0.63	8.30	1.7	A	1885	930

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1421	1421	355	0	1037	506	3299	0.431	1418	285	0.0	0.9	2.191	A
2 - Burnham Road	801	801	200	0	0	1155	1800	0.445	798	769	0.0	0.8	3.769	A
3 - Thames Road	1546	509	127	1037	0	285	1206	0.422	506	1668	0.0	0.8	5.325	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1697	1697	424	0	1239	606	1643	1.033	1584	317	0.9	29.2	44.726	
2 - Burnham Road	957	957	239	0	0	1290	935	1.022	887	900	0.8	18.2	52.425	
3 - Thames Road	1847	608	152	1239	0	317	1190	0.511	606	1860	0.8	1.1	6.402	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2079	2079	520	0	1517	742	1589	1.308	1587	317	29.2	152.1	211.406	
2 - Burnham Road	1171	1171	293	0	0	1293	886	1.323	884	1036	18.2	90.1	235.565	
3 - Thames Road	2261	744	186	1517	0	317	1190	0.625	742	1860	1.1	1.7	8.301	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2079	2079	520	0	1517	744	1639	1.268	1639	306	152.1	262.0	459.249	
2 - Burnham Road	1171	1171	293	0	0	1335	831	1.409	831	1048	90.1	175.2	583.282	
3 - Thames Road	2261	744	186	1517	0	306	1195	0.623	744	1860	1.7	1.7	8.296	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1697	1697	424	0	1239	610	1643	1.033	1642	306	262.0	275.8	596.179	
2 - Burnham Road	957	957	239	0	0	1338	828	1.155	828	915	175.2	207.3	822.985	
3 - Thames Road	1847	608	152	1239	0	306	1196	0.508	610	1860	1.7	1.1	6.421	

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - University Way	1421	1421	355	0	1037	510	1620	0.877	1614	311	275.8	227.7	562.033	
2 - Burnham Road	801	801	200	0	0	1315	861	0.930	857	809	207.3	193.3	841.671	
3 - Thames Road	1546	509	127	1037	0	311	1193	0.427	510	1860	1.1	0.8	5.493	

2038 Reference Case - With LTC, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - University Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Burnham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Burnham Road Roundabout	Standard Roundabout		1, 2, 3	488.00	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	488.00	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2038 Reference Case - With LTC	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - University Way		ONE HOUR	✓	2287	100.000
2 - Burnham Road		ONE HOUR	✓	847	100.000
3 - Thames Road		ONE HOUR	✓	2039	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	126	454	1707
	2 - Burnham Road	265	0	582
	3 - Thames Road	1387	652	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	8	6	16
	2 - Burnham Road	6	0	5
	3 - Thames Road	25	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - University Way	1.39	823.05	438.3	F	2099	3148
2 - Burnham Road	1.36	738.74	150.2	F	777	1166
3 - Thames Road	0.61	8.04	1.6	A	1871	897

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1722	1722	430	0	1044	488	3315	0.519	1717	293	0.0	1.2	2.547	A
2 - Burnham Road	638	638	159	0	0	1376	1635	0.390	635	829	0.0	0.7	3.780	A
3 - Thames Road	1535	491	123	1044	0	293	1202	0.408	488	1718	0.0	0.7	5.273	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2056	2056	514	0	1247	585	1888	1.089	1852	320	1.2	52.3	60.867	
2 - Burnham Road	761	761	190	0	0	1484	736	1.035	696	953	0.7	17.1	61.573	
3 - Thames Road	1833	586	147	1247	0	320	1189	0.493	585	1860	0.7	1.0	6.245	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2518	2518	630	0	1527	716	1813	1.389	1812	331	52.3	228.8	282.464	
2 - Burnham Road	933	933	233	0	0	1453	741	1.259	738	1075	17.1	65.7	219.422	
3 - Thames Road	2245	718	179	1527	0	331	1183	0.607	716	1860	1.0	1.6	8.041	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2518	2518	630	0	1527	718	1863	1.352	1863	316	228.8	392.6	602.859	
2 - Burnham Road	933	933	233	0	0	1493	684	1.364	684	1088	65.7	127.9	522.926	
3 - Thames Road	2245	718	179	1527	0	316	1190	0.603	718	1860	1.6	1.6	7.999	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2056	2056	514	0	1247	588	1873	1.098	1873	314	392.6	438.3	805.709	
2 - Burnham Road	761	761	190	0	0	1501	673	1.132	672	960	127.9	150.2	738.744	
3 - Thames Road	1833	586	147	1247	0	314	1192	0.492	588	1860	1.6	1.0	6.288	

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - University Way	1722	1722	430	0	1044	492	1853	0.929	1848	321	438.3	406.7	823.054	
2 - Burnham Road	638	638	159	0	0	1481	704	0.906	699	859	150.2	134.8	734.197	
3 - Thames Road	1535	491	123	1044	0	321	1188	0.413	492	1860	1.0	0.7	5.436	

2038 Local Plan - No LTC, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - University Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Burnham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Burnham Road Roundabout	Standard Roundabout		1, 2, 3	470.37	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	470.37	F

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	2038 Local Plan - No LTC	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - University Way		ONE HOUR	✓	2000	100.000
2 - Burnham Road		ONE HOUR	✓	1086	100.000
3 - Thames Road		ONE HOUR	✓	2166	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	110	361	1529
	2 - Burnham Road	347	0	739
	3 - Thames Road	1433	733	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	8	8	16
	2 - Burnham Road	5	0	5
	3 - Thames Road	23	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - University Way	1.33	656.54	320.4	F	1835	2753
2 - Burnham Road	1.47	1045.32	241.6	F	997	1495
3 - Thames Road	0.69	10.20	2.3	B	1988	1009

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1506	1506	376	0	1079	548	3260	0.462	1502	343	0.0	1.0	2.330	A
2 - Burnham Road	818	818	204	0	0	1231	1743	0.469	814	819	0.0	0.9	4.048	A
3 - Thames Road	1631	552	138	1079	0	343	1177	0.469	548	1702	0.0	0.9	5.863	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1798	1798	449	0	1288	657	1686	1.066	1642	374	1.0	39.9	54.603	
2 - Burnham Road	976	976	244	0	0	1346	926	1.055	888	954	0.9	22.9	62.152	
3 - Thames Road	1947	659	165	1288	0	374	1162	0.567	657	1860	0.9	1.3	7.328	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2202	2202	551	0	1578	803	1655	1.331	1654	371	39.9	177.0	240.648	
2 - Burnham Road	1196	1196	299	0	0	1355	877	1.364	876	1102	22.9	103.0	275.266	
3 - Thames Road	2385	807	202	1578	0	371	1163	0.694	803	1860	1.3	2.3	10.196	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2202	2202	551	0	1578	807	1710	1.288	1709	354	177.0	300.1	506.056	
2 - Burnham Road	1196	1196	299	0	0	1401	813	1.471	813	1116	103.0	198.7	678.568	
3 - Thames Road	2385	807	202	1578	0	354	1172	0.689	807	1860	2.3	2.3	10.163	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1798	1798	449	0	1288	663	1717	1.047	1717	352	300.1	320.4	656.543	
2 - Burnham Road	976	976	244	0	0	1407	805	1.213	805	972	198.7	241.6	974.259	
3 - Thames Road	1947	659	165	1288	0	352	1173	0.562	663	1860	2.3	1.3	7.317	

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns I s
1 - University Way	1506	1506	376	0	1079	553	1702	0.885	1696	358	320.4	272.8	629.842	
2 - Burnham Road	818	818	204	0	0	1390	831	0.984	828	860	241.6	239.1	1045.315	
3 - Thames Road	1631	552	138	1079	0	358	1170	0.472	553	1860	1.3	0.9	6.035	

2038 Local Plan - With LTC, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - University Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Burnham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Burnham Road Roundabout	Standard Roundabout		1, 2, 3	577.97	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	577.97	F

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	2038 Local Plan - With LTC	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - University Way		ONE HOUR	✓	2349	100.000
2 - Burnham Road		ONE HOUR	✓	950	100.000
3 - Thames Road		ONE HOUR	✓	2144	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	128	473	1748
	2 - Burnham Road	347	0	603
	3 - Thames Road	1430	714	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	8	6	15
	2 - Burnham Road	5	0	4
	3 - Thames Road	23	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - University Way	1.41	864.59	473.7	F	2155	3233
2 - Burnham Road	1.50	1151.28	224.5	F	872	1308
3 - Thames Road	0.68	9.92	2.1	A	1967	983

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig level serv
1 - University Way	1768	1768	442	0	1077	534	3273	0.540	1763	356	0.0	1.3	2.678	A
2 - Burnham Road	715	715	179	0	0	1408	1612	0.444	712	889	0.0	0.8	4.161	A
3 - Thames Road	1614	538	134	1077	0	356	1171	0.459	534	1764	0.0	0.9	5.851	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig level serv
1 - University Way	2112	2112	528	0	1286	640	1876	1.126	1849	379	1.3	67.0	74.543	
2 - Burnham Road	854	854	214	0	0	1477	794	1.076	763	1013	0.8	23.6	72.274	
3 - Thames Road	1927	642	160	1286	0	379	1159	0.554	640	1860	0.9	1.3	7.198	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig level serv
1 - University Way	2586	2586	647	0	1574	783	1837	1.408	1837	384	67.0	254.4	316.543	
2 - Burnham Road	1046	1046	261	0	0	1467	778	1.344	777	1153	23.6	90.8	285.791	
3 - Thames Road	2361	786	197	1574	0	384	1157	0.680	783	1860	1.3	2.1	9.917	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig level serv
1 - University Way	2586	2586	647	0	1574	786	1907	1.356	1907	358	254.4	424.3	643.305	
2 - Burnham Road	1046	1046	261	0	0	1523	695	1.505	695	1170	90.8	178.6	710.626	
3 - Thames Road	2361	786	197	1574	0	358	1170	0.672	786	1860	2.1	2.1	9.760	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig level serv
1 - University Way	2112	2112	528	0	1286	645	1914	1.103	1914	355	424.3	473.7	849.066	
2 - Burnham Road	854	854	214	0	0	1529	686	1.245	686	1031	178.6	220.6	1051.900	
3 - Thames Road	1927	642	160	1286	0	355	1171	0.548	645	1860	2.1	1.3	7.164	

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
1 - University Way	1768	1768	442	0	1077	539	1907	0.927	1903	359	473.7	440.1	864.588	
2 - Burnham Road	715	715	179	0	0	1520	700	1.021	700	922	220.6	224.5	1151.278	
3 - Thames Road	1614	538	134	1077	0	359	1169	0.460	539	1860	1.3	0.9	5.960	

2038 Local Plan - No LTC - Sens Test, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - University Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Burnham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Burnham Road Roundabout	Standard Roundabout		1, 2, 3	461.60	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	461.60	F

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	2038 Local Plan - No LTC - Sens Test	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - University Way		ONE HOUR	✓	1989	100.000
2 - Burnham Road		ONE HOUR	✓	1083	100.000
3 - Thames Road		ONE HOUR	✓	2157	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	110	360	1519
	2 - Burnham Road	340	0	743
	3 - Thames Road	1432	725	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	8	8	16
	2 - Burnham Road	5	0	5
	3 - Thames Road	23	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - University Way	1.33	648.67	315.0	F	1825	2738
2 - Burnham Road	1.46	1017.66	237.3	F	994	1491
3 - Thames Road	0.68	9.91	2.2	A	1979	998

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1497	1497	374	0	1078	542	3265	0.459	1494	337	0.0	1.0	2.312	A
2 - Burnham Road	815	815	204	0	0	1223	1749	0.466	812	813	0.0	0.9	4.018	A
3 - Thames Road	1624	546	136	1078	0	337	1180	0.463	542	1698	0.0	0.9	5.785	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1788	1788	447	0	1287	650	1683	1.062	1638	369	1.0	38.5	53.307	
2 - Burnham Road	974	974	243	0	0	1341	927	1.051	888	947	0.9	22.3	60.928	
3 - Thames Road	1939	652	163	1287	0	369	1164	0.560	650	1860	0.9	1.3	7.193	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2190	2190	547	0	1577	795	1649	1.328	1648	366	38.5	174.1	236.946	
2 - Burnham Road	1192	1192	298	0	0	1350	878	1.358	877	1093	22.3	101.2	269.770	
3 - Thames Road	2375	798	200	1577	0	366	1165	0.685	795	1860	1.3	2.2	9.907	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2190	2190	547	0	1577	798	1704	1.286	1703	350	174.1	295.7	500.126	
2 - Burnham Road	1192	1192	298	0	0	1395	815	1.463	815	1107	101.2	195.5	665.940	
3 - Thames Road	2375	798	200	1577	0	350	1174	0.680	798	1860	2.2	2.2	9.874	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1788	1788	447	0	1287	655	1711	1.045	1711	348	295.7	315.0	648.669	
2 - Burnham Road	974	974	243	0	0	1401	807	1.207	807	965	195.5	237.3	954.445	
3 - Thames Road	1939	652	163	1287	0	348	1175	0.555	655	1860	2.2	1.3	7.186	

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
1 - University Way	1497	1497	374	0	1078	547	1694	0.884	1688	355	315.0	267.3	621.281	
2 - Burnham Road	815	815	204	0	0	1383	836	0.976	832	853	237.3	233.1	1017.662	
3 - Thames Road	1624	546	136	1078	0	355	1171	0.466	547	1860	1.3	0.9	5.957	

2038 Local Plan - With LTC - Sens Test, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - University Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Burnham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Burnham Road Roundabout	Standard Roundabout		1, 2, 3	572.01	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	572.01	F

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	2038 Local Plan - With LTC - Sens Test	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - University Way		ONE HOUR	✓	2345	100.000
2 - Burnham Road		ONE HOUR	✓	944	100.000
3 - Thames Road		ONE HOUR	✓	2136	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	127	472	1746
	2 - Burnham Road	343	0	601
	3 - Thames Road	1425	711	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	8	6	15
	2 - Burnham Road	5	0	4
	3 - Thames Road	24	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - University Way	1.41	860.97	471.2	F	2152	3228
2 - Burnham Road	1.50	1126.32	219.1	F	866	1299
3 - Thames Road	0.68	9.80	2.1	A	1960	979

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1765	1765	441	0	1073	532	3275	0.539	1760	352	0.0	1.3	2.670	A
2 - Burnham Road	711	711	178	0	0	1406	1613	0.441	707	886	0.0	0.8	4.132	A
3 - Thames Road	1608	535	134	1073	0	352	1172	0.457	532	1761	0.0	0.9	5.813	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2108	2108	527	0	1281	638	1876	1.123	1849	376	1.3	66.1	73.665	
2 - Burnham Road	849	849	212	0	0	1477	791	1.073	759	1010	0.8	23.2	71.539	
3 - Thames Road	1920	639	160	1281	0	376	1161	0.551	638	1860	0.9	1.3	7.137	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2582	2582	645	0	1569	779	1835	1.407	1835	381	66.1	252.8	314.453	
2 - Burnham Road	1039	1039	260	0	0	1466	777	1.338	776	1149	23.2	89.1	280.994	
3 - Thames Road	2352	783	196	1569	0	381	1158	0.676	779	1860	1.3	2.1	9.800	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2582	2582	645	0	1569	783	1904	1.356	1904	356	252.8	422.3	640.631	
2 - Burnham Road	1039	1039	260	0	0	1521	695	1.496	695	1166	89.1	175.3	698.267	
3 - Thames Road	2352	783	196	1569	0	356	1171	0.669	783	1860	2.1	2.1	9.649	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2108	2108	527	0	1281	643	1913	1.102	1912	352	422.3	471.2	845.774	
2 - Burnham Road	849	849	212	0	0	1528	685	1.239	685	1027	175.3	216.2	1033.639	
3 - Thames Road	1920	639	160	1281	0	352	1172	0.545	643	1860	2.1	1.3	7.108	

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Uns
1 - University Way	1765	1765	441	0	1073	537	1905	0.927	1900	357	471.2	437.5	860.974	
2 - Burnham Road	711	711	178	0	0	1518	700	1.015	699	919	216.2	219.1	1126.323	
3 - Thames Road	1608	535	134	1073	0	357	1170	0.457	537	1860	1.3	0.9	5.927	



Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.0.1499

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Filename: Burnham Road RBT v06 - PM.j10

Path: J:\50923 - GH - LB Bexley Local Plan\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10\2022
Modelling Update

Report generation date: 23/03/2022 11:33:03

-
- »2015 Observed, PM
 - »2038 Reference Case - No LTC, PM
 - »2038 Reference Case - With LTC, PM
 - »2038 Local Plan - No LTC, PM
 - »2038 Local Plan - With LTC, PM
 - »2038 Local Plan - No LTC - Sens Test, PM
 - »2038 Local Plan - With LTC - Sens Test, PM

Summary of junction performance

PM					
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2015 Observed					
1 - University Way	D1	26.4	58.48	1.01	F
2 - Burnham Road		16.0	67.21	1.00	F
3 - Thames Road		0.9	5.62	0.48	A
2038 Reference Case - No LTC					
1 - University Way	D2	165.4	292.54	1.18	F
2 - Burnham Road		60.1	217.32	1.11	F
3 - Thames Road		13.5	48.27	0.95	E
2038 Reference Case - With LTC					
1 - University Way	D3	163.7	287.92	1.17	F
2 - Burnham Road		77.9	274.24	1.15	F
3 - Thames Road		7.3	28.64	0.89	D
2038 Local Plan - No LTC					
1 - University Way	D4	204.2	388.09	1.22	F
2 - Burnham Road		73.4	279.67	1.15	F
3 - Thames Road		18.9	63.91	0.98	F
2038 Local Plan - With LTC					
1 - University Way	D5	204.6	381.89	1.21	F
2 - Burnham Road		86.9	328.49	1.18	F
3 - Thames Road		10.4	39.32	0.93	E
2038 Local Plan - No LTC - Sens Test					
1 - University Way	D6	199.1	374.23	1.21	F
2 - Burnham Road		72.2	274.50	1.15	F
3 - Thames Road		17.2	59.23	0.97	F
2038 Local Plan - With LTC - Sens Test					
1 - University Way	D7	204.8	382.26	1.22	F
2 - Burnham Road		86.2	327.16	1.18	F
3 - Thames Road		10.3	38.87	0.93	E

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

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

File summary

File Description

Title	
Location	
Site number	
Date	22/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\hwenman
Description	

Units

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

Analysis Options

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
D1	2015 Observed	PM	ONE HOUR	16:45	18:15	15	✓
D2	2038 Reference Case - No LTC	PM	ONE HOUR	16:45	18:15	15	✓
D3	2038 Reference Case - With LTC	PM	ONE HOUR	16:45	18:15	15	✓
D4	2038 Local Plan - No LTC	PM	ONE HOUR	16:45	18:15	15	✓
D5	2038 Local Plan - With LTC	PM	ONE HOUR	16:45	18:15	15	✓
D6	2038 Local Plan - No LTC - Sens Test	PM	ONE HOUR	16:45	18:15	15	✓
D7	2038 Local Plan - With LTC - Sens Test	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2015 Observed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - University Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Burnham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Burnham Road Roundabout	Standard Roundabout		1, 2, 3	37.19	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	37.19	E

Arms

Arms

Arm	Name	Description	No give-way line
1	University Way		
2	Burnham Road		
3	Thames Road		

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 - University Way	8.51	12.93	35.8	40.5	61.1	18.6		
2 - Burnham Road	3.44	13.11	43.4	53.1	55.9	48.6		
3 - Thames Road	4.09	4.39	2.6	45.6	60.8	28.2		

Bypass

Arm	Arm has bypass	Bypass utilisation (%)
1 - University Way		
2 - Burnham Road		
3 - Thames Road	✓	100

Exit Restrictions

Arm	Exit restriction present	Linked exit restriction present	Maximum capacity (PCU/hr)
1 - University Way			
2 - Burnham Road			
3 - Thames Road	✓		1860

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - University Way	0.921	3765
2 - Burnham Road	0.743	2658
3 - Thames Road	0.501	1349

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	2015 Observed	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - University Way		ONE HOUR	✓	1349	100.000
2 - Burnham Road		ONE HOUR	✓	740	100.000
3 - Thames Road		ONE HOUR	✓	1613	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - University Way	2 - Burnham Road	3 - Thames Road	
From	1 - University Way	10	166	1173
	2 - Burnham Road	142	19	579
	3 - Thames Road	1064	549	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	1 - University Way	2 - Burnham Road	3 - Thames Road	
From	1 - University Way	5	2	7
	2 - Burnham Road	2	0	1
	3 - Thames Road	11	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - University Way	1.01	58.48	26.4	F	1238	1857
2 - Burnham Road	1.00	67.21	16.0	F	679	1019
3 - Thames Road	0.48	5.62	0.9	A	1480	756

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1016	1016	254	0	801	426	3373	0.301	1014	114	0.0	0.5	1.623	A
2 - Burnham Road	557	557	139	0	0	889	1997	0.279	556	550	0.0	0.4	2.524	A
3 - Thames Road	1214	413	103	801	0	128	1285	0.322	411	1316	0.0	0.5	4.195	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1213	1213	303	0	957	510	3295	0.368	1212	137	0.5	0.6	1.837	A
2 - Burnham Road	665	665	166	0	0	1063	1868	0.356	665	659	0.4	0.6	3.024	A
3 - Thames Road	1450	494	123	957	0	154	1272	0.388	493	1574	0.5	0.6	4.709	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1485	1485	371	0	1171	623	1546	0.961	1434	161	0.6	13.3	27.171	
2 - Burnham Road	815	815	204	0	0	1258	874	0.932	783	800	0.6	8.5	32.836	
3 - Thames Road	1776	604	151	1171	0	181	1258	0.480	603	1860	0.6	0.9	5.595	

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1485	1485	371	0	1171	625	1468	1.012	1433	161	13.3	26.4	58.483	
2 - Burnham Road	815	815	204	0	0	1257	818	0.996	785	801	8.5	16.0	67.213	
3 - Thames Road	1776	604	151	1171	0	181	1258	0.480	604	1860	0.9	0.9	5.616	

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1213	1213	303	0	957	513	3292	0.368	1316	149	26.4	0.6	2.041	A
2 - Burnham Road	665	665	166	0	0	1154	1801	0.369	727	675	16.0	0.6	3.595	A
3 - Thames Road	1450	494	123	957	0	168	1265	0.390	495	1713	0.9	0.7	4.774	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1016	1016	254	0	801	428	3370	0.301	1016	115	0.6	0.5	1.626	A
2 - Burnham Road	557	557	139	0	0	891	1996	0.279	558	553	0.6	0.4	2.534	A
3 - Thames Road	1214	413	103	801	0	129	1284	0.322	414	1320	0.7	0.5	4.223	A

2038 Reference Case - No LTC, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - University Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Burnham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Burnham Road Roundabout	Standard Roundabout		1, 2, 3	183.04	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	183.04	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2038 Reference Case - No LTC	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - University Way		ONE HOUR	✓	1990	100.000
2 - Burnham Road		ONE HOUR	✓	951	100.000
3 - Thames Road		ONE HOUR	✓	1859	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	70	518	1402
	2 - Burnham Road	391	0	560
	3 - Thames Road	887	972	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	8	4	13
	2 - Burnham Road	6	0	3
	3 - Thames Road	21	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - University Way	1.18	292.54	165.4	F	1826	2739
2 - Burnham Road	1.11	217.32	60.1	F	873	1309
3 - Thames Road	0.95	48.27	13.5	E	1706	1338

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig level serv
1 - University Way	1498	1498	375	0	668	725	3097	0.484	1494	346	0.0	1.0	2.472	A
2 - Burnham Road	716	716	179	0	0	1105	1837	0.390	713	1114	0.0	0.7	3.333	A
3 - Thames Road	1400	732	183	668	0	346	1176	0.622	725	1473	0.0	1.7	8.193	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig level serv
1 - University Way	1789	1789	447	0	797	868	2965	0.603	1786	414	1.0	1.7	3.362	
2 - Burnham Road	855	855	214	0	0	1321	1676	0.510	853	1333	0.7	1.1	4.550	
3 - Thames Road	1671	874	218	797	0	414	1142	0.765	868	1761	1.7	3.2	13.365	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig level serv
1 - University Way	2191	2191	548	0	977	1039	1890	1.159	1870	445	1.7	82.0	87.927	
2 - Burnham Road	1047	1047	262	0	0	1383	948	1.104	922	1526	1.1	32.4	77.908	
3 - Thames Road	2047	1070	268	977	0	445	1126	0.950	1039	1860	3.2	11.0	34.531	

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig level serv
1 - University Way	2191	2191	548	0	977	1060	1859	1.179	1858	450	82.0	165.4	244.409	
2 - Burnham Road	1047	1047	262	0	0	1374	940	1.115	936	1544	32.4	60.1	189.647	
3 - Thames Road	2047	1070	268	977	0	450	1123	0.953	1060	1860	11.0	13.5	48.274	

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig level serv
1 - University Way	1789	1789	447	0	797	913	1897	0.943	1885	438	165.4	141.5	292.544	
2 - Burnham Road	855	855	214	0	0	1394	920	0.930	904	1403	60.1	47.9	217.315	
3 - Thames Road	1671	874	218	797	0	438	1130	0.774	913	1860	13.5	3.8	19.808	

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - University Way	1498	1498	375	0	668	739	1938	0.773	1923	421	141.5	35.4	168.302	
2 - Burnham Road	716	716	179	0	0	1422	877	0.816	858	1240	47.9	12.3	132.631	
3 - Thames Road	1400	732	183	668	0	421	1138	0.643	739	1860	3.8	1.9	9.555	

2038 Reference Case - With LTC, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - University Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Burnham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Burnham Road Roundabout	Standard Roundabout		1, 2, 3	186.19	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	186.19	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2038 Reference Case - With LTC	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - University Way		ONE HOUR	✓	2003	100.000
2 - Burnham Road		ONE HOUR	✓	1037	100.000
3 - Thames Road		ONE HOUR	✓	1873	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	76	529	1398
	2 - Burnham Road	463	0	574
	3 - Thames Road	990	883	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	3	3	13
	2 - Burnham Road	4	0	3
	3 - Thames Road	22	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - University Way	1.17	287.92	163.7	F	1838	2757
2 - Burnham Road	1.15	274.24	77.9	F	952	1427
3 - Thames Road	0.89	28.64	7.3	D	1719	1215

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig level serv
1 - University Way	1508	1508	377	0	745	659	3157	0.478	1504	404	0.0	1.0	2.384	A
2 - Burnham Road	781	781	195	0	0	1107	1835	0.425	778	1056	0.0	0.8	3.510	A
3 - Thames Road	1410	665	166	745	0	404	1146	0.580	659	1480	0.0	1.4	7.456	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig level serv
1 - University Way	1801	1801	450	0	890	789	3038	0.593	1798	484	1.0	1.6	3.184	
2 - Burnham Road	932	932	233	0	0	1323	1675	0.557	930	1264	0.8	1.3	4.988	
3 - Thames Road	1684	794	198	890	0	484	1107	0.717	789	1770	1.4	2.5	11.411	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig level serv
1 - University Way	2205	2205	551	0	1090	955	1901	1.160	1880	513	1.6	82.8	87.942	
2 - Burnham Road	1142	1142	285	0	0	1384	1011	1.129	989	1452	1.3	39.4	85.829	
3 - Thames Road	2062	972	243	1090	0	513	1092	0.890	955	1860	2.5	6.7	24.351	

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig level serv
1 - University Way	2205	2205	551	0	1090	970	1883	1.171	1882	512	82.8	163.7	240.787	
2 - Burnham Road	1142	1142	285	0	0	1385	990	1.154	988	1467	39.4	77.9	224.293	
3 - Thames Road	2062	972	243	1090	0	512	1092	0.890	970	1860	6.7	7.3	28.644	

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig level serv
1 - University Way	1801	1801	450	0	890	812	1911	0.942	1898	504	163.7	139.4	287.916	
2 - Burnham Road	932	932	233	0	0	1397	980	0.952	967	1313	77.9	69.3	274.241	
3 - Thames Road	1684	794	198	890	0	504	1097	0.724	812	1860	7.3	2.8	13.621	

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - University Way	1508	1508	377	0	745	670	1906	0.791	1891	507	139.4	43.5	176.549	
2 - Burnham Road	781	781	195	0	0	1392	990	0.789	976	1169	69.3	20.6	170.450	
3 - Thames Road	1410	665	166	745	0	507	1095	0.607	670	1860	2.8	1.6	8.729	

2038 Local Plan - No LTC, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - University Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Burnham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Burnham Road Roundabout	Standard Roundabout		1, 2, 3	239.15	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	239.15	F

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	2038 Local Plan - No LTC	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - University Way		ONE HOUR	✓	2050	100.000
2 - Burnham Road		ONE HOUR	✓	958	100.000
3 - Thames Road		ONE HOUR	✓	1964	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	67	505	1478
	2 - Burnham Road	406	0	552
	3 - Thames Road	962	1002	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	3	5	12
	2 - Burnham Road	6	0	3
	3 - Thames Road	19	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - University Way	1.22	388.09	204.2	F	1881	2822
2 - Burnham Road	1.15	279.67	73.4	F	879	1319
3 - Thames Road	0.98	63.91	18.9	F	1802	1379

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1543	1543	386	0	724	747	3077	0.502	1539	355	0.0	1.1	2.565	A
2 - Burnham Road	721	721	180	0	0	1160	1796	0.402	718	1126	0.0	0.7	3.474	A
3 - Thames Road	1479	754	189	724	0	355	1171	0.644	747	1524	0.0	1.8	8.684	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1843	1843	461	0	865	893	2942	0.626	1840	424	1.1	1.8	3.582	
2 - Burnham Road	861	861	215	0	0	1387	1628	0.529	859	1347	0.7	1.2	4.874	
3 - Thames Road	1766	901	225	865	0	424	1136	0.793	893	1822	1.8	3.7	14.954	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2257	2257	564	0	1059	1061	1871	1.207	1855	445	1.8	102.2	107.623	
2 - Burnham Road	1055	1055	264	0	0	1398	928	1.137	906	1518	1.2	38.2	90.509	
3 - Thames Road	2162	1103	276	1059	0	445	1126	0.980	1061	1860	3.7	14.3	41.783	

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2257	2257	564	0	1059	1085	1850	1.220	1849	448	102.2	204.2	302.425	
2 - Burnham Road	1055	1055	264	0	0	1394	916	1.151	914	1540	38.2	73.4	230.802	
3 - Thames Road	2162	1103	276	1059	0	448	1125	0.981	1085	1860	14.3	18.9	63.909	

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1843	1843	461	0	865	958	1874	0.984	1864	441	204.2	199.0	388.094	
2 - Burnham Road	861	861	215	0	0	1404	909	0.947	896	1417	73.4	64.6	279.667	
3 - Thames Road	1766	901	225	865	0	441	1128	0.798	958	1860	18.9	4.5	27.456	

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - University Way	1543	1543	386	0	724	764	1907	0.809	1896	424	199.0	110.8	295.201	
2 - Burnham Road	721	721	180	0	0	1429	869	0.830	855	1231	64.6	31.2	205.152	
3 - Thames Road	1479	754	189	724	0	424	1136	0.664	764	1860	4.5	2.1	10.304	

2038 Local Plan - With LTC, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - University Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Burnham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Burnham Road Roundabout	Standard Roundabout		1, 2, 3	236.59	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	236.59	F

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	2038 Local Plan - With LTC	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - University Way		ONE HOUR	✓	2077	100.000
2 - Burnham Road		ONE HOUR	✓	1018	100.000
3 - Thames Road		ONE HOUR	✓	2004	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	76	517	1484
	2 - Burnham Road	465	0	553
	3 - Thames Road	1078	926	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	3	4	12
	2 - Burnham Road	4	0	3
	3 - Thames Road	20	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - University Way	1.21	381.89	204.6	F	1906	2859
2 - Burnham Road	1.18	328.49	86.9	F	934	1401
3 - Thames Road	0.93	39.32	10.4	E	1839	1275

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1564	1564	391	0	812	691	3128	0.500	1559	406	0.0	1.1	2.506	A
2 - Burnham Road	766	766	192	0	0	1171	1788	0.429	763	1079	0.0	0.8	3.626	A
3 - Thames Road	1509	697	174	812	0	406	1146	0.608	691	1529	0.0	1.5	7.971	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1867	1867	467	0	969	827	3003	0.622	1864	485	1.1	1.8	3.455	
2 - Burnham Road	915	915	229	0	0	1400	1617	0.566	913	1291	0.8	1.3	5.269	
3 - Thames Road	1802	832	208	969	0	485	1106	0.753	827	1828	1.5	2.9	12.905	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2287	2287	572	0	1187	995	1896	1.206	1881	503	1.8	103.3	107.099	
2 - Burnham Road	1121	1121	280	0	0	1413	969	1.157	950	1463	1.3	43.9	97.361	
3 - Thames Road	2206	1020	255	1187	0	503	1097	0.929	995	1860	2.9	9.0	30.547	

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2287	2287	572	0	1187	1014	1882	1.215	1882	502	103.3	204.6	298.711	
2 - Burnham Road	1121	1121	280	0	0	1413	950	1.179	949	1482	43.9	86.9	258.314	
3 - Thames Road	2206	1020	255	1187	0	502	1097	0.929	1014	1860	9.0	10.4	39.324	

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1867	1867	467	0	969	861	1905	0.980	1895	495	204.6	197.7	381.891	
2 - Burnham Road	915	915	229	0	0	1423	943	0.970	932	1332	86.9	82.7	328.490	
3 - Thames Road	1802	832	208	969	0	495	1101	0.756	861	1860	10.4	3.4	16.829	

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - University Way	1564	1564	391	0	812	703	1914	0.817	1904	490	197.7	112.7	294.656	
2 - Burnham Road	766	766	192	0	0	1430	932	0.823	920	1177	82.7	44.3	250.867	
3 - Thames Road	1509	697	174	812	0	490	1103	0.632	703	1860	3.4	1.8	9.315	

2038 Local Plan - No LTC - Sens Test, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - University Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Burnham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Burnham Road Roundabout	Standard Roundabout		1, 2, 3	230.88	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	230.88	F

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	2038 Local Plan - No LTC - Sens Test	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - University Way		ONE HOUR	✓	2044	100.000
2 - Burnham Road		ONE HOUR	✓	960	100.000
3 - Thames Road		ONE HOUR	✓	1951	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	67	509	1468
	2 - Burnham Road	407	0	553
	3 - Thames Road	958	993	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	3	5	12
	2 - Burnham Road	6	0	3
	3 - Thames Road	19	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - University Way	1.21	374.23	199.1	F	1876	2813
2 - Burnham Road	1.15	274.50	72.2	F	881	1321
3 - Thames Road	0.97	59.23	17.2	F	1790	1367

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1539	1539	385	0	721	740	3083	0.499	1534	356	0.0	1.1	2.547	A
2 - Burnham Road	723	723	181	0	0	1152	1802	0.401	720	1123	0.0	0.7	3.461	A
3 - Thames Road	1469	748	187	721	0	356	1171	0.639	740	1517	0.0	1.8	8.563	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1838	1838	459	0	861	886	2949	0.623	1835	425	1.1	1.8	3.541	
2 - Burnham Road	863	863	216	0	0	1378	1634	0.528	861	1342	0.7	1.2	4.843	
3 - Thames Road	1754	893	223	861	0	425	1136	0.786	886	1814	1.8	3.6	14.551	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2250	2250	563	0	1055	1054	1875	1.200	1859	447	1.8	99.6	104.902	
2 - Burnham Road	1057	1057	264	0	0	1396	933	1.133	911	1517	1.2	37.7	89.048	
3 - Thames Road	2148	1093	273	1055	0	447	1125	0.972	1054	1860	3.6	13.3	39.742	

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2250	2250	563	0	1055	1078	1853	1.214	1853	450	99.6	199.1	294.307	
2 - Burnham Road	1057	1057	264	0	0	1391	921	1.147	919	1539	37.7	72.2	226.311	
3 - Thames Road	2148	1093	273	1055	0	450	1123	0.973	1078	1860	13.3	17.2	59.228	

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1838	1838	459	0	861	944	1880	0.977	1870	442	199.1	190.9	374.234	
2 - Burnham Road	863	863	216	0	0	1404	910	0.948	897	1410	72.2	63.6	274.501	
3 - Thames Road	1754	893	223	861	0	442	1128	0.792	944	1860	17.2	4.3	24.809	

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - University Way	1539	1539	385	0	721	757	1911	0.805	1900	427	190.9	100.6	277.413	
2 - Burnham Road	723	723	181	0	0	1427	874	0.827	860	1230	63.6	29.3	198.124	
3 - Thames Road	1469	748	187	721	0	427	1135	0.659	757	1860	4.3	2.1	10.112	

2038 Local Plan - With LTC - Sens Test, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - University Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Burnham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Burnham Road Roundabout	Standard Roundabout		1, 2, 3	236.70	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	236.70	F

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	2038 Local Plan - With LTC - Sens Test	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - University Way		ONE HOUR	✓	2077	100.000
2 - Burnham Road		ONE HOUR	✓	1014	100.000
3 - Thames Road		ONE HOUR	✓	1992	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	76	514	1487
	2 - Burnham Road	464	0	550
	3 - Thames Road	1067	925	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	3	4	12
	2 - Burnham Road	4	0	3
	3 - Thames Road	20	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - University Way	1.22	382.26	204.8	F	1906	2859
2 - Burnham Road	1.18	327.16	86.2	F	930	1396
3 - Thames Road	0.93	38.87	10.3	E	1828	1273

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1564	1564	391	0	803	690	3129	0.500	1559	405	0.0	1.1	2.505	A
2 - Burnham Road	763	763	191	0	0	1173	1786	0.427	760	1076	0.0	0.8	3.621	A
3 - Thames Road	1500	696	174	803	0	405	1146	0.608	690	1529	0.0	1.5	7.951	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1867	1867	467	0	959	826	3004	0.622	1864	484	1.1	1.8	3.453	
2 - Burnham Road	912	912	228	0	0	1403	1615	0.564	909	1287	0.8	1.3	5.257	
3 - Thames Road	1791	832	208	959	0	484	1106	0.752	826	1828	1.5	2.9	12.847	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2287	2287	572	0	1175	994	1896	1.206	1880	502	1.8	103.4	107.152	
2 - Burnham Road	1116	1116	279	0	0	1415	966	1.156	947	1460	1.3	43.7	97.164	
3 - Thames Road	2193	1018	255	1175	0	502	1097	0.928	994	1860	2.9	8.9	30.293	

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2287	2287	572	0	1175	1013	1882	1.215	1881	502	103.4	204.8	298.990	
2 - Burnham Road	1116	1116	279	0	0	1416	948	1.178	946	1479	43.7	86.2	257.372	
3 - Thames Road	2193	1018	255	1175	0	502	1098	0.928	1013	1860	8.9	10.3	38.875	

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1867	1867	467	0	959	859	1905	0.980	1895	494	204.8	197.9	382.264	
2 - Burnham Road	912	912	228	0	0	1426	940	0.970	928	1328	86.2	82.0	327.162	
3 - Thames Road	1791	832	208	959	0	494	1101	0.755	859	1860	10.3	3.3	16.676	

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - University Way	1564	1564	391	0	803	703	1914	0.817	1904	489	197.9	112.9	294.980	
2 - Burnham Road	763	763	191	0	0	1433	928	0.823	916	1174	82.0	43.8	249.712	
3 - Thames Road	1500	696	174	803	0	489	1104	0.631	703	1860	3.3	1.8	9.283	



Junctions 10
ARCADY 10 - Roundabout Module
Version: 10.0.0.1499 © Copyright TRL Software Limited, 2021
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Filename: Burnham Road RBT v06 - AM - MIT.j10
Path: J:\50923 - GH - LB Bexley Local Plan\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10\2022 Modelling Update
Report generation date: 23/03/2022 11:20:16

- »2038 Local Plan - No LTC, AM
- »2038 Local Plan - With LTC, AM
- »2038 Local Plan - No LTC - Sens Test, AM
- »2038 Local Plan - With LTC - Sens Test, AM

Summary of junction performance

AM					
Set ID	Queue (PCU)	Delay (s)	RFC	LOS	
2038 Local Plan - No LTC					
1 - University Way	212.2	419.11	1.24	F	
2 - Burnham Road	162.7	603.28	1.34	F	
3 - Thames Road	2.4	10.63	0.70	B	
2038 Local Plan - With LTC					
1 - University Way	340.4	591.84	1.31	F	
2 - Burnham Road	156.2	672.89	1.36	F	
3 - Thames Road	2.2	10.29	0.69	B	
2038 Local Plan - No LTC - Sens Test					
1 - University Way	208.0	411.53	1.23	F	
2 - Burnham Road	158.3	587.84	1.33	F	
3 - Thames Road	2.3	10.31	0.69	B	
2038 Local Plan - With LTC - Sens Test					
1 - University Way	338.2	588.85	1.31	F	
2 - Burnham Road	151.9	656.41	1.35	F	
3 - Thames Road	2.2	10.16	0.68	B	

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

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

File summary

File Description

Title	
Location	
Site number	
Date	22/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\hwenman
Description	

Units

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

Analysis Options

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
D1	2038 Local Plan - No LTC	AM	ONE HOUR	07:45	09:15	15	✓
D2	2038 Local Plan - With LTC	AM	ONE HOUR	07:45	09:15	15	✓
D3	2038 Local Plan - No LTC - Sens Test	AM	ONE HOUR	07:45	09:15	15	✓
D4	2038 Local Plan - With LTC - Sens Test	AM	ONE HOUR	07:45	09:15	15	✓

Analysis Set Details

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

2038 Local Plan - No LTC, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - University Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Burnham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Burnham Road Roundabout	Standard Roundabout		1, 2, 3	288.73	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	288.73	F

Arms

Arms

Arm	Name	Description	No give-way line
1	University Way		
2	Burnham Road		
3	Thames Road		

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 - University Way	8.51	12.93	35.8	40.5	61.1	18.6		
2 - Burnham Road	3.44	13.11	43.4	53.1	55.9	48.6		
3 - Thames Road	4.09	4.39	2.6	45.6	60.8	28.2		

Bypass

Arm	Arm has bypass	Bypass utilisation (%)
1 - University Way		
2 - Burnham Road		
3 - Thames Road	✓	100

Exit Restrictions

Arm	Exit restriction present	Linked exit restriction present	Maximum capacity (PCU/hr)
1 - University Way			
2 - Burnham Road			
3 - Thames Road	✓		2000

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - University Way	0.921	3765
2 - Burnham Road	0.743	2658
3 - Thames Road	0.501	1349

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	2038 Local Plan - No LTC	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - University Way		ONE HOUR	✓	2000	100.000
2 - Burnham Road		ONE HOUR	✓	1086	100.000
3 - Thames Road		ONE HOUR	✓	2166	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	110	361	1529
	2 - Burnham Road	347	0	739
	3 - Thames Road	1433	733	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	8	8	16
	2 - Burnham Road	5	0	5
	3 - Thames Road	23	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - University Way	1.24	419.11	212.2	F	1835	2753
2 - Burnham Road	1.34	603.28	162.7	F	997	1495
3 - Thames Road	0.70	10.63	2.4	B	1988	1009

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1506	1506	376	0	1079	548	3260	0.462	1502	343	0.0	1.0	2.330	A
2 - Burnham Road	818	818	204	0	0	1231	1743	0.469	814	819	0.0	0.9	4.048	A
3 - Thames Road	1631	552	138	1079	0	343	1177	0.469	548	1702	0.0	0.9	5.863	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign lev ser
1 - University Way	1798	1798	449	0	1288	657	1987	0.905	1766	402	1.0	8.9	16.691	
2 - Burnham Road	976	976	244	0	0	1447	1111	0.879	955	976	0.9	6.3	21.841	
3 - Thames Road	1947	659	165	1288	0	402	1147	0.574	657	2000	0.9	1.4	7.533	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - University Way	2202	2202	551	0	1578	803	1778	1.238	1772	401	8.9	116.6	134.727	
2 - Burnham Road	1196	1196	299	0	0	1452	955	1.252	949	1123	6.3	68.0	154.574	
3 - Thames Road	2385	807	202	1578	0	401	1148	0.703	803	2000	1.4	2.3	10.620	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - University Way	2202	2202	551	0	1578	807	1820	1.210	1819	386	116.6	212.2	330.082	
2 - Burnham Road	1196	1196	299	0	0	1491	895	1.335	895	1135	68.0	143.2	432.350	
3 - Thames Road	2385	807	202	1578	0	386	1156	0.698	807	2000	2.3	2.4	10.630	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - University Way	1798	1798	449	0	1288	663	1826	0.984	1817	387	212.2	207.6	419.113	
2 - Burnham Road	976	976	244	0	0	1489	899	1.086	898	991	143.2	162.7	603.278	
3 - Thames Road	1947	659	165	1288	0	387	1155	0.570	663	2000	2.4	1.4	7.591	

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - University Way	1506	1506	376	0	1079	554	1768	0.852	1758	405	207.6	144.5	361.198	
2 - Burnham Road	818	818	204	0	0	1441	970	0.843	964	871	162.7	126.1	539.988	
3 - Thames Road	1631	552	138	1079	0	405	1146	0.481	554	2000	1.4	1.0	6.276	

2038 Local Plan - With LTC, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - University Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Burnham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Burnham Road Roundabout	Standard Roundabout		1, 2, 3	376.91	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	376.91	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2038 Local Plan - With LTC	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - University Way		ONE HOUR	✓	2349	100.000
2 - Burnham Road		ONE HOUR	✓	950	100.000
3 - Thames Road		ONE HOUR	✓	2144	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	128	473	1748
	2 - Burnham Road	347	0	603
	3 - Thames Road	1430	714	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	8	6	15
	2 - Burnham Road	5	0	4
	3 - Thames Road	23	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - University Way	1.31	591.84	340.4	F	2155	3233
2 - Burnham Road	1.36	672.89	156.2	F	872	1308
3 - Thames Road	0.69	10.29	2.2	B	1967	983

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1768	1768	442	0	1077	534	3273	0.540	1763	356	0.0	1.3	2.678	A
2 - Burnham Road	715	715	179	0	0	1408	1612	0.444	712	889	0.0	0.8	4.161	A
3 - Thames Road	1614	538	134	1077	0	356	1171	0.459	534	1764	0.0	0.9	5.851	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2112	2112	528	0	1286	640	2070	1.020	1999	404	1.3	29.6	37.151	
2 - Burnham Road	854	854	214	0	0	1596	872	0.979	808	1043	0.8	12.4	43.154	
3 - Thames Road	1927	642	160	1286	0	404	1147	0.560	640	2000	0.9	1.3	7.367	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2586	2586	647	0	1574	782	1978	1.308	1976	412	29.6	182.1	197.589	
2 - Burnham Road	1046	1046	261	0	0	1578	838	1.249	834	1180	12.4	65.4	184.322	
3 - Thames Road	2361	786	197	1574	0	412	1142	0.688	782	2000	1.3	2.2	10.294	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2586	2586	647	0	1574	786	2033	1.272	2033	391	182.1	320.5	448.982	
2 - Burnham Road	1046	1046	261	0	0	1623	768	1.361	768	1195	65.4	134.9	478.457	
3 - Thames Road	2361	786	197	1574	0	391	1153	0.682	786	2000	2.2	2.2	10.204	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2112	2112	528	0	1286	645	2032	1.039	2032	392	320.5	340.4	591.838	
2 - Burnham Road	854	854	214	0	0	1623	769	1.111	769	1055	134.9	156.2	672.892	
3 - Thames Road	1927	642	160	1286	0	392	1153	0.557	645	2000	2.2	1.3	7.428	

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - University Way	1768	1768	442	0	1077	539	2001	0.884	1994	406	340.4	284.0	563.902	
2 - Burnham Road	715	715	179	0	0	1593	818	0.874	813	941	156.2	131.8	638.420	
3 - Thames Road	1614	538	134	1077	0	406	1146	0.469	539	2000	1.3	0.9	6.189	

2038 Local Plan - No LTC - Sens Test, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - University Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Burnham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Burnham Road Roundabout	Standard Roundabout		1, 2, 3	282.54	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	282.54	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2038 Local Plan - No LTC - Sens Test	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - University Way		ONE HOUR	✓	1989	100.000
2 - Burnham Road		ONE HOUR	✓	1083	100.000
3 - Thames Road		ONE HOUR	✓	2157	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	110	360	1519
	2 - Burnham Road	340	0	743
	3 - Thames Road	1432	725	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	8	8	16
	2 - Burnham Road	5	0	5
	3 - Thames Road	23	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - University Way	1.23	411.53	208.0	F	1825	2738
2 - Burnham Road	1.33	587.84	158.3	F	994	1491
3 - Thames Road	0.69	10.31	2.3	B	1979	998

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1497	1497	374	0	1078	542	3265	0.459	1494	337	0.0	1.0	2.312	A
2 - Burnham Road	815	815	204	0	0	1223	1749	0.466	812	813	0.0	0.9	4.018	A
3 - Thames Road	1624	546	136	1078	0	337	1180	0.463	542	1698	0.0	0.9	5.785	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1788	1788	447	0	1287	650	2015	0.887	1761	397	1.0	7.8	14.851	
2 - Burnham Road	974	974	243	0	0	1442	1132	0.860	955	969	0.9	5.5	19.634	
3 - Thames Road	1939	652	163	1287	0	397	1150	0.567	650	2000	0.9	1.3	7.389	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2190	2190	547	0	1577	795	1774	1.235	1766	396	7.8	113.7	131.079	
2 - Burnham Road	1192	1192	298	0	0	1446	956	1.247	949	1114	5.5	66.3	149.855	
3 - Thames Road	2375	798	200	1577	0	396	1151	0.694	795	2000	1.3	2.3	10.301	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2190	2190	547	0	1577	798	1813	1.208	1813	382	113.7	208.0	324.317	
2 - Burnham Road	1192	1192	298	0	0	1485	897	1.329	897	1126	66.3	140.2	422.016	
3 - Thames Road	2375	798	200	1577	0	382	1158	0.690	798	2000	2.3	2.3	10.310	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1788	1788	447	0	1287	655	1819	0.983	1809	383	208.0	202.7	411.531	
2 - Burnham Road	974	974	243	0	0	1482	902	1.080	901	983	140.2	158.3	587.842	
3 - Thames Road	1939	652	163	1287	0	383	1157	0.563	655	2000	2.3	1.4	7.442	

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - University Way	1497	1497	374	0	1078	547	1762	0.850	1752	400	202.7	139.0	351.815	
2 - Burnham Road	815	815	204	0	0	1435	971	0.840	965	865	158.3	120.9	521.712	
3 - Thames Road	1624	546	136	1078	0	400	1149	0.475	547	2000	1.4	0.9	6.186	

2038 Local Plan - With LTC - Sens Test, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - University Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Burnham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Burnham Road Roundabout	Standard Roundabout		1, 2, 3	372.76	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	372.76	F

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	2038 Local Plan - With LTC - Sens Test	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - University Way		ONE HOUR	✓	2345	100.000
2 - Burnham Road		ONE HOUR	✓	944	100.000
3 - Thames Road		ONE HOUR	✓	2136	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	127	472	1746
	2 - Burnham Road	343	0	601
	3 - Thames Road	1425	711	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	8	6	15
	2 - Burnham Road	5	0	4
	3 - Thames Road	24	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - University Way	1.31	588.85	338.2	F	2152	3228
2 - Burnham Road	1.35	656.41	151.9	F	866	1299
3 - Thames Road	0.68	10.16	2.2	B	1960	979

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1765	1765	441	0	1073	532	3275	0.539	1760	352	0.0	1.3	2.670	A
2 - Burnham Road	711	711	178	0	0	1406	1613	0.441	707	886	0.0	0.8	4.132	A
3 - Thames Road	1608	535	134	1073	0	352	1172	0.457	532	1761	0.0	0.9	5.813	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2108	2108	527	0	1281	637	2073	1.017	1999	400	1.3	28.6	36.312	
2 - Burnham Road	849	849	212	0	0	1596	871	0.975	804	1040	0.8	12.0	42.288	
3 - Thames Road	1920	639	160	1281	0	400	1148	0.557	637	2000	0.9	1.3	7.302	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2582	2582	645	0	1569	779	1977	1.306	1975	409	28.6	180.3	195.406	
2 - Burnham Road	1039	1039	260	0	0	1578	836	1.244	832	1177	12.0	64.0	180.642	
3 - Thames Road	2352	783	196	1569	0	409	1144	0.684	779	2000	1.3	2.2	10.163	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2582	2582	645	0	1569	783	2030	1.272	2030	389	180.3	318.4	446.260	
2 - Burnham Road	1039	1039	260	0	0	1621	768	1.353	768	1191	64.0	131.9	468.094	
3 - Thames Road	2352	783	196	1569	0	389	1154	0.678	783	2000	2.2	2.2	10.080	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2108	2108	527	0	1281	643	2030	1.039	2029	389	318.4	338.2	588.848	
2 - Burnham Road	849	849	212	0	0	1621	769	1.104	769	1051	131.9	151.9	656.408	
3 - Thames Road	1920	639	160	1281	0	389	1154	0.554	643	2000	2.2	1.3	7.372	

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - University Way	1765	1765	441	0	1073	537	1998	0.884	1991	403	338.2	281.8	560.835	
2 - Burnham Road	711	711	178	0	0	1590	819	0.868	813	938	151.9	126.3	616.530	
3 - Thames Road	1608	535	134	1073	0	403	1147	0.467	537	2000	1.3	0.9	6.152	



Junctions 10
ARCADY 10 - Roundabout Module
Version: 10.0.0.1499 © Copyright TRL Software Limited, 2021
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Filename: Burnham Road RBT v06 - PM - MIT.j10

Path: J:\50923 - GH - LB Bexley Local Plan\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10\2022 Modelling Update

Report generation date: 23/03/2022 11:38:32

- »2038 Local Plan - No LTC, PM
- »2038 Local Plan - With LTC, PM
- »2038 Local Plan - No LTC - Sens Test, PM
- »2038 Local Plan - With LTC - Sens Test, PM

Summary of junction performance

		PM			
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2038 Local Plan - No LTC					
1 - University Way	D1	155.5	256.42	1.16	F
2 - Burnham Road		56.2	190.39	1.10	F
3 - Thames Road		20.8	69.33	0.99	F
2038 Local Plan - With LTC					
1 - University Way	D2	156.2	256.07	1.16	F
2 - Burnham Road		67.7	223.21	1.13	F
3 - Thames Road		11.4	43.05	0.94	E
2038 Local Plan - No LTC - Sens Test					
1 - University Way	D3	150.3	236.01	1.15	F
2 - Burnham Road		54.9	175.99	1.10	F
3 - Thames Road		18.9	64.27	0.98	F
2038 Local Plan - With LTC - Sens Test					
1 - University Way	D4	156.3	256.35	1.16	F
2 - Burnham Road		67.3	222.23	1.13	F
3 - Thames Road		11.3	42.51	0.94	E

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

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

File summary

File Description

Title	
Location	
Site number	
Date	22/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\hwenman
Description	

Units

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

Analysis Options

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
D1	2038 Local Plan - No LTC	PM	ONE HOUR	16:45	18:15	15	✓
D2	2038 Local Plan - With LTC	PM	ONE HOUR	16:45	18:15	15	✓
D3	2038 Local Plan - No LTC - Sens Test	PM	ONE HOUR	16:45	18:15	15	✓
D4	2038 Local Plan - With LTC - Sens Test	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2038 Local Plan - No LTC, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - University Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Burnham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Burnham Road Roundabout	Standard Roundabout		1, 2, 3	169.79	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	169.79	F

Arms

Arms

Arm	Name	Description	No give-way line
1	University Way		
2	Burnham Road		
3	Thames Road		

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 - University Way	8.51	12.93	35.8	40.5	61.1	18.6		
2 - Burnham Road	3.44	13.11	43.4	53.1	55.9	48.6		
3 - Thames Road	4.09	4.39	2.6	45.6	60.8	28.2		

Bypass

Arm	Arm has bypass	Bypass utilisation (%)
1 - University Way		
2 - Burnham Road		
3 - Thames Road	✓	100

Exit Restrictions

Arm	Exit restriction present	Linked exit restriction present	Maximum capacity (PCU/hr)
1 - University Way			
2 - Burnham Road			
3 - Thames Road	✓		1950

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - University Way	0.921	3765
2 - Burnham Road	0.743	2658
3 - Thames Road	0.501	1349

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	2038 Local Plan - No LTC	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - University Way		ONE HOUR	✓	2050	100.000
2 - Burnham Road		ONE HOUR	✓	958	100.000
3 - Thames Road		ONE HOUR	✓	1964	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	67	505	1478
	2 - Burnham Road	406	0	552
	3 - Thames Road	962	1002	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	3	5	12
	2 - Burnham Road	6	0	3
	3 - Thames Road	19	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - University Way	1.16	256.42	155.5	F	1881	2822
2 - Burnham Road	1.10	190.39	56.2	F	879	1319
3 - Thames Road	0.99	69.33	20.8	F	1802	1379

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1543	1543	386	0	724	747	3077	0.502	1539	355	0.0	1.1	2.565	A
2 - Burnham Road	721	721	180	0	0	1160	1796	0.402	718	1126	0.0	0.7	3.474	A
3 - Thames Road	1479	754	189	724	0	355	1171	0.644	747	1524	0.0	1.8	8.684	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1843	1843	461	0	865	893	2942	0.626	1840	424	1.1	1.8	3.582	
2 - Burnham Road	861	861	215	0	0	1387	1628	0.529	859	1347	0.7	1.2	4.874	
3 - Thames Road	1766	901	225	865	0	424	1136	0.793	893	1822	1.8	3.7	14.954	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2257	2257	564	0	1059	1057	1977	1.142	1954	462	1.8	77.5	80.441	
2 - Burnham Road	1055	1055	264	0	0	1473	967	1.090	939	1539	1.2	30.2	72.926	
3 - Thames Road	2162	1103	276	1059	0	462	1118	0.987	1057	1950	3.7	15.2	43.831	

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2257	2257	564	0	1059	1081	1946	1.160	1945	466	77.5	155.5	220.666	
2 - Burnham Road	1055	1055	264	0	0	1466	955	1.105	951	1560	30.2	56.2	175.378	
3 - Thames Road	2162	1103	276	1059	0	466	1115	0.989	1081	1950	15.2	20.8	69.327	

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1843	1843	461	0	865	965	1980	0.931	1966	456	155.5	124.8	256.420	
2 - Burnham Road	861	861	215	0	0	1481	942	0.914	925	1449	56.2	40.4	190.388	
3 - Thames Road	1766	901	225	865	0	456	1120	0.804	965	1950	20.8	4.7	30.775	

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1543	1543	386	0	724	765	2033	0.759	2015	431	124.8	6.8	121.816	
2 - Burnham Road	721	721	180	0	0	1519	910	0.792	862	1261	40.4	5.1	90.862	
3 - Thames Road	1479	754	189	724	0	431	1133	0.666	765	1950	4.7	2.1	10.441	

2038 Local Plan - With LTC, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - University Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Burnham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Burnham Road Roundabout	Standard Roundabout		1, 2, 3	165.79	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	165.79	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2038 Local Plan - With LTC	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - University Way		ONE HOUR	✓	2077	100.000
2 - Burnham Road		ONE HOUR	✓	1018	100.000
3 - Thames Road		ONE HOUR	✓	2004	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	76	517	1484
	2 - Burnham Road	465	0	553
	3 - Thames Road	1078	926	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	3	4	12
	2 - Burnham Road	4	0	3
	3 - Thames Road	20	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - University Way	1.16	256.07	156.2	F	1906	2859
2 - Burnham Road	1.13	223.21	67.7	F	934	1401
3 - Thames Road	0.94	43.05	11.4	E	1839	1275

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1564	1564	391	0	812	691	3128	0.500	1559	406	0.0	1.1	2.506	A
2 - Burnham Road	766	766	192	0	0	1171	1788	0.429	763	1079	0.0	0.8	3.626	A
3 - Thames Road	1509	697	174	812	0	406	1146	0.608	691	1529	0.0	1.5	7.971	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1867	1867	467	0	969	827	3003	0.622	1864	485	1.1	1.8	3.455	
2 - Burnham Road	915	915	229	0	0	1400	1617	0.566	913	1291	0.8	1.3	5.269	
3 - Thames Road	1802	832	208	969	0	485	1106	0.753	827	1828	1.5	2.9	12.905	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2287	2287	572	0	1187	993	2002	1.143	1979	523	1.8	78.7	80.475	
2 - Burnham Road	1121	1121	280	0	0	1486	1012	1.108	987	1485	1.3	34.9	78.261	
3 - Thames Road	2206	1020	255	1187	0	523	1087	0.938	993	1950	2.9	9.6	32.306	

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	2287	2287	572	0	1187	1012	1978	1.156	1977	524	78.7	156.2	219.084	
2 - Burnham Road	1121	1121	280	0	0	1485	992	1.130	989	1505	34.9	67.7	197.226	
3 - Thames Road	2206	1020	255	1187	0	524	1086	0.939	1012	1950	9.6	11.4	43.046	

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsign level serv
1 - University Way	1867	1867	467	0	969	864	2001	0.933	1987	519	156.2	126.3	256.066	
2 - Burnham Road	915	915	229	0	0	1492	992	0.923	977	1358	67.7	52.4	223.211	
3 - Thames Road	1802	832	208	969	0	519	1089	0.764	864	1950	11.4	3.5	18.246	

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - University Way	1564	1564	391	0	812	704	2027	0.771	2010	506	126.3	14.8	130.154	
2 - Burnham Road	766	766	192	0	0	1509	964	0.795	947	1204	52.4	7.3	121.600	
3 - Thames Road	1509	697	174	812	0	506	1096	0.636	704	1950	3.5	1.8	9.535	

2038 Local Plan - No LTC - Sens Test, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - University Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Burnham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Burnham Road Roundabout	Standard Roundabout		1, 2, 3	156.76	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	156.76	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2038 Local Plan - No LTC - Sens Test	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - University Way		ONE HOUR	✓	2044	100.000
2 - Burnham Road		ONE HOUR	✓	960	100.000
3 - Thames Road		ONE HOUR	✓	1951	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	67	509	1468
	2 - Burnham Road	407	0	553
	3 - Thames Road	958	993	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	3	5	12
	2 - Burnham Road	6	0	3
	3 - Thames Road	19	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - University Way	1.15	236.01	150.3	F	1876	2813
2 - Burnham Road	1.10	175.99	54.9	F	881	1321
3 - Thames Road	0.98	64.27	18.9	F	1790	1367

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig level serv
1 - University Way	1539	1539	385	0	721	740	3083	0.499	1534	356	0.0	1.1	2.547	A
2 - Burnham Road	723	723	181	0	0	1152	1802	0.401	720	1123	0.0	0.7	3.461	A
3 - Thames Road	1469	748	187	721	0	356	1171	0.639	740	1517	0.0	1.8	8.563	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig level serv
1 - University Way	1838	1838	459	0	861	886	2949	0.623	1835	425	1.1	1.8	3.541	
2 - Burnham Road	863	863	216	0	0	1378	1634	0.528	861	1342	0.7	1.2	4.843	
3 - Thames Road	1754	893	223	861	0	425	1136	0.786	886	1814	1.8	3.6	14.551	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig level serv
1 - University Way	2250	2250	563	0	1055	1051	1982	1.135	1958	464	1.8	74.8	77.907	
2 - Burnham Road	1057	1057	264	0	0	1471	973	1.086	943	1539	1.2	29.6	71.430	
3 - Thames Road	2148	1093	273	1055	0	464	1116	0.979	1051	1950	3.6	14.2	41.703	

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig level serv
1 - University Way	2250	2250	563	0	1055	1074	1950	1.154	1949	469	74.8	150.3	213.101	
2 - Burnham Road	1057	1057	264	0	0	1463	960	1.101	956	1560	29.6	54.9	170.794	
3 - Thames Road	2148	1093	273	1055	0	469	1114	0.981	1074	1950	14.2	18.9	64.271	

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig level serv
1 - University Way	1838	1838	459	0	861	950	1982	0.927	1968	460	150.3	117.7	236.012	
2 - Burnham Road	863	863	216	0	0	1478	950	0.909	932	1440	54.9	37.7	175.990	
3 - Thames Road	1754	893	223	861	0	460	1119	0.798	950	1950	18.9	4.5	27.672	

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig lev ser
1 - University Way	1539	1539	385	0	721	757	3067	0.502	2005	434	117.7	1.1	6.367	
2 - Burnham Road	723	723	181	0	0	1506	1539	0.470	870	1257	37.7	0.9	7.073	
3 - Thames Road	1469	748	187	721	0	434	1131	0.661	757	1941	4.5	2.1	10.258	

2038 Local Plan - With LTC - Sens Test, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - University Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - Burnham Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Burnham Road Roundabout	Standard Roundabout		1, 2, 3	165.74	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	165.74	F

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	2038 Local Plan - With LTC - Sens Test	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - University Way		ONE HOUR	✓	2077	100.000
2 - Burnham Road		ONE HOUR	✓	1014	100.000
3 - Thames Road		ONE HOUR	✓	1992	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	76	514	1487
	2 - Burnham Road	464	0	550
	3 - Thames Road	1067	925	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - University Way	2 - Burnham Road	3 - Thames Road
From	1 - University Way	3	4	12
	2 - Burnham Road	4	0	3
	3 - Thames Road	20	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - University Way	1.16	256.35	156.3	F	1906	2859
2 - Burnham Road	1.13	222.23	67.3	F	930	1396
3 - Thames Road	0.94	42.51	11.3	E	1828	1273

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig level serv
1 - University Way	1564	1564	391	0	803	690	3129	0.500	1559	405	0.0	1.1	2.505	A
2 - Burnham Road	763	763	191	0	0	1173	1786	0.427	760	1076	0.0	0.8	3.621	A
3 - Thames Road	1500	696	174	803	0	405	1146	0.608	690	1529	0.0	1.5	7.951	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig level serv
1 - University Way	1867	1867	467	0	959	826	3004	0.622	1864	484	1.1	1.8	3.453	
2 - Burnham Road	912	912	228	0	0	1403	1615	0.564	909	1287	0.8	1.3	5.257	
3 - Thames Road	1791	832	208	959	0	484	1106	0.752	826	1828	1.5	2.9	12.847	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig level serv
1 - University Way	2287	2287	572	0	1175	992	2001	1.143	1979	522	1.8	78.8	80.516	
2 - Burnham Road	1116	1116	279	0	0	1489	1008	1.107	983	1482	1.3	34.7	78.126	
3 - Thames Road	2193	1018	255	1175	0	522	1087	0.937	992	1950	2.9	9.5	32.024	

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig level serv
1 - University Way	2287	2287	572	0	1175	1012	1978	1.156	1977	524	78.8	156.3	219.256	
2 - Burnham Road	1116	1116	279	0	0	1488	989	1.129	986	1501	34.7	67.3	196.651	
3 - Thames Road	2193	1018	255	1175	0	524	1087	0.937	1012	1950	9.5	11.3	42.506	

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig level serv
1 - University Way	1867	1867	467	0	959	863	2000	0.933	1986	518	156.3	126.5	256.355	
2 - Burnham Road	912	912	228	0	0	1495	988	0.922	973	1354	67.3	51.8	222.231	
3 - Thames Road	1791	832	208	959	0	518	1089	0.763	863	1950	11.3	3.5	18.054	

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - University Way	1564	1564	391	0	803	703	2028	0.771	2010	504	126.5	14.8	130.228	
2 - Burnham Road	763	763	191	0	0	1513	959	0.796	941	1201	51.8	7.3	121.332	
3 - Thames Road	1500	696	174	803	0	504	1096	0.635	703	1950	3.5	1.8	9.493	

