



Newport Transport Study

Railton TPC Ltd

41 York Road
Newbury
Berkshire RG14 7NJ
T. 07500 557255
E. brbamber@hotmail.com

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Date:	July 2019
Author:	Bruce Bamber BSc MA MSc CMILT MCIHT

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1. INTRODUCTION

- 1.1. This report has been prepared by Railton TPC Ltd on behalf of the Newport Parish Council Neighbourhood Plan Steering Group. The purpose of the report is to assess the potential adverse impacts of changes in traffic flows on the local highway network over the Neighbourhood Plan period. The need for a transport study arises as a result of significant housing development in the village over recent years and ongoing, that has led to concern about adverse impact in terms of congestion, safety and amenity. It is expected that the study will provide a rational basis for managing future development.
- 1.2. The study focuses on routes to and from the west of the village, in particular Bury Water Lane, Wicken Road and Frambury Lane. These are sensitive routes in that the Joyce Frankland Academy secondary school, is located on Bury Water Lane, Newport Primary School is located on Frambury Lane and Wicken Road is constrained in its width and caters for significant pedestrian and vehicle flows, including a significant number of HGV movements. The B1383 (High Street) through the village carries high levels of through traffic, particularly during the peak weekday hours.
- 1.3. The study has been informed by traffic surveys undertaken in June 2019.
- 1.4. The following section sets out the policy context in which the work has been undertaken.
- 1.5. Section 3 provides a general description of the transport networks and prevailing transport conditions within the village, including a summary of the traffic surveys undertaken in June 2019.
- 1.6. Section 4 identifies the key transport issues. These relate to traffic congestion, highway safety and transport environmental issues (pedestrian amenity and severance).
- 1.7. Section 5 identifies the proposed committed developments in and around the village.
- 1.8. Section 6 identifies the level of trip generation associated with the committed developments, the distribution of this traffic and its assignment onto the local highway network.
- 1.9. Section 7 deals with traffic growth and identifies future traffic flows in the absence of traffic associated with committed development.
- 1.10. Section 8 assesses the performance of local highway network in the future years.

- 1.11. Section 9 presents the results of sensitivity operational assessments that test the impact of other possible developments in the west of the village.
- 1.12. Section 10 comprises a discussion of the predicted future traffic conditions within the village and identifies constraints to further development.
- 1.13. Section 11 is a summary and conclusion.

2. TRANSPORT POLICY

National Planning Policy Framework (NPPF) (February 2019)

General Aim

- 2.1. Relevant national policy is set out in the National Planning Policy Framework (NPPF). Paragraph 7 of the NPPF sets out the overall aim of the NPPF: *'The purpose of the planning system is to contribute to the achievement of sustainable development'*.

Neighbourhood Plans

- 2.2. The NPPF provides relevant guidance in relation to neighbourhood plans.
- 2.3. Paragraph 2 of the NPPF states that, *'Planning law requires that applications for planning permission be determined in accordance with the development plan, unless material considerations indicate otherwise'*. In a footnote it is added that the development plan *'includes local and neighbourhood plans that have been brought into force'*.
- 2.4. Paragraph 12 states, *'Where a planning application conflicts with an up-to-date development plan (including any neighbourhood plans that form part of the development plan), permission should not usually be granted'*.
- 2.5. Paragraphs 13 and 14 provide further clarification on the role and scope of neighbourhood plans:

13. The application of the presumption has implications for the way communities engage in neighbourhood planning. Neighbourhood plans should support the delivery of strategic policies contained in local plans or spatial development strategies; and should shape and direct development that is outside of these strategic policies.

14. In situations where the presumption (at paragraph 11d) applies to applications involving the provision of housing, the adverse impact of allowing development that conflicts with the neighbourhood plan is likely to significantly and demonstrably outweigh the benefits, provided all of the following apply:

- a) the neighbourhood plan became part of the development plan two years or less before the date on which the decision is made;*
- b) the neighbourhood plan contains policies and allocations to meet its identified housing requirement;*
- c) the local planning authority has at least a three year supply of deliverable housing sites (against its five year housing supply requirement, including the appropriate buffer as set out in paragraph 73); and*
- d) the local planning authority's housing delivery was at least 45% of that required over the previous three years.*

- 2.6. Paragraph 21 clarifies the distinction between strategic policies and those within neighbourhood plans:

21. Plans should make explicit which policies are strategic policies. These should be limited to those necessary to address the strategic priorities of the area (and any relevant cross-boundary issues), to provide a clear starting point for any nonstrategic policies that are needed. Strategic policies should not extend to detailed matters that are more appropriately dealt with through neighbourhood plans or other non-strategic policies.

- 2.7. Paragraphs 29 and 30 clarify the relationship between neighbourhood plans and the strategic plan:

29. Neighbourhood planning gives communities the power to develop a shared vision for their area. Neighbourhood plans can shape, direct and help to deliver sustainable development, by influencing local planning decisions as part of the statutory development plan. Neighbourhood plans should not promote less development than set out in the strategic policies for the area, or undermine those strategic policies.

30. Once a neighbourhood plan has been brought into force, the policies it contains take precedence over existing non-strategic policies in a local plan covering the neighbourhood area, where they are in conflict; unless they are superseded by strategic or non-strategic policies that are adopted subsequently.

- 2.8. A footnote relating to the last reference to strategic policies states that, 'Neighbourhood plans must be in general conformity with the strategic policies contained in any development plan that covers the area'.

- 2.9. Paragraph 37 makes reference to necessary requirements for neighbourhood plan preparation:

37. Neighbourhood plans must meet certain 'basic conditions' and other legal requirements²¹ before they can come into force. These are tested through an independent examination before the neighbourhood plan may proceed to referendum.

- 2.10. Paragraph 8 of Schedule 4B to the Town and Country Planning Act 1990 (as amended) sets out these requirements. They include reference to national and strategic policies, the achievement of sustainable development and consideration of listed buildings and conservation areas.

- 2.11. Paragraph 125 of the NPPF explains how the development of neighbourhood plans can assist in ensuring that development is sensitive to local characteristics:

125. Plans should, at the most appropriate level, set out a clear design vision and expectations, so that applicants have as much certainty as possible about what is likely to be acceptable. Design policies should be developed with local communities so they reflect local aspirations, and are grounded in an understanding and evaluation of each area's defining characteristics. Neighbourhood plans can play an important role in identifying the special qualities of each area and explaining how this should be reflected in development.

- 2.12. It is clear that neighbourhood plans are expected to contribute towards the aims of the NPPF and that they have an important role in ensuring that development respects local conditions and constraints.

Transport

- 2.13. Section 9 of the NPPF relates to transport and is entitled, '*Promoting sustainable transport*'. Paragraph 102 outlines the approach to dealing with transport matters in relation to planning applications:

102. Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:

a) the potential impacts of development on transport networks can be addressed;

b) opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;

c) opportunities to promote walking, cycling and public transport use are identified and pursued;

d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and

e) patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places.

- 2.14. Paragraph 108 considers the approach to potential development sites:

108. In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;

b) safe and suitable access to the site can be achieved for all users; and

c) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.

- 2.15. Paragraph 109 identifies the basis for judging the acceptability of development proposals in relation to the predicted level of transport impacts:

109. Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.

- 2.16. The purpose of this study is to provide a rational basis for assessing the level of development that is acceptable within Newport in relation to the requirements and criteria set out in the NPPF.

Local Plan Policy

- 2.17. Relevant local transport policy comprises Policy GEN 1 of the Uttlesford District Council (UDC) Adopted Local Plan (ALP) (2005) and Policy TA1 of the Emerging Local Plan (ELP) (Regulation 19 Pre-Submission Draft, June 2018 with Focused Changes, October 2018):

Uttlesford Adopted Local Plan (ALP) (2005):

Policy GEN1 – Access

Development will only be permitted if it meets all of the following criteria:

a) Access to the main road network must be capable of carrying the traffic generated by the development safely.

b) The traffic generated by the development must be capable of being accommodated on the surrounding transport network.

c) The design of the site must not compromise road safety and must take account of the needs of cyclists, pedestrians, public transport users, horse riders and people whose mobility is impaired.

d) It must be designed to meet the needs of people with disabilities if it is development to which the general public expect to have access.

e) The development encourages movement by means other than driving a car.

Uttlesford Emerging Local Plan (ELP) (2018)

Policy TA 1

Accessible Development

Development and transport planning will be co-ordinated to reduce the need to travel by car, increase public transport use, cycling and walking and improve accessibility and safety in the District while accepting the rural nature of the District. The overall need to travel (especially by car) to meet the day to day service needs will be minimised. Development proposals will be located in close proximity to services and make use of sustainable

forms of travel (walking, cycling and public transport) to fulfil day to day travel needs as a first requirement. To achieve this:

1. The capacity of the access to the main road network and the capacity of the road network itself must be capable of accommodating the development safely and without causing severe congestion;

2. Development will maintain or improve road safety and take account of the needs of all users, including mobility impaired users;

3. New development should be located where it can be linked to services and facilities by a range of transport options including safe and well designed footpaths and cycle networks, public transport and the private car;

4. Development should be located where it can provide safe, attractive, direct walking and cycling routes between new developments and schools / other community infrastructure, together with appropriate design for these new facilities that encourages and delivers sustainable travel;

5. Existing rights of way, cycling and equestrian routes (designated and non-designated routes and, where there is evidence of regular public usage, informal provision) will be protected and, should diversion prove unavoidable, provide suitable, appealing replacement routes to equal or enhanced standards ensuring provision for the long-term maintenance of any of the above;

6. A Transport Assessment will be required on all developments creating significant impact on the highway to assess the impact and potential mitigation required; and

7. Appropriate and safe networks, as defined by the Essex Local Transport Plan, will be provided to allow for increasingly independent travel by vulnerable road users to allow such individuals to provide for their own travel needs.

- 2.18. It is evident that local policy has regard to highway capacity, safety, accessibility and amenity.

Conclusion on Policy

- 2.19. A review of national and local policy indicates that neighbourhood plans are expected to make a positive and important contribution towards achieving high quality and appropriate development that is sensitive to local conditions. It is expected that this study will provide an evidence base to support the development of appropriate and justifiable neighbourhood plan policies. National and local policies make it clear that, in transport and highways terms, the key determinants of a potential development's acceptability relate to congestion, accessibility, safety and amenity.

3. EXISTING TRANSPORT CONDITIONS

Location and Key Facilities

- 3.1. The existing highway network in Newport is shown on the Location Plan attached as **Figure 3.1**. This shows the the B1383 running north-south through Newport. To the north the B1383 continues towards Saffron Walden (6km). To the south the B1383 continues to Bishops Stortford (14km).
- 3.2. The nearest connection to the M11 is at Junction 9A, around 11km to the north although this only provides access to and from the south. Junction 10, that provides access both north and south is 16km to the north of Newport and accessed via the B1383, Ickleton and Duxford. It is possible to access the M11 north and south from Newport at Junction 8, 14km to the south via the B1383 and the A120.
- 3.3. The key highway links; Bury Water Lane, Wicken Road, Frambury Lane and Church Street are shown west of the B1383. **Figure 3.1** also shows the locations of the primary and secondary schools on Frambury Lane and Bury Water Lane respectively, the location of the village shop and post office and the location of bus stops and the railway station.

Study Network

- 3.4. **Figure 3.2** shows the study network in more detail.
- 3.5. Footways are provided along most highway links within the study area. There are, however, some areas where footways are either narrow or absent. These are indicated on **Figure 3.2**.
- 3.6. Footways are absent from the section of Bury Water Lane immediately west of the B1383. This is a particularly sensitive area because of the presence of the Joyce Frankland Academy (secondary school) both north and south of Bury Water Lane immediately to the west of the section of Bury Water Lane that has no footways. No footway is provided on the eastern side of School Lane although a standard footway has recently been provided on the western side of the road. No footway is provided on the southern side of Wicken Road for a distance of around 40m to the south of the Church Street junction. No footway is provided along a 75m section of Church Street.
- 3.7. The footways at the eastern end of Wicken Road in the vicinity of the B1383 junction are narrow with a minimum width on the southern side of 0.9m and a minimum width of 1.4m on the northern side.

- 3.8. The B1383 through the village has a width generally between 6.0m and 7.0m. This is sufficient to allow all vehicle types to pass. On-street parking is generally prohibited to the north of Wicken Road. However, there are sections of road south of Wicken Road where on-street parking is permitted. The presence of a vehicle parked on street makes it difficult or impossible for vehicles travelling in opposite direction to pass without having to give way. For this reason, vehicles are often observed pulling onto footways to minimise obstruction to passing vehicles. This leads to risks to pedestrians and reductions in pedestrian amenity. On the western side of the B1383 to the south of Wicken Road it is not possible for vehicles to pull onto the footway due to the presence of raised verges. In this area it is often the case that a row of parked vehicles will lead to queues of traffic on the B1383 giving way to oncoming vehicles. Queues and delays are particularly sensitive to the presence of larger vehicles including HGVs and buses. The traffic surveys indicate 44 heavy vehicle movements on this section of road during the AM peak hour and 14 during the PM peak hour.
- 3.9. The majority of residential development in Newport is located to the west of the B1383. A number of key facilities including the village shop/post office, the pharmacy, southbound bus stops and the train station are located to the east of the B1383. Access to local facilities, for many people, therefore involves crossing the B1383. A signalised crossing is provided to the north of Gaces Acre (catering for the movement of pupils between bus stops on the eastern side of the B1383 and the Joyce Frankland Academy), a zebra crossing immediately to the north of Wicken Road in the vicinity of the shop/post office and another zebra crossing further south in the vicinity of the bakery/café. The designated crossings are separated by around 300m. Pedestrians will either be required to make a significant diversion to use designated crossing points or will seek to cross the road where no designated crossing is provided. The high vehicle flows on the B1383 and the limited provision of designated crossings lead to community severance, particularly for those with limited mobility, with buggies or accompanying children.
- 3.10. The lack of footways along the eastern end of Bury Water Lane present a particular barrier to pedestrian movement for those living in the existing and proposed housing areas accessed via Bury Water Lane including the Whiteditch estate.
- 3.11. It is understood that there is concern that levels of air pollution on and around the B1383 and in particular in the vicinity of the Wicken Road/B1383 junction exceeds acceptable thresholds. Although it is not within the scope of this report to assess this issue, it is acknowledged that it relates to traffic levels and may need to be taken into account when developing appropriate local policies.

- 3.12. The movement of pupils at the Joyce Frankland Academy raises significant issues of highway safety on Bury Water Lane. A zebra crossing is provided between the parts of the school that are located north and south of Bury Water Lane. This is used very intensively at the end of the school day leading to significant conflict with school buses and other vehicles. The school implements a management strategy to minimise this conflict. The strategy includes requiring buses to wait on School Lane before picking up at the end of the day and the allocation of staff members to manage child and vehicle movement on Bury Water Lane adjacent to the school. The area is highly sensitive to changes in vehicle flows.

Conservation Area

- 3.13. **Figure 3.3** shows the extent of the existing Conservation Area within Newport village. It can be seen that it includes much of the B1383 as it passes through the village, areas to the east and west of the road, much of Bury Water Lane, the eastern section of Wicken Road and Church Street. Those parts of the study area that lie within the Conservation Area have a heightened sensitivity to increases in traffic flow and the associated adverse environmental impacts of traffic.

Highway Safety

- 3.14. The Crashmap database has been interrogated to identify personal injury road traffic accidents (PIAs) in the study area over the most recent five-year period. **Appendix 1** contains the results of this search.
- 3.15. There have been six slight PIAs in and around Newport in the past five years. Although there has been one PIA at the Wicken Road/B1383 junction and one PIA at the Bury Water Lane/B1383 junction, there are no clusters of PIAs that would provide strong evidence of existing road safety deficiencies.
- 3.16. It should be noted that the absence of clusters of PIAs does not necessarily indicate an absence of highway risk. The PIA records do not include 'near misses' or collisions that do not result in personal injury. Further, the conditions under which collisions occur are complex and judgement needs to be applied to ascertain whether parts of the highway network present risks that may result in PIAs in the future. The records also do not provide any insight into those parts of the network that may have experienced no PIAs because highway conditions are so threatening that pedestrians seek to find alternative routes.

Existing Traffic Flows

3.17. Surveys of turning movements at the following junctions have been undertaken on Thursday 13 June 2019 during the peak periods (07:00-10:00 and 15:00-19:00):

1. Frambury Lane/Station Road/B1383 priority junction;
2. Wicken Road/B1383 priority junction;
3. Church Street/B1383 priority junction;
4. Bury Water Lane/B1383 priority junction.

3.18. The original survey data are attached as **Appendix 2**.

3.19. An assessment has been made of the variation in total traffic flows arriving at junctions during the peak periods. The following table shows the hour within the peak periods when total arriving flows are at their maximum at each junction and compares this figure with the total flow during the conventional 08:00-09:00 and 17:00-18:00 peak hours:

Table 3.1: Peak Traffic Flows (total vehicles arriving at/passing junction)

Junction	AM peak			PM Peak		
	Observed peak*	Total inflow	08:00-09:00	Observed peak*	Total inflow	17:00-18:00
Frambury Ln/Station Rd/B1383	07:45	1,056	1,026	17:00	974	974
Wicken Rd/B1383	07:45	1,343	1,338	17:00	1,191	1,191
Church Ln/B1383	08:00	1,196	1,196	17:00	1,082	1,082
Bury Water Ln/B1383	07:45	1,367	1,324	17:00	1,208	1,208
Total		4,962	4,884		4,455	4,455

*hour commencing

3.20. It can be seen that during the PM peak period the highest traffic flows were observed during the conventional 17:00-18:00 hour. During the AM peak period the highest flows were observed either during the conventional 08:00-09:00 peak or slightly earlier during the 07:45-08:45 hour. In order to ensure a robust assessment, flows during the observed peak hours have been used as a basis for junction capacity assessments.

3.21. Summaries of the existing peak hour traffic flows are shown on **Figures 3.4** (AM peak) and **3.5** (PM peak).

3.22. It should be noted that traffic flows on the B1383 in both peak periods are significant. During the AM peak hour the 2-way flow on the B1383 through the village is between 1,100 and 1,200 vehicles per hour and during the PM peak hour the 2-way flow is between 1,000 and 1,100 vehicles per hour. This equates to between 17 and 20

vehicles per minute. For able bodied adults, this level of flow does not lead to excessive delay while crossing the road. For those with mobility impairments and other vulnerable highway users such as children or adults with buggies, this level of flow, in the absence of designated crossing points represents a more significant barrier to movement (community severance).

Operation of Existing Junctions

- 3.23. Existing junctions have been modelled using the Junctions9 computer programme. The geometric parameters for each junction have been measured on site. These are summarised in **Appendix 3**. Although a zebra crossing is provided on the B1383 immediately to the north of Wicken Road this has not been modelled since the Junctions9 programme is unable to accurately model the effect of a zebra crossing located in the area where vehicles wait to turn right into a side road. It can be assumed that the results of the modelling will tend to over-estimate the capacity of the junction although the crossing does, on occasion, assist drivers turning out of Wicken Road as the southbound traffic flow is interrupted and northbound drivers choose to allow a waiting vehicle to turn in front of them.
- 3.24. The traffic flows shown in **Figures 3.4** and **3.5** have been used to operationally assess the current performance of each junction. The 'OD Tab' option has been used to define the variation in traffic flow over the assessment hours. This allows for some 'peakiness' within the peak hour to reflect the fact that the rate at which traffic arrives at or passes through each junction is not constant. The results are summarised in the following table. A ratio of flow to capacity (RFC) of under 0.85 is generally considered to indicate that a movement is operating within operational capacity:

Table 3.2: Results of 2019 Baseline Junction Operational Assessments

Junction	Movement	AM Peak			PM Peak		
		RFC	Max Q	Delay (s)	RFC	Max Q	Delay (s)
Frambury Lane	right and left out	0.19	0.2	12.09	0.07	0.1	10.48
	right in	0.12	0.3	5.24	0.09	0.2	5.40
Station Road	right and left out	0.04	0.0	8.96	0.10	0.1	9.76
	right in	0.03	0.0	4.75	0.02	0.0	4.97
Wicken Road	right and left out	0.64	1.7	27.38	0.37	0.6	15.72
	right in	0.39	1.2	7.71	0.50	1.7	8.45
Church Street	right and left out	0.05	0.1	8.59	0.00	0.0	0.00
	right in	0.01	0.0	4.68	0.03	0.0	4.20

Bury Water Lane	right and left out	0.64	1.7	28.39	0.24	0.3	11.12
	right in	0.35	1.0	6.83	0.24	0.7	4.80

Notes:

RFC: Ratio of Flow to Capacity

Max Q: Maximum number of vehicles in queue

Delay per vehicle in seconds

3.25. It can be seen that all movements at all junctions are operating with RFC values below 0.85 (i.e. within operational capacity). The highest RFC values are shown to be 0.64 on Wicken Road and Bury Water Lane during the AM peak hour. Although the associated queue lengths are low (under 2 vehicles), delay for vehicles waiting to turn out of the side road are more significant at around 27 seconds at Wicken Road and 28 seconds at Bury Water Lane.

3.26. In order to assess the reliability of the modelling results, the modelled queue lengths at the Wicken Road/B1383 junction have been compared with the observed queue lengths during the AM peak period. Observed queue lengths are attached as **Appendix 4**. The following table summarises the modelled and observed queues at each junction:

Table 3.2: Comparison of Modelled and Observed Queues at Wicken Road/B1383 Junction

	Observed Max Q (vehicles)	Modelled maximum queue (vehicles)
Minimum queue	0	-
Maximum queue	8	-
Average queue	1.7	1.7

3.27. It can be seen that the observed **average** queue length on Wicken Road is the same as the **maximum** queue length derived using the junction model. This suggests that the model is underestimating the queues on Wicken Road. It is not possible to provide an exact estimate of the degree to which the queues are being underestimated since the method of deriving a 'maximum' queue in the model does not equate to any specific statistical representation of observed variations in queue length. The comparison is, however, consistent with what might be expected given the nature of the junction. Queues are observed to be very sensitive to specific aspects of the road environment and the nature of the vehicles turning into and out of the junction. The impact of vehicles parked on Wicken Road in the vicinity of the junction, the difficulty that large

vehicles have in turning into and out of the junction and the effects of the use of the pedestrian crossing are not explicitly taken into account in the modelling process.

3.28. On the basis of the above analysis it is therefore concluded that the modelling is providing a 'best case' in relation to the operation of the Wicken Road/B1383 junction and the results of the future year modelling reported below should be understood in this context.

Rat-Running along Church Street

3.29. Observations on site reveal that traffic, on occasion, builds up on Wicken Road with queues around 10 vehicles. The queues are observed to be caused by a combination of the following:

- The variability in the arrival rate of vehicles on Wicken Road;
- Obstruction to the junction at the B1383 caused by heavy vehicles being unable to turn into the junction without conflicting with vehicles waiting to turn out of Wicken Road or HGVs turning left out of Wicken Road conflicting with the opposing southbound traffic on the B1383;
- The presence of vehicles parked on Wicken Road blocking the free flow of traffic on the approach to the junction.

3.30. Although the queues tend to disperse after a few minutes, some vehicles approaching the junction on Wicken Road and seeking to turn left onto the B1383 use Church Street as a rat-run to avoid delays. The Church Street junction on Wicken Road is around 80m from the B1383 junction. This rat-run is particularly undesirable since Church Street is narrow with little or no footway provision and passes through the most sensitive part of the conservation area.

4. KEY TRANSPORT ISSUES

- 4.1. On the basis of the information, surveys and modelling reported above, the key transport issues within Newport village are the following:
1. High traffic flows on the B1383 in combination with on-street parking south of Wicken Road lead to queues and delays on the B1383 through the village;
 2. Vehicles parked on footways presents risks to pedestrians and makes pedestrian movement along the B1383 more difficult (reducing pedestrian amenity);
 3. Limited pedestrian crossing facilities on the B1383, coupled with high traffic flows on the B1383 leads to community severance, forcing many pedestrians to cross in the absence of designated facilities;
 4. Absent or narrow footways lead to increased pedestrian risk and reduced pedestrian amenity on the eastern section of Bury Water Lane, on Church Street and at the junction of Wicken Road with the B1383;
 5. The lack of footways along the eastern end of Bury Water Lane causes severance for those living in housing accessed via Bury Water Lane;
 6. The Wicken Road/B1383 and the Bury Water Lane/B1383 junctions are currently operating close to capacity during the AM peak hour;
 7. There is significant conflict between vulnerable highway users, school buses and other vehicles on Bury Water Lane during school start and finish times;
 8. Much of Newport lies within a Conservation Area. This increases the sensitivity of the area to changes in traffic flows and the environmental impacts of traffic;
 9. Sporadic queues of traffic on Wicken Road lead to drivers seeking to rat-run along Church Street to avoid delays at the Wicken Road/B1383 junction;
 10. It is understood that levels of air pollution along the B1383 and, in particular, in the vicinity of the Wicken Road/B1383 junction are currently approaching or exceeding acceptable standards.

5. COMMITTED DEVELOPMENT

- 5.1. Committed developments in and close to Newport have been identified from the Uttlesford Planning Portal. Some committed developments are currently partially occupied. In these cases, the number of dwellings occupied at the time of the traffic surveys (June 2019) has been established by reference to those properties with a registered elector.
- 5.2. A table summarising committed development and a map identifying the locations of committed development in Newport are attached as **Appendix 5**.
- 5.3. A total of 242 dwellings were committed and un-occupied in June 2019. In addition, there were 121 care home/retirement beds committed.
- 5.4. The following table summarises the level of committed development accessed via the key routes considered in this study:

Table 5.1: Committed Development by Access Route (June 2019)

Route providing access	Number of dwellings	Number of care home/retirement beds
London Road north of Bury Water Lane	2	0
London Road south of Wicken Road	2	0
London Road south of Frambury lane	105	0
Frambury Lane	5	0
Bury Water Lane	128	121
Total	242	121

6. COMMITTED DEVELOPMENT TRAFFIC GENERATION, DISTRIBUTION AND ASSIGNMENT

Trip Generation

- 6.1. The trip generation rates for residential units are based on those that have been accepted by Essex County Council Highway Authority in relation to proposed development north and south of Wicken Road (planning applications 17/2668 and 18/1026). These are summarised in the following table:

Table 6.1: Residential Trip Generation Rates

	AM Peak			PM Peak			Daily		
	in	out	tot	in	out	tot	in	out	tot
Trip generation/unit	0.152	0.408	0.560	0.391	0.231	0.622	2.560	2.660	5.220

- 6.2. The application of the above trip generation rates to the total committed dwellings gives the following trip generation:

Table 6.2: Residential Trip Generation (242 dwellings)

	AM Peak			PM Peak			Daily		
	in	out	tot	in	out	tot	in	out	tot
Trip generation/unit	37	99	136	95	56	151	620	644	1263

- 6.3. The trip generation of the care home development has been taken from the Transport Assessment that accompanied the planning application (ref. 16/0459) and is summarised in the following table:

Table 6.3: Care Home Trip Generation

	AM Peak			PM Peak			Daily		
	in	out	tot	in	out	tot	in	out	tot
Trip generation	12	12	24	11	11	22	205	205	409

- 6.4. The original Transport Assessment for the care home development presented information only in relation to 2-way trips in the main body of the text. Information in the appendices did, however, indicate that in the peak hours the 2-way flows were split relatively evenly between arrivals and departures. For the purposes of this study it has therefore been assumed that there is a 50:50 split between arrivals and departures.

Trip Distribution

- 6.5. Residential trips have been distributed in accordance with 2011 Census data relating to the work destinations of those living within the local area (Uttlesford 003 Middle Layer Super Output Area (MSOA)). Details of the data and the assumptions that have been made regarding routes to and from the various destinations are provided in **Appendix 6**. The following table presents a summary:

Table 6.4: Distribution of Residential Traffic

Area	Route	%
west	Via Wicken Road	11.6%
north	Via B1383 north	46.2%
east	Via Debden Road	2.9%
south	Via B1383 south	39.2%
	Total	100%

- 6.6. For the purposes of assessment, it has also been assumed that the above distribution will also apply to the trips generated by the care home development.

Trip Assignment

- 6.7. The assignment of committed development trips in the AM and PM peak hours is shown on **Figures 6.1** and **6.2** attached.

7. TRAFFIC GROWTH

- 7.1. For the purposes of this study three future years have been assessed; 2024, 2029 and 2034 (five, ten and fifteen years after the baseline traffic surveys).
- 7.2. Background traffic growth has been derived using the TEMPro/NTM model for the Uttlesford 003 MSOA. Since committed development is being added separately, it is necessary to adjust the assumptions that have been made about background changes in household numbers within the model. The committed development in and around Newport comprises a total of 242 dwellings. It is noted that the TEMPro/NTM model allows for only 229 new households within the Uttlesford 003 MSOA between 2019 and 2024. In addition to the 242 dwellings in and around Newport there are also 13 dwellings permitted in Clavering (Local Plan site CLA 1) and 19 dwellings in Quendon (Local Plan site QUE 1) giving a total of 274 dwellings within the Uttlesford 003 MSOA. Given that 242 dwellings are considered separately in the study, it is necessary to adjust the households in the TEMPro/NTM model to allow for a background increase of 32 dwellings. The increases in households past 2024 have been maintained. The model's prevailing assumptions about household numbers and the revised figures are summarised in the following table:

Table 7.1: Adjusted TEMPro/NTM Assumptions (Uttlesford MSOA 003)

	households			
	2019	2024	2029	2034
Baseline households	3,687	3,916	4,106	4,293
Cumulative change	-	+229	+419	+606
Committed households		+274		
Households considered separately	-	-242		
Change in households for revised model	-	+32	+222	+409
Revised households	-	3,719	3,909	4,096

- 7.3. The application of the adjusted household numbers leads to the following growth rates. Data for both rural principle and rural minor links have assessed since the B1383 would be classified as a rural principle road and other links within the study area would be classified as rural minor links. An average of the growth rates for principle and minor roads has been used in the assessments:

Table 7.2: TEMPro/NTM Growth Rates (adjusted household numbers)

Future Year	AM Peak			PM Peak		
	rural principle	rural minor	average	rural principle	rural minor	average
2019-2024	1.0470	1.0433	1.0452	1.0417	1.0381	1.0399
2019-2029	1.0865	1.0816	1.0841	1.0831	1.0783	1.0807
2019-2034	1.1220	1.1172	1.1196	1.1204	1.1156	1.1144

- 7.4. It can be seen that background traffic growth is predicted to increase peak hour traffic flows by between 4% and 5% by 2024, by between 8% and 9% by 2029 and by between 11% and 12% by 2034.
- 7.5. The application of the above background traffic growth rates to the 2019 observed traffic flows gives the future baseline traffic flows shown in **Figures 7.1** and **7.2** for the 2024 situation in the AM and PM peak hours respectively. The corresponding future year flows in 2029 and 2034 are provided in **Figures 7.3** to **7.6**.

8. PERFORMANCE OF HIGHWAY NETWORK IN FUTURE YEARS

Future Year Traffic Flows

- 8.1. Future year traffic flows with background traffic growth and traffic associated with committed development are shown in **Figures 8.1** and **8.2** for the AM and PM peak hours for the 2024 situation, in **Figures 8.3** and **8.4** for the AM and PM peak hours for the 2029 situation and in **Figures 8.5** and **8.6** for the 2034 situation.

Operational Assessment of Junctions

- 8.2. Operational assessments of the key junction within the local highway network have been repeated using the traffic flows derived for the future years. The operational assessments are attached as **Appendix 7** and the results are summarised in the following table:

Table 8.1: Results of Future Year Junction Operational Assessments

AM PEAK										
Junction	Movement	2024			2029			2034		
		RFC	Max Q	Delay (s)	RFC	Max Q	Delay (s)	RFC	Max Q	Delay (s)
Frambury Ln	R+L out	0.22	0.3	13.42	0.23	0.3	13.91	0.24	0.3	14.40
	R in	0.13	0.3	5.15	0.14	0.4	5.13	0.15	0.4	5.12
Station Rd	R+L out	0.04	0.0	9.54	0.04	0.0	9.95	0.05	0.0	9.99
	R in	0.03	0.0	4.62	0.04	0.1	4.59	0.04	0.1	4.55
Wicken Rd	R+L out	0.78	3.3	47.90	0.84	4.3	62.06	0.89	5.7	79.94
	R in	0.44	1.5	8.16	0.47	1.7	8.52	0.50	1.9	8.94
Church St	R+L out	0.06	0.1	8.98	0.06	0.1	9.17	0.06	0.1	9.36
	R in	0.01	0.0	4.59	0.01	0.0	4.55	0.01	0.0	4.51
Bury Water Ln	R+L out	0.86	4.9	67.81	0.91	6.6	89.12	0.97	9.5	122.38
	R in	0.44	1.5	7.84	0.47	1.7	8.18	0.50	2.0	8.58
PM PEAK										
Junction	Movement	2024			2029			2034		
		RFC	Max Q	Delay (s)	RFC	Max Q	Delay (s)	RFC	Max Q	Delay (s)
Frambury Ln	R+L out	0.08	0.1	11.20	0.08	0.1	11.57	0.08	0.1	11.84
	R in	0.11	0.2	5.25	0.11	0.2	5.21	0.12	0.3	5.18
Station Rd	R+L out	0.11	0.1	10.54	0.12	0.1	10.82	0.12	0.1	11.16
	R in	0.02	0.0	4.84	0.02	0.0	4.81	0.03	0.0	4.79
Wicken Rd	R+L out	0.46	0.8	20.43	0.49	0.9	22.16	0.53	1.1	24.36
	R in	0.56	2.3	9.32	0.60	2.7	10.16	0.64	3.1	11.13
Church St	R+L out	0.00	0.0	0.00	0.00	0.0	0.00	0.00	0.0	0.00
	R in	0.03	0.0	4.20	0.04	0.0	4.06	0.04	0.1	4.01
Bury Water Ln	R+L out	0.33	0.5	13.28	0.35	0.5	13.95	0.37	0.6	14.61
	R in	0.37	1.3	5.68	0.40	1.5	5.83	0.42	1.6	5.97

Shaded cell indicates RFC value over 0.85 or delay over 1 minute

- 8.3. The Frambury Lane/Station Road/B1383 junction is shown to operate within capacity in all future situations.
- 8.4. The Wicken Road/B1383 junction is shown to operate within capacity until 2034 when it is shown to operate over operational capacity (an RFC value over 0.85) in the AM peak hour. The delay for vehicles waiting to turn out of Wicken Road during this period is shown to be 80 seconds. The junction continues to operate within capacity in the PM peak hour in all future year situations.
- 8.5. The Church Street/B1383 junction is shown to operate well within capacity in all future year situations.
- 8.6. The Bury Water Lane/B1383 junction is shown to operate slightly over capacity with an RFC value of 0.86 in 2024 in the AM peak hour with an associated delay of 68 seconds. The situation is worsened up to 2034 with an RFC value of 0.97 and delay of 122 seconds. The junction is shown to operate within capacity in the PM peak hour in all future year situations.
- 8.7. The implications of the modelling results are discussed in **Section 10**.

9. SENSITIVITY OPERATIONAL ASSESSMENTS

9.1. A sensitivity assessment has been undertaken to establish the possible impact of further development in Newport. The following recent planning applications have been submitted for development on sites that are not allocated within the existing or emerging Local Plans. The sites are also shown in red on the map attached included in **Appendix 5**:

Table 9.1: Recent Speculative Planning Applications

Ref.	No. of dwellings	Location	Access	Status
17/2868	150	Land south of Wicken Road	Wicken Road west of Newport	Appeal decision awaited
18/1026	75	Land north of Wicken Road	Wicken Road west of School Lane	At appeal
18/0739	24	North of Bury Water Lane (Joyce Frankland Academy)	Bury Water Lane	At appeal
Total	249			

9.2. The following table summarises the trip generation of the above developments:

Table 9.2: Sensitivity Trip Generation

	AM Peak			PM Peak			Daily		
	in	out	tot	in	out	tot	in	out	tot
Trip generation/unit	0.152	0.408	0.560	0.391	0.231	0.622	2.560	2.660	5.220
S of Wicken Rd (150 units)	23	61	84	59	35	93	384	399	783
N of Wicken Rd (75 units)	11	31	42	29	17	47	192	200	392
Joyce Frankland Academy (24 units)	4	10	13	9	6	15	61	64	125
Total	38	102	139	97	58	155	637	662	1300

9.3. The trip distribution of traffic as set out in **Section 6** above has been applied to the sensitivity developments. The traffic generated in the AM and PM peak hours is shown in **Figures 9.1** and **9.2**.

9.4. The 2024 situation with the sensitivity developments is shown in **Figures 9.3** and **9.4** for the AM and PM peak hours respectively.

9.5. Operational assessments have been repeated for the four study junctions. The output files are attached as **Appendix 8** and the results are summarised in the following table:

Table 9.3: Results of Sensitivity Junction Operational Assessments (2024)

Junction	Movement	AM Peak			PM Peak		
		RFC	Max Q	Delay (s)	RFC	Max Q	Delay (s)
Frambury Ln	R+L out	0.22	0.3	13.94	0.08	0.1	11.70
	R in	0.14	0.4	5.03	0.11	0.2	5.2
Station Rd	R+L out	0.04	0.0	9.91	0.11	0.1	10.92
	R in	0.04	0.0	4.61	0.02	0.0	4.73
Wicken Rd	R+L out	1.07	19.7	199.32	0.64	1.7	30.70
	R in	0.51	1.9	9.22	0.71	4.1	14.57
Church St	R+L out	0.06	0.1	9.31	0.00	0.0	0.00
	R in	0.01	0.0	4.56	0.03	0.0	4.01
Bury Water Ln	R+L out	0.93	7.6	101.79	0.36	0.6	14.52
	R in	0.47	1.7	8.19	0.41	1.6	5.9
Shaded cell indicates RFC value over 0.85 or delay over 1 minute							

9.6. It can be seen that traffic associated with the possible developments leads to the Wicken Road and Bury Water Lane junctions operating over capacity in 2024. The Wicken Road junction, in particular, is shown to operate well over capacity with an RFC value of 1.07, a queue of 20 vehicles and delay per driver of over 3 minutes. In this situation it can be assumed that drivers will be seeking alternative, quicker routes to access the B1383 in the AM peak hour. Some may opt to use Bury Water Lane although delays at this junction are also shown to be significant. Many drivers will seek to rat-run along Church Street or along Frambury Lane leading to adverse impacts on sensitive areas. It can be assumed that the situation would be worsened through time as background traffic levels increase.

10. DISCUSSION OF ISSUES

Summary of Issues

10.1. Traffic flows on the B1383 are significant, particularly during the peak periods giving rise to a number of problems including the following:

- Community severance in those parts of the village where pedestrian crossings are not provided;
- Poor air quality (high NOx concentrations have been recorded in the vicinity of the Wicken Road junction);
- The presence of on-street parking, particularly along the section of the B1383 south of Wicken Road leads to the rapid build-up of queues of traffic as vehicles are forced to give way to oncoming traffic;
- High traffic flows including heavy vehicles reduces pedestrian amenity. This is a particular problem for vulnerable highway users that include children walking to and from the primary and secondary schools in the village;
- The capacity of priority junctions along the B1383 is limited during the peak hours by the limited availability of gaps in traffic in which to turn.

Impact of Traffic Growth and Committed Development on Wicken Road/B1383 and Bury Water Lane/B1383 Junctions

10.2. The junction modelling work indicates that the Wicken Road and Bury Water Lane junctions with the B1383 are approaching and exceeding operational capacity in the future years. The following table summarises the predicted levels of traffic increase associated with background traffic growth and committed development at the two junctions that is contributing towards the modelling results:

Table 9.1: Changes in Traffic Flows at the Wicken Road/B1383 and Bury Water Lane/B1383 Junctions (AM Peak)

Year	Wicken Road/B1383			Bury Water Lane/B1383		
	pcus turning out onto B1383	change from 2019	RFC value	pcus turning out onto B1383	change from 2019	RFC value
2019	224		0.64	211		0.64
2024	250	+26	0.78	264	+53	0.86
2029	258	+34	0.84	272	+61	0.91
2034	266	+42	0.89	279	+68	0.97

- 10.3. It is pertinent to note that the two junctions appear to have a very similar level of capacity. In both cases the side road width and visibility is constrained. The capacity of each junction is a function of the geometry of the junction, the flows turning in and out of the junction and the passing flows on the main road. The passing flows are very similar in each case. It can be seen that when the level of emerging traffic reaches around 260 pcus, the RFC value reaches operational capacity (0.85 or above). For Wicken Road this is shown to occur between 2029 and 2034. For Bury Water Lane this threshold is seen to be reached earlier between 2019 and 2024. The main reason for this is that Bury Water Lane is predicted to carry a higher level of committed development traffic, there currently being 128 residential units and 121 care home units accessed most directly via Bury Water Lane and still to be constructed and occupied.
- 10.4. It should be noted that, as discussed above, the modelling work is under-estimating queues and delays at the Wicken Road junction to some extent since the model does not take into account the presence of the pedestrian crossing immediately to the north or the specific problems encountered by HGVs seeking to turn into or out of the junction.
- 10.5. In the AM peak hour, committed development traffic adds 15 vehicle trips to the movement out of Wicken Road and 41 vehicle trips to the Bury Water Lane junction. Background traffic growth account for increases of around 8 vehicles turning out at each junction every 5 years.
- 10.6. To some extent, traffic has a choice between the Wicken Road and Bury Water Lane junctions. If the Wicken Road junction is congested some drivers may choose to use the Bury Water Lane junction and similarly, if the Bury Water Lane junction is congested, some drivers may choose to use the Wicken Road junction. The modelling currently assumes that traffic between the committed development accessed via Bury Water Lane and areas to the south is split 50:50 between Wicken Road and Bury Water Lane. This may not be an entirely realistic assumption at the present time but as queues and delays at the Bury Water Lane junction increase with background traffic growth and the completion of committed development, more drivers may route via School Lane and Wicken Road rather than use the Bury Water Lane junction in the AM peak hour.
- 10.7. Neither the Wicken Road junction nor the Bury Water Lane junction provides an unconstrained route for new trips. The route via Bury Water Lane is highly sensitive due to the presence of the secondary school and its use by school buses, coupled with the absence of footways west of the B1383. The Wicken Road junction is highly sensitive to increases in traffic flows due to narrow footways around the junction, the use of the junction by significant numbers of HGVs (including many school buses), the difficulties

that these HGVs have in negotiating the turns into and out of the junction without encroaching on footways or into the paths of oncoming vehicles, the use of the junction by many pedestrians, the presence of the zebra crossing immediately to the north of the junction and the risk that drivers will use the highly constrained Church Street as an alternative route to access the B1383 north if queues are observed at the junction. Both junctions sit within the Conservation Area.

- 10.8. Frambury Lane provides a less direct alternative route between areas west of Newport and the B1383. The route is, however, very sensitive to increases in traffic flow due to the presence of the primary school. It is not, therefore, a suitable route that could accommodate traffic that is deterred from using either Wicken Road or Bury Water Lane.
- 10.9. On the basis of the above considerations it is concluded that it is undesirable to increase traffic demand at either the Wicken Road or Bury Water Lane junctions with the B1383.

Sensitivity Assessment

- 10.10. The assessment of possible additional traffic associated with speculative developments accessed via Wicken Road and Bury Water Lane shows that even in 2024 the Wicken Road/B1383 junction would operate well over capacity with long queues and very significant delays to drivers during the AM peak hour. It should be remembered that the model is likely to be under-estimating queues and delays. Queues and delays for drivers seeking to access the B1383 from Wicken Road are likely to lead to significant rat-running along Church Street, Frambury Lane and Bury Water Lane although Bury Water Lane is also shown to be operating over capacity in 2024 in this situation. All of the alternative routes are highly sensitive and unsuitable to accommodate any significant increase in traffic for the reasons already described.

Constraints to Future Development

- 10.11. The modelling work indicates that further development that leads to any significant increase in traffic emerging onto the B1383 from either Bury Water Lane or Wicken Road in the AM peak hour will lead to significant adverse impacts in relation to vulnerable highway users, in relation to the sensitive Conservation Area, in terms of vehicle delays and in terms of worsening air quality. With only committed development modelled traffic queues are not long but vehicle delays are shown to increase significantly as each junction approaches and exceeds its operational capacity. The sensitivity assessment demonstrates that further development to the west of Newport is

likely to lead to severe impacts in terms of vehicle queues and delays and also in terms of safety and environmental effects.

Policy Considerations

- 10.12. National policy as articulated in the NPPF makes it clear that transport issues should be considered from the earliest stages of plan-making and that these issues should include both delays and environmental impacts (NPPF, para. 102). Further, should development lead to significant adverse impacts, those impacts should be effectively mitigated to an acceptable degree (NPPF, para. 103).
- 10.13. Paragraph 109 of the NPPF sets out the test of whether a proposed development should be prevented or refused on highway grounds: whether the residual cumulative impacts on the road network would be **severe**. 'Cumulative' impacts in this context includes those associated with background traffic growth and traffic associated with committed development. The modelling work presented in this study assesses future year cumulative impacts in the absence of specific development proposals. The term 'severe' is not given a clear definition in the NPPF. However, in this context it should be understood in relation to paragraph 102 that requires assessment to include environmental considerations. The environmental sensitivity of the assessed network, particularly the Wicken Road and Bury Water Lane junctions is a relevant factor in judging whether the 'severe' threshold is reached.
- 10.14. Existing and emerging local policy refers to capacity and safety issues consistent with national policy.
- 10.15. It is clear that both the Wicken Road and Bury Water Lane junctions are highly sensitive in environmental terms. The modelling work also shows that they are highly sensitive in capacity terms with significant delays to vehicles seeking to emerge onto the B1383 in the AM peak hour. In policy terms there is reason to believe that any additional development to the west of Newport that generates a significant amount of traffic at the Wicken Road and/or Bury Water Lane junctions would lead to a severe cumulative impact.

Opportunities for Mitigation

- 10.16. In policy terms it is also pertinent to consider the **residual** impact of development. This needs to take account of possible mitigation measures. There does not appear to be any scope to implement any improvements that could increase capacity at either junction using available highway land. There also appears to be very limited scope to

introduce measures that could mitigate adverse impacts in terms of risk to pedestrians, pedestrian amenity impacts or more general impacts in relation to the Conservation Area or air quality. It may be possible to achieve mitigation to deal with adverse impacts associated with further development but in designing any such mitigation it would be necessary to consider not only capacity and delay issues but also the range of other adverse environmental impacts resulting from increased traffic on highly sensitive routes.

11. SUMMARY AND CONCLUSION

11.1. This report has been prepared by Railton TPC Ltd on behalf of the Newport Parish Council Neighbourhood Plan Steering Group. The purpose of the report is to assess the potential adverse impacts of changes in traffic flows on the local highway network over the Neighbourhood Plan period. The need for a transport study arises as a result of significant housing development in the village over recent years and ongoing, that has led to concern about adverse impact in terms of congestion, safety and amenity. It is expected that the study will provide a rational basis for managing future development.

11.2. Base data includes observations and measurements of the local highway network undertaken during site visits, traffic surveys at key junctions undertaken in June 2019 and information about committed developments derived from the Uttlesford planning portal. Trip generation and traffic growth have been derived from standard industry sources. Trip distribution is based on 2011 Census data.

11.3. The study has been undertaken within the policy context set out in the NPPF and existing and emerging Local Plans.

11.4. The key transport issues identified in the study comprise the following:

- High traffic flows on the B1383 in combination with on-street parking south of Wicken Road lead to queues and delays on the B1383 through the village;
- Vehicles parked on footways presents risks to pedestrians and makes pedestrian movement along the B1383 more difficult (reducing pedestrian amenity);
- Limited pedestrian crossing facilities on the B1383, coupled with high traffic flows on the B1383 leads to community severance, forcing many pedestrians to cross in the absence of designated facilities;
- Absent or narrow footways lead to increased pedestrian risk and reduced pedestrian amenity on the eastern section of Bury Water Lane, on Church Street and at the junction of Wicken Road with the B1383;
- The lack of footways along the eastern end of Bury Water Lane causes severance for those living in housing accessed via Bury Water Lane;
- The Wicken Road/B1383 and the Bury Water Lane/B1383 junctions are currently operating close to capacity during the AM peak hour;
- There is significant conflict between vulnerable highway users, school buses and other vehicles on Bury Water Lane during school start and finish times;

- Much of Newport lies within a Conservation Area. This increases the sensitivity of the area to changes in traffic flows and the environmental impacts of traffic;
- Sporadic queues of traffic on Wicken Road lead to drivers seeking to rat-run along Church Street to avoid delays at the Wicken Road/B1383 junction;
- It is understood that levels of air pollution along the B1383 and, in particular, in the vicinity of the Wicken Road/B1383 junction are currently approaching or exceeding acceptable standards.

- 11.5. A review of committed development in and around Newport reveals that in June 2019 there were 242 residential units and 121 care/retirement home beds to be developed and occupied in the foreseeable future.
- 11.6. Background traffic growth has been derived from the TEMPro/NTM model with trip end assumptions adjusted to allow for committed development.
- 11.7. Junction modelling has been undertaken for the AM and PM peak hours in 2019, 2024, 2029 and 2034. Committed development traffic and background traffic growth has been added to the future year situations.
- 11.8. A sensitivity assessment has been undertaken for the 2024 situation assuming that recent speculative developments on land north and south of Wicken Road and at Joyce Frankland Academy are permitted.
- 11.9. The junction modelling reveals that the Wicken Road/B1383 and Bury Water Lane/B1383 junctions reach and exceed operational capacity in the AM peak hour in the future years with committed development. Although traffic queues are not significant, delays to vehicles are high. It is also acknowledged that the modelling process underestimates queues and delays at the Wicken Road junction due to the presence of the pedestrian crossing immediately to the north of the junction, vehicles parked on Wicken Road and the particular difficulties that HGVs have in turning in and out of the junction.
- 11.10. Despite Wicken Road and Bury Water Lane providing alternative routes for some drivers between the B1383 and areas to the west, neither provides an unconstrained route for potential new trips. The route via Bury Water Lane is highly sensitive due to the presence of the secondary school and its use by school buses, coupled with the absence of footways west of the B1383. The Wicken Road junction is highly sensitive to increases in traffic flows due to narrow footways around the junction, the use of the junction by significant numbers of HGVs (including many school buses), the difficulties that these HGVs have in negotiating the turns into and out of the junction without encroaching on footways or into the paths of oncoming vehicles, the use of the junction

by many pedestrians, the presence of the zebra crossing immediately to the north of the junction and the risk that drivers will use the highly constrained Church Street as an alternative route to access the B1383 north if queues are observed at the junction. Both junctions sit within the Conservation Area.

- 11.11. The sensitivity assessment shows that with speculative development there would be very significant queues and delays at the Wicken Road/B1383 junction in 2024 and that this would inevitably lead to undesirable rat-running along the highly sensitive routes of Frambury Lane, Church Street and Bury Water Lane although additional use of the Bury Water Lane junction is likely to be limited by the fact that this junction is also predicted to experience significant delays in this situation.
- 11.12. It is clear that both the Wicken Road and Bury Water Lane junctions are highly sensitive in environmental terms. The modelling work also shows that they are also highly sensitive in capacity terms with significant delays to vehicles seeking to emerge onto the B1383 in the AM peak hour. In policy terms there is reason to believe that any additional development to the west of Newport that generates a significant amount of traffic at the Wicken Road and/or Bury Water Lane junctions would lead to a severe cumulative impact at these junctions and on the alternative rat-running routes.

Figures

Figure 3.1: Location Plan

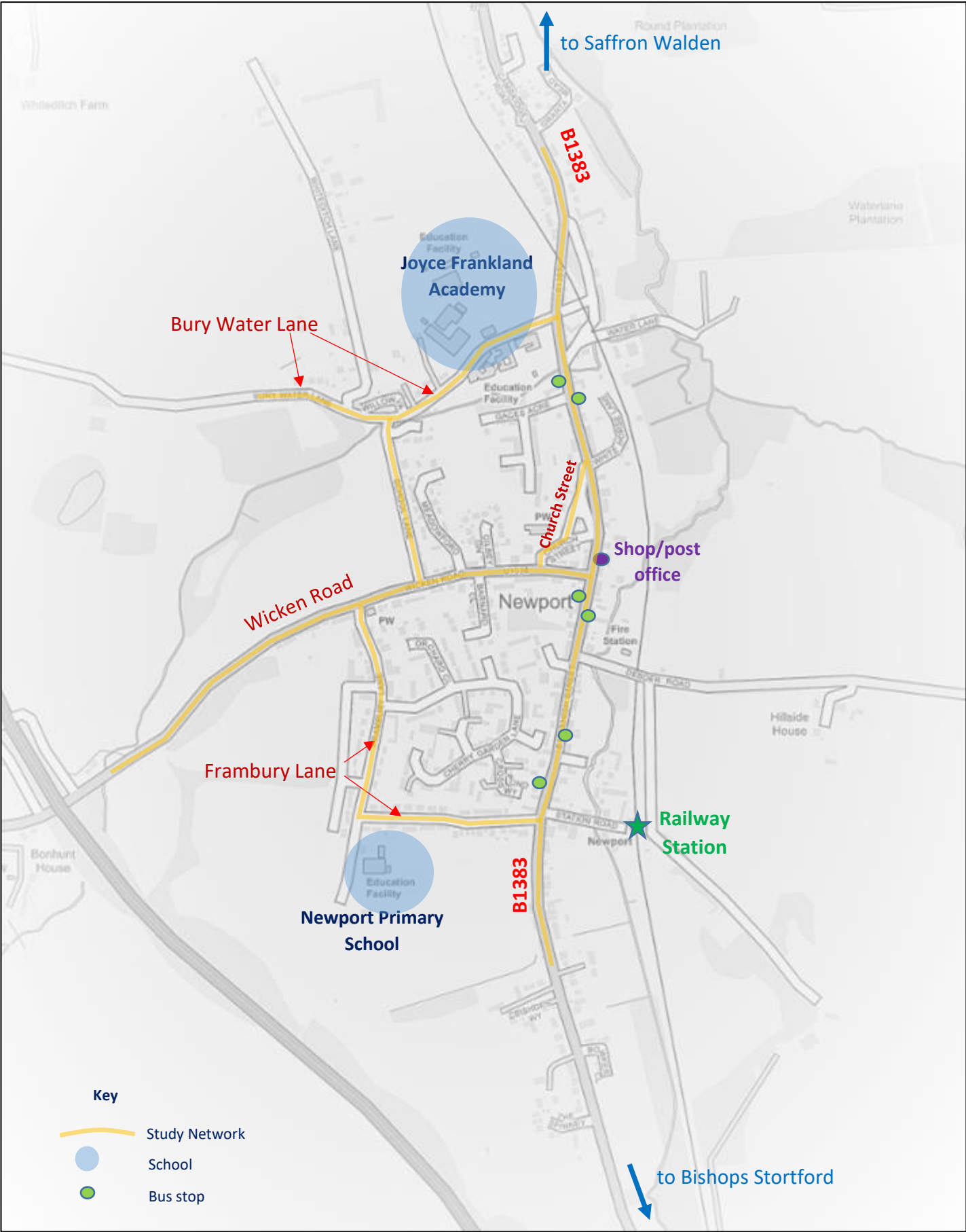
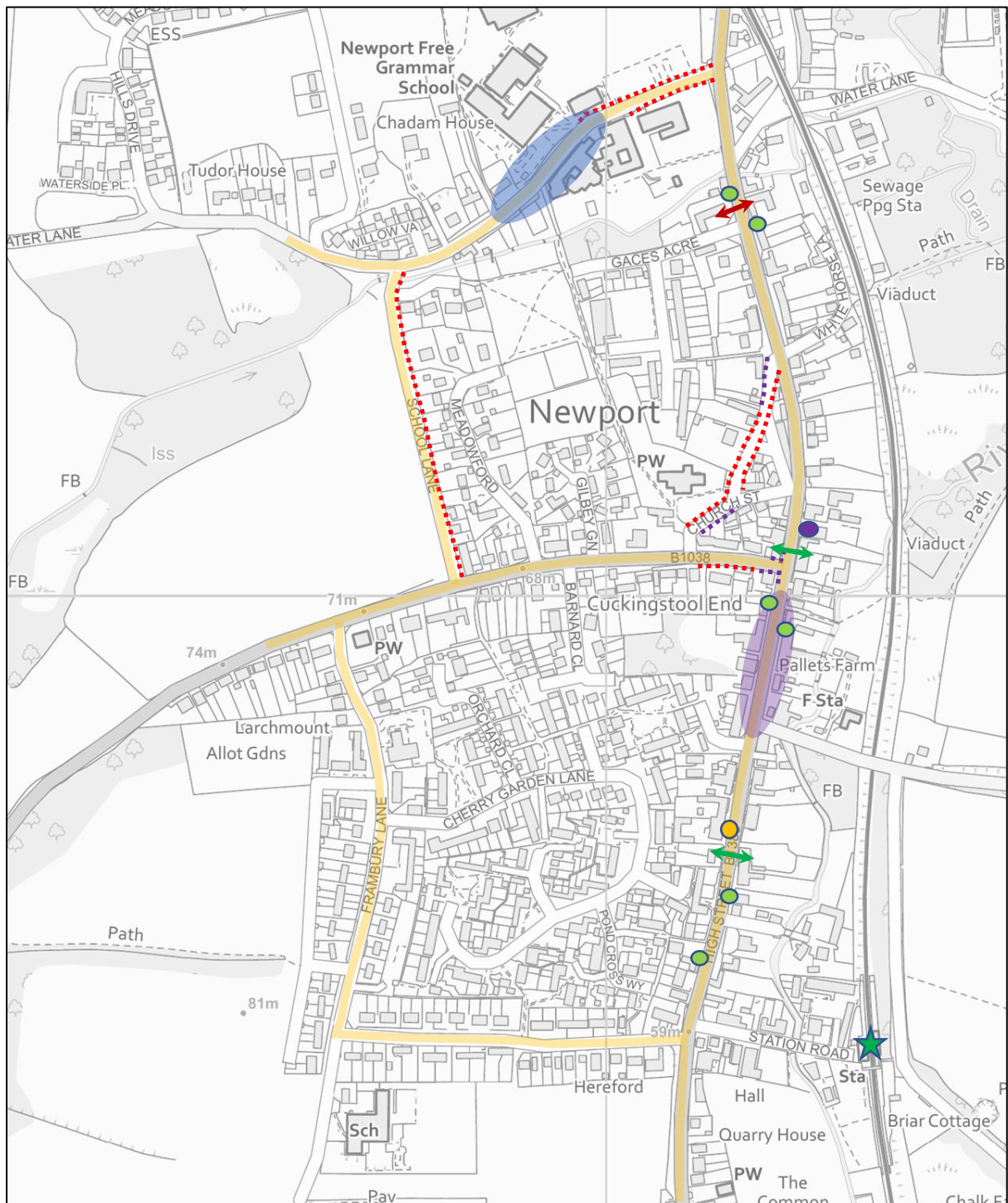
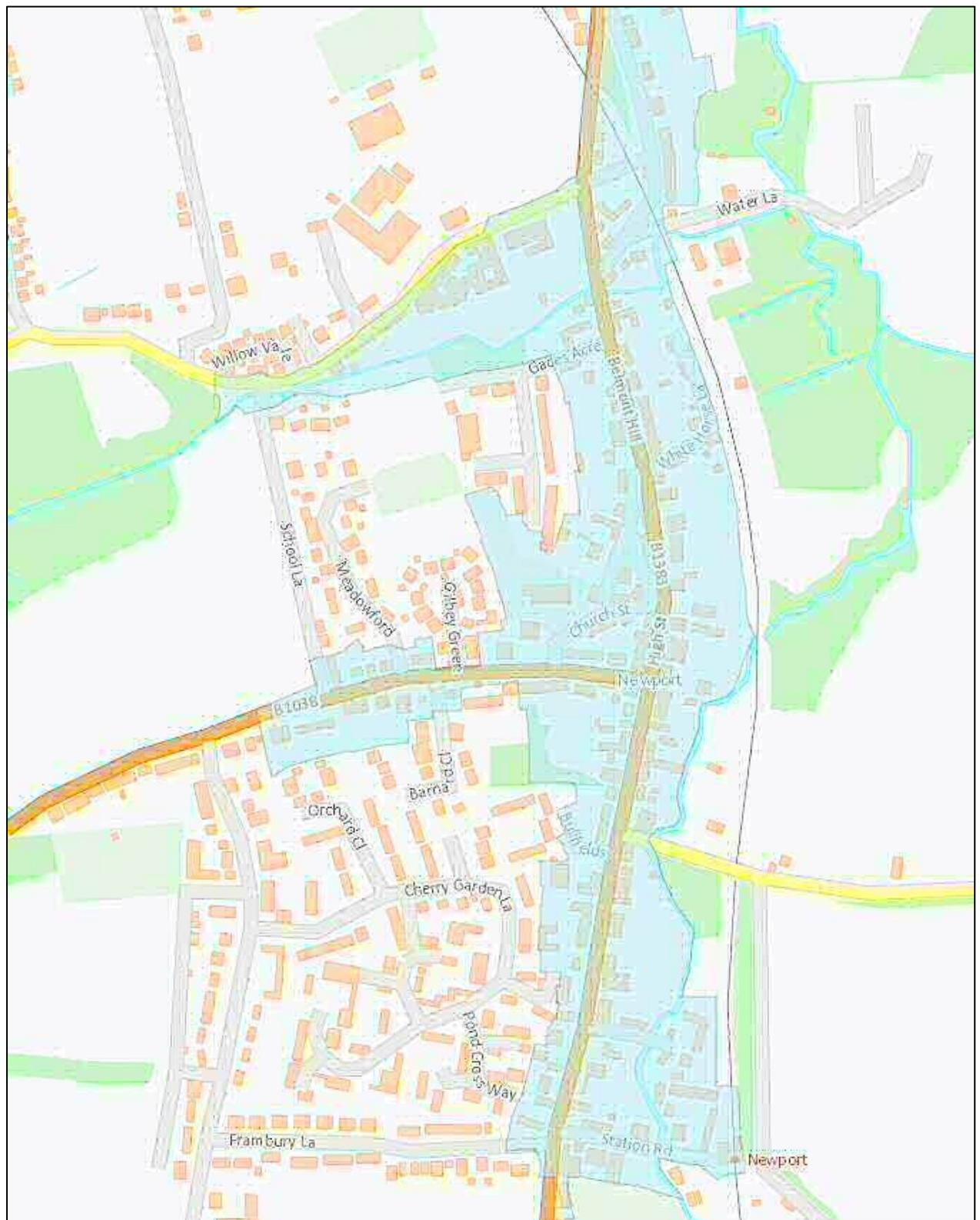


Figure 3.2: Study Area



- Key**
- signalled pedestrian crossing
 - zebra pedestrian crossing
 - no footway
 - narrow footway
 - study network
 - Vehicle/pupil conflict
 - railway station
 - bus stops
 - post office/shop
 - bakery/cafe
 - delays due to on-street parking

Figure 3.3: Newport Conservation Area



Conservation Area

Figure 3.4: Existing Traffic Flows AM Peak



Key:
 [White box] all vehicles
 [Grey box] heavy vehicles

Surveys undertaken Thursday 13 June 2019

Link Flows

	NB	SB	EB	WB	2-way
London Rd S of Frambury Ln	512	444			956
London Rd S of Wicken Rd	595	511			1106
London Rd S of Bury Water Ln	616	512			1128
London Rd N of Bury Water Ln	680	547			1227
Frambury Ln N of London Rd			62	103	165
Station Rd			38	14	52
Wicken Rd W of London Rd			212	207	419
Wicken Rd W of Frambury Ln			0	0	0
School Ln	0	0			0
Church St	13	7			20
Bury Water Ln			200	171	371

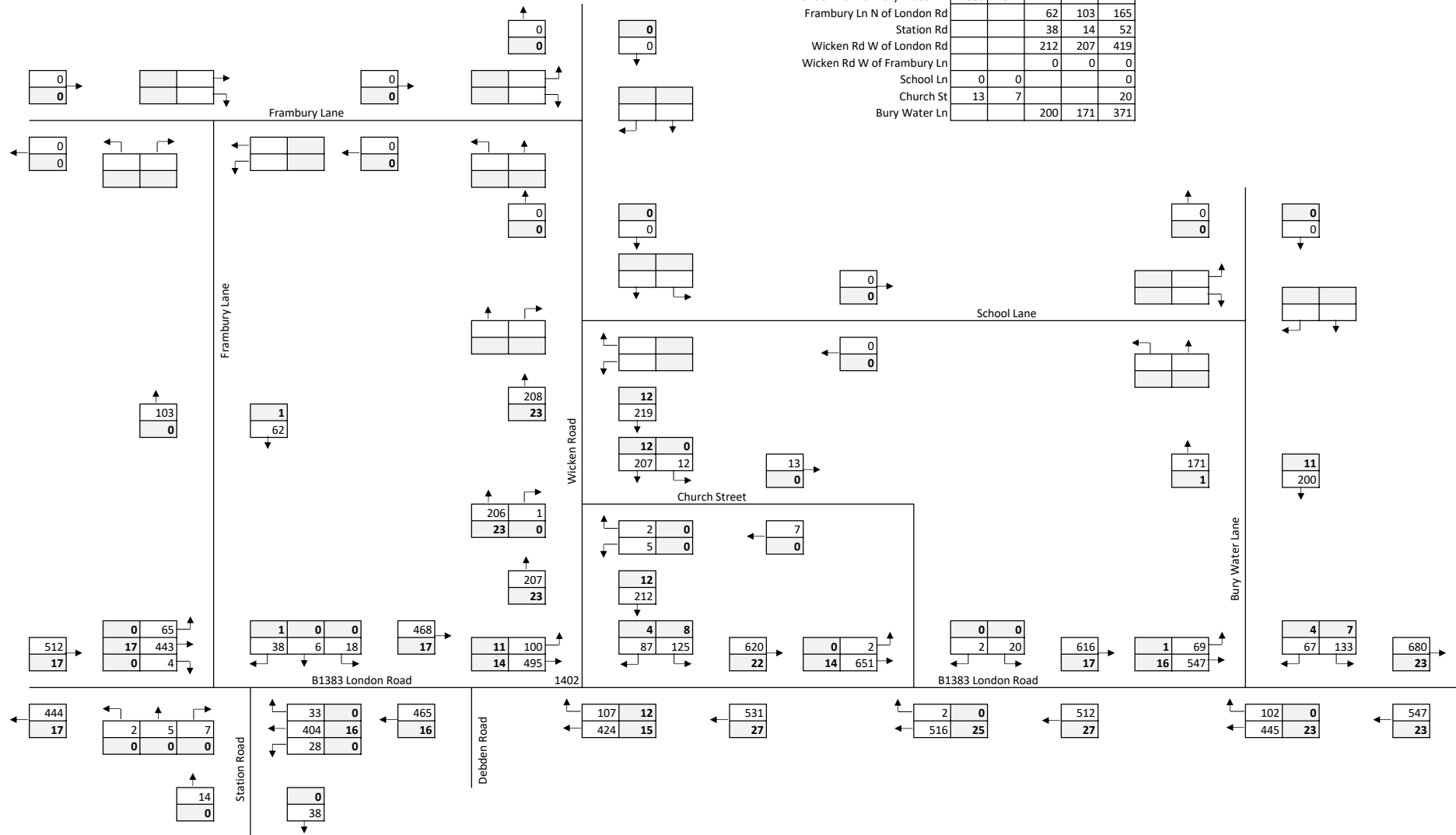


Figure 3.4: Existing Traffic Flows PM Peak



Key:
 [White box] all vehicles
 [Grey box] heavy vehicles

Surveys undertaken Thursday 13 June 2019

Link Flows

	NB	SB	EB	WB	2-way
London Rd S of Frambury Ln	428	460			888
London Rd S of Wicken Rd	438	533			971
London Rd S of Bury Water Ln	431	635			1066
London Rd N of Bury Water Ln	494	683			1177
Frambury Ln N of London Rd			22	68	90
Station Rd			35	37	72
Wicken Rd W of London Rd			120	216	336
Wicken Rd W of Frambury Ln			0	0	0
School Ln	0	0			0
Church St	11	20			31
Bury Water Ln			91	76	167

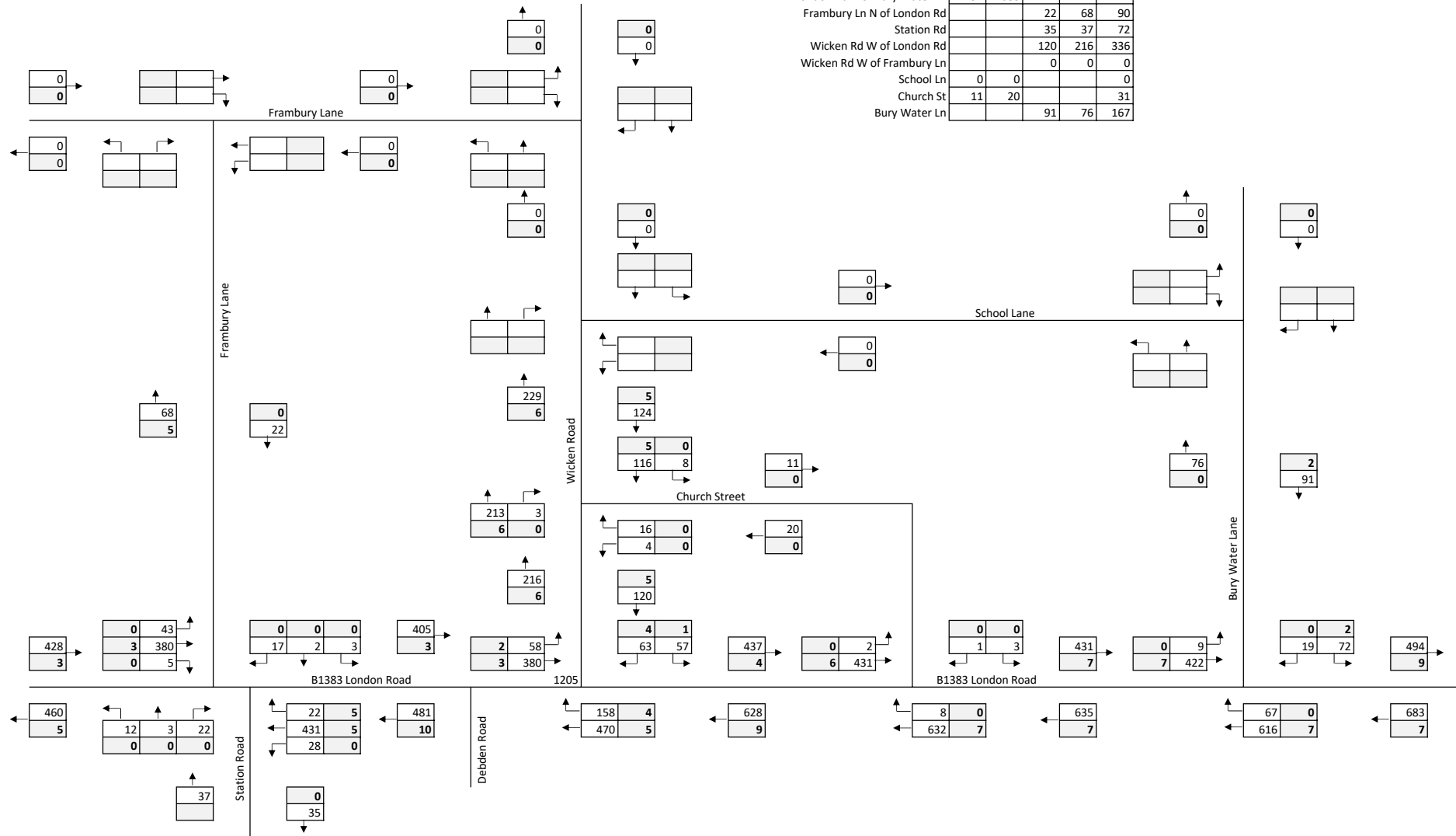


Figure 6.1: Committed Development Traffic AM Peak



Key:

	all vehicles
	heavy vehicles

Link Flows

	NB	SB	EB	WB	2-way
London Rd S of Frambury Ln	38	36			74
London Rd S of Wicken Rd	39	37			76
London Rd S of Bury Water Ln	28	22			50
London Rd N of Bury Water Ln	51	23			74
Frambury Ln N of London Rd			2	1	2
Station Rd			0	0	0
Wicken Rd W of London Rd			15	12	27
Wicken Rd W of Frambury Ln			6	13	19
School Ln	10	21			31
Church St	0	0			0
Bury Water Ln			43	21	64

50% southbound via Wicken Rd
 50% southbound via Bury Water Lane

in	out
31	64

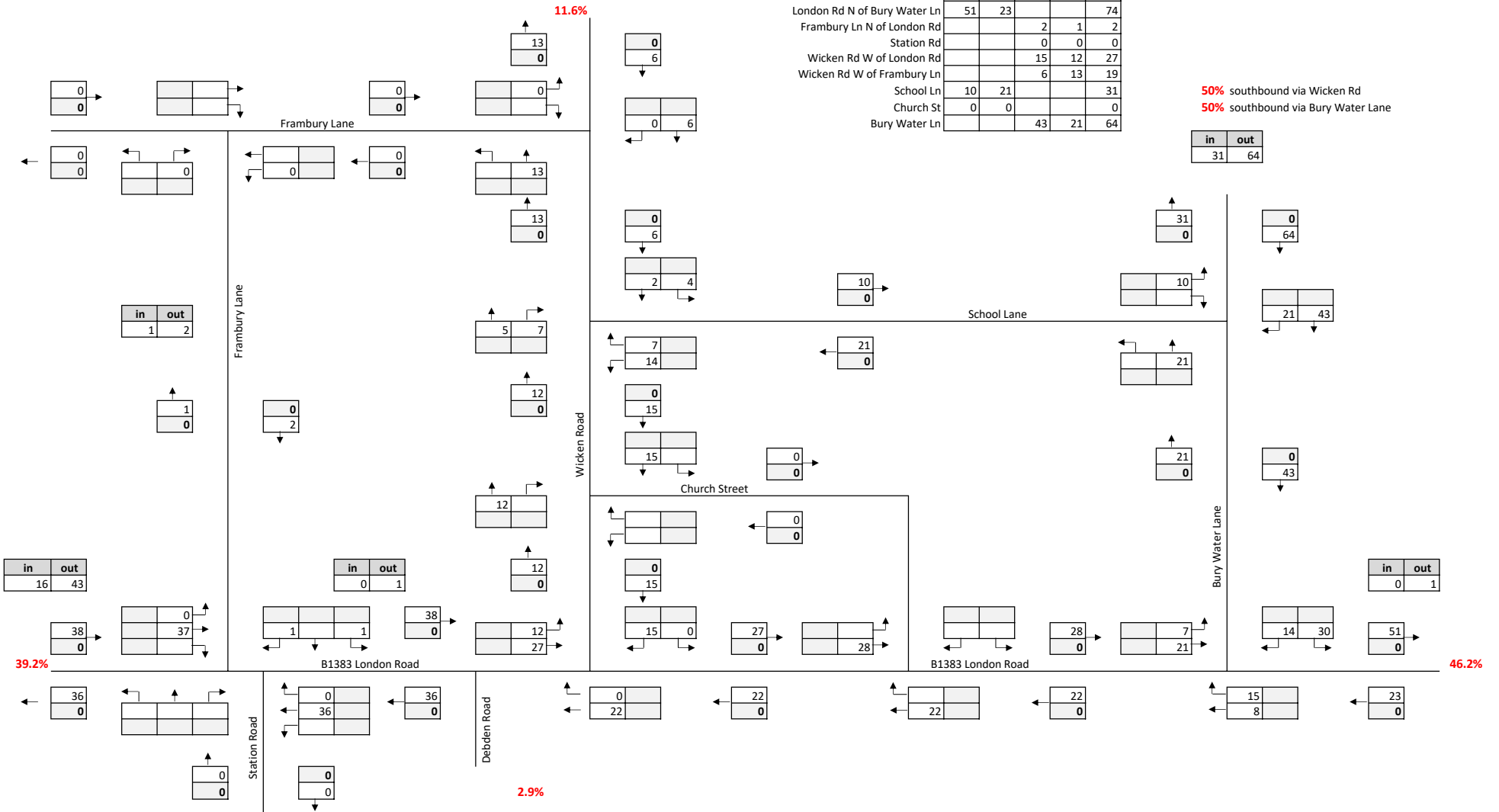


Figure 6.2: Committed Development Traffic PM Peak



Key:

	all vehicles
	heavy vehicles

Link Flows

	NB	SB	EB	WB	2-way
London Rd S of Frambury Ln	39	42			81
London Rd S of Wicken Rd	40	42			83
London Rd S of Bury Water Ln	25	29			54
London Rd N of Bury Water Ln	31	49			80
Frambury Ln N of London Rd			1	2	3
Station Rd			0	0	0
Wicken Rd W of London Rd			14	16	29
Wicken Rd W of Frambury Ln			12	8	20
School Ln	20	13			33
Church St	0	0			0
Bury Water Ln			27	41	68

50% southbound via Wicken Rd
 50% southbound via Bury Water Lane

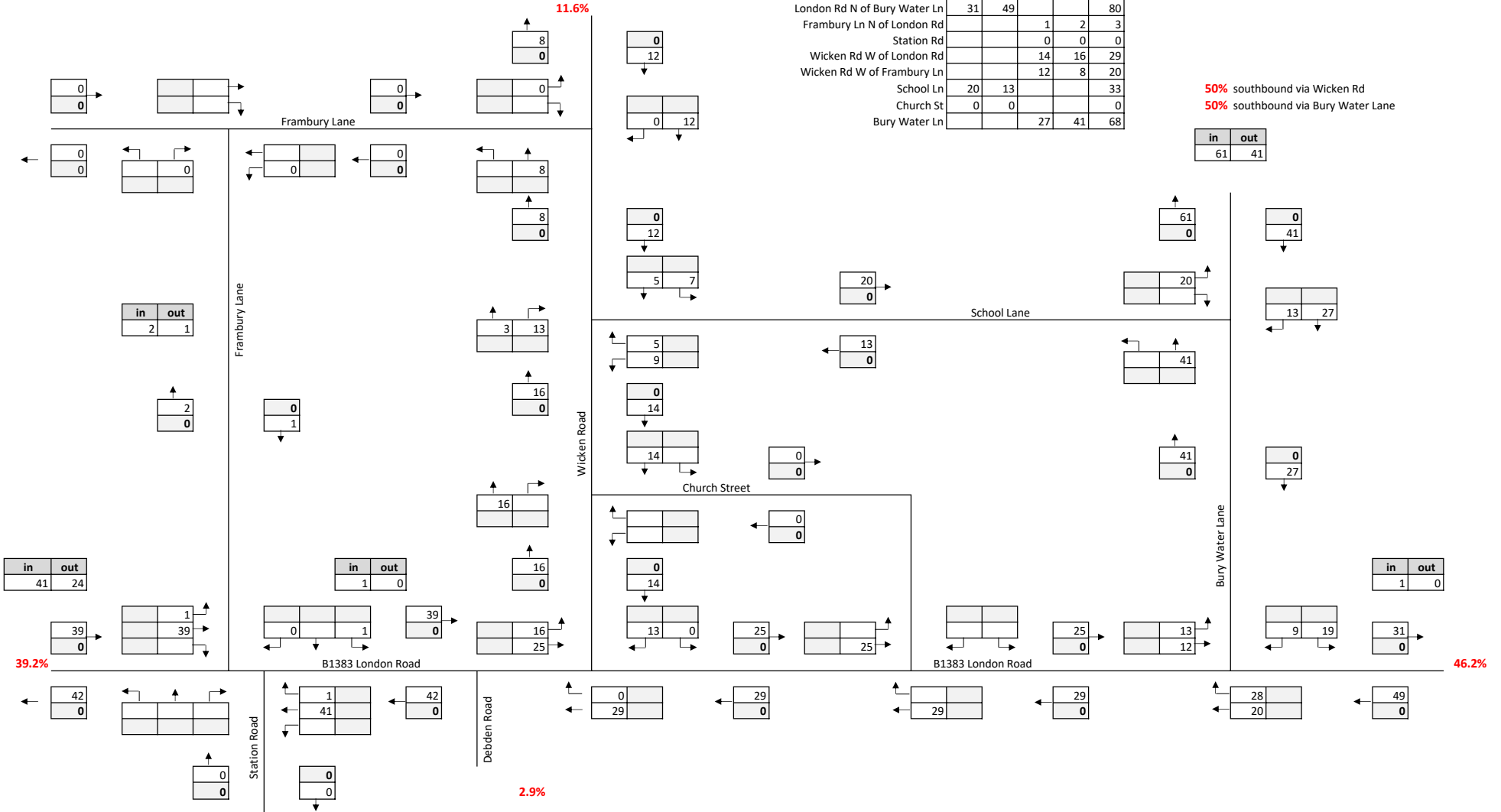


Figure 7.1: 2024 Base Flows AM Peak



Key:
 [White box] all vehicles
 [Grey box] heavy vehicles

Link Flows

	NB	SB	EB	WB	2-way
London Rd S of Frambury Ln	535	464			999
London Rd S of Wicken Rd	622	534			1156
London Rd S of Bury Water Ln	644	535			1179
London Rd N of Bury Water Ln	711	572			1282
Frambury Ln N of London Rd			65	108	172
Station Rd			40	15	54
Wicken Rd W of London Rd			222	216	438
Wicken Rd W of Frambury Ln			0	0	0
School Ln	0	0			0
Church St	14	7			21
Bury Water Ln			209	179	388

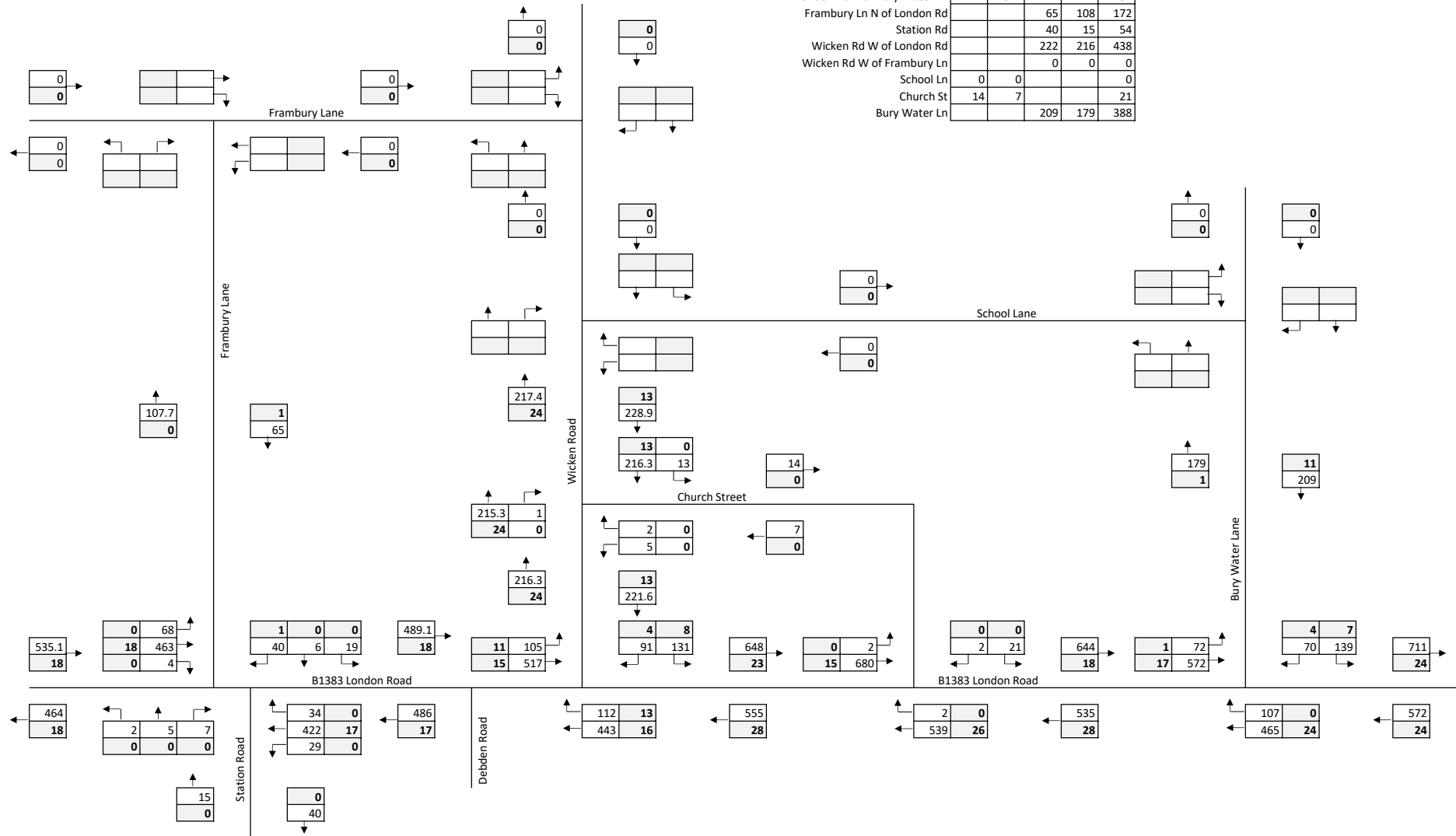


Figure 7.2: 2024 Base Flows PM Peak



Key:
 all vehicles
 heavy vehicles

Link Flows

	NB	SB	EB	WB	2-way
London Rd S of Frambury Ln	445	478			923
London Rd S of Wicken Rd	455	554			1010
London Rd S of Bury Water Ln	448	660			1109
London Rd N of Bury Water Ln	0	0			0
Frambury Ln N of London Rd			23	71	94
Station Rd			36	38	75
Wicken Rd W of London Rd			125	225	349
Wicken Rd W of Frambury Ln			0	0	0
School Ln	0	0			0
Church St	11	21			32
Bury Water Ln			95	79	174

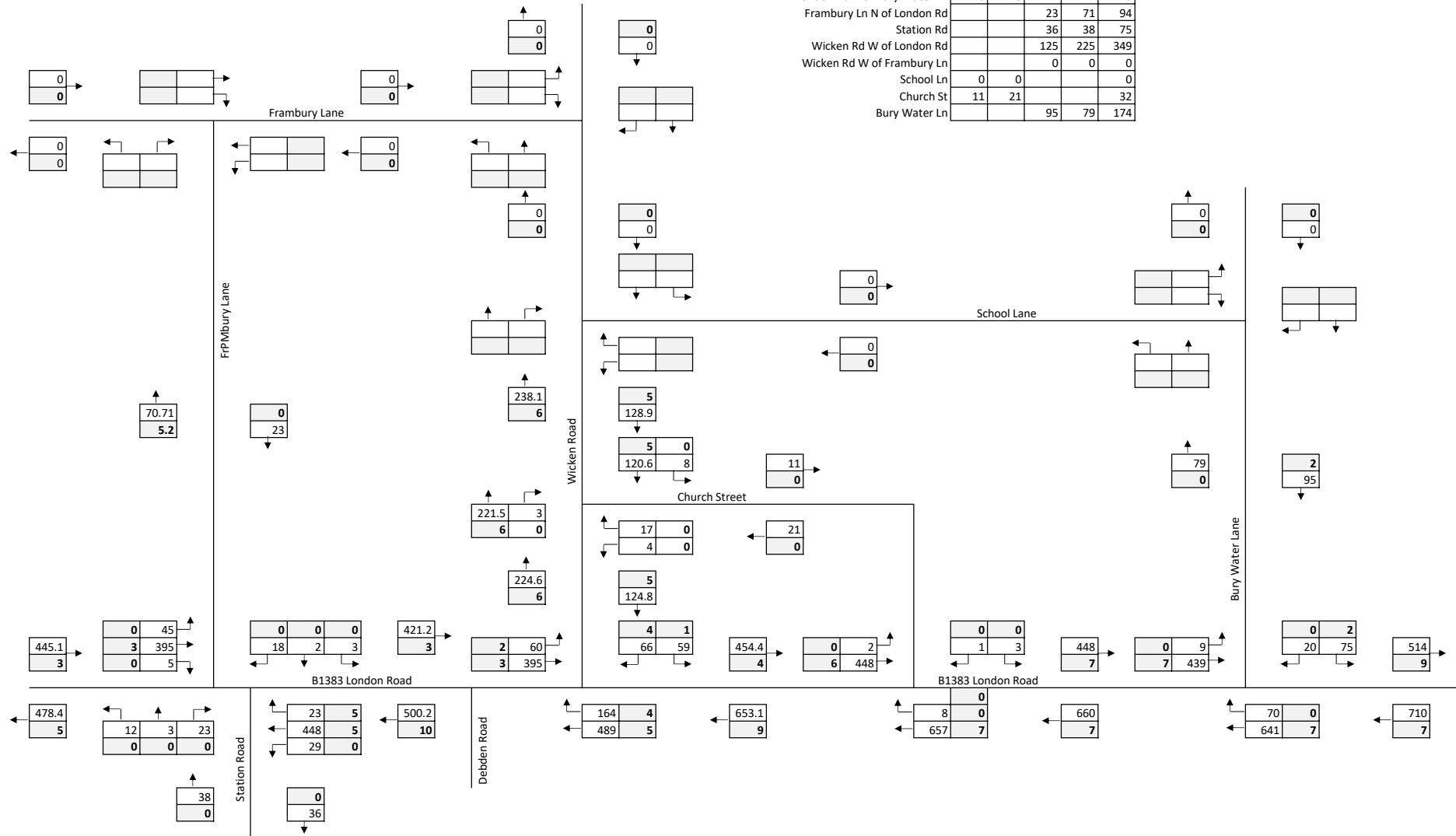


Figure 7.3: 2029 Base Flows AM Peak



Key:
 [White box] all vehicles
 [Grey box] heavy vehicles

Link Flows

	NB	SB	EB	WB	2-way
London Rd S of Frambury Ln	555	481			1036
London Rd S of Wicken Rd	645	554			1199
London Rd S of Bury Water Ln	668	555			1223
London Rd N of Bury Water Ln	737	593			1330
Frambury Ln N of London Rd			67	112	179
Station Rd			41	15	56
Wicken Rd W of London Rd			230	224	454
Wicken Rd W of Frambury Ln			0	0	0
School Ln	0	0			0
Church St	14	8			22
Bury Water Ln			217	185	402

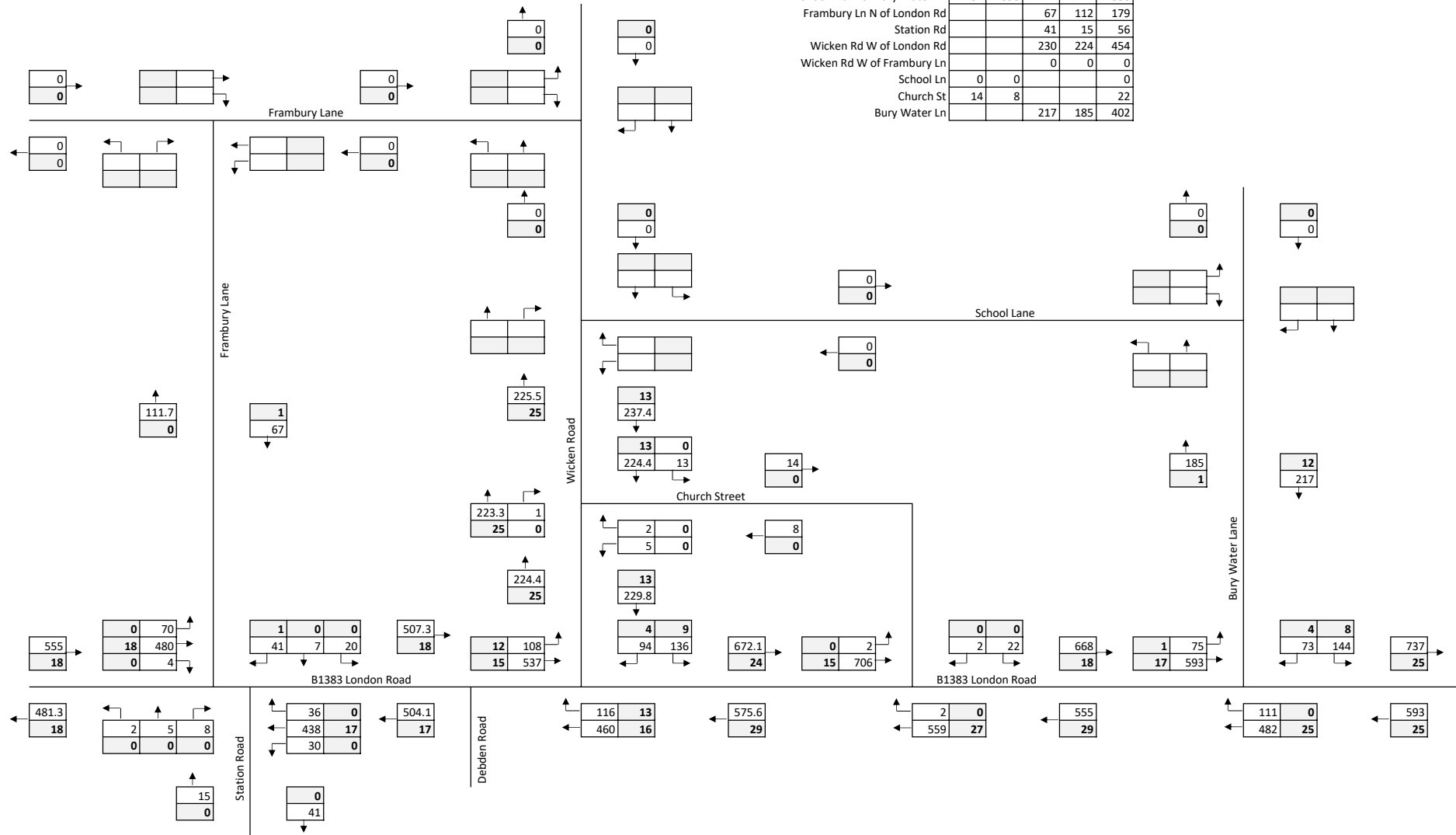


Figure 7.4: 2029 Base Flows PM Peak



Key:
 [White box] all vehicles
 [Grey box] heavy vehicles

Link Flows

	NB	SB	EB	WB	2-way
London Rd S of Frambury Ln	463	497			960
London Rd S of Wicken Rd	473	576			1049
London Rd S of Bury Water Ln	466	686			1152
London Rd N of Bury Water Ln	0	0			0
Frambury Ln N of London Rd			24	73	97
Station Rd			38	40	78
Wicken Rd W of London Rd			130	233	363
Wicken Rd W of Frambury Ln			0	0	0
School Ln	0	0			0
Church St	12	22			34
Bury Water Ln			98	82	180

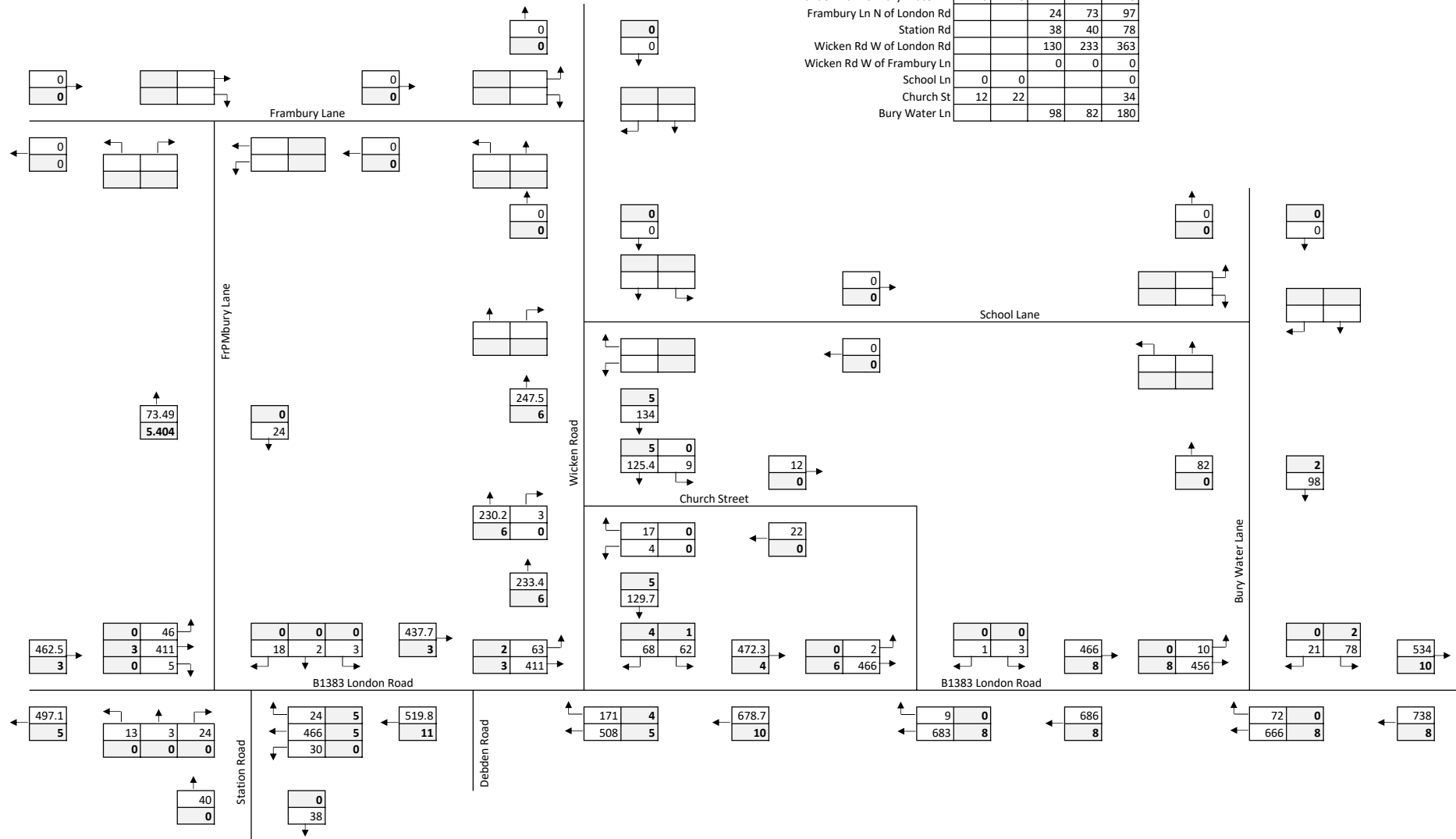


Figure 7.5: 2034 Base Flows AM Peak



Key:
 [White box] all vehicles
 [Grey box] heavy vehicles

Link Flows

	NB	SB	EB	WB	2-way
London Rd S of Frambury Ln	573	497			1070
London Rd S of Wicken Rd	666	572			1238
London Rd S of Bury Water Ln	690	573			1263
London Rd N of Bury Water Ln	761	612			1374
Frambury Ln N of London Rd			69	115	185
Station Rd			43	16	58
Wicken Rd W of London Rd			237	232	469
Wicken Rd W of Frambury Ln			0	0	0
School Ln	0	0			0
Church St	15	8			22
Bury Water Ln			224	191	415

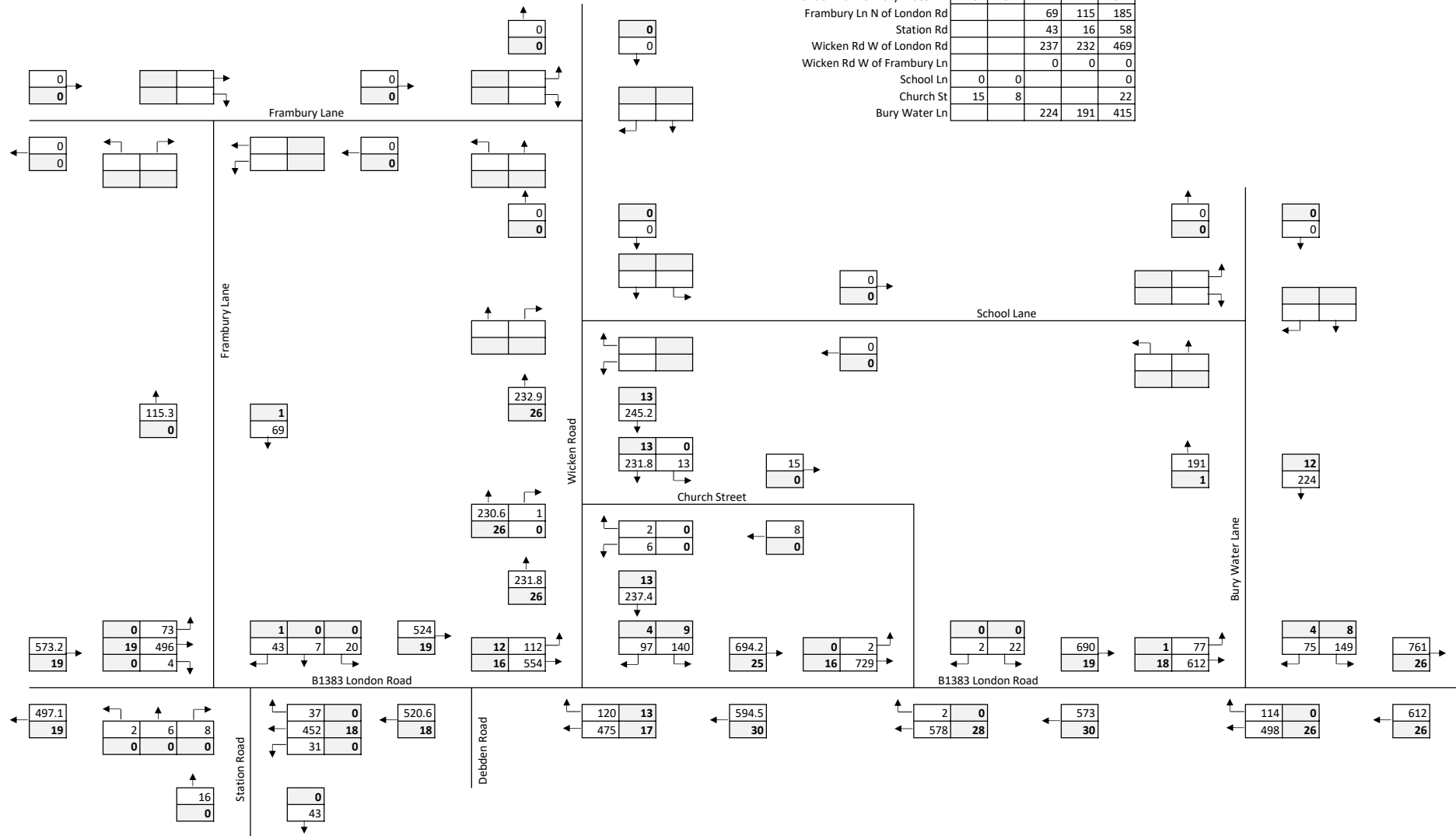


Figure 7.6: 2034 Base Flows PM Peak



Key:
 all vehicles
 heavy vehicles

Link Flows

	NB	SB	EB	WB	2-way
London Rd S of Frambury Ln	479	514			993
London Rd S of Wicken Rd	490	596			1086
London Rd S of Bury Water Ln	482	710			1192
London Rd N of Bury Water Ln	0	0			0
Frambury Ln N of London Rd			25	76	101
Station Rd			39	41	80
Wicken Rd W of London Rd			134	241	376
Wicken Rd W of Frambury Ln			0	0	0
School Ln	0	0			0
Church St	12	22			35
Bury Water Ln			102	85	187

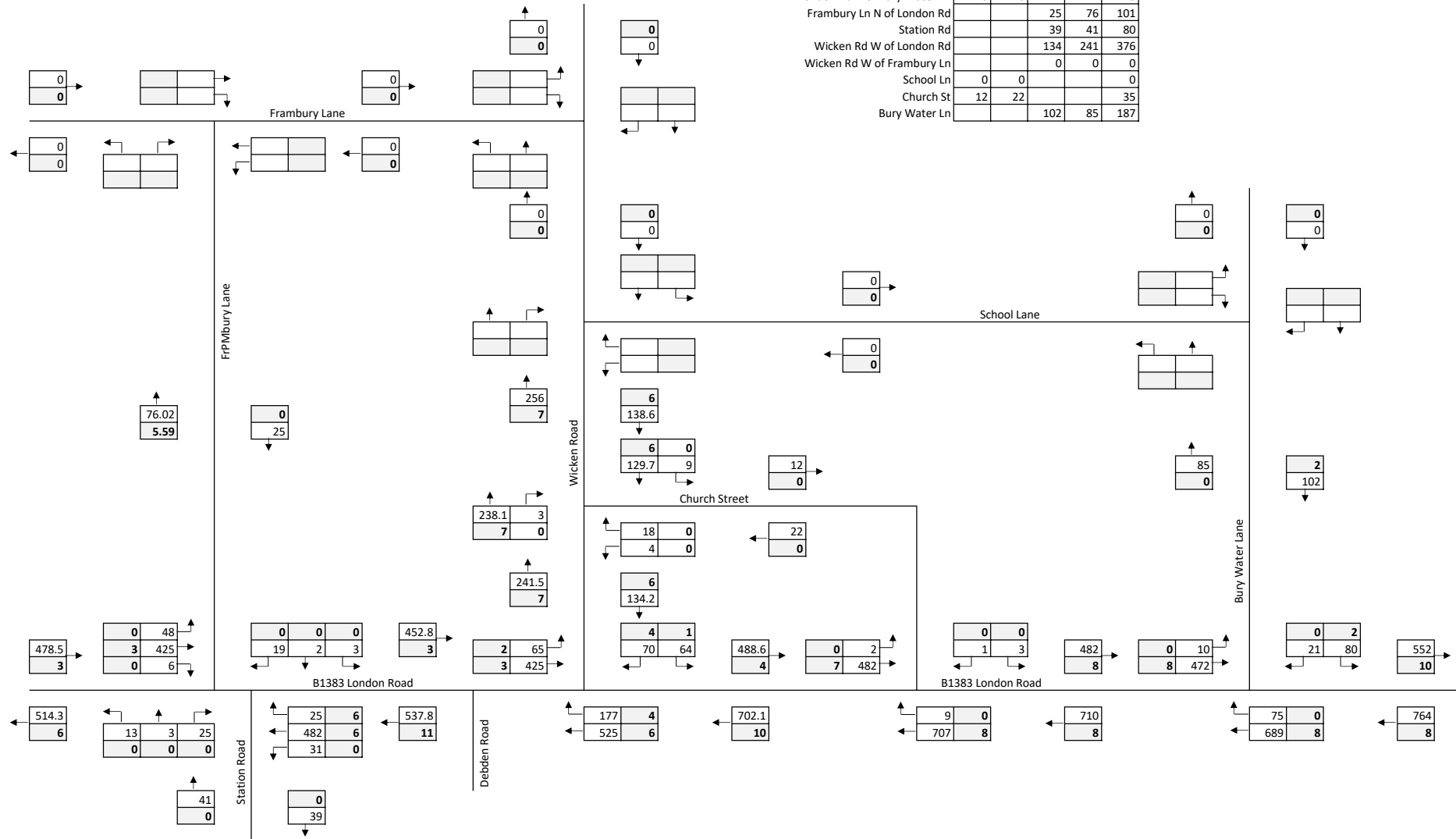


Figure 8.1: 2024 Traffic Flows AM Peak



Key:
 [White box] all vehicles
 [Grey box] heavy vehicles

Link Flows

	NB	SB	EB	WB	2-way
London Rd S of Frambury Ln	573	500			1073
London Rd S of Wicken Rd	661	571			1232
London Rd S of Bury Water Ln	672	557			1229
London Rd N of Bury Water Ln	762	595			1356
Frambury Ln N of London Rd			67	108	175
Station Rd			40	15	54
Wicken Rd W of London Rd			237	228	465
Wicken Rd W of Frambury Ln			0	0	0
School Ln	0	0			0
Church St	14	7			21
Bury Water Ln			252	200	452

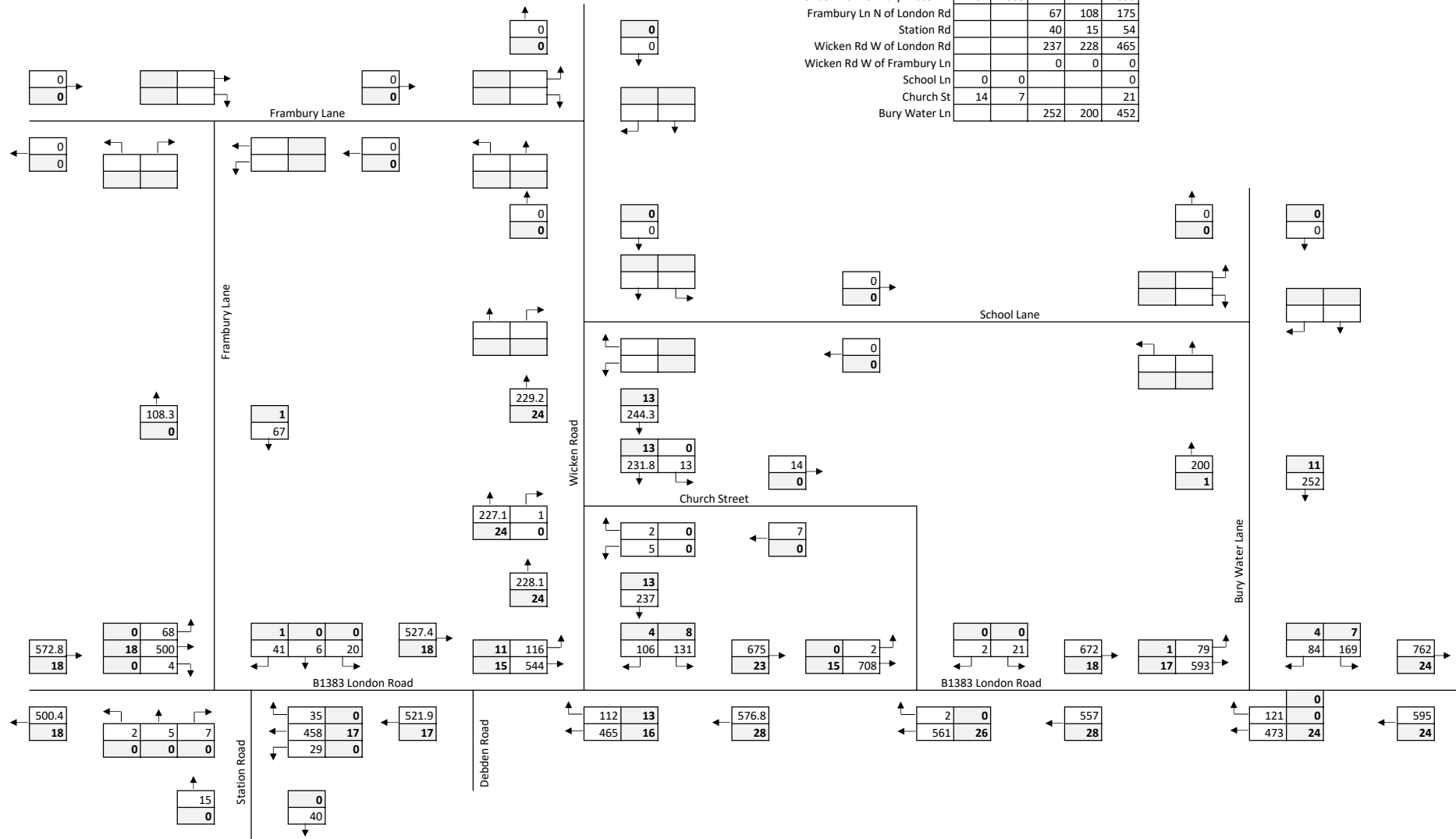


Figure 8.2: 2024 Traffic Flows PM Peak



Key:
 [White box] all vehicles
 [Grey box] heavy vehicles

Link Flows

	NB	SB	EB	WB	2-way
London Rd S of Frambury Ln	484	520			1004
London Rd S of Wicken Rd	496	597			1092
London Rd S of Bury Water Ln	473	689			1163
London Rd N of Bury Water Ln	0	0			0
Frambury Ln N of London Rd			24	72	96
Station Rd			36	38	75
Wicken Rd W of London Rd			138	240	379
Wicken Rd W of Frambury Ln			0	0	0
School Ln	0	0			0
Church St	11	21			32
Bury Water Ln			122	120	242

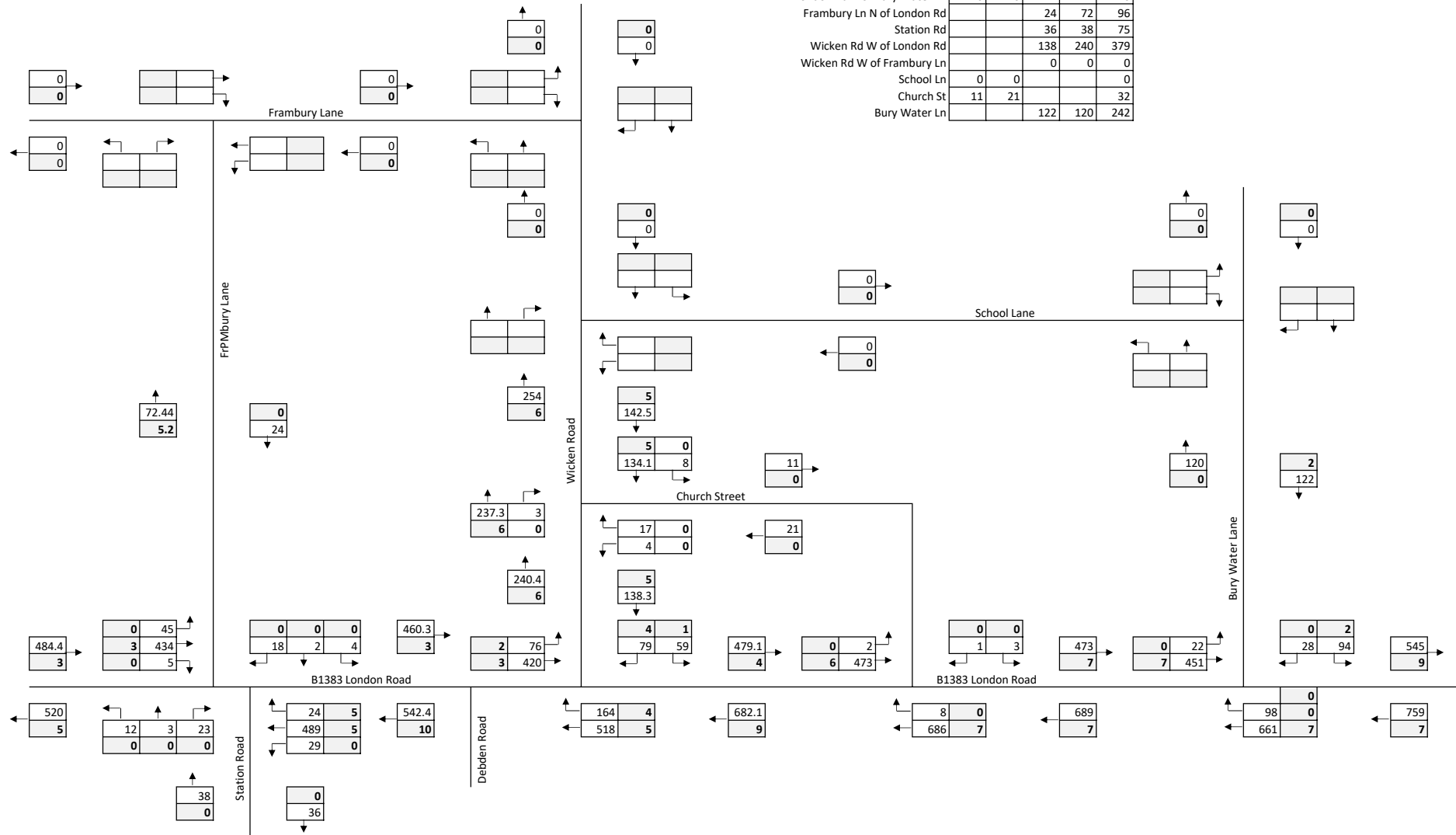


Figure 8.3: 2029 Traffic Flows AM Peak



Key:
 [White box] all vehicles
 [Grey box] heavy vehicles

Link Flows

	NB	SB	EB	WB	2-way
London Rd S of Frambury Ln	593	518			1110
London Rd S of Wicken Rd	684	591			1275
London Rd S of Bury Water Ln	696	577			1273
London Rd N of Bury Water Ln	788	616			1404
Frambury Ln N of London Rd			69	112	181
Station Rd			41	15	56
Wicken Rd W of London Rd			245	236	481
Wicken Rd W of Frambury Ln			0	0	0
School Ln	0	0			0
Church St	14	7			21
Bury Water Ln			260	207	467

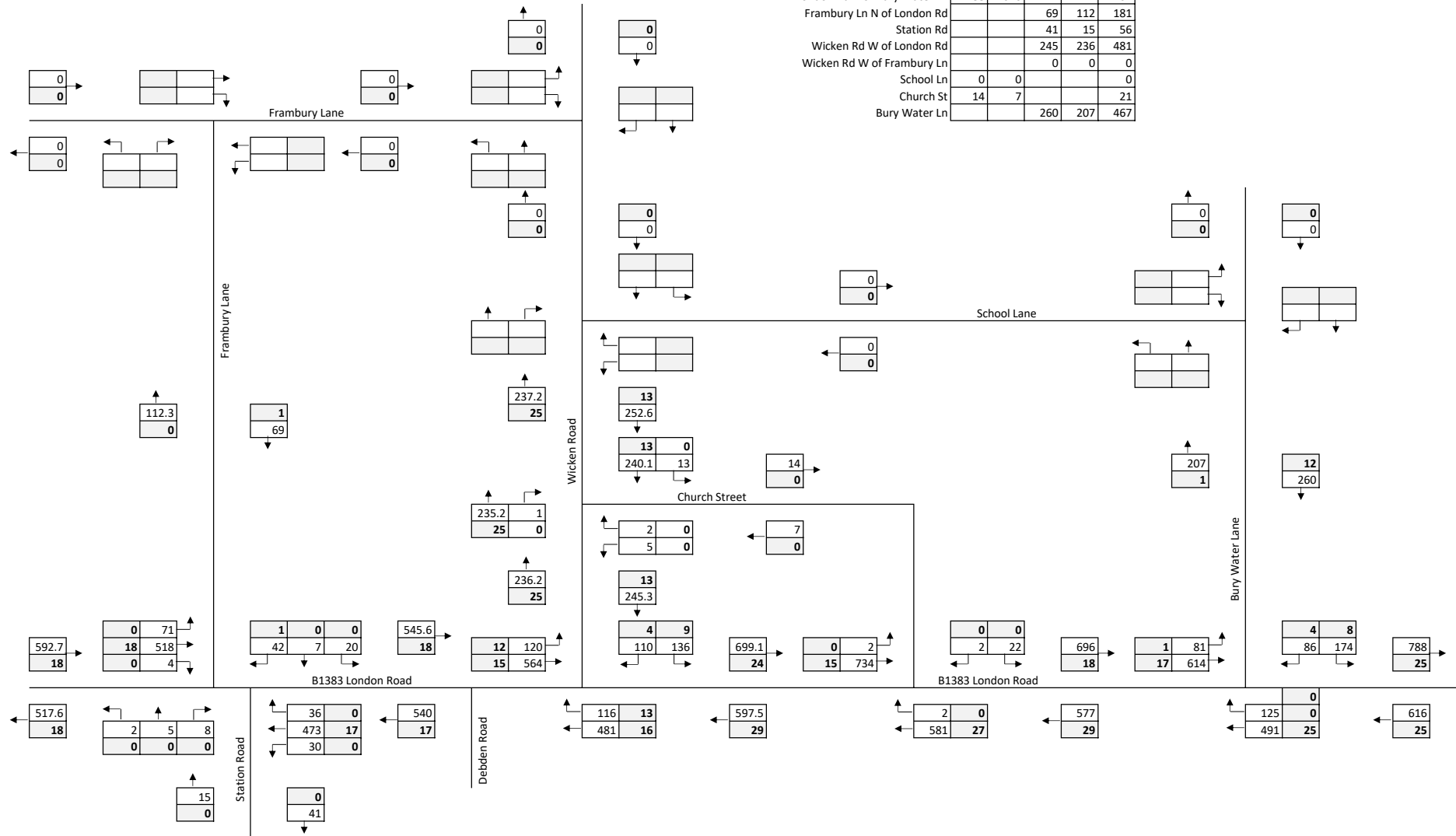


Figure 8.4: 2029 Traffic Flows PM Peak



Key:
 all vehicles
 heavy vehicles

Link Flows

	NB	SB	EB	WB	2-way
London Rd S of Frambury Ln	502	539			1041
London Rd S of Wicken Rd	514	618			1132
London Rd S of Bury Water Ln	491	715			1206
London Rd N of Bury Water Ln	0	0			0
Frambury Ln N of London Rd			25	75	100
Station Rd			38	40	78
Wicken Rd W of London Rd			143	249	392
Wicken Rd W of Frambury Ln			0	0	0
School Ln	0	0			0
Church St	11	21			32
Bury Water Ln			126	123	249

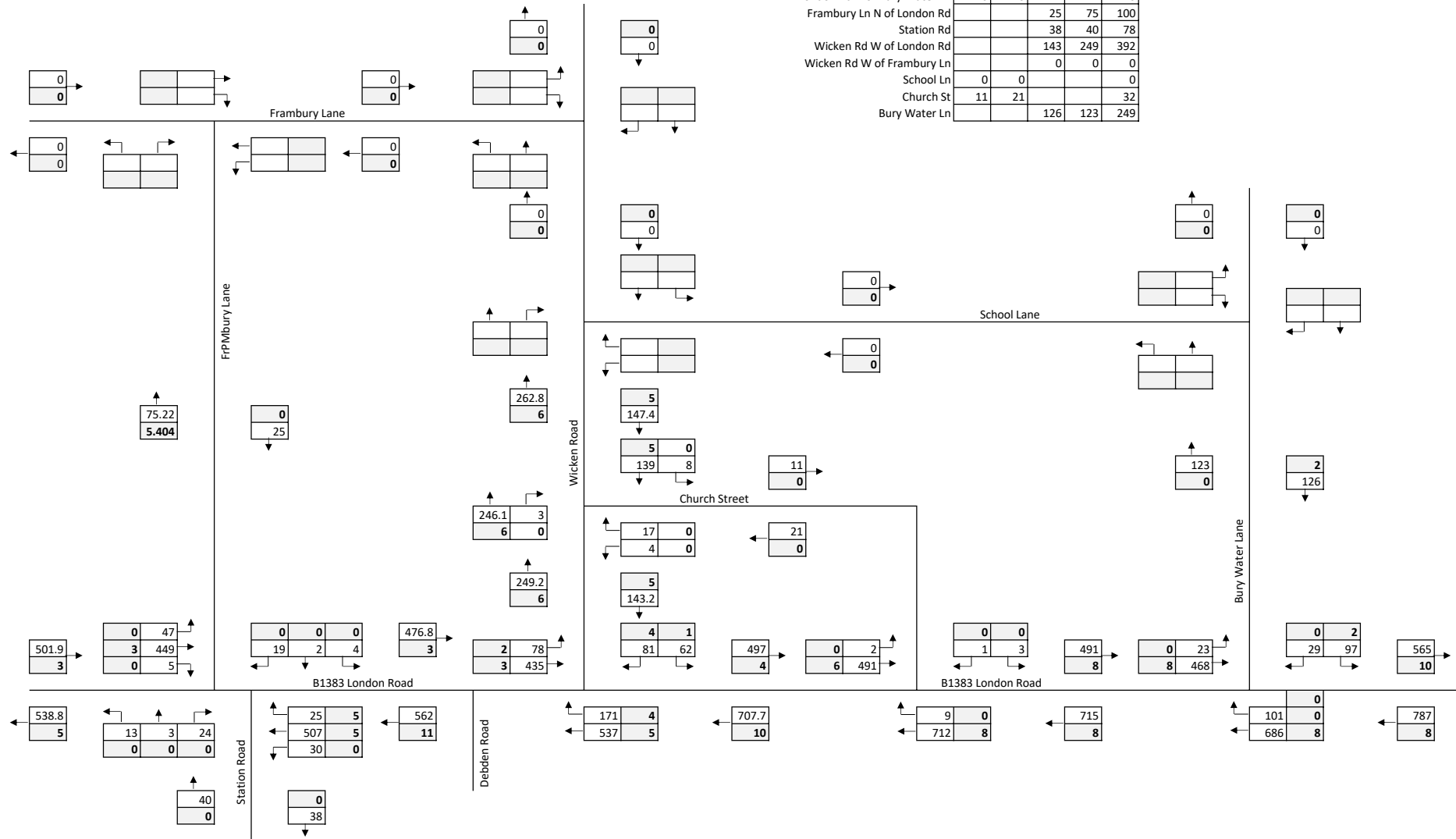


Figure 8.5: 2034 Traffic Flows AM Peak



Key:
 [White box] all vehicles
 [Grey box] heavy vehicles

Link Flows

	NB	SB	EB	WB	2-way
London Rd S of Frambury Ln	611	533			1144
London Rd S of Wicken Rd	705	609			1314
London Rd S of Bury Water Ln	718	595			1313
London Rd N of Bury Water Ln	812	635			1448
Frambury Ln N of London Rd			71	116	187
Station Rd			43	16	58
Wicken Rd W of London Rd			253	244	496
Wicken Rd W of Frambury Ln			0	0	0
School Ln	0	0			0
Church St	14	7			21
Bury Water Ln			267	213	480

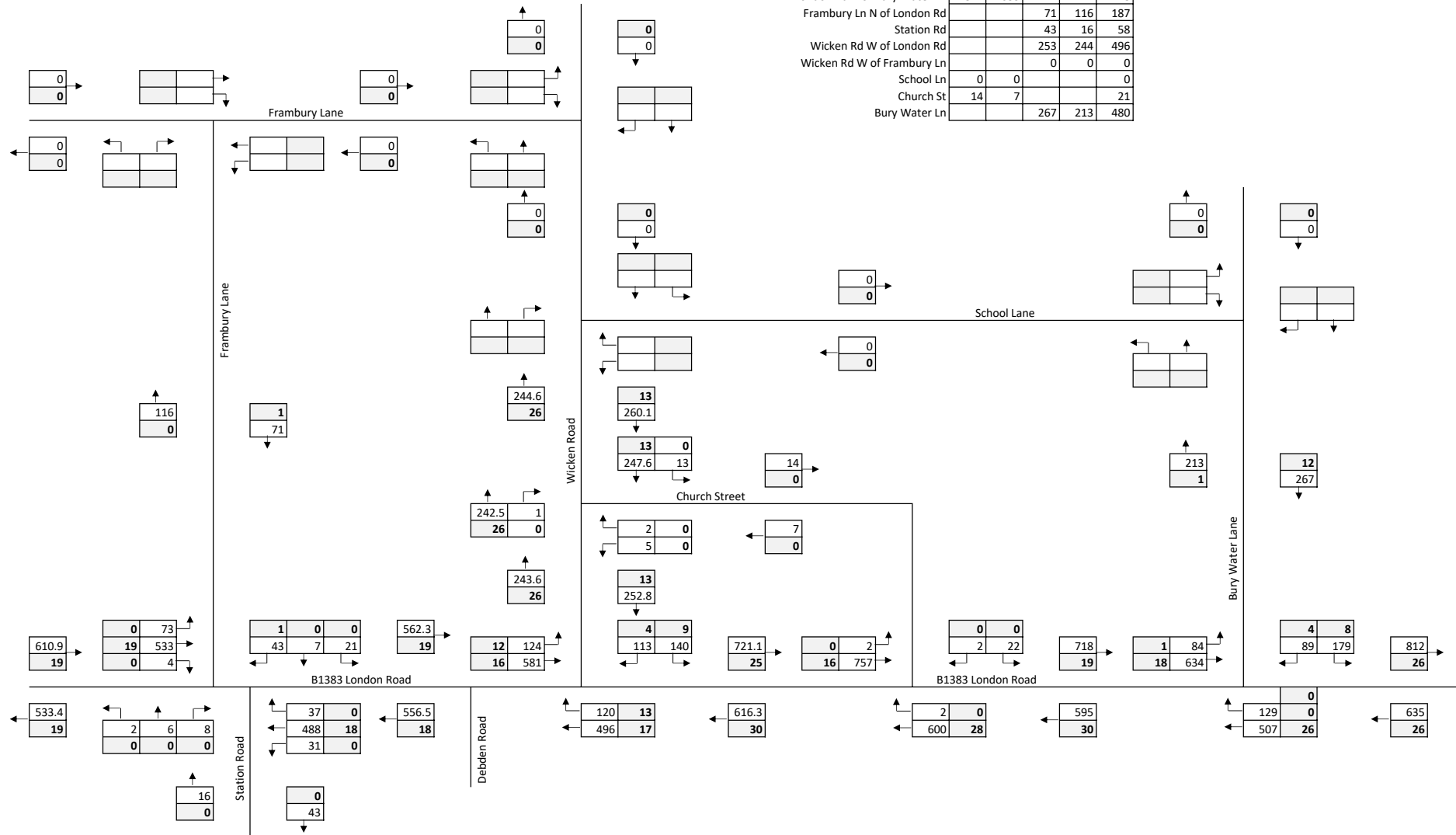


Figure 8.6: 2034 Traffic Flows PM Peak



Key:
 [White box] all vehicles
 [Grey box] heavy vehicles

Link Flows

	NB	SB	EB	WB	2-way
London Rd S of Frambury Ln	518	556			1074
London Rd S of Wicken Rd	530	638			1168
London Rd S of Bury Water Ln	507	739			1246
London Rd N of Bury Water Ln	0	0			0
Frambury Ln N of London Rd			26	78	103
Station Rd			39	41	80
Wicken Rd W of London Rd			148	257	405
Wicken Rd W of Frambury Ln			0	0	0
School Ln	0	0			0
Church St	11	21			32
Bury Water Ln			129	126	255

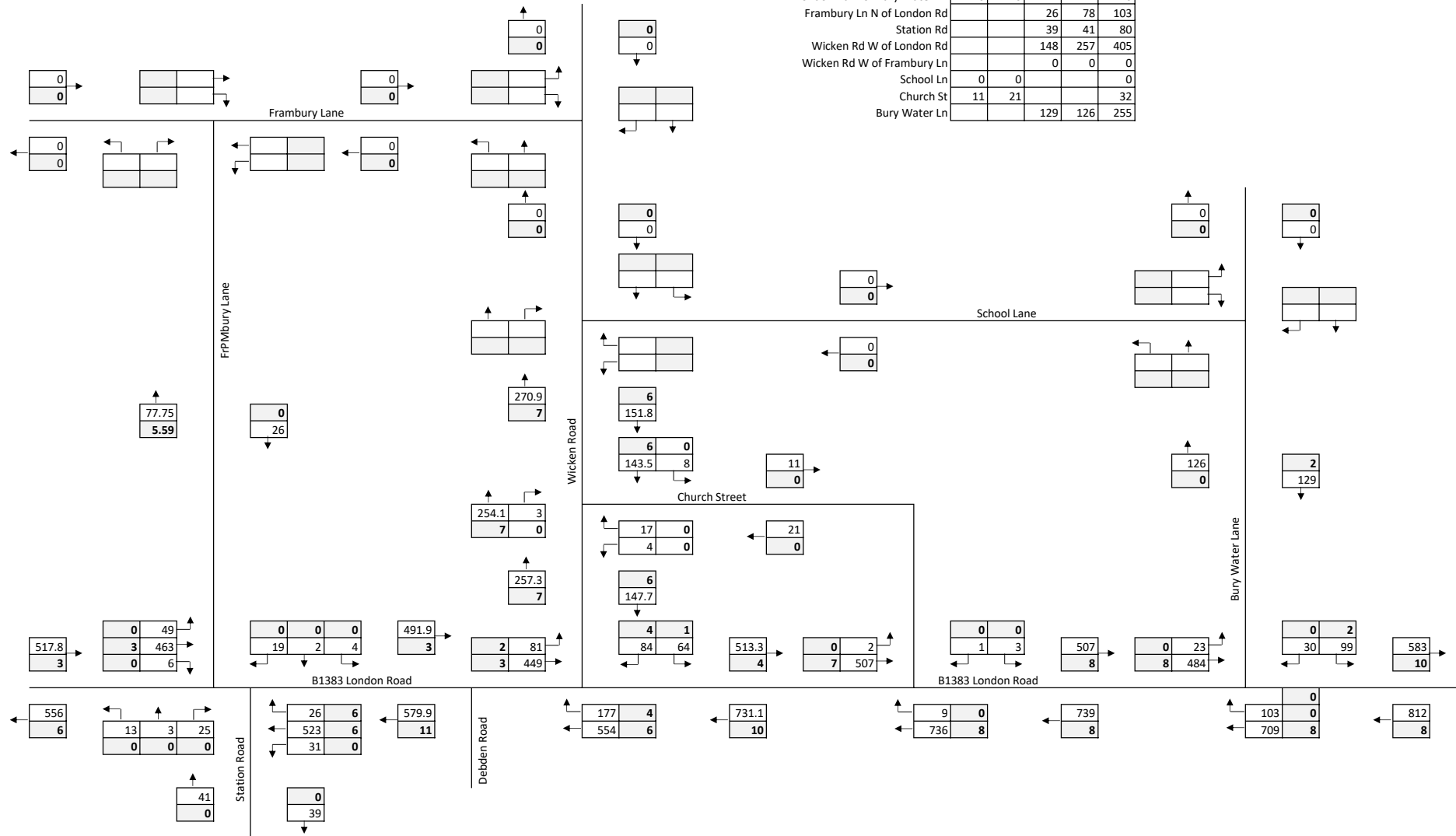
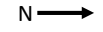


Figure 9.1: Sensitivity Development Flows AM Peak (Land north and south of Wicken Road and Joyce Frankland Academy)



Key:
 all vehicles
 heavy vehicles

Link Flows

	NB	SB	EB	WB	2-way
London Rd S of Frambury Ln	15	40			55
London Rd S of Wicken Rd	16	43			59
London Rd S of Bury Water Ln	44	20			64
London Rd N of Bury Water Ln	47	17			64
Frambury Ln N of London Rd			0	0	0
Station Rd			0	0	0
Wicken Rd W of London Rd			81	30	111
Wicken Rd W of Frambury Ln			82	31	113
School Ln	0	1			2
Church St	0	0			0
Bury Water Ln			9	3	12

150 dwellings south of Wicken Road

75 dwellings north of Wicken Road

24 dwellings at Joyce Frankland Academy

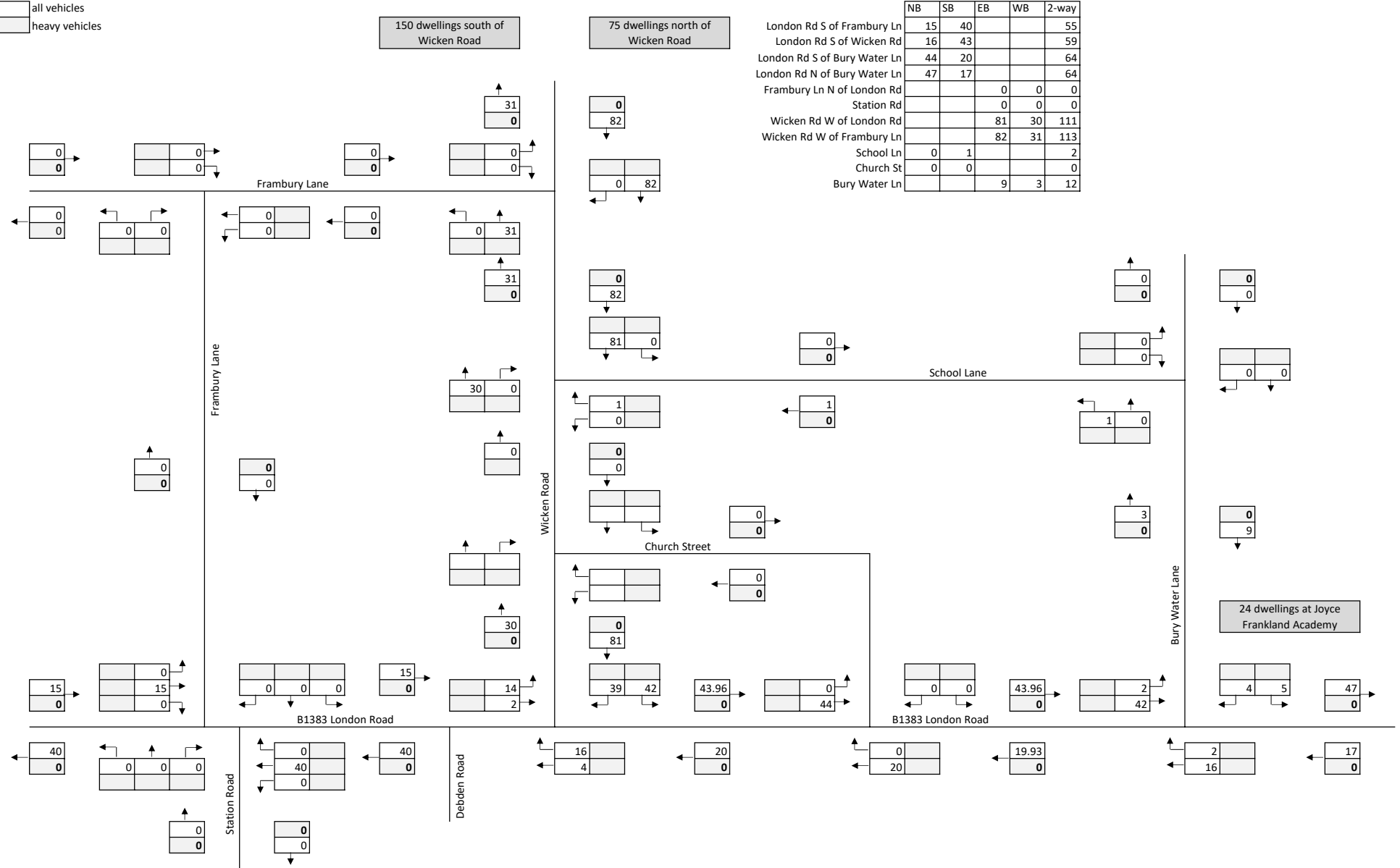


Figure 9.2: Sensitivity Development Flows PM Peak (Land north and south of Wicken Road and Joyce Frankland Academy)



Key:
 [Light Grey Box] all vehicles
 [Dark Grey Box] heavy vehicles

Link Flows

	NB	SB	EB	WB	2-way
London Rd S of Frambury Ln	38	23			61
London Rd S of Wicken Rd	41	24			65
London Rd S of Bury Water Ln	28	43			71
London Rd N of Bury Water Ln	0	0			0
Frambury Ln N of London Rd			0	0	0
Station Rd			0	0	0
Wicken Rd W of London Rd			46	78	124
Wicken Rd W of Frambury Ln			47	78	125
School Ln	1	1			2
Church St	0	0			0
Bury Water Ln			5	8	13

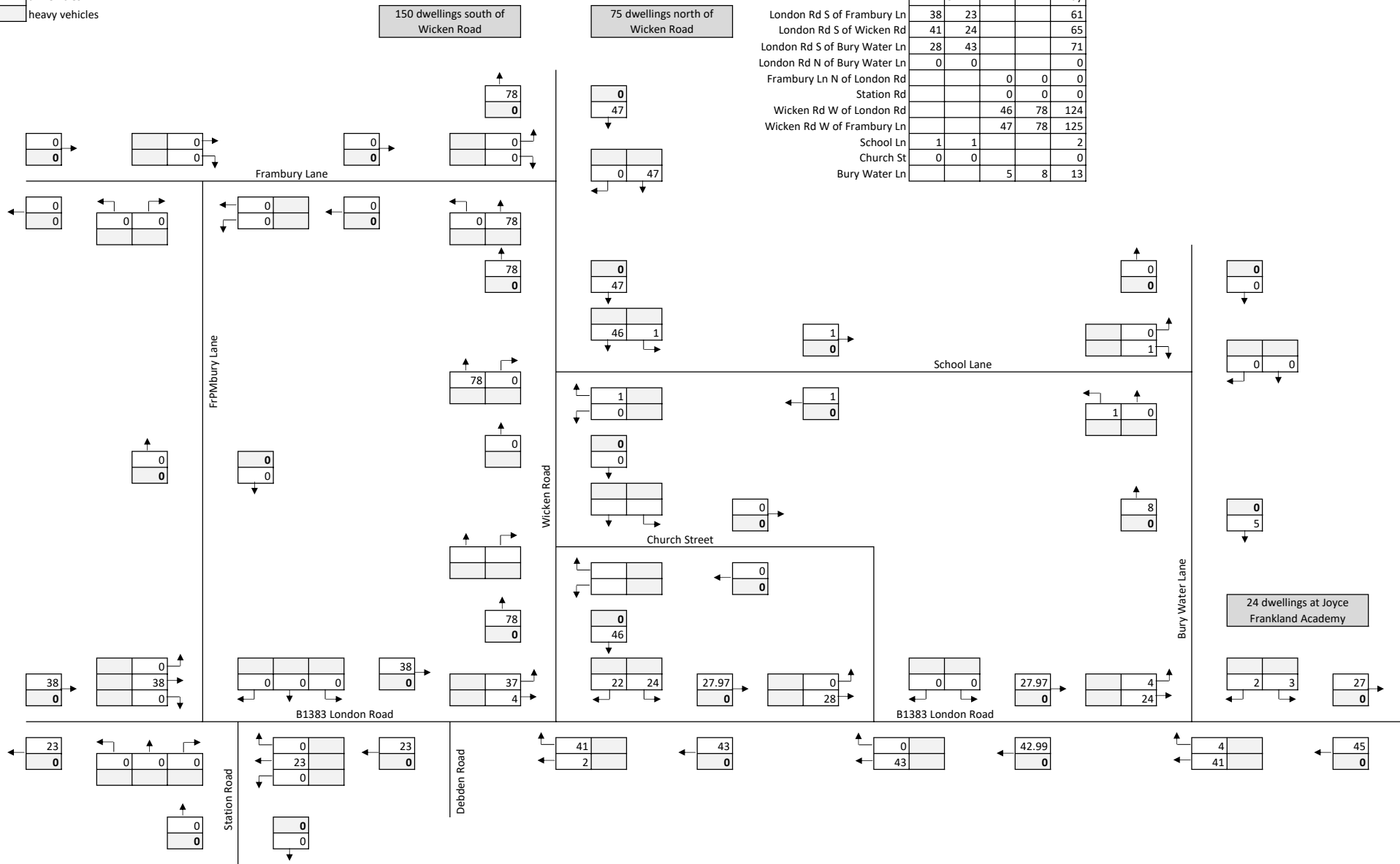


Figure 9.3: 2024 Traffic Flows AM Peak (Committed + Sensitivity)



Key:
 [white box] all vehicles
 [grey box] heavy vehicles

Link Flows

	NB	SB	EB	WB	2-way
London Rd S of Frambury Ln	588	540			1128
London Rd S of Wicken Rd	676	614			1291
London Rd S of Bury Water Ln	716	577			1293
London Rd N of Bury Water Ln	809	612			1421
Frambury Ln N of London Rd			67	108	175
Station Rd			40	15	54
Wicken Rd W of London Rd			318	258	577
Wicken Rd W of Frambury Ln			0	0	0
School Ln	0	0			0
Church St	14	7			21
Bury Water Ln			261	203	464

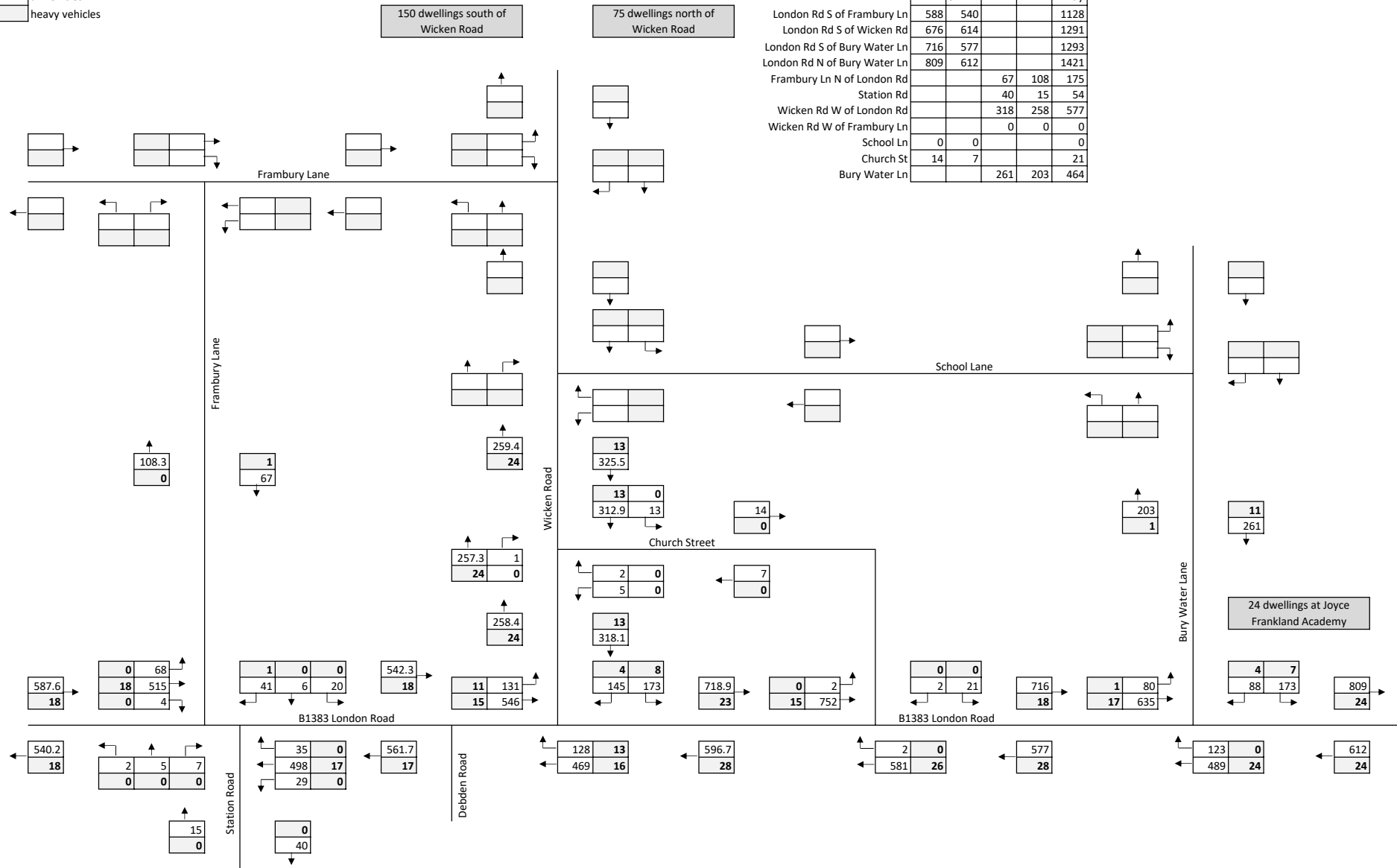


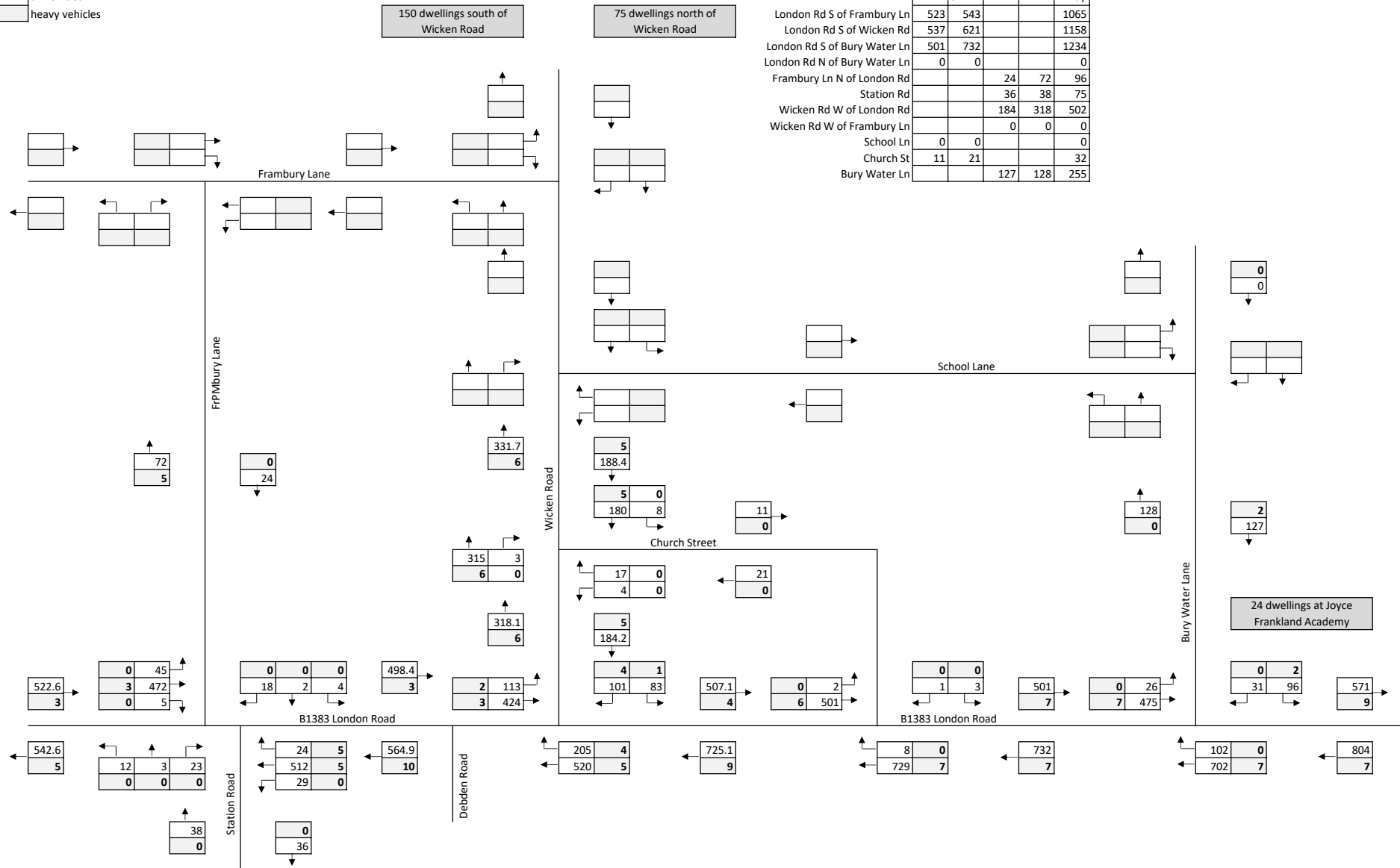
Figure 9.4: 2024 Traffic Flows PM Peak (Committed + Sensitivity)



Key:
 all vehicles
 heavy vehicles

Link Flows

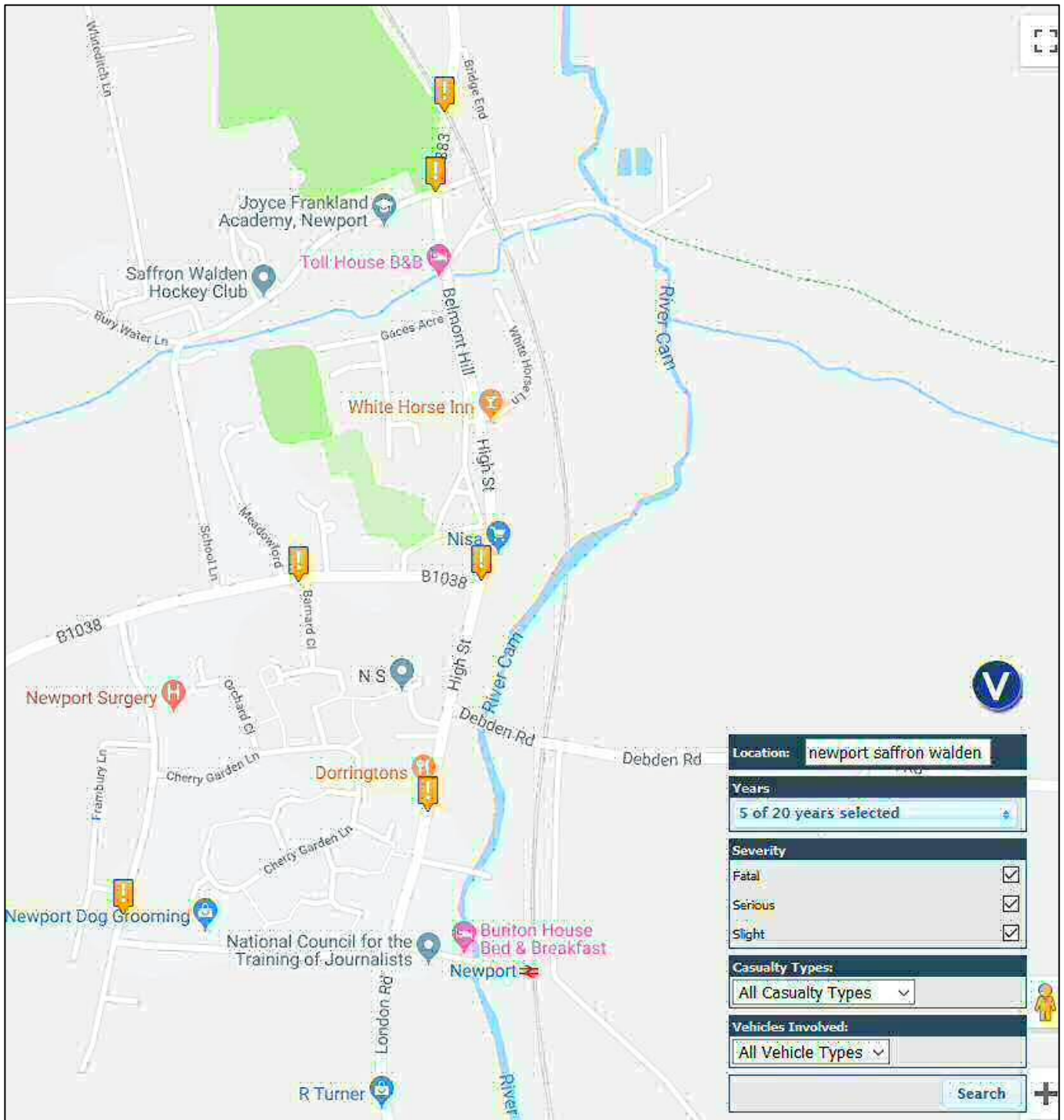
	NB	SB	EB	WB	2-way
London Rd S of Frambury Ln	523	543			1065
London Rd S of Wicken Rd	537	621			1158
London Rd S of Bury Water Ln	501	732			1234
London Rd N of Bury Water Ln	0	0			0
Frambury Ln N of London Rd			24	72	96
Station Rd			36	38	75
Wicken Rd W of London Rd			184	318	502
Wicken Rd W of Frambury Ln			0	0	0
School Ln	0	0			0
Church St	11	21			32
Bury Water Ln			127	128	255



Appendices

Appendix 1: Personal Injury Road Traffic Accidents 2014-2018

Personal Injury Accidents 2014-2018



Source: <https://www.crashmap.co.uk>

Appendix 2: Traffic Survey Data

WICKEN RD/CHURCH ST NEWPORT

DATE: 13 JUNE 2019

TRAFFIC SURVEY

JUNCTION 1

AM CHURCH ST	LEFT OUT TO WICKEN RD										RIGHT OUT TO WICKEN RD									
	CARS	LIGHT GOODS VEHICLES	TOTAL LIGHT	HEAVYS	BUSES AND COACHES	TOTAL HEAVY	PEDAL-CYCLES	MOTORCYCLES	HEAVY %	TOTAL MOVEMENTS	CARS	LIGHT GOODS VEHICLES	TOTAL LIGHT	HEAVYS	BUSES AND COACHES	TOTAL HEAVY	PEDAL-CYCLES	MOTORCYCLES	HEAVY %	TOTAL MOVEMENTS
	TIME																			
07:00 - 07:15	1	0	1	0	0	0	0	0	0.0	1	0	0	0	0	0	0	0	0	0.0	0
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0	0
07:30 - 07:45	1	0	1	0	0	0	0	0	0.0	1	0	0	0	0	0	0	0	0	0.0	0
07:45 - 08:00	2	0	2	0	0	0	0	0	0.0	2	2	1	3	0	0	0	0	0	0.0	3
08:00 - 08:15	2	0	2	0	0	0	0	0	0.0	2	0	0	0	0	0	0	0	0	0.0	0
08:15 - 08:30	1	0	1	0	0	0	2	0	0.0	3	0	0	0	0	0	0	0	0	0.0	0
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	0	1	0	1	0	0	0	0	0	0.0	1
08:45 - 09:00	2	0	2	0	0	0	0	0	0.0	2	0	1	1	0	0	0	0	0	0.0	1
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	4	0	4	0	0	0	0	0	0.0	4
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0	0
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0	0
09:45 - 10:00	1	0	1	0	0	0	0	0	0.0	1	0	0	0	0	0	0	0	0	0.0	0
HOURLY TOTALS																				
07:00 - 08:00	4	0	4	0	0	0	0	0	0.0	4	2	1	3	0	0	0	0	0	0.0	3
07:15 - 08:15	5	0	5	0	0	0	0	0	0.0	5	2	1	3	0	0	0	0	0	0.0	3
07:30 - 08:30	6	0	6	0	0	0	2	0	0.0	8	2	1	3	0	0	0	0	0	0.0	3
07:45 - 08:45	5	0	5	0	0	0	2	0	0.0	7	3	1	4	0	0	0	0	0	0.0	4
08:00 - 09:00	5	0	5	0	0	0	2	0	0.0	7	1	1	2	0	0	0	0	0	0.0	2
08:15 - 09:15	3	0	3	0	0	0	2	0	0.0	5	5	1	6	0	0	0	0	0	0.0	6
08:30 - 09:30	2	0	2	0	0	0	0	0	0.0	2	5	1	6	0	0	0	0	0	0.0	6
08:45 - 09:45	2	0	2	0	0	0	0	0	0.0	2	4	1	5	0	0	0	0	0	0.0	5
09:00 - 10:00	1	0	1	0	0	0	0	0	0.0	1	4	0	4	0	0	0	0	0	0.0	4
										5									2	0

0

0

WICKEN RD	LEFT INTO CHURCH ST										RIGHT INTO CHURCH ST									
	CARS	LIGHT GOODS VEHICLES	TOTAL LIGHT	HEAVYS	BUSES AND COACHES	TOTAL HEAVY	PEDAL-CYCLES	MOTORCYCLES	HEAVY %	TOTAL MOVEMENTS	CARS	LIGHT GOODS VEHICLES	TOTAL LIGHT	HEAVYS	BUSES AND COACHES	TOTAL HEAVY	PEDAL-CYCLES	MOTORCYCLES	HEAVY %	TOTAL MOVEMENTS
	TIME																			
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0	0
07:15 - 07:30	1	0	1	0	0	0	0	0	0.0	1	0	0	0	0	0	0	0	0	0.0	0
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0	0
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0	0
08:00 - 08:15	4	0	4	0	0	0	0	0	0.0	4	0	0	0	0	0	0	0	0	0.0	0
08:15 - 08:30	6	0	6	0	0	0	0	0	0.0	6	0	0	0	0	0	0	0	0	0.0	0
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0.0	0
08:45 - 09:00	2	0	2	0	0	0	0	0	0.0	2	1	0	1	0	0	0	0	0	0.0	1
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	1	0	1	0	0	0	0	0	0.0	1
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	1	0	1	0	0	0	0	0	0.0	1
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	2	0	2	0	0	0	0	0	0.0	2
09:45 - 10:00	3	0	3	0	0	0	0	0	0.0	3	0	0	0	0	0	0	0	0	0.0	0
HOURLY TOTALS																				
07:00 - 08:00	1	0	1	0	0	0	0	0	0.0	1	0	0	0	0	0	0	0	0	0.0	0
07:15 - 08:15	5	0	5	0	0	0	0	0	0.0	5	0	0	0	0	0	0	0	0	0.0	0
07:30 - 08:30	10	0	10	0	0	0	0	0	0.0	10	0	0	0	0	0	0	0	0	0.0	0
07:45 - 08:45	10	0	10	0	0	0	0	0	0.0	10	0	0	0	0	0	0	0	0	0.0	0
08:00 - 09:00	12	0	12	0	0	0	0	0	0.0	12	1	0	1	0	0	0	0	0	0.0	1
08:15 - 09:15	8	0	8	0	0	0	0	0	0.0	8	2	0	2	0	0	0	0	0	0.0	2
08:30 - 09:30	2	0	2	0	0	0	0	0	0.0	2	3	0	3	0	0	0	0	0	0.0	3
08:45 - 09:45	2	0	2	0	0	0	0	0	0.0	2	5	0	5	0	0	0	0	0	0.0	5
09:00 - 10:00	3	0	3	0	0	0	0	0	0.0	3	4	0	4	0	0	0	0	0	0.0	4
										12									1	0

0

0

Appendix 3: Geometric Parameters for Junction Modelling

Junctions9 Geometric Input Data

Ref.	1		2	3	4
Name	Frambury Lane/London Rd	Station Rd/London Rd	Wicken Rd/London Rd	Church St/London Rd	Bury Water Lane/London Rd
type	staggered priority*		T-junction	T-junction	T-junction
major arm width (m)	7.1		7.45	6.5	6.7
major rt turn vis (m)	70	70	70	70	70
blocks?	Y	Y	Y	Y	Y
width at give -way (m)	8.9	9.7	7.3	8.9	8.7
width at 5m (m)	3.7	3.6	4.1	4	3.2
width at 10m (m)	3.1	3	3.6	3	2.6
width at 15m (m)	2,7	2.9	3.2	2.8	2.5
width at 20m (m)	2.5	3	2.9	2.3	2.5
flare (pcu)	0	0	0	0	0
visibility to left (m)	12.8 (9m)	50? (9m)	12.3 (9m)	13.8	12.8 (9m)
visibility to right (m)	30.1 (9m)	37.3 (9m)	13.9 (9m)	18.4	15.0 (9m)

* separation of centre lines 13.0m

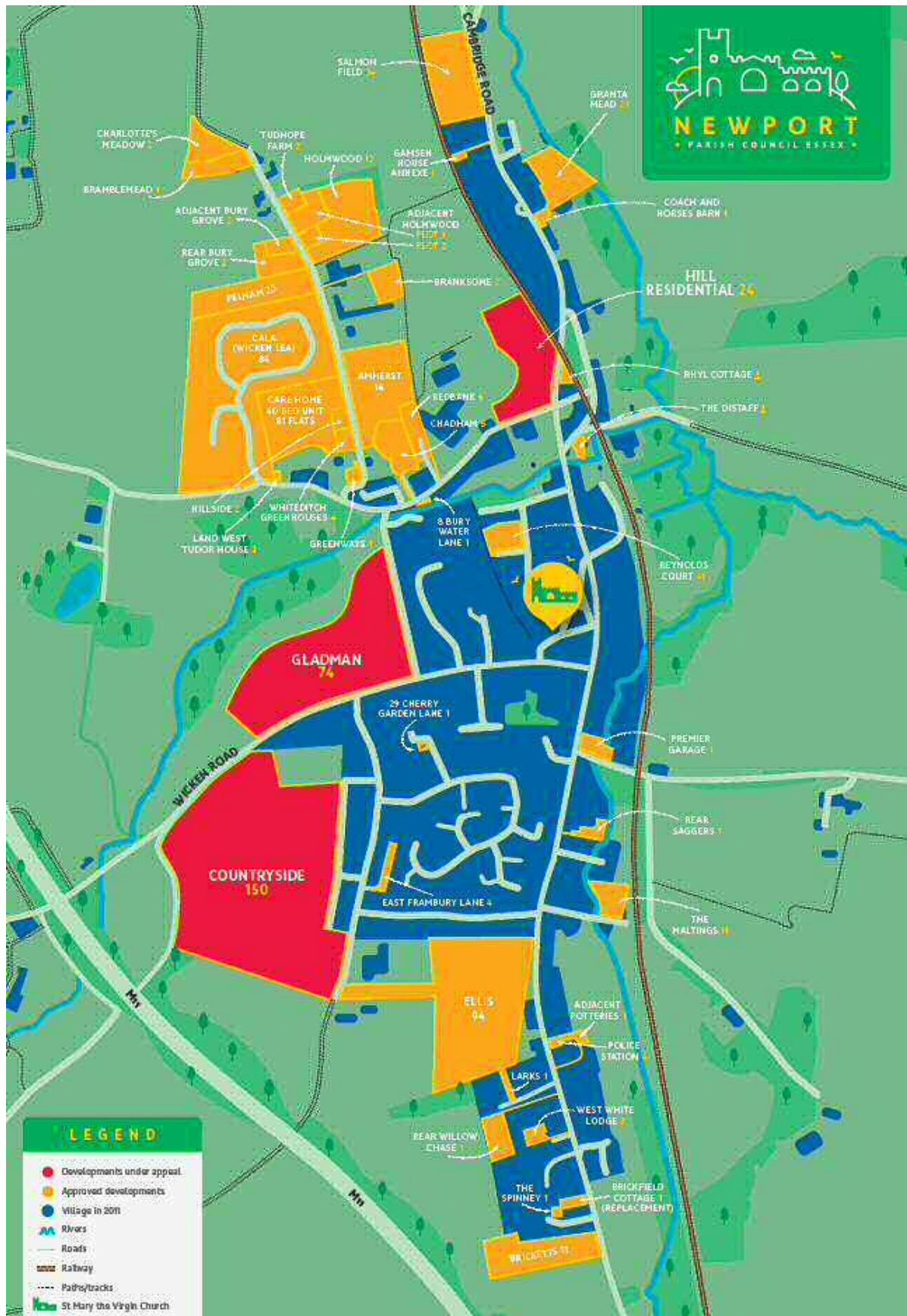
Appendix 4: Observed Queues on Wicken Road (AM peak hour)

Observed Q Lengths Wicken Road Thursday 13 June 2019

Time	Q	Time	Q
07:36	3	08:19	2
07:37	1	08:20	0
07:38	0	08:21	2
07:39	0	08:22	0
07:40	0	08:23	2
07:41	1	08:24	1
07:42	0	08:25	3
07:43	0	08:26	1
07:44	0	08:27	0
07:45	2	08:28	0
07:46	1	08:29	2
07:47	0	08:30	0
07:48	0	08:31	0
07:49	0	08:32	2
07:50	0	08:33	6
07:51	0	08:34	0
07:52	1	08:35	3
07:53	0	08:36	1
07:54	8	08:37	1
07:55	7	08:38	0
07:56	1	08:39	2
07:57	4	08:40	1
07:58	0	08:41	2
07:59	0	08:42	1
08:00	3	08:43	0
08:01	3	08:44	3
08:02	2	08:45	0
08:03	0	08:46	1
08:04	0	08:47	2
08:05	4	08:48	2
08:06	0	08:49	4
08:07	0	08:50	2
08:08	3	08:51	1
08:09	0	08:52	1
08:10	0	08:53	4
08:11	6	08:54	5
08:12	5	08:55	1
08:13	7	08:56	2
08:14	4	08:57	1
08:15	3	08:58	0
08:16	4	08:59	2
08:17	2	09:00	3
08:18	0	average	1.66

Appendix 5: Committed Developments

Committed and Potential Development in Newport



Newport Committed Development June 2019

	ref	type	No. Units	status	occupied	not occupied	location	Access to London Road	notes
1	16/0459	care home	40	approved	0	40	land to rear of Bury Water Lane	Bury Water Lane	
2	16/0459	extra care	81	approved	0	81	land to rear of Bury Water Lane	Bury Water Lane	
3	15/1869	housing	94	approved	0	94	land west of London Road	London Road south of Frambury Lane	plus commercial use building
4	13/1769	housing	84	approved	42	42	land at Bury Water Lane	Bury Water Lane	Wicken Lea
5	16/2024	housing	20	approved	0	20	Land south of Bury Grove, Whiteditch Lane	Bury Water Lane	
6	18/1827	housing	9	approved	0	9	Bricketts London Road	London Road south of Frambury Lane	replaces 16/1290 for 11 dwellings
7	14/3266	housing	15	approved	3	12	Land south of Wyndhams Croft, Whiteditch Lane	Bury Water Lane	King Edward Mews
8	15/0879	housing	12	approved	0	12	Holmwood, Whiteditch Lane	Bury Water Lane	allowed at appeal
9	18/2904	housing	8	decn. awaited	0	8	Five Acres, Whiteditch Lane	Bury Water Lane	
10	16/2538	housing	6	approved	0	6	Redbank, Bury Water Lane	Bury Water Lane	increased to 6 on appeal
11	17/0396	housing	5	approved	0	5	Chadam House, Bury Water Lane	Bury Water Lane	application to increase to 6
12	18/1027	housing	4	approved	0	4	Land to the east of Whiteditch Lane	Bury Water Lane	replaces 17/0140
13	17/2611	housing	4	approved	0	4	Land to east of Frambury Lane	Frambury Lane	
14	17/2798	housing	4	approved	0	4	Land at Whiteditch Lane	Bury Water Lane	replaces 17/0436
15	18/1056	housing	3	approved	0	3	Land west of Tudor House, Bury Water Lane	Bury Water Lane	
16	15/2574	housing	2	approved	0	2	Hillside and land to rear of Bury Water Lane	Bury Water Lane	originally application for 5
17	15/1664	housing	2	approved	0	2	Land rear of Branksome, Whiteditch Lane	Bury Water Lane	
18	15/1942	housing	2	approved	0	2	Land adjacent to Bury Grove, Whiteditch Lane	Bury Water Lane	
19	17/0890	housing	2	approved	0	2	Rear of Bury Grove, Whiteditch Lane	Bury Water Lane	
20	18/0834	housing	2	approved	0	2	Land to north west of Whiteditch Lane	Bury Water Lane	Charlotte's Meadow permitted on appeal
21	17/2514	housing	1	approved	0	1	Greenways, Whiteditch Lane	Bury Water Lane	17/1395 refused
22	16/0280	housing	1	approved	0	1	Branksome, Whiteditch Lane	Bury Water Lane	
23	13/1951	housing	1	approved	0	1	Land between 161 and 163 Cherry Garden Lane	Frambury Lane/Wicken Road	renewal of permission (has this lapsed?)
24	13/2784	housing	1	approved	0	1	Land at Braeside, London Road	London Road south of Frambury Lane	
25	16/3490	housing	1	approved	0	1	Rear of Sagers Waterloo House High Street	London Road south of Wicken Road	
26	18/2274	housing	1	approved	0	1	Premier Garage High Street	London Road south of Wicken Road	
27	17/2213	housing	1	approved	0	1	The Spinney, London Road	London Road south of Frambury Lane	
28	17/1800	housing	1	approved	0	1	Coach and Horses, London Road	London Road north of Bury Water Lane	
29	18/0642	housing	1	approved	0	1	Gamsen House, Cambridge Road	London Road north of Bury Water Lane	
					Total dwellings	45	242		
					Total care home beds	0	121		

Appendix 6: Census Data 2011 (Distribution and Assignment)

WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

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population All usual residents aged 16 and over in employment the week before the census
 units Persons
 date 2011
 usual residence E02004593 : Uttlesford 003 (2011 super output area - middle layer)

place of work	car driver	% car	assignment				% via route			
			B1383 north	Debden Road	B1383 south	Wicken Road	B1383 north	Debden Road	B1383 south	Wicken Road
E02004591 : Uttlesford 001 N of Saffron Walden	115	5.6%	1.00				5.6%	0.0%	0.0%	0.0%
E02004592 : Uttlesford 002 Saffron Walden	255	12.4%	1.00				12.4%	0.0%	0.0%	0.0%
E02004593 : Uttlesford 003 Newport	216	10.5%	0.50		0.25	0.25	5.3%	0.0%	2.6%	2.6%
E02004594 : Uttlesford 004 Thaxted	37	1.8%		1.00			0.0%	1.8%	0.0%	0.0%
E02004595 : Uttlesford 005 Stansted Mountfitchet	87	4.2%			1.00		0.0%	0.0%	4.2%	0.0%
E02004596 : Uttlesford 006 Stansted Airport	117	5.7%			1.00		0.0%	0.0%	5.7%	0.0%
E02004597 : Uttlesford 007 Great Dunmow	18	0.9%		0.50	0.50		0.0%	0.4%	0.4%	0.0%
E02004598 : Uttlesford 008 Felsetd	10	0.5%		0.50	0.50		0.0%	0.2%	0.2%	0.0%
E02004599 : Uttlesford 009 Hatfield Heath	16	0.8%			1.00		0.0%	0.0%	0.8%	0.0%
Basildon	10	0.5%			1.00		0.0%	0.0%	0.5%	0.0%
Bedford	3	0.1%	1.00				0.1%	0.0%	0.0%	0.0%
Braintree	19	0.9%		0.50	0.50		0.0%	0.5%	0.5%	0.0%
Brentwood	9	0.4%			1.00		0.0%	0.0%	0.4%	0.0%
Broadland	0	0.0%	1.00				0.0%	0.0%	0.0%	0.0%
Broxbourne	14	0.7%			0.50	0.50	0.0%	0.0%	0.3%	0.3%
Cambridge	189	9.2%	1.00				9.2%	0.0%	0.0%	0.0%
Central Bedfordshire	2	0.1%	0.50			0.50	0.0%	0.0%	0.0%	0.0%
Chelmsford	23	1.1%			1.00		0.0%	0.0%	1.1%	0.0%
Colchester	4	0.2%			1.00		0.0%	0.0%	0.2%	0.0%
Dacorum	3	0.1%			0.50	0.50	0.0%	0.0%	0.1%	0.1%
East Cambridgeshire	5	0.2%	1.00				0.2%	0.0%	0.0%	0.0%
East Hertfordshire Bishops Stortford and Hertford	266	12.9%			0.50	0.50	0.0%	0.0%	6.5%	6.5%
Epping Forest	38	1.8%			1.00		0.0%	0.0%	1.8%	0.0%
Fenland	1	0.0%	1.00				0.0%	0.0%	0.0%	0.0%
Forest Heath	9	0.4%	1.00				0.4%	0.0%	0.0%	0.0%
Great Yarmouth	1	0.0%	1.00				0.0%	0.0%	0.0%	0.0%
Harlow	66	3.2%			1.00		0.0%	0.0%	3.2%	0.0%
Hertsmere	4	0.2%			0.50	0.50	0.0%	0.0%	0.1%	0.1%
Huntingdonshire	8	0.4%	1.00				0.4%	0.0%	0.0%	0.0%
Ipswich	0	0.0%	0.50	0.25	0.25		0.0%	0.0%	0.0%	0.0%
King's Lynn and West Norfolk	1	0.0%	1.00				0.0%	0.0%	0.0%	0.0%
Luton	9	0.4%	0.50			0.50	0.2%	0.0%	0.0%	0.2%
Maldon	2	0.1%			1.00		0.0%	0.0%	0.1%	0.0%
North Hertfordshire	50	2.4%	0.33		0.33	0.33	0.8%	0.0%	0.8%	0.8%
North Norfolk	2	0.1%	1.00				0.1%	0.0%	0.0%	0.0%
Norwich	3	0.1%	1.00				0.1%	0.0%	0.0%	0.0%
Peterborough	6	0.3%	1.00				0.3%	0.0%	0.0%	0.0%
South Cambridgeshire	182	8.9%	1.00				8.9%	0.0%	0.0%	0.0%
Southend-on-Sea	2	0.1%			1.00		0.0%	0.0%	0.1%	0.0%
St Albans	3	0.1%	0.33		0.33	0.33	0.0%	0.0%	0.0%	0.0%
St Edmundsbury	17	0.8%	1.00				0.8%	0.0%	0.0%	0.0%
Stevenage	11	0.5%				1.00	0.0%	0.0%	0.0%	0.5%
Suffolk Coastal	0	0.0%	1.00				0.0%	0.0%	0.0%	0.0%
Tendring	5	0.2%			1.00		0.0%	0.0%	0.2%	0.0%
Thurrock	6	0.3%			1.00		0.0%	0.0%	0.3%	0.0%
Watford	1	0.0%			1.00		0.0%	0.0%	0.0%	0.0%
Welwyn Hatfield	15	0.7%			0.50	0.50	0.0%	0.0%	0.4%	0.4%
East Midlands	7	0.3%	1.00				0.3%	0.0%	0.0%	0.0%
London	150	7.3%			1.00		0.0%	0.0%	7.3%	0.0%
North East	2	0.1%	1.00				0.1%	0.0%	0.0%	0.0%
North West	2	0.1%	1.00				0.1%	0.0%	0.0%	0.0%
South East	20	1.0%			1.00		0.0%	0.0%	1.0%	0.0%
South West	4	0.2%			1.00		0.0%	0.0%	0.2%	0.0%
West Midlands	6	0.3%	1.00				0.3%	0.0%	0.0%	0.0%
Yorkshire and The Humber	5	0.2%	1.00				0.2%	0.0%	0.0%	0.0%
TOTAL	2,056	100.0%					46.21%	2.94%	39.21%	11.63%

Appendix 7: Results of Operational Assessments

<h1>Junctions 9</h1>
<h2>PICADY 9 - Priority Intersection Module</h2>
Version: 9.0.1.4646 [] © Copyright TRL Limited, 2019
For sales and distribution information, program advice and maintenance, contact TRL: Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk
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Filename: London Rd_Station Rd_Frambury Ln Staggered jnt - 26.07.19.j9

Path: M:\Project\6300 to 6399\6342 - Newport Neighbourhood Plan, Essex\Junction Modelling\Junction 1

Report generation date: 29/07/2019 08:44:48

»2019 Base, AM

»2019 Base, PM

»2024 with Adjusted Growth and Committed Flows, AM

»2024 with Adjusted Growth and Committed Flows, PM

»2029 with Adjusted Growth and Committed Flows, AM

»2029 with Adjusted Growth and Committed Flows, PM

»2034 with Adjusted Growth and Committed Flows, AM

»2034 with Adjusted Growth and Committed Flows, PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2019 Base						
Stream B-ACD	0.0	8.96	0.04	0.1	9.76	0.10
Stream AB-CD	0.3	5.24	0.12	0.2	5.40	0.09
Stream D-ABC	0.2	12.09	0.19	0.1	10.48	0.07
Stream CD-AB	0.0	4.75	0.03	0.0	4.97	0.02
2024 with Adjusted Growth and Committed Flows						
Stream B-ACD	0.0	9.54	0.04	0.1	10.54	0.11
Stream AB-CD	0.3	5.15	0.13	0.2	5.25	0.11
Stream D-ABC	0.3	13.42	0.22	0.1	11.20	0.08
Stream CD-AB	0.0	4.62	0.03	0.0	4.84	0.02
2029 with Adjusted Growth and Committed Flows						
Stream B-ACD	0.0	9.95	0.04	0.1	10.82	0.12
Stream AB-CD	0.4	5.13	0.14	0.2	5.21	0.11
Stream D-ABC	0.3	13.91	0.23	0.1	11.57	0.08
Stream CD-AB	0.1	4.59	0.04	0.0	4.81	0.02
2034 with Adjusted Growth and Committed Flows						
Stream B-ACD	0.0	9.99	0.05	0.1	11.16	0.12
Stream AB-CD	0.4	5.12	0.15	0.3	5.18	0.12
Stream D-ABC	0.3	14.40	0.24	0.1	11.84	0.08
Stream CD-AB	0.1	4.55	0.04	0.0	4.79	0.03

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	Frambury Lane/ London Road/ Station Road Staggered Junction
Location	Newport, Essex
Site number	

Date	09/07/2019
Version	
Status	[no status]
Identifier	
Client	
Jobnumber	
Enumerator	RD
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	2019 Base	PM	ONE HOUR	17:45	19:15	15	✓
D3	2024 with Adjusted Growth and Committed Flows	AM	ONE HOUR	07:45	09:15	15	✓
D4	2024 with Adjusted Growth and Committed Flows	PM	ONE HOUR	17:45	19:15	15	✓
D5	2029 with Adjusted Growth and Committed Flows	AM	ONE HOUR	07:45	09:15	15	✓
D6	2029 with Adjusted Growth and Committed Flows	PM	ONE HOUR	17:45	19:15	15	✓
D7	2034 with Adjusted Growth and Committed Flows	AM	ONE HOUR	07:45	09:15	15	✓
D8	2034 with Adjusted Growth and Committed Flows	PM	ONE HOUR	17:45	19:15	15	✓

Analysis Set Details

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

2019 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	0.69	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	B1383, London Road (n)		Major
B	Station Road		Minor
C	B1383, London Road (s)		Major
D	Frambury Lane		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A	7.10			70.0	✓	0.00
C	7.10			70.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.50	50	37
D	One lane	3.40	13	30

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B
1	AB-D	615	-	-	-	-	-	0.227	0.227	0.227	-	-
1	B-A	538	0.093	0.236	0.236	-	-	0.148	0.337	-	0.148	0.337
1	B-CD	680	0.099	0.251	0.251	-	-	-	-	-	-	-
1	CD-B	615	0.227	0.227	0.227	-	-	-	-	-	-	-
1	D-AB	669	-	-	-	-	-	0.247	0.247	0.098	-	-
1	D-C	516	-	0.142	0.323	0.142	0.323	0.226	0.226	0.090	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Base	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	465	100.000
B		ONE HOUR	✓	14	100.000
C		ONE HOUR	✓	512	100.000
D		ONE HOUR	✓	62	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	28	404	33
	B	7	0	2	5
	C	443	4	0	65
	D	18	6	38	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	4	0
	B	0	0	0	0
	C	4	0	0	0
	D	0	0	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-ACD	0.04	8.96	0.0	A	13	19
A-B					26	39
A-C					371	556
A-D					30	45
AB-CD	0.12	5.24	0.3	A	70	105
AB-C					338	507
D-ABC	0.19	12.09	0.2	B	57	85
C-D					60	89
C-A					407	610
C-B					4	6
CD-AB	0.03	4.75	0.0	A	20	30
CD-A					412	619

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	11	3	477	0.022	10	0.0	0.0	7.717	A
A-B	21	5			21				
A-C	304	76			304				
A-D	25	6			25				
AB-CD	49	12	737	0.066	48	0.0	0.1	5.224	A
AB-C	285	71			285				
D-ABC	47	12	428	0.109	46	0.0	0.1	9.429	A
C-D	49	12			49				
C-A	334	83			334				
C-B	3	0.75			3				
CD-AB	14	3	773	0.018	13	0.0	0.0	4.741	A
CD-A	341	85			341				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	13	3	452	0.028	13	0.0	0.0	8.191	A
A-B	25	6			25				
A-C	363	91			363				
A-D	30	7			30				
AB-CD	66	16	765	0.086	65	0.1	0.2	5.142	A
AB-C	334	83			334				
D-ABC	56	14	402	0.139	56	0.1	0.2	10.390	B
C-D	58	15			58				
C-A	398	100			398				
C-B	4	0.90			4				
CD-AB	18	5	807	0.023	18	0.0	0.0	4.558	A
CD-A	405	101			405				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	15	4	417	0.037	15	0.0	0.0	8.963	A
A-B	31	8			31				
A-C	445	111			445				
A-D	36	9			36				
AB-CD	94	24	805	0.117	94	0.2	0.3	5.063	A
AB-C	394	99			394				
D-ABC	68	17	366	0.186	68	0.2	0.2	12.065	B
C-D	72	18			72				
C-A	488	122			488				
C-B	4	1			4				
CD-AB	27	7	857	0.031	27	0.0	0.0	4.330	A
CD-A	492	123			492				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	15	4	417	0.037	15	0.0	0.0	8.964	A
A-B	31	8			31				
A-C	445	111			445				
A-D	36	9			36				
AB-CD	95	24	805	0.118	95	0.3	0.3	5.074	A
AB-C	394	99			394				
D-ABC	68	17	366	0.187	68	0.2	0.2	12.090	B
C-D	72	18			72				
C-A	488	122			488				
C-B	4	1			4				

CD-AB	27	7	857	0.032	27	0.0	0.0	4.337	A
CD-A	492	123			492				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	13	3	452	0.028	13	0.0	0.0	8.193	A
A-B	25	6			25				
A-C	363	91			363				
A-D	30	7			30				
AB-CD	66	16	765	0.086	66	0.3	0.2	5.169	A
AB-C	333	83			333				
D-ABC	56	14	402	0.139	56	0.2	0.2	10.419	B
C-D	58	15			58				
C-A	398	100			398				
C-B	4	0.90			4				
CD-AB	19	5	807	0.023	19	0.0	0.0	4.571	A
CD-A	405	101			405				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	11	3	477	0.022	11	0.0	0.0	7.720	A
A-B	21	5			21				
A-C	304	76			304				
A-D	25	6			25				
AB-CD	49	12	737	0.067	49	0.2	0.1	5.243	A
AB-C	285	71			285				
D-ABC	47	12	427	0.109	47	0.2	0.1	9.464	A
C-D	49	12			49				
C-A	334	83			334				
C-B	3	0.75			3				
CD-AB	14	3	773	0.018	14	0.0	0.0	4.750	A
CD-A	341	85			341				

2019 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	0.54	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2019 Base	PM	ONE HOUR	17:45	19:15	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	481	100.000
B		ONE HOUR	✓	37	100.000
C		ONE HOUR	✓	428	100.000
D		ONE HOUR	✓	22	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	28	431	22
	B	22	0	12	3
	C	380	5	0	43
	D	3	2	17	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	1	22
	B	0	0	0	0
	C	1	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-ACD	0.10	9.76	0.1	A	34	51
A-B					26	39
A-C					395	593
A-D					20	30
AB-CD	0.09	5.40	0.2	A	52	78
AB-C					377	566
D-ABC	0.07	10.48	0.1	B	20	30
C-D					39	59
C-A					349	523
C-B					5	7
CD-AB	0.02	4.97	0.0	A	12	18
CD-A					346	518

Main Results for each time segment

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	28	7	467	0.060	28	0.0	0.1	8.189	A
A-B	21	5			21				
A-C	324	81			324				
A-D	17	4			17				
AB-CD	36	9	702	0.051	36	0.0	0.1	5.403	A
AB-C	316	79			316				
D-ABC	17	4	425	0.039	16	0.0	0.0	8.816	A
C-D	32	8			32				
C-A	286	72			286				
C-B	4	0.94			4				
CD-AB	9	2	733	0.012	9	0.0	0.0	4.967	A
CD-A	285	71			285				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	33	8	443	0.075	33	0.1	0.1	8.783	A
A-B	25	6			25				
A-C	387	97			387				
A-D	20	5			20				
AB-CD	49	12	741	0.066	49	0.1	0.1	5.227	A
AB-C	372	93			372				
D-ABC	20	5	401	0.049	20	0.0	0.1	9.441	A
C-D	39	10			39				
C-A	342	85			342				
C-B	4	1			4				
CD-AB	12	3	760	0.015	12	0.0	0.0	4.811	A
CD-A	339	85			339				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
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B-ACD	41	10	410	0.099	41	0.1	0.1	9.754	A
A-B	31	8			31				
A-C	475	119			475				
A-D	24	6			24				
AB-CD	71	18	796	0.090	71	0.1	0.2	4.995	A
AB-C	444	111			444				
D-ABC	24	6	368	0.066	24	0.1	0.1	10.469	B
C-D	47	12			47				
C-A	418	105			418				
C-B	6	1			6				
CD-AB	16	4	797	0.021	16	0.0	0.0	4.607	A
CD-A	413	103			413				

18:30 - 18:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	41	10	410	0.099	41	0.1	0.1	9.760	A
A-B	31	8			31				
A-C	475	119			475				
A-D	24	6			24				
AB-CD	71	18	797	0.090	71	0.2	0.2	4.967	A
AB-C	444	111			444				
D-ABC	24	6	368	0.066	24	0.1	0.1	10.475	B
C-D	47	12			47				
C-A	418	105			418				
C-B	6	1			6				
CD-AB	16	4	797	0.021	16	0.0	0.0	4.608	A
CD-A	413	103			413				

18:45 - 19:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	33	8	443	0.075	33	0.1	0.1	8.790	A
A-B	25	6			25				
A-C	387	97			387				
A-D	20	5			20				
AB-CD	49	12	742	0.066	49	0.2	0.1	5.162	A
AB-C	372	93			372				
D-ABC	20	5	401	0.049	20	0.1	0.1	9.448	A
C-D	39	10			39				
C-A	342	85			342				
C-B	4	1			4				
CD-AB	12	3	760	0.015	12	0.0	0.0	4.815	A
CD-A	339	85			339				

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	28	7	467	0.060	28	0.1	0.1	8.201	A
A-B	21	5			21				
A-C	324	81			324				
A-D	17	4			17				
AB-CD	36	9	702	0.051	36	0.1	0.1	5.372	A
AB-C	316	79			316				
D-ABC	17	4	425	0.039	17	0.1	0.0	8.825	A
C-D	32	8			32				
C-A	286	72			286				
C-B	4	0.94			4				
CD-AB	9	2	733	0.012	9	0.0	0.0	4.969	A
CD-A	285	71			285				

2024 with Adjusted Growth and Committed Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	0.71	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024 with Adjusted Growth and Committed Flows	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	522	100.000
B		ONE HOUR	✓	14	100.000
C		ONE HOUR	✓	572	100.000
D		ONE HOUR	✓	67	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	29	458	35
	B	7	0	2	5
	C	500	4	0	68
	D	20	6	41	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
A	A	0	0	4	0

From	B	0	0	0	0
	C	4	0	0	0
	D	0	0	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-ACD	0.04	9.54	0.0	A	13	19
A-B					27	40
A-C					420	630
A-D					32	48
AB-CD	0.13	5.15	0.3	A	81	122
AB-C					378	566
D-ABC	0.22	13.42	0.3	B	61	92
C-D					62	94
C-A					459	688
C-B					4	6
CD-AB	0.03	4.62	0.0	A	22	33
CD-A					464	697

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	11	3	461	0.023	10	0.0	0.0	7.987	A
A-B	22	5			22				
A-C	345	86			345				
A-D	26	7			26				
AB-CD	55	14	757	0.073	55	0.0	0.1	5.126	A
AB-C	321	80			321				
D-ABC	50	13	412	0.123	50	0.0	0.1	9.934	A
C-D	51	13			51				
C-A	376	94			376				
C-B	3	0.75			3				
CD-AB	15	4	796	0.019	15	0.0	0.0	4.609	A
CD-A	384	96			384				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	13	3	433	0.029	13	0.0	0.0	8.569	A
A-B	26	7			26				
A-C	412	103			412				
A-D	31	8			31				
AB-CD	76	19	790	0.096	76	0.1	0.2	5.040	A
AB-C	374	93			374				
D-ABC	60	15	383	0.157	60	0.1	0.2	11.147	B
C-D	61	15			61				
C-A	449	112			449				
C-B	4	0.90			4				
CD-AB	20	5	836	0.024	20	0.0	0.0	4.409	A
CD-A	456	114			456				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	15	4	393	0.039	15	0.0	0.0	9.540	A
A-B	32	8			32				
A-C	504	126			504				
A-D	39	10			39				
AB-CD	112	28	837	0.134	112	0.2	0.3	4.963	A
AB-C	438	110			438				
D-ABC	74	18	342	0.216	73	0.2	0.3	13.384	B
C-D	75	19			75				
C-A	551	138			551				
C-B	4	1			4				
CD-AB	31	8	894	0.034	31	0.0	0.0	4.165	A
CD-A	553	138			553				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	15	4	393	0.039	15	0.0	0.0	9.542	A
A-B	32	8			32				
A-C	504	126			504				
A-D	39	10			39				
AB-CD	112	28	837	0.134	112	0.3	0.3	4.977	A
AB-C	438	110			438				
D-ABC	74	18	342	0.216	74	0.3	0.3	13.423	B
C-D	75	19			75				
C-A	551	138			551				
C-B	4	1			4				
CD-AB	31	8	894	0.034	31	0.0	0.0	4.172	A
CD-A	553	138			553				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	13	3	433	0.029	13	0.0	0.0	8.571	A
A-B	26	7			26				
A-C	412	103			412				
A-D	31	8			31				
AB-CD	76	19	790	0.096	77	0.3	0.2	5.066	A
AB-C	373	93			373				
D-ABC	60	15	383	0.157	61	0.3	0.2	11.189	B
C-D	61	15			61				
C-A	449	112			449				
C-B	4	0.90			4				
CD-AB	21	5	836	0.025	21	0.0	0.0	4.425	A
CD-A	456	114			456				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	11	3	461	0.023	11	0.0	0.0	7.993	A
A-B	22	5			22				
A-C	345	86			345				
A-D	26	7			26				
AB-CD	56	14	757	0.074	56	0.2	0.1	5.149	A
AB-C	321	80			321				
D-ABC	50	13	412	0.123	51	0.2	0.1	9.979	A
C-D	51	13			51				
C-A	376	94			376				
C-B	3	0.75			3				

CD-AB	15	4	796	0.019	15	0.0	0.0	4.618	A
CD-A	384	96			384				

2024 with Adjusted Growth and Committed Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	0.54	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024 with Adjusted Growth and Committed Flows	PM	ONE HOUR	17:45	19:15	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	542	100.000
B		ONE HOUR	✓	38	100.000
C		ONE HOUR	✓	484	100.000
D		ONE HOUR	✓	24	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	29	489	24
	B	23	0	12	3
	C	434	5	0	45
	D	4	2	18	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
A	A	0	0	1	22

From	B	0	0	0	0
	C	1	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-ACD	0.11	10.54	0.1	B	35	52
A-B					27	40
A-C					449	673
A-D					22	33
AB-CD	0.11	5.25	0.2	A	63	94
AB-C					422	632
D-ABC	0.08	11.20	0.1	B	22	33
C-D					41	62
C-A					398	597
C-B					5	7
CD-AB	0.02	4.84	0.0	A	13	20
CD-A					395	592

Main Results for each time segment

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	29	7	449	0.064	28	0.0	0.1	8.554	A
A-B	22	5			22				
A-C	368	92			368				
A-D	18	5			18				
AB-CD	42	11	727	0.058	42	0.0	0.1	5.251	A
AB-C	355	89			355				
D-ABC	18	5	412	0.044	18	0.0	0.0	9.122	A
C-D	34	8			34				
C-A	327	82			327				
C-B	4	0.94			4				
CD-AB	9	2	754	0.012	9	0.0	0.0	4.835	A
CD-A	326	81			326				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	34	9	422	0.081	34	0.1	0.1	9.288	A
A-B	26	7			26				
A-C	440	110			440				
A-D	22	5			22				
AB-CD	58	15	773	0.076	58	0.1	0.1	5.067	A
AB-C	416	104			416				
D-ABC	22	5	385	0.056	22	0.0	0.1	9.892	A
C-D	40	10			40				
C-A	390	98			390				
C-B	4	1			4				
CD-AB	13	3	785	0.016	13	0.0	0.0	4.660	A
CD-A	387	97			387				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	42	10	383	0.109	42	0.1	0.1	10.536	B
A-B	32	8			32				
A-C	538	135			538				
A-D	26	7			26				
AB-CD	88	22	836	0.105	87	0.1	0.2	4.836	A
AB-C	494	123			494				
D-ABC	26	7	348	0.076	26	0.1	0.1	11.198	B
C-D	50	12			50				
C-A	478	119			478				
C-B	6	1			6				
CD-AB	18	5	830	0.022	18	0.0	0.0	4.434	A
CD-A	472	118			472				

18:30 - 18:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	42	10	383	0.109	42	0.1	0.1	10.545	B
A-B	32	8			32				
A-C	538	135			538				
A-D	26	7			26				
AB-CD	88	22	837	0.105	88	0.2	0.2	4.814	A
AB-C	493	123			493				
D-ABC	26	7	348	0.076	26	0.1	0.1	11.205	B
C-D	50	12			50				
C-A	478	119			478				
C-B	6	1			6				
CD-AB	18	5	830	0.022	18	0.0	0.0	4.437	A
CD-A	472	118			472				

18:45 - 19:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	34	9	422	0.081	34	0.1	0.1	9.300	A
A-B	26	7			26				
A-C	440	110			440				
A-D	22	5			22				
AB-CD	59	15	773	0.076	59	0.2	0.1	5.005	A
AB-C	416	104			416				
D-ABC	22	5	385	0.056	22	0.1	0.1	9.902	A
C-D	40	10			40				
C-A	390	98			390				
C-B	4	1			4				
CD-AB	13	3	785	0.016	13	0.0	0.0	4.664	A
CD-A	387	97			387				

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	29	7	449	0.064	29	0.1	0.1	8.568	A
A-B	22	5			22				
A-C	368	92			368				
A-D	18	5			18				
AB-CD	42	11	728	0.058	43	0.1	0.1	5.219	A
AB-C	355	89			355				
D-ABC	18	5	412	0.044	18	0.1	0.0	9.137	A
C-D	34	8			34				
C-A	327	82			327				
C-B	4	0.94			4				

CD-AB	9	2	754	0.012	9	0.0	0.0	4.839	A
CD-A	326	81			326				

2029 with Adjusted Growth and Committed Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	0.74	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2029 with Adjusted Growth and Committed Flows	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	539	100.000
B		ONE HOUR	✓	15	100.000
C		ONE HOUR	✓	593	100.000
D		ONE HOUR	✓	69	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	30	473	36
	B	8	0	2	5
	C	518	4	0	71
	D	20	7	42	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
A	A	0	0	4	0

From	B	0	0	0	0
	C	4	0	0	0
	D	0	0	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-ACD	0.04	9.95	0.0	A	14	21
A-B					28	41
A-C					434	651
A-D					33	50
AB-CD	0.14	5.13	0.4	A	86	129
AB-C					388	581
D-ABC	0.23	13.91	0.3	B	63	95
C-D					65	98
C-A					475	713
C-B					4	6
CD-AB	0.04	4.59	0.1	A	25	37
CD-A					479	718

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	11	3	450	0.025	11	0.0	0.0	8.206	A
A-B	23	6			23				
A-C	356	89			356				
A-D	27	7			27				
AB-CD	58	15	762	0.076	58	0.0	0.1	5.109	A
AB-C	330	83			330				
D-ABC	52	13	407	0.128	51	0.0	0.1	10.100	B
C-D	53	13			53				
C-A	390	97			390				
C-B	3	0.75			3				
CD-AB	17	4	803	0.021	16	0.0	0.0	4.578	A
CD-A	397	99			397				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	13	3	420	0.032	13	0.0	0.0	8.853	A
A-B	27	7			27				
A-C	425	106			425				
A-D	32	8			32				
AB-CD	80	20	796	0.100	80	0.1	0.2	5.022	A
AB-C	384	96			384				
D-ABC	62	16	377	0.164	62	0.1	0.2	11.409	B
C-D	64	16			64				
C-A	466	116			466				
C-B	4	0.90			4				
CD-AB	23	6	845	0.027	23	0.0	0.0	4.376	A
CD-A	470	118			470				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	17	4	378	0.044	16	0.0	0.0	9.951	A
A-B	33	8			33				
A-C	521	130			521				
A-D	40	10			40				
AB-CD	119	30	845	0.141	118	0.2	0.4	4.953	A
AB-C	449	112			449				
D-ABC	76	19	335	0.227	76	0.2	0.3	13.861	B
C-D	78	20			78				
C-A	570	143			570				
C-B	4	1			4				
CD-AB	35	9	905	0.039	35	0.0	0.1	4.131	A
CD-A	569	142			569				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	17	4	378	0.044	17	0.0	0.0	9.954	A
A-B	33	8			33				
A-C	521	130			521				
A-D	40	10			40				
AB-CD	119	30	846	0.141	119	0.4	0.4	4.967	A
AB-C	449	112			449				
D-ABC	76	19	335	0.227	76	0.3	0.3	13.908	B
C-D	78	20			78				
C-A	570	143			570				
C-B	4	1			4				
CD-AB	35	9	905	0.039	35	0.1	0.1	4.137	A
CD-A	569	142			569				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	13	3	420	0.032	14	0.0	0.0	8.858	A
A-B	27	7			27				
A-C	425	106			425				
A-D	32	8			32				
AB-CD	80	20	796	0.101	81	0.4	0.2	5.053	A
AB-C	384	96			384				
D-ABC	62	16	377	0.165	62	0.3	0.2	11.454	B
C-D	64	16			64				
C-A	466	116			466				
C-B	4	0.90			4				
CD-AB	23	6	845	0.028	23	0.1	0.0	4.390	A
CD-A	470	118			470				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	11	3	450	0.025	11	0.0	0.0	8.214	A
A-B	23	6			23				
A-C	356	89			356				
A-D	27	7			27				
AB-CD	58	15	762	0.077	59	0.2	0.1	5.132	A
AB-C	330	82			330				
D-ABC	52	13	407	0.128	52	0.2	0.1	10.151	B
C-D	53	13			53				
C-A	390	97			390				
C-B	3	0.75			3				

CD-AB	17	4	803	0.021	17	0.0	0.0	4.585	A
CD-A	397	99			397				

2029 with Adjusted Growth and Committed Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	0.56	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2029 with Adjusted Growth and Committed Flows	PM	ONE HOUR	17:45	19:15	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	562	100.000
B		ONE HOUR	✓	40	100.000
C		ONE HOUR	✓	501	100.000
D		ONE HOUR	✓	25	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	30	507	25
	B	24	0	13	3
	C	449	5	0	47
	D	4	2	19	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
A	A	0	0	1	22

From	B	0	0	0	0
	C	1	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-ACD	0.12	10.82	0.1	B	37	55
A-B					28	41
A-C					465	698
A-D					23	34
AB-CD	0.11	5.21	0.2	A	68	102
AB-C					435	653
D-ABC	0.08	11.57	0.1	B	23	34
C-D					43	65
C-A					412	618
C-B					5	7
CD-AB	0.02	4.81	0.0	A	14	21
CD-A					408	612

Main Results for each time segment

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	30	8	445	0.068	30	0.0	0.1	8.669	A
A-B	23	6			23				
A-C	382	95			382				
A-D	19	5			19				
AB-CD	45	11	736	0.061	45	0.0	0.1	5.207	A
AB-C	367	92			367				
D-ABC	19	5	406	0.046	19	0.0	0.0	9.293	A
C-D	35	9			35				
C-A	338	85			338				
C-B	4	0.94			4				
CD-AB	10	2	759	0.013	9	0.0	0.0	4.803	A
CD-A	337	84			337				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	36	9	416	0.086	36	0.1	0.1	9.458	A
A-B	27	7			27				
A-C	456	114			456				
A-D	22	6			22				
AB-CD	63	16	783	0.080	63	0.1	0.1	5.025	A
AB-C	430	107			430				
D-ABC	22	6	378	0.059	22	0.0	0.1	10.129	B
C-D	42	11			42				
C-A	404	101			404				
C-B	4	1			4				
CD-AB	13	3	791	0.016	13	0.0	0.0	4.623	A
CD-A	401	100			401				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	44	11	377	0.117	44	0.1	0.1	10.816	B
A-B	33	8			33				
A-C	558	140			558				
A-D	28	7			28				
AB-CD	95	24	850	0.112	95	0.1	0.3	4.797	A
AB-C	508	127			508				
D-ABC	28	7	339	0.081	27	0.1	0.1	11.563	B
C-D	52	13			52				
C-A	494	124			494				
C-B	6	1			6				
CD-AB	19	5	838	0.023	19	0.0	0.0	4.391	A
CD-A	487	122			487				

18:30 - 18:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	44	11	377	0.117	44	0.1	0.1	10.825	B
A-B	33	8			33				
A-C	558	140			558				
A-D	28	7			28				
AB-CD	95	24	850	0.112	95	0.3	0.3	4.774	A
AB-C	508	127			508				
D-ABC	28	7	339	0.081	28	0.1	0.1	11.573	B
C-D	52	13			52				
C-A	494	124			494				
C-B	6	1			6				
CD-AB	19	5	838	0.023	19	0.0	0.0	4.395	A
CD-A	487	122			487				

18:45 - 19:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	36	9	416	0.086	36	0.1	0.1	9.469	A
A-B	27	7			27				
A-C	456	114			456				
A-D	22	6			22				
AB-CD	63	16	784	0.080	63	0.3	0.2	4.962	A
AB-C	430	107			430				
D-ABC	22	6	378	0.060	23	0.1	0.1	10.142	B
C-D	42	11			42				
C-A	404	101			404				
C-B	4	1			4				
CD-AB	13	3	791	0.016	13	0.0	0.0	4.627	A
CD-A	401	100			401				

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	30	8	445	0.068	30	0.1	0.1	8.687	A
A-B	23	6			23				
A-C	382	95			382				
A-D	19	5			19				
AB-CD	45	11	737	0.062	45	0.2	0.1	5.175	A
AB-C	367	92			367				
D-ABC	19	5	406	0.046	19	0.1	0.0	9.310	A
C-D	35	9			35				
C-A	338	85			338				
C-B	4	0.94			4				

CD-AB	10	2	759	0.013	10	0.0	0.0	4.807	A
CD-A	337	84			337				

2034 with Adjusted Growth and Committed Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	0.76	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2034 with Adjusted Growth and Committed Flows	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	556	100.000
B		ONE HOUR	✓	16	100.000
C		ONE HOUR	✓	610	100.000
D		ONE HOUR	✓	71	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	31	488	37
	B	8	0	2	6
	C	533	4	0	73
	D	21	7	43	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
A	A	0	0	4	0

From	B	0	0	0	0
	C	4	0	0	0
	D	0	0	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-ACD	0.05	9.99	0.0	A	15	22
A-B					28	43
A-C					448	672
A-D					34	51
AB-CD	0.15	5.12	0.4	A	93	139
AB-C					396	595
D-ABC	0.24	14.40	0.3	B	65	98
C-D					67	100
C-A					489	734
C-B					4	6
CD-AB	0.04	4.55	0.1	A	26	39
CD-A					493	739

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	12	3	451	0.027	12	0.0	0.0	8.188	A
A-B	23	6			23				
A-C	367	92			367				
A-D	28	7			28				
AB-CD	62	16	768	0.081	62	0.0	0.2	5.098	A
AB-C	339	85			339				
D-ABC	53	13	403	0.133	53	0.0	0.2	10.261	B
C-D	55	14			55				
C-A	401	100			401				
C-B	3	0.75			3				
CD-AB	17	4	809	0.021	17	0.0	0.0	4.544	A
CD-A	408	102			408				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	14	4	421	0.034	14	0.0	0.0	8.850	A
A-B	28	7			28				
A-C	439	110			439				
A-D	33	8			33				
AB-CD	86	21	803	0.107	86	0.2	0.2	5.018	A
AB-C	393	98			393				
D-ABC	64	16	372	0.172	64	0.2	0.2	11.663	B
C-D	66	16			66				
C-A	479	120			479				
C-B	4	0.90			4				
CD-AB	24	6	852	0.028	24	0.0	0.0	4.339	A
CD-A	484	121			484				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	18	4	378	0.047	18	0.0	0.0	9.985	A
A-B	34	9			34				
A-C	537	134			537				
A-D	41	10			41				
AB-CD	129	32	854	0.151	128	0.2	0.4	4.961	A
AB-C	458	114			458				
D-ABC	78	20	328	0.238	78	0.2	0.3	14.343	B
C-D	80	20			80				
C-A	587	147			587				
C-B	4	1			4				
CD-AB	36	9	915	0.040	36	0.0	0.1	4.090	A
CD-A	586	146			586				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	18	4	378	0.047	18	0.0	0.0	9.988	A
A-B	34	9			34				
A-C	537	134			537				
A-D	41	10			41				
AB-CD	130	32	855	0.152	129	0.4	0.4	4.978	A
AB-C	457	114			457				
D-ABC	78	20	328	0.238	78	0.3	0.3	14.396	B
C-D	80	20			80				
C-A	587	147			587				
C-B	4	1			4				
CD-AB	36	9	915	0.040	36	0.1	0.1	4.096	A
CD-A	586	146			586				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	14	4	421	0.034	14	0.0	0.0	8.855	A
A-B	28	7			28				
A-C	439	110			439				
A-D	33	8			33				
AB-CD	86	22	803	0.108	87	0.4	0.2	5.049	A
AB-C	393	98			393				
D-ABC	64	16	372	0.172	64	0.3	0.2	11.718	B
C-D	66	16			66				
C-A	479	120			479				
C-B	4	0.90			4				
CD-AB	24	6	853	0.028	24	0.1	0.0	4.353	A
CD-A	484	121			484				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	12	3	451	0.027	12	0.0	0.0	8.194	A
A-B	23	6			23				
A-C	367	92			367				
A-D	28	7			28				
AB-CD	63	16	768	0.082	63	0.2	0.2	5.123	A
AB-C	339	85			339				
D-ABC	53	13	403	0.133	54	0.2	0.2	10.314	B
C-D	55	14			55				
C-A	401	100			401				
C-B	3	0.75			3				

CD-AB	17	4	809	0.021	17	0.0	0.0	4.554	A
CD-A	408	102			408				

2034 with Adjusted Growth and Committed Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	0.57	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2034 with Adjusted Growth and Committed Flows	PM	ONE HOUR	17:45	19:15	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	580	100.000
B		ONE HOUR	✓	41	100.000
C		ONE HOUR	✓	518	100.000
D		ONE HOUR	✓	25	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	31	523	26
	B	25	0	13	3
	C	463	6	0	49
	D	4	2	19	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
A	A	0	0	1	22

From	B	0	0	0	0
	C	1	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-ACD	0.12	11.16	0.1	B	38	56
A-B					28	43
A-C					480	720
A-D					24	36
AB-CD	0.12	5.18	0.3	A	72	109
AB-C					446	669
D-ABC	0.08	11.84	0.1	B	23	34
C-D					45	67
C-A					425	637
C-B					6	8
CD-AB	0.03	4.79	0.0	A	16	24
CD-A					420	629

Main Results for each time segment

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	31	8	438	0.070	31	0.0	0.1	8.821	A
A-B	23	6			23				
A-C	394	98			394				
A-D	20	5			20				
AB-CD	48	12	743	0.064	47	0.0	0.1	5.177	A
AB-C	378	94			378				
D-ABC	19	5	401	0.047	19	0.0	0.0	9.406	A
C-D	37	9			37				
C-A	349	87			349				
C-B	5	1			5				
CD-AB	11	3	764	0.015	11	0.0	0.0	4.782	A
CD-A	346	87			346				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	37	9	409	0.090	37	0.1	0.1	9.670	A
A-B	28	7			28				
A-C	470	118			470				
A-D	23	6			23				
AB-CD	67	17	792	0.085	67	0.1	0.2	4.994	A
AB-C	441	110			441				
D-ABC	22	6	372	0.060	22	0.0	0.1	10.293	B
C-D	44	11			44				
C-A	416	104			416				
C-B	5	1			5				
CD-AB	15	4	798	0.019	15	0.0	0.0	4.600	A
CD-A	412	103			412				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	45	11	368	0.123	45	0.1	0.1	11.151	B
A-B	34	9			34				
A-C	576	144			576				
A-D	29	7			29				
AB-CD	102	26	861	0.119	102	0.2	0.3	4.774	A
AB-C	520	130			520				
D-ABC	28	7	332	0.083	27	0.1	0.1	11.829	B
C-D	54	13			54				
C-A	510	127			510				
C-B	7	2			7				
CD-AB	22	6	846	0.027	22	0.0	0.0	4.367	A
CD-A	500	125			500				

18:30 - 18:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	45	11	368	0.123	45	0.1	0.1	11.163	B
A-B	34	9			34				
A-C	576	144			576				
A-D	29	7			29				
AB-CD	102	26	861	0.119	102	0.3	0.3	4.751	A
AB-C	520	130			520				
D-ABC	28	7	332	0.083	28	0.1	0.1	11.840	B
C-D	54	13			54				
C-A	510	127			510				
C-B	7	2			7				
CD-AB	22	6	847	0.027	22	0.0	0.0	4.370	A
CD-A	500	125			500				

18:45 - 19:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	37	9	409	0.090	37	0.1	0.1	9.683	A
A-B	28	7			28				
A-C	470	118			470				
A-D	23	6			23				
AB-CD	67	17	793	0.085	68	0.3	0.2	4.932	A
AB-C	441	110			441				
D-ABC	22	6	372	0.060	23	0.1	0.1	10.307	B
C-D	44	11			44				
C-A	416	104			416				
C-B	5	1			5				
CD-AB	15	4	798	0.019	15	0.0	0.0	4.604	A
CD-A	412	103			412				

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	31	8	438	0.070	31	0.1	0.1	8.840	A
A-B	23	6			23				
A-C	394	98			394				
A-D	20	5			20				
AB-CD	48	12	744	0.065	48	0.2	0.1	5.144	A
AB-C	377	94			377				
D-ABC	19	5	401	0.047	19	0.1	0.0	9.424	A
C-D	37	9			37				
C-A	349	87			349				
C-B	5	1			5				

CD-AB	11	3	764	0.015	11	0.0	0.0	4.786	A
CD-A	346	87			346				

<h1>Junctions 9</h1>
<h2>PICADY 9 - Priority Intersection Module</h2>
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Filename: Wicken Road_London Road - 26.07.19.j9

Path: M:\Project\6300 to 6399\6342 - Newport Neighbourhood Plan, Essex\Junction Modelling\Junction 2

Report generation date: 26/07/2019 15:54:34

»2019 Base, AM

»2019 Base, PM

»2024 with Adjusted Growth and Committed Flows, AM

»2024 with Adjusted Growth and Committed Flows, PM

»2029 with Adjusted Growth and Committed Flows, AM

»2029 with Adjusted Growth and Committed Flows, PM

»2034 with Adjusted Growth and Committed Flows, AM

»2034 with Adjusted Growth and Committed Flows, PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2019 Base						
Stream B-AC	1.7	27.38	0.64	0.6	15.72	0.37
Stream C-AB	1.2	7.71	0.39	1.7	8.45	0.50
2024 with Adjusted Growth and Committed Flows						
Stream B-AC	3.3	47.90	0.78	0.8	20.43	0.46
Stream C-AB	1.5	8.16	0.44	2.3	9.32	0.56
2029 with Adjusted Growth and Committed Flows						
Stream B-AC	4.3	62.06	0.84	0.9	22.16	0.49
Stream C-AB	1.7	8.52	0.47	2.7	10.16	0.60
2034 with Adjusted Growth and Committed Flows						
Stream B-AC	5.7	79.94	0.89	1.1	24.36	0.53
Stream C-AB	1.9	8.94	0.50	3.1	11.13	0.64

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	Wicken Road/ London Road
Location	Newport Essex
Site number	
Date	09/07/2019
Version	
Status	[no status]
Identifier	
Client	
Jobnumber	
Enumerator	SM\rpwd
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	2019 Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2024 with Adjusted Growth and Committed Flows	AM	ONE HOUR	07:45	09:15	15	✓
D4	2024 with Adjusted Growth and Committed Flows	PM	ONE HOUR	16:45	18:15	15	✓
D5	2029 with Adjusted Growth and Committed Flows	AM	ONE HOUR	07:45	09:15	15	✓
D6	2029 with Adjusted Growth and Committed Flows	PM	ONE HOUR	16:45	18:15	15	✓
D7	2034 with Adjusted Growth and Committed Flows	AM	ONE HOUR	07:45	09:15	15	✓
D8	2034 with Adjusted Growth and Committed Flows	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

2019 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	5.76	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	B1383, London Road (s)		Major
B	Wicken Road		Minor
C	London Road (n)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.45			70.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.76	12	14

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	526	0.090	0.227	0.143	0.324
1	B-C	681	0.098	0.247	-	-
1	C-B	615	0.223	0.223	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Base	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	595	100.000
B		ONE HOUR	✓	212	100.000
C		ONE HOUR	✓	531	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	100	495
	B	87	0	125
	C	424	107	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	11	3
	B	5	0	6
	C	4	11	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.64	27.38	1.7	D	195	292
C-AB	0.39	7.71	1.2	A	218	328
C-A					269	403
A-B					92	138
A-C					454	681

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	160	40	436	0.366	157	0.0	0.6	12.843	B
C-AB	149	37	694	0.215	147	0.0	0.4	6.579	A
C-A	251	63			251				
A-B	75	19			75				
A-C	373	93			373				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS

B-AC	191	48	406	0.469	189	0.6	0.9	16.530	C
C-AB	204	51	726	0.281	203	0.4	0.7	6.915	A
C-A	274	68			274				
A-B	90	22			90				
A-C	445	111			445				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	233	58	364	0.641	230	0.9	1.7	26.225	D
C-AB	301	75	772	0.390	299	0.7	1.1	7.669	A
C-A	284	71			284				
A-B	110	28			110				
A-C	545	136			545				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	233	58	364	0.641	233	1.7	1.7	27.379	D
C-AB	302	75	773	0.391	302	1.1	1.2	7.706	A
C-A	283	71			283				
A-B	110	28			110				
A-C	545	136			545				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	191	48	406	0.470	194	1.7	0.9	17.229	C
C-AB	205	51	728	0.282	207	1.2	0.7	6.939	A
C-A	272	68			272				
A-B	90	22			90				
A-C	445	111			445				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	160	40	435	0.367	161	0.9	0.6	13.193	B
C-AB	150	38	695	0.216	151	0.7	0.5	6.622	A
C-A	249	62			249				
A-B	75	19			75				
A-C	373	93			373				

2019 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	4.10	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2019 Base	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	438	100.000
B		ONE HOUR	✓	120	100.000
C		ONE HOUR	✓	628	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	58	380
	B	63	0	57
	C	470	158	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	1
	B	6	0	2
	C	1	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.37	15.72	0.6	C	110	165
C-AB	0.50	8.45	1.7	A	318	478
C-A					258	387
A-B					53	80
A-C					349	523

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	90	23	430	0.210	89	0.0	0.3	10.525	B
C-AB	219	55	774	0.283	217	0.0	0.6	6.451	A
C-A	254	63			254				
A-B	44	11			44				
A-C	286	72			286				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	108	27	402	0.268	107	0.3	0.4	12.211	B
C-AB	298	74	813	0.366	297	0.6	0.9	7.004	A
C-A	267	67			267				
A-B	52	13			52				
A-C	342	85			342				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	132	33	362	0.365	131	0.4	0.6	15.582	C
C-AB	435	109	867	0.502	432	0.9	1.7	8.337	A
C-A	256	64			256				
A-B	64	16			64				
A-C	418	105			418				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	132	33	361	0.366	132	0.6	0.6	15.721	C
C-AB	437	109	869	0.503	437	1.7	1.7	8.447	A
C-A	254	64			254				
A-B	64	16			64				
A-C	418	105			418				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	108	27	401	0.269	109	0.6	0.4	12.340	B
C-AB	300	75	815	0.368	303	1.7	1.0	7.103	A
C-A	265	66			265				
A-B	52	13			52				
A-C	342	85			342				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	90	23	430	0.210	91	0.4	0.3	10.636	B
C-AB	221	55	776	0.285	222	1.0	0.6	6.538	A
C-A	252	63			252				
A-B	44	11			44				
A-C	286	72			286				

2024 with Adjusted Growth and Committed Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	9.28	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024 with Adjusted Growth and Committed Flows	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	660	100.000
B		ONE HOUR	✓	237	100.000
C		ONE HOUR	✓	577	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	116	544
	B	106	0	131
	C	465	112	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	11	3
	B	5	0	6
	C	4	11	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.78	47.90	3.3	E	217	326
C-AB	0.44	8.16	1.5	A	250	375
C-A					279	419
A-B					106	160
A-C					499	749

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	178	45	414	0.431	175	0.0	0.7	14.951	B
C-AB	167	42	709	0.235	165	0.0	0.5	6.614	A
C-A	268	67			268				
A-B	87	22			87				
A-C	410	102			410				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	213	53	380	0.560	211	0.7	1.2	21.019	C
C-AB	231	58	744	0.311	230	0.5	0.8	7.046	A
C-A	287	72			287				
A-B	104	26			104				
A-C	489	122			489				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	261	65	333	0.783	254	1.2	3.0	42.067	E
C-AB	350	87	796	0.439	347	0.8	1.5	8.097	A
C-A	286	71			286				
A-B	128	32			128				
A-C	599	150			599				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	261	65	333	0.784	260	3.0	3.3	47.899	E
C-AB	351	88	797	0.440	351	1.5	1.5	8.162	A
C-A	284	71			284				
A-B	128	32			128				
A-C	599	150			599				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	213	53	380	0.561	221	3.3	1.3	23.582	C

C-AB	233	58	747	0.312	236	1.5	0.8	7.091	A
C-A	286	71			286				
A-B	104	26			104				
A-C	489	122			489				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	178	45	413	0.432	181	1.3	0.8	15.641	C
C-AB	168	42	710	0.237	169	0.8	0.5	6.669	A
C-A	266	67			266				
A-B	87	22			87				
A-C	410	102			410				

2024 with Adjusted Growth and Committed Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	4.99	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024 with Adjusted Growth and Committed Flows	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	496	100.000
B		ONE HOUR	✓	138	100.000
C		ONE HOUR	✓	682	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	76	420
	B	79	0	59
	C	518	164	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	1
	B	6	0	2
	C	1	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.46	20.43	0.8	C	127	190
C-AB	0.56	9.32	2.3	A	362	543
C-A					264	396
A-B					70	105
A-C					385	578

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	104	26	406	0.256	103	0.0	0.3	11.810	B
C-AB	243	61	792	0.307	240	0.0	0.7	6.518	A
C-A	270	68			270				
A-B	57	14			57				
A-C	316	79			316				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	124	31	374	0.332	123	0.3	0.5	14.331	B
C-AB	336	84	835	0.402	334	0.7	1.1	7.222	A
C-A	277	69			277				
A-B	68	17			68				
A-C	378	94			378				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	152	38	329	0.462	151	0.5	0.8	20.056	C
C-AB	502	126	896	0.560	498	1.1	2.2	9.123	A
C-A	249	62			249				
A-B	84	21			84				
A-C	462	116			462				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	152	38	328	0.463	152	0.8	0.8	20.428	C
C-AB	505	126	899	0.562	505	2.2	2.3	9.320	A
C-A	246	61			246				
A-B	84	21			84				
A-C	462	116			462				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	124	31	373	0.333	125	0.8	0.5	14.614	B

C-AB	339	85	838	0.404	343	2.3	1.2	7.378	A
C-A	274	69			274				
A-B	68	17			68				
A-C	378	94			378				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	104	26	405	0.256	105	0.5	0.4	11.997	B
C-AB	245	61	794	0.309	247	1.2	0.7	6.625	A
C-A	268	67			268				
A-B	57	14			57				
A-C	316	79			316				

2029 with Adjusted Growth and Committed Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	11.71	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2029 with Adjusted Growth and Committed Flows	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	684	100.000
B		ONE HOUR	✓	246	100.000
C		ONE HOUR	✓	597	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	120	564
	B	110	0	136
	C	481	116	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	11	3
	B	5	0	6
	C	4	11	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.84	62.06	4.3	F	226	339
C-AB	0.47	8.52	1.7	A	268	402
C-A					280	419
A-B					110	165
A-C					518	776

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	185	46	408	0.454	182	0.0	0.8	15.746	C
C-AB	177	44	714	0.248	175	0.0	0.6	6.667	A
C-A	272	68			272				
A-B	90	23			90				
A-C	425	106			425				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	221	55	373	0.593	219	0.8	1.4	22.999	C
C-AB	247	62	752	0.329	246	0.6	0.9	7.166	A
C-A	289	72			289				
A-B	108	27			108				
A-C	507	127			507				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	271	68	323	0.837	261	1.4	3.8	51.142	F
C-AB	377	94	806	0.468	374	0.9	1.6	8.434	A
C-A	280	70			280				
A-B	132	33			132				
A-C	621	155			621				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	271	68	323	0.839	269	3.8	4.3	62.059	F
C-AB	379	95	808	0.470	379	1.6	1.7	8.524	A
C-A	278	70			278				
A-B	132	33			132				
A-C	621	155			621				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	221	55	372	0.594	232	4.3	1.6	27.422	D

C-AB	249	62	755	0.331	253	1.7	0.9	7.228	A
C-A	287	72			287				
A-B	108	27			108				
A-C	507	127			507				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	185	46	407	0.455	188	1.6	0.9	16.639	C
C-AB	179	45	716	0.250	180	0.9	0.6	6.730	A
C-A	271	68			271				
A-B	90	23			90				
A-C	425	106			425				

2029 with Adjusted Growth and Committed Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	5.56	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2029 with Adjusted Growth and Committed Flows	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	513	100.000
B		ONE HOUR	✓	143	100.000
C		ONE HOUR	✓	708	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	78	435
	B	81	0	62
	C	537	171	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	1
	B	6	0	2
	C	1	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.49	22.16	0.9	C	131	197
C-AB	0.60	10.16	2.7	B	391	586
C-A					259	388
A-B					72	107
A-C					399	599

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	108	27	401	0.268	106	0.0	0.4	12.138	B
C-AB	260	65	800	0.325	257	0.0	0.8	6.624	A
C-A	273	68			273				
A-B	59	15			59				
A-C	327	82			327				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	129	32	368	0.349	128	0.4	0.5	14.947	B
C-AB	361	90	845	0.428	360	0.8	1.3	7.454	A
C-A	275	69			275				
A-B	70	18			70				
A-C	391	98			391				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	157	39	321	0.491	156	0.5	0.9	21.643	C
C-AB	546	136	909	0.600	540	1.3	2.6	9.865	A
C-A	234	58			234				
A-B	86	21			86				
A-C	479	120			479				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	157	39	320	0.493	157	0.9	0.9	22.156	C
C-AB	550	137	912	0.602	549	2.6	2.7	10.159	B
C-A	230	58			230				
A-B	86	21			86				
A-C	479	120			479				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	129	32	367	0.351	130	0.9	0.6	15.313	C

C-AB	365	91	849	0.430	371	2.7	1.3	7.666	A
C-A	271	68			271				
A-B	70	18			70				
A-C	391	98			391				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	108	27	400	0.269	108	0.6	0.4	12.354	B
C-AB	263	66	802	0.328	265	1.3	0.8	6.748	A
C-A	270	68			270				
A-B	59	15			59				
A-C	327	82			327				

2034 with Adjusted Growth and Committed Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	14.72	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2034 with Adjusted Growth and Committed Flows	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	705	100.000
B		ONE HOUR	✓	253	100.000
C		ONE HOUR	✓	616	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	124	581
	B	113	0	140
	C	496	120	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	11	3
	B	5	0	6
	C	4	11	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.89	79.94	5.7	F	232	348
C-AB	0.50	8.94	1.9	A	287	430
C-A					278	418
A-B					114	171
A-C					533	800

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	190	48	402	0.473	187	0.0	0.9	16.472	C
C-AB	188	47	720	0.260	185	0.0	0.6	6.723	A
C-A	276	69			276				
A-B	93	23			93				
A-C	437	109			437				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	227	57	366	0.621	225	0.9	1.5	24.931	C
C-AB	264	66	759	0.347	262	0.6	0.9	7.293	A
C-A	290	73			290				
A-B	111	28			111				
A-C	522	131			522				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	279	70	315	0.885	265	1.5	4.8	61.183	F
C-AB	406	101	815	0.497	402	0.9	1.9	8.815	A
C-A	273	68			273				
A-B	137	34			137				
A-C	640	160			640				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	279	70	314	0.887	275	4.8	5.7	79.936	F
C-AB	408	102	818	0.499	408	1.9	1.9	8.939	A
C-A	270	68			270				
A-B	137	34			137				
A-C	640	160			640				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	227	57	366	0.622	243	5.7	1.8	32.447	D

C-AB	266	67	762	0.349	270	1.9	1.0	7.378	A
C-A	288	72			288				
A-B	111	28			111				
A-C	522	131			522				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	190	48	402	0.474	194	1.8	0.9	17.589	C
C-AB	190	47	722	0.262	191	1.0	0.6	6.797	A
C-A	274	69			274				
A-B	93	23			93				
A-C	437	109			437				

2034 with Adjusted Growth and Committed Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	6.22	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2034 with Adjusted Growth and Committed Flows	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	530	100.000
B		ONE HOUR	✓	148	100.000
C		ONE HOUR	✓	731	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	81	449
	B	84	0	64
	C	554	177	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	1
	B	6	0	2
	C	1	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.53	24.36	1.1	C	136	204
C-AB	0.64	11.13	3.1	B	418	627
C-A					253	379
A-B					74	111
A-C					412	618

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	111	28	396	0.282	110	0.0	0.4	12.530	B
C-AB	276	69	807	0.342	272	0.0	0.8	6.726	A
C-A	275	69			275				
A-B	61	15			61				
A-C	338	85			338				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	133	33	361	0.369	132	0.4	0.6	15.689	C
C-AB	385	96	854	0.451	383	0.8	1.4	7.692	A
C-A	272	68			272				
A-B	73	18			73				
A-C	404	101			404				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	163	41	311	0.523	161	0.6	1.0	23.934	C
C-AB	586	147	921	0.637	580	1.4	3.0	10.698	B
C-A	219	55			219				
A-B	89	22			89				
A-C	494	124			494				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	163	41	310	0.525	163	1.0	1.1	24.358	C
C-AB	591	148	924	0.640	591	3.0	3.1	11.133	B
C-A	214	53			214				
A-B	89	22			89				
A-C	494	124			494				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	133	33	359	0.370	135	1.1	0.6	16.164	C

C-AB	390	97	859	0.454	397	3.1	1.5	7.973	A
C-A	267	67			267				
A-B	73	18			73				
A-C	404	101			404				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	111	28	395	0.282	112	0.6	0.4	12.783	B
C-AB	279	70	810	0.344	281	1.5	0.9	6.873	A
C-A	272	68			272				
A-B	61	15			61				
A-C	338	85			338				

<h1>Junctions 9</h1>
<h2>PICADY 9 - Priority Intersection Module</h2>
Version: 9.0.1.4646 [] © Copyright TRL Limited, 2019
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Filename: Church St_London Road - 26.07.19.j9

Path: M:\Project\6300 to 6399\6342 - Newport Neighbourhood Plan, Essex\Junction Modelling\Junction 3

Report generation date: 26/07/2019 15:57:01

»2019 Base, AM

»2019 Base, PM

»2024 with Adjusted Growth and Committed Flows, AM

»2024 with Adjusted Growth and Committed Flows, PM

»2029 with Adjusted Growth and Committed Flows, AM

»2029 with Adjusted Growth and Committed Flows, PM

»2034 with Adjusted Growth and Committed Flows, AM

»2034 with Adjusted Growth and Committed Flows, PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2019 Base						
Stream B-AC	0.1	8.59	0.05	0.0	0.00	0.00
Stream C-AB	0.0	4.68	0.01	0.0	4.20	0.03
2024 with Adjusted Growth and Committed Flows						
Stream B-AC	0.1	8.98	0.06	0.0	0.00	0.00
Stream C-AB	0.0	4.59	0.01	0.0	4.10	0.03
2029 with Adjusted Growth and Committed Flows						
Stream B-AC	0.1	9.17	0.06	0.0	0.00	0.00
Stream C-AB	0.0	4.55	0.01	0.1	4.06	0.04
2034 with Adjusted Growth and Committed Flows						
Stream B-AC	0.1	9.36	0.06	0.0	0.00	0.00
Stream C-AB	0.0	4.51	0.01	0.1	4.01	0.04

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	Church Street/ London Road
Location	Essex Newport
Site number	
Date	09/07/2019
Version	
Status	[no status]
Identifier	
Client	
Jobnumber	
Enumerator	SM\rpwd
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	2019 Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2024 with Adjusted Growth and Committed Flows	AM	ONE HOUR	07:45	09:15	15	✓
D4	2024 with Adjusted Growth and Committed Flows	PM	ONE HOUR	16:45	18:15	15	✓
D5	2029 with Adjusted Growth and Committed Flows	AM	ONE HOUR	07:45	09:15	15	✓
D6	2029 with Adjusted Growth and Committed Flows	PM	ONE HOUR	16:45	18:15	15	✓
D7	2034 with Adjusted Growth and Committed Flows	AM	ONE HOUR	07:45	09:15	15	✓
D8	2034 with Adjusted Growth and Committed Flows	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

2019 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Church Street/ London Road	T-Junction	Two-way	0.17	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	London Road (s)		Major
B	Church Street		Minor
C	London Road (n)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.50			70.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.42	14	18

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	512	0.091	0.230	0.145	0.329
1	B-C	662	0.099	0.251	-	-
1	C-B	615	0.233	0.233	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Base	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	653	100.000
B		ONE HOUR	✓	22	100.000
C		ONE HOUR	✓	518	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	2	651
	B	2	0	20
	C	516	2	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	2
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.05	8.59	0.1	A	20	30
C-AB	0.01	4.68	0.0	A	5	7
C-A					471	706
A-B					2	3
A-C					597	896

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	17	4	509	0.033	16	0.0	0.0	7.307	A
C-AB	3	0.76	773	0.004	3	0.0	0.0	4.672	A
C-A	387	97			387				
A-B	2	0.38			2				
A-C	490	123			490				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS

B-AC	20	5	482	0.041	20	0.0	0.0	7.792	A
C-AB	4	1	810	0.005	4	0.0	0.0	4.458	A
C-A	461	115			461				
A-B	2	0.45			2				
A-C	585	146			585				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	24	6	443	0.055	24	0.0	0.1	8.588	A
C-AB	6	2	865	0.007	6	0.0	0.0	4.187	A
C-A	564	141			564				
A-B	2	0.55			2				
A-C	717	179			717				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	24	6	443	0.055	24	0.1	0.1	8.590	A
C-AB	6	2	865	0.007	6	0.0	0.0	4.195	A
C-A	564	141			564				
A-B	2	0.55			2				
A-C	717	179			717				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	20	5	482	0.041	20	0.1	0.0	7.794	A
C-AB	4	1	810	0.005	4	0.0	0.0	4.476	A
C-A	461	115			461				
A-B	2	0.45			2				
A-C	585	146			585				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	17	4	509	0.033	17	0.0	0.0	7.311	A
C-AB	3	0.76	773	0.004	3	0.0	0.0	4.684	A
C-A	387	97			387				
A-B	2	0.38			2				
A-C	490	123			490				

2019 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Church Street/ London Road	T-Junction	Two-way	0.09	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2019 Base	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	433	100.000
B		ONE HOUR	✓	4	100.000
C		ONE HOUR	✓	640	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	2	431
	B	1	0	3
	C	632	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.03	4.20	0.0	A	20	30
C-A					567	850
A-B					2	3
A-C					395	593

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	447	0.000	0	0.0	0.0	0.000	A
C-AB	13	3	870	0.015	13	0.0	0.0	4.201	A
C-A	469	117			469				
A-B	2	0.38			2				
A-C	324	81			324				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	421	0.000	0	0.0	0.0	0.000	A
C-AB	19	5	924	0.020	19	0.0	0.0	3.973	A
C-A	557	139			557				
A-B	2	0.45			2				
A-C	387	97			387				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	383	0.000	0	0.0	0.0	0.000	A
C-AB	29	7	1002	0.029	29	0.0	0.0	3.697	A
C-A	676	169			676				
A-B	2	0.55			2				
A-C	475	119			475				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	383	0.000	0	0.0	0.0	0.000	A
C-AB	29	7	1002	0.029	29	0.0	0.0	3.701	A
C-A	676	169			676				
A-B	2	0.55			2				
A-C	475	119			475				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	421	0.000	0	0.0	0.0	0.000	A
C-AB	19	5	924	0.020	19	0.0	0.0	3.977	A
C-A	557	139			557				
A-B	2	0.45			2				
A-C	387	97			387				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	447	0.000	0	0.0	0.0	0.000	A
C-AB	13	3	870	0.015	13	0.0	0.0	4.203	A
C-A	468	117			468				
A-B	2	0.38			2				
A-C	324	81			324				

2024 with Adjusted Growth and Committed Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Church Street/ London Road	T-Junction	Two-way	0.17	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024 with Adjusted Growth and Committed Flows	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	710	100.000
B		ONE HOUR	✓	23	100.000
C		ONE HOUR	✓	563	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	2	708
	B	2	0	21
	C	561	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.06	8.98	0.1	A	21	32
C-AB	0.01	4.59	0.0	A	5	8
C-A					512	767
A-B					2	3
A-C					650	975

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	17	4	498	0.035	17	0.0	0.0	7.486	A
C-AB	3	0.81	790	0.004	3	0.0	0.0	4.576	A
C-A	421	105			421				
A-B	2	0.38			2				
A-C	533	133			533				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	21	5	468	0.044	21	0.0	0.0	8.043	A
C-AB	5	1	831	0.006	5	0.0	0.0	4.349	A
C-A	502	125			502				
A-B	2	0.45			2				
A-C	636	159			636				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	25	6	426	0.059	25	0.0	0.1	8.983	A
C-AB	7	2	892	0.008	7	0.0	0.0	4.061	A
C-A	613	153			613				
A-B	2	0.55			2				
A-C	780	195			780				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	25	6	426	0.059	25	0.1	0.1	8.985	A
C-AB	7	2	892	0.008	7	0.0	0.0	4.070	A
C-A	613	153			613				
A-B	2	0.55			2				
A-C	780	195			780				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	21	5	468	0.044	21	0.1	0.0	8.047	A

C-AB	5	1	831	0.006	5	0.0	0.0	4.367	A
C-A	502	125			502				
A-B	2	0.45			2				
A-C	636	159			636				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	17	4	498	0.035	17	0.0	0.0	7.490	A
C-AB	3	0.81	790	0.004	3	0.0	0.0	4.588	A
C-A	421	105			421				
A-B	2	0.38			2				
A-C	533	133			533				

2024 with Adjusted Growth and Committed Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Church Street/ London Road	T-Junction	Two-way	0.09	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024 with Adjusted Growth and Committed Flows	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	475	100.000
B		ONE HOUR	✓	4	100.000
C		ONE HOUR	✓	694	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	2	473
	B	1	0	3
	C	686	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.03	4.10	0.0	A	22	34
C-A					614	922
A-B					2	3
A-C					434	651

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	435	0.000	0	0.0	0.0	0.000	A
C-AB	14	4	893	0.016	14	0.0	0.0	4.095	A
C-A	508	127			508				
A-B	2	0.38			2				
A-C	356	89			356				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	406	0.000	0	0.0	0.0	0.000	A
C-AB	20	5	953	0.021	20	0.0	0.0	3.859	A
C-A	603	151			603				
A-B	2	0.45			2				
A-C	425	106			425				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	364	0.000	0	0.0	0.0	0.000	A
C-AB	32	8	1039	0.031	32	0.0	0.0	3.576	A
C-A	732	183			732				
A-B	2	0.55			2				
A-C	521	130			521				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	364	0.000	0	0.0	0.0	0.000	A
C-AB	32	8	1039	0.031	32	0.0	0.0	3.577	A
C-A	732	183			732				
A-B	2	0.55			2				
A-C	521	130			521				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	406	0.000	0	0.0	0.0	0.000	A

C-AB	20	5	953	0.021	21	0.0	0.0	3.862	A
C-A	603	151			603				
A-B	2	0.45			2				
A-C	425	106			425				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	435	0.000	0	0.0	0.0	0.000	A
C-AB	14	4	893	0.016	14	0.0	0.0	4.098	A
C-A	508	127			508				
A-B	2	0.38			2				
A-C	356	89			356				

2029 with Adjusted Growth and Committed Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Church Street/ London Road	T-Junction	Two-way	0.18	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2029 with Adjusted Growth and Committed Flows	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	736	100.000
B		ONE HOUR	✓	24	100.000
C		ONE HOUR	✓	583	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	2	734
	B	2	0	22
	C	581	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.06	9.17	0.1	A	22	33
C-AB	0.01	4.55	0.0	A	5	8
C-A					530	795
A-B					2	3
A-C					674	1010

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	18	5	493	0.037	18	0.0	0.0	7.568	A
C-AB	3	0.83	797	0.004	3	0.0	0.0	4.535	A
C-A	436	109			436				
A-B	2	0.38			2				
A-C	553	138			553				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	22	5	463	0.047	22	0.0	0.0	8.159	A
C-AB	5	1	840	0.006	5	0.0	0.0	4.302	A
C-A	519	130			519				
A-B	2	0.45			2				
A-C	660	165			660				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	26	7	419	0.063	26	0.0	0.1	9.174	A
C-AB	8	2	904	0.008	8	0.0	0.0	4.008	A
C-A	634	159			634				
A-B	2	0.55			2				
A-C	808	202			808				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	26	7	419	0.063	26	0.1	0.1	9.175	A
C-AB	8	2	904	0.008	8	0.0	0.0	4.014	A
C-A	634	159			634				
A-B	2	0.55			2				
A-C	808	202			808				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	22	5	463	0.047	22	0.1	0.0	8.163	A

C-AB	5	1	840	0.006	5	0.0	0.0	4.319	A
C-A	519	130			519				
A-B	2	0.45			2				
A-C	660	165			660				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	18	5	493	0.037	18	0.0	0.0	7.572	A
C-AB	3	0.84	797	0.004	3	0.0	0.0	4.546	A
C-A	436	109			436				
A-B	2	0.38			2				
A-C	553	138			553				

2029 with Adjusted Growth and Committed Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Church Street/ London Road	T-Junction	Two-way	0.10	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2029 with Adjusted Growth and Committed Flows	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	493	100.000
B		ONE HOUR	✓	4	100.000
C		ONE HOUR	✓	721	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	2	491
	B	1	0	3
	C	712	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.04	4.06	0.1	A	26	40
C-A					635	953
A-B					2	3
A-C					451	676

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	429	0.000	0	0.0	0.0	0.000	A
C-AB	17	4	905	0.018	17	0.0	0.0	4.053	A
C-A	526	132			526				
A-B	2	0.38			2				
A-C	370	92			370				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	398	0.000	0	0.0	0.0	0.000	A
C-AB	24	6	967	0.025	24	0.0	0.0	3.815	A
C-A	624	156			624				
A-B	2	0.45			2				
A-C	441	110			441				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	354	0.000	0	0.0	0.0	0.000	A
C-AB	39	10	1057	0.036	38	0.0	0.0	3.533	A
C-A	755	189			755				
A-B	2	0.55			2				
A-C	541	135			541				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	354	0.000	0	0.0	0.0	0.000	A
C-AB	39	10	1057	0.036	39	0.0	0.1	3.538	A
C-A	755	189			755				
A-B	2	0.55			2				
A-C	541	135			541				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	398	0.000	0	0.0	0.0	0.000	A

C-AB	24	6	967	0.025	24	0.1	0.0	3.818	A
C-A	624	156			624				
A-B	2	0.45			2				
A-C	441	110			441				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	429	0.000	0	0.0	0.0	0.000	A
C-AB	17	4	905	0.018	17	0.0	0.0	4.057	A
C-A	526	132			526				
A-B	2	0.38			2				
A-C	370	92			370				

2034 with Adjusted Growth and Committed Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Church Street/ London Road	T-Junction	Two-way	0.18	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2034 with Adjusted Growth and Committed Flows	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	759	100.000
B		ONE HOUR	✓	24	100.000
C		ONE HOUR	✓	602	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	2	757
	B	2	0	22
	C	600	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.06	9.36	0.1	A	22	33
C-AB	0.01	4.51	0.0	A	5	8
C-A					547	820
A-B					2	3
A-C					695	1042

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	18	5	489	0.037	18	0.0	0.0	7.647	A
C-AB	3	0.86	804	0.004	3	0.0	0.0	4.494	A
C-A	450	112			450				
A-B	2	0.38			2				
A-C	570	142			570				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	22	5	457	0.047	22	0.0	0.0	8.272	A
C-AB	5	1	849	0.006	5	0.0	0.0	4.256	A
C-A	536	134			536				
A-B	2	0.45			2				
A-C	681	170			681				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	26	7	411	0.064	26	0.0	0.1	9.355	A
C-AB	8	2	916	0.009	8	0.0	0.0	3.956	A
C-A	655	164			655				
A-B	2	0.55			2				
A-C	833	208			833				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	26	7	411	0.064	26	0.1	0.1	9.360	A
C-AB	8	2	916	0.009	8	0.0	0.0	3.964	A
C-A	655	164			655				
A-B	2	0.55			2				
A-C	833	208			833				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	22	5	457	0.047	22	0.1	0.1	8.278	A

C-AB	5	1	849	0.006	5	0.0	0.0	4.275	A
C-A	536	134			536				
A-B	2	0.45			2				
A-C	681	170			681				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	18	5	489	0.037	18	0.1	0.0	7.655	A
C-AB	3	0.86	804	0.004	3	0.0	0.0	4.506	A
C-A	450	112			450				
A-B	2	0.38			2				
A-C	570	142			570				

2034 with Adjusted Growth and Committed Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Church Street/ London Road	T-Junction	Two-way	0.10	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2034 with Adjusted Growth and Committed Flows	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	509	100.000
B		ONE HOUR	✓	4	100.000
C		ONE HOUR	✓	745	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	2	507
	B	1	0	3
	C	736	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.04	4.01	0.1	A	28	41
C-A					656	984
A-B					2	3
A-C					465	698

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	424	0.000	0	0.0	0.0	0.000	A
C-AB	17	4	915	0.019	17	0.0	0.0	4.007	A
C-A	544	136			544				
A-B	2	0.38			2				
A-C	382	95			382				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	392	0.000	0	0.0	0.0	0.000	A
C-AB	25	6	980	0.025	25	0.0	0.0	3.765	A
C-A	645	161			645				
A-B	2	0.45			2				
A-C	456	114			456				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	346	0.000	0	0.0	0.0	0.000	A
C-AB	41	10	1074	0.038	40	0.0	0.1	3.482	A
C-A	780	195			780				
A-B	2	0.55			2				
A-C	558	140			558				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	346	0.000	0	0.0	0.0	0.000	A
C-AB	41	10	1074	0.038	41	0.1	0.1	3.486	A
C-A	780	195			780				
A-B	2	0.55			2				
A-C	558	140			558				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	392	0.000	0	0.0	0.0	0.000	A

C-AB	25	6	980	0.026	25	0.1	0.0	3.769	A
C-A	645	161			645				
A-B	2	0.45			2				
A-C	456	114			456				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	424	0.000	0	0.0	0.0	0.000	A
C-AB	17	4	915	0.019	17	0.0	0.0	4.009	A
C-A	544	136			544				
A-B	2	0.38			2				
A-C	382	95			382				

<h1>Junctions 9</h1>
<h2>PICADY 9 - Priority Intersection Module</h2>
Version: 9.0.1.4646 [] © Copyright TRL Limited, 2019
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Filename: Bury Water Lane_London Road - 26.07.19.j9

Path: M:\Project\6300 to 6399\6342 - Newport Neighbourhood Plan, Essex\Junction Modelling\Junction 4

Report generation date: 26/07/2019 16:00:43

»2019 Base, AM

»2019 Base, PM

»2024 with Adjusted Growth and Committed Flows, AM

»2024 with Adjusted Growth and Committed Flows, PM

»2029 with Adjusted Growth and Committed Flows, AM

»2029 with Adjusted Growth and Committed Flows, PM

»2034 with Adjusted Growth and Committed Flows, AM

»2034 with Adjusted Growth and Committed Flows, PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2019 Base						
Stream B-AC	1.7	28.39	0.64	0.3	10.83	0.23
Stream C-AB	1.0	6.83	0.35	0.7	4.80	0.24
2024 with Adjusted Growth and Committed Flows						
Stream B-AC	4.9	67.81	0.86	0.5	13.28	0.33
Stream C-AB	1.5	7.84	0.44	1.3	5.68	0.37
2029 with Adjusted Growth and Committed Flows						
Stream B-AC	6.6	89.12	0.91	0.5	13.95	0.35
Stream C-AB	1.7	8.18	0.47	1.5	5.83	0.40
2034 with Adjusted Growth and Committed Flows						
Stream B-AC	9.5	122.38	0.97	0.6	14.61	0.37
Stream C-AB	2.0	8.58	0.50	1.6	5.97	0.42

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	Bury Water Lane/ London Road
Location	
Site number	
Date	09/07/2019
Version	
Status	[no status]
Identifier	
Client	
Jobnumber	
Enumerator	SM\rpwd
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	2019 Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2024 with Adjusted Growth and Committed Flows	AM	ONE HOUR	07:45	09:15	15	✓
D4	2024 with Adjusted Growth and Committed Flows	PM	ONE HOUR	16:45	18:15	15	✓
D5	2029 with Adjusted Growth and Committed Flows	AM	ONE HOUR	07:45	09:15	15	✓
D6	2029 with Adjusted Growth and Committed Flows	PM	ONE HOUR	16:45	18:15	15	✓
D7	2034 with Adjusted Growth and Committed Flows	AM	ONE HOUR	07:45	09:15	15	✓
D8	2034 with Adjusted Growth and Committed Flows	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

2019 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	5.35	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	London Road (s)		Major
B	Bury Water Lane		Minor
C	London Road (n)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.70			70.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.16	13	15

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	497	0.088	0.222	0.140	0.317
1	B-C	644	0.096	0.242	-	-
1	C-B	615	0.231	0.231	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Base	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	616	100.000
B		ONE HOUR	✓	200	100.000
C		ONE HOUR	✓	547	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	69	547
	B	67	0	133
	C	445	102	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	1	3
	B	6	0	5
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.64	28.39	1.7	D	184	275
C-AB	0.35	6.83	1.0	A	206	309
C-A					296	444
A-B					63	95
A-C					502	753

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	151	38	417	0.361	148	0.0	0.6	13.276	B
C-AB	140	35	741	0.189	139	0.0	0.4	5.975	A
C-A	272	68			272				
A-B	52	13			52				
A-C	412	103			412				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS

B-AC	180	45	388	0.463	179	0.6	0.8	17.076	C
C-AB	192	48	771	0.249	191	0.4	0.6	6.208	A
C-A	300	75			300				
A-B	62	16			62				
A-C	492	123			492				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	220	55	346	0.636	217	0.8	1.6	27.179	D
C-AB	284	71	815	0.349	282	0.6	1.0	6.771	A
C-A	318	80			318				
A-B	76	19			76				
A-C	602	151			602				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	220	55	346	0.636	220	1.6	1.7	28.389	D
C-AB	285	71	816	0.349	285	1.0	1.0	6.832	A
C-A	317	79			317				
A-B	76	19			76				
A-C	602	151			602				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	180	45	388	0.463	183	1.7	0.9	17.812	C
C-AB	193	48	772	0.250	194	1.0	0.6	6.291	A
C-A	299	75			299				
A-B	62	16			62				
A-C	492	123			492				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	151	38	417	0.361	152	0.9	0.6	13.634	B
C-AB	141	35	742	0.190	142	0.6	0.4	6.041	A
C-A	271	68			271				
A-B	52	13			52				
A-C	412	103			412				

2019 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.54	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2019 Base	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	431	100.000
B		ONE HOUR	✓	91	100.000
C		ONE HOUR	✓	683	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	9	422
	B	19	0	72
	C	616	67	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	3
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.23	10.83	0.3	B	84	125
C-AB	0.24	4.80	0.7	A	167	250
C-A					460	690
A-B					8	12
A-C					387	581

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	69	17	487	0.141	68	0.0	0.2	8.569	A
C-AB	109	27	862	0.127	108	0.0	0.3	4.777	A
C-A	405	101			405				
A-B	7	2			7				
A-C	318	79			318				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	82	20	465	0.176	82	0.2	0.2	9.386	A
C-AB	154	38	915	0.168	153	0.3	0.4	4.731	A
C-A	460	115			460				
A-B	8	2			8				
A-C	379	95			379				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	100	25	433	0.232	100	0.2	0.3	10.810	B
C-AB	236	59	990	0.238	235	0.4	0.7	4.775	A
C-A	516	129			516				
A-B	10	2			10				
A-C	465	116			465				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	100	25	432	0.232	100	0.3	0.3	10.834	B
C-AB	237	59	991	0.239	237	0.7	0.7	4.793	A
C-A	515	129			515				
A-B	10	2			10				
A-C	465	116			465				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	82	20	465	0.176	82	0.3	0.2	9.417	A
C-AB	154	39	916	0.168	155	0.7	0.5	4.754	A
C-A	460	115			460				
A-B	8	2			8				
A-C	379	95			379				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	69	17	487	0.141	69	0.2	0.2	8.608	A
C-AB	110	28	863	0.128	111	0.5	0.3	4.802	A
C-A	404	101			404				
A-B	7	2			7				
A-C	318	79			318				

2024 with Adjusted Growth and Committed Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	12.93	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024 with Adjusted Growth and Committed Flows	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	672	100.000
B		ONE HOUR	✓	253	100.000
C		ONE HOUR	✓	594	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	79	593
	B	84	0	169
	C	473	121	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	3
	B	6	0	5
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.86	67.81	4.9	F	232	348
C-AB	0.44	7.84	1.5	A	260	390
C-A					285	428
A-B					72	109
A-C					544	816

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	190	48	405	0.471	187	0.0	0.9	16.308	C
C-AB	174	43	748	0.233	172	0.0	0.5	6.246	A
C-A	273	68			273				
A-B	59	15			59				
A-C	446	112			446				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	227	57	372	0.611	225	0.9	1.5	24.050	C
C-AB	241	60	780	0.309	240	0.5	0.8	6.664	A
C-A	293	73			293				
A-B	71	18			71				
A-C	533	133			533				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	279	70	325	0.857	268	1.5	4.2	54.564	F
C-AB	363	91	828	0.439	360	0.8	1.5	7.726	A
C-A	291	73			291				
A-B	87	22			87				
A-C	653	163			653				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	279	70	325	0.858	276	4.2	4.9	67.807	F
C-AB	365	91	829	0.440	365	1.5	1.5	7.841	A
C-A	289	72			289				
A-B	87	22			87				
A-C	653	163			653				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	227	57	372	0.612	240	4.9	1.7	29.564	D

C-AB	242	61	782	0.310	245	1.5	0.8	6.798	A
C-A	292	73			292				
A-B	71	18			71				
A-C	533	133			533				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	190	48	404	0.471	194	1.7	0.9	17.334	C
C-AB	175	44	749	0.234	177	0.8	0.5	6.337	A
C-A	272	68			272				
A-B	59	15			59				
A-C	446	112			446				

2024 with Adjusted Growth and Committed Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.41	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024 with Adjusted Growth and Committed Flows	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	473	100.000
B		ONE HOUR	✓	122	100.000
C		ONE HOUR	✓	759	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	22	451
	B	28	0	94
	C	661	98	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	3
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.33	13.28	0.5	B	112	168
C-AB	0.37	5.68	1.3	A	265	398
C-A					431	647
A-B					20	30
A-C					414	621

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	92	23	470	0.195	91	0.0	0.2	9.471	A
C-AB	170	42	880	0.193	168	0.0	0.5	5.055	A
C-A	402	100			402				
A-B	17	4			17				
A-C	340	85			340				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	110	27	444	0.247	109	0.2	0.3	10.748	B
C-AB	242	61	938	0.258	241	0.5	0.7	5.181	A
C-A	440	110			440				
A-B	20	5			20				
A-C	405	101			405				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	134	34	406	0.331	134	0.3	0.5	13.210	B
C-AB	381	95	1020	0.373	378	0.7	1.3	5.634	A
C-A	455	114			455				
A-B	24	6			24				
A-C	497	124			497				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	134	34	405	0.331	134	0.5	0.5	13.282	B
C-AB	382	96	1022	0.374	382	1.3	1.3	5.679	A
C-A	453	113			453				
A-B	24	6			24				
A-C	497	124			497				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	110	27	444	0.247	110	0.5	0.3	10.822	B

C-AB	244	61	940	0.259	246	1.3	0.7	5.234	A
C-A	439	110			439				
A-B	20	5			20				
A-C	405	101			405				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	92	23	470	0.196	92	0.3	0.2	9.542	A
C-AB	171	43	881	0.194	172	0.7	0.5	5.099	A
C-A	400	100			400				
A-B	17	4			17				
A-C	340	85			340				

2029 with Adjusted Growth and Committed Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	16.56	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2029 with Adjusted Growth and Committed Flows	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	695	100.000
B		ONE HOUR	✓	260	100.000
C		ONE HOUR	✓	616	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	81	614
	B	86	0	174
	C	491	125	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	3
	B	6	0	5
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.91	89.12	6.6	F	239	358
C-AB	0.47	8.18	1.7	A	279	418
C-A					286	430
A-B					74	111
A-C					563	845

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	196	49	399	0.490	192	0.0	0.9	17.100	C
C-AB	185	46	754	0.245	182	0.0	0.6	6.290	A
C-A	279	70			279				
A-B	61	15			61				
A-C	462	116			462				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	234	58	365	0.640	231	0.9	1.7	26.207	D
C-AB	257	64	788	0.326	256	0.6	0.9	6.769	A
C-A	297	74			297				
A-B	73	18			73				
A-C	552	138			552				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	286	72	316	0.907	271	1.7	5.4	65.993	F
C-AB	392	98	838	0.467	389	0.9	1.7	8.035	A
C-A	286	72			286				
A-B	89	22			89				
A-C	676	169			676				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	286	72	315	0.908	282	5.4	6.6	89.120	F
C-AB	394	98	840	0.469	394	1.7	1.7	8.177	A
C-A	284	71			284				
A-B	89	22			89				
A-C	676	169			676				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	234	58	365	0.641	252	6.6	1.9	36.091	E

C-AB	259	65	791	0.328	262	1.7	0.9	6.921	A
C-A	295	74			295				
A-B	73	18			73				
A-C	552	138			552				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	196	49	399	0.491	199	1.9	1.0	18.401	C
C-AB	186	47	756	0.246	188	0.9	0.6	6.391	A
C-A	278	69			278				
A-B	61	15			61				
A-C	462	116			462				

2029 with Adjusted Growth and Committed Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.55	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2029 with Adjusted Growth and Committed Flows	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	491	100.000
B		ONE HOUR	✓	126	100.000
C		ONE HOUR	✓	787	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	23	468
	B	29	0	97
	C	686	101	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	3
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.35	13.95	0.5	B	116	173
C-AB	0.40	5.83	1.5	A	286	429
C-A					436	654
A-B					21	32
A-C					429	644

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	95	24	465	0.204	94	0.0	0.3	9.673	A
C-AB	181	45	891	0.203	179	0.0	0.5	5.054	A
C-A	412	103			412				
A-B	17	4			17				
A-C	352	88			352				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	113	28	438	0.259	113	0.3	0.3	11.074	B
C-AB	260	65	951	0.273	259	0.5	0.8	5.212	A
C-A	447	112			447				
A-B	21	5			21				
A-C	421	105			421				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	139	35	397	0.349	138	0.3	0.5	13.853	B
C-AB	414	103	1038	0.399	411	0.8	1.5	5.776	A
C-A	453	113			453				
A-B	25	6			25				
A-C	515	129			515				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	139	35	397	0.350	139	0.5	0.5	13.946	B
C-AB	416	104	1039	0.400	416	1.5	1.5	5.834	A
C-A	451	113			451				
A-B	25	6			25				
A-C	515	129			515				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	113	28	437	0.259	114	0.5	0.4	11.159	B

C-AB	262	66	954	0.275	265	1.5	0.8	5.273	A
C-A	445	111			445				
A-B	21	5			21				
A-C	421	105			421				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	95	24	465	0.204	95	0.4	0.3	9.755	A
C-AB	183	46	893	0.205	184	0.8	0.5	5.104	A
C-A	410	102			410				
A-B	17	4			17				
A-C	352	88			352				

2034 with Adjusted Growth and Committed Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	22.25	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2034 with Adjusted Growth and Committed Flows	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	718	100.000
B		ONE HOUR	✓	268	100.000
C		ONE HOUR	✓	636	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	84	634
	B	89	0	179
	C	507	129	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	3
	B	6	0	5
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.97	122.38	9.5	F	246	369
C-AB	0.50	8.58	2.0	A	298	447
C-A					286	429
A-B					77	116
A-C					582	873

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	202	50	393	0.513	198	0.0	1.0	18.066	C
C-AB	195	49	760	0.257	193	0.0	0.6	6.346	A
C-A	284	71			284				
A-B	63	16			63				
A-C	477	119			477				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	241	60	358	0.673	237	1.0	1.9	29.027	D
C-AB	274	68	795	0.344	272	0.6	1.0	6.893	A
C-A	298	74			298				
A-B	76	19			76				
A-C	570	142			570				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	295	74	306	0.964	274	1.9	7.2	82.186	F
C-AB	421	105	848	0.497	417	1.0	1.9	8.405	A
C-A	279	70			279				
A-B	92	23			92				
A-C	698	175			698				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	295	74	305	0.966	286	7.2	9.5	122.377	F
C-AB	424	106	850	0.498	423	1.9	1.9	8.585	A
C-A	277	69			277				
A-B	92	23			92				
A-C	698	175			698				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	241	60	357	0.674	270	9.5	2.3	50.169	F

C-AB	276	69	798	0.346	280	1.9	1.0	7.072	A
C-A	296	74			296				
A-B	76	19			76				
A-C	570	142			570				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	202	50	393	0.514	207	2.3	1.1	19.812	C
C-AB	197	49	761	0.259	199	1.0	0.6	6.460	A
C-A	282	70			282				
A-B	63	16			63				
A-C	477	119			477				

2034 with Adjusted Growth and Committed Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.67	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2034 with Adjusted Growth and Committed Flows	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	507	100.000
B		ONE HOUR	✓	129	100.000
C		ONE HOUR	✓	812	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	23	484
	B	30	0	99
	C	709	103	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	3
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.37	14.61	0.6	B	118	178
C-AB	0.42	5.97	1.6	A	304	456
C-A					441	661
A-B					21	32
A-C					444	666

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	97	24	460	0.211	96	0.0	0.3	9.866	A
C-AB	190	48	901	0.211	188	0.0	0.5	5.047	A
C-A	421	105			421				
A-B	17	4			17				
A-C	364	91			364				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	116	29	431	0.269	116	0.3	0.4	11.387	B
C-AB	276	69	964	0.286	274	0.5	0.8	5.234	A
C-A	454	114			454				
A-B	21	5			21				
A-C	435	109			435				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	142	36	389	0.365	141	0.4	0.6	14.499	B
C-AB	443	111	1054	0.421	440	0.8	1.6	5.902	A
C-A	451	113			451				
A-B	25	6			25				
A-C	533	133			533				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	142	36	388	0.366	142	0.6	0.6	14.608	B
C-AB	446	111	1056	0.422	446	1.6	1.6	5.968	A
C-A	448	112			448				
A-B	25	6			25				
A-C	533	133			533				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	116	29	431	0.269	117	0.6	0.4	11.489	B

C-AB	278	69	967	0.287	281	1.6	0.9	5.303	A
C-A	452	113			452				
A-B	21	5			21				
A-C	435	109			435				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	97	24	460	0.211	98	0.4	0.3	9.954	A
C-AB	192	48	903	0.213	193	0.9	0.6	5.101	A
C-A	419	105			419				
A-B	17	4			17				
A-C	364	91			364				

Appendix 8: Results of Sensitivity Operational Assessments

<h1>Junctions 9</h1>
<h2>PICADY 9 - Priority Intersection Module</h2>
Version: 9.0.1.4646 [] © Copyright TRL Limited, 2019
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Filename: London Rd_Station Rd_Frambury Ln Staggered jnt - 29.07.19 Sensitivity.j9

Path: M:\Project\6300 to 6399\6342 - Newport Neighbourhood Plan, Essex\Junction Modelling\29.07.19 - Sensitivity Test\Junction 1

Report generation date: 29/07/2019 10:12:52

»2024 with Adjusted Growth and Committed Flows (Sensitivity), AM
»2024 with Adjusted Growth and Committed Flows (Sensitivity), PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
	2024 with Adjusted Growth and Committed Flows (Sensitivity)					
Stream B-ACD	0.0	9.91	0.04	0.1	10.92	0.11
Stream AB-CD	0.4	5.03	0.14	0.2	5.20	0.11
Stream D-ABC	0.3	13.94	0.22	0.1	11.70	0.08
Stream CD-AB	0.0	4.61	0.04	0.0	4.73	0.02

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	Frambury Lane/ London Road/ Station Road Staggered Junction
Location	Newport, Essex
Site number	
Date	09/07/2019
Version	
Status	[no status]
Identifier	
Client	
Jobnumber	
Enumerator	RD
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period	Traffic profile	Start time	Finish time	Time segment	Locked	Run

		name	type	(HH:mm)	(HH:mm)	length (min)		automatically
D1	2019 Base	AM	ONE HOUR	07:45	09:15	15	✓	
D2	2019 Base	PM	ONE HOUR	17:45	19:15	15	✓	
D3	2024 with Adjusted Growth and Committed Flows (Sensitivity)	AM	ONE HOUR	07:45	09:15	15		✓
D4	2024 with Adjusted Growth and Committed Flows (Sensitivity)	PM	ONE HOUR	17:45	19:15	15		✓
D5	2029 with Adjusted Growth and Committed Flows	AM	ONE HOUR	07:45	09:15	15	✓	
D6	2029 with Adjusted Growth and Committed Flows	PM	ONE HOUR	17:45	19:15	15	✓	
D7	2034 with Adjusted Growth and Committed Flows	AM	ONE HOUR	07:45	09:15	15	✓	
D8	2034 with Adjusted Growth and Committed Flows	PM	ONE HOUR	17:45	19:15	15	✓	

Analysis Set Details

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

2024 with Adjusted Growth and Committed Flows (Sensitivity), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	0.71	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	B1383, London Road (n)		Major
B	Station Road		Minor
C	B1383, London Road (s)		Major
D	Frambury Lane		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A	7.10			70.0	✓	0.00
C	7.10			70.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.50	50	37
D	One lane	3.40	13	30

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B
1	AB-D	615	-	-	-	-	-	0.227	0.227	0.227	-	-
1	B-A	538	0.093	0.236	0.236	-	-	0.148	0.337	-	0.148	0.337
1	B-CD	680	0.099	0.251	0.251	-	-	-	-	-	-	-
1	CD-B	615	0.227	0.227	0.227	-	-	-	-	-	-	-
1	D-AB	669	-	-	-	-	-	0.247	0.247	0.098	-	-
1	D-C	516	-	0.142	0.323	0.142	0.323	0.226	0.226	0.090	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024 with Adjusted Growth and Committed Flows (Sensitivity)	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	562	100.000
B		ONE HOUR	✓	14	100.000
C		ONE HOUR	✓	587	100.000
D		ONE HOUR	✓	67	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	29	498	35
	B	7	0	2	5
	C	515	4	0	68
	D	20	6	41	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	4	0
	B	0	0	0	0
	C	4	0	0	0
	D	0	0	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-ACD	0.04	9.91	0.0	A	13	19
A-B					27	40
A-C					457	685
A-D					32	48
AB-CD	0.14	5.03	0.4	A	87	131
AB-C					408	613
D-ABC	0.22	13.94	0.3	B	61	92
C-D					62	94
C-A					473	709
C-B					4	6
CD-AB	0.04	4.61	0.0	A	23	34
CD-A					477	716

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	11	3	452	0.023	10	0.0	0.0	8.153	A
A-B	22	5			22				
A-C	375	94			375				
A-D	26	7			26				
AB-CD	58	15	776	0.075	58	0.0	0.1	5.011	A
AB-C	348	87			348				
D-ABC	50	13	405	0.124	50	0.0	0.1	10.129	B
C-D	51	13			51				
C-A	388	97			388				
C-B	3	0.75			3				
CD-AB	15	4	798	0.019	15	0.0	0.0	4.597	A
CD-A	395	99			395				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	13	3	422	0.030	13	0.0	0.0	8.800	A
A-B	26	7			26				
A-C	448	112			448				
A-D	31	8			31				
AB-CD	81	20	813	0.099	80	0.1	0.2	4.911	A
AB-C	405	101			405				
D-ABC	60	15	375	0.161	60	0.1	0.2	11.426	B
C-D	61	15			61				
C-A	463	116			463				
C-B	4	0.90			4				
CD-AB	21	5	839	0.025	21	0.0	0.0	4.394	A
CD-A	469	117			469				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	15	4	379	0.041	15	0.0	0.0	9.903	A
A-B	32	8			32				
A-C	548	137			548				
A-D	39	10			39				
AB-CD	121	30	866	0.140	121	0.2	0.4	4.828	A
AB-C	473	118			473				
D-ABC	74	18	332	0.222	73	0.2	0.3	13.895	B
C-D	75	19			75				
C-A	567	142			567				
C-B	4	1			4				
CD-AB	32	8	899	0.035	32	0.0	0.0	4.147	A
CD-A	568	142			568				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	15	4	379	0.041	15	0.0	0.0	9.906	A
A-B	32	8			32				
A-C	548	137			548				

A-D	39	10			39				
AB-CD	122	30	867	0.140	122	0.4	0.4	4.843	A
AB-C	473	118			473				
D-ABC	74	18	332	0.222	74	0.3	0.3	13.939	B
C-D	75	19			75				
C-A	567	142			567				
C-B	4	1			4				
CD-AB	32	8	899	0.036	32	0.0	0.0	4.154	A
CD-A	568	142			568				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	13	3	422	0.030	13	0.0	0.0	8.803	A
A-B	26	7			26				
A-C	448	112			448				
A-D	31	8			31				
AB-CD	81	20	813	0.100	82	0.4	0.2	4.939	A
AB-C	404	101			404				
D-ABC	60	15	375	0.161	61	0.3	0.2	11.473	B
C-D	61	15			61				
C-A	463	116			463				
C-B	4	0.90			4				
CD-AB	21	5	839	0.025	21	0.0	0.0	4.410	A
CD-A	469	117			469				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	11	3	452	0.023	11	0.0	0.0	8.159	A
A-B	22	5			22				
A-C	375	94			375				
A-D	26	7			26				
AB-CD	59	15	776	0.076	59	0.2	0.1	5.033	A
AB-C	348	87			348				
D-ABC	50	13	405	0.125	51	0.2	0.1	10.163	B
C-D	51	13			51				
C-A	388	97			388				
C-B	3	0.75			3				
CD-AB	15	4	798	0.019	15	0.0	0.0	4.606	A
CD-A	395	99			395				

2024 with Adjusted Growth and Committed Flows (Sensitivity), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	0.53	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024 with Adjusted Growth and Committed Flows (Sensitivity)	PM	ONE HOUR	17:45	19:15	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	565	100.000
B		ONE HOUR	✓	38	100.000
C		ONE HOUR	✓	522	100.000
D		ONE HOUR	✓	24	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A	B	C	D	
From	A	0	29	512	24	
	B	23	0	12	3	
	C	472	5	0	45	
	D	4	2	18	0	

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A	B	C	D	
A		0	0	1	22	

From	B	0	0	0	0
	C	1	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-ACD	0.11	10.92	0.1	B	35	52
A-B					27	40
A-C					470	705
A-D					22	33
AB-CD	0.11	5.20	0.2	A	66	99
AB-C					440	659
D-ABC	0.08	11.70	0.1	B	22	33
C-D					41	62
C-A					433	650
C-B					5	7
CD-AB	0.02	4.73	0.0	A	14	22
CD-A					429	643

Main Results for each time segment

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	29	7	441	0.065	28	0.0	0.1	8.715	A
A-B	22	5			22				
A-C	385	96			385				
A-D	18	5			18				
AB-CD	44	11	736	0.059	43	0.0	0.1	5.197	A
AB-C	371	93			371				
D-ABC	18	5	403	0.045	18	0.0	0.0	9.336	A
C-D	34	8			34				
C-A	355	89			355				
C-B	4	0.94			4				
CD-AB	10	2	771	0.013	10	0.0	0.0	4.730	A
CD-A	354	88			354				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	34	9	412	0.083	34	0.1	0.1	9.519	A
A-B	26	7			26				
A-C	460	115			460				
A-D	22	5			22				
AB-CD	61	15	783	0.078	61	0.1	0.1	5.011	A
AB-C	434	109			434				
D-ABC	22	5	374	0.058	22	0.0	0.1	10.198	B
C-D	40	10			40				
C-A	424	106			424				
C-B	4	1			4				
CD-AB	13	3	806	0.017	13	0.0	0.0	4.541	A
CD-A	421	105			421				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	42	10	371	0.113	42	0.1	0.1	10.912	B
A-B	32	8			32				
A-C	564	141			564				
A-D	26	7			26				
AB-CD	93	23	851	0.109	93	0.1	0.2	4.781	A
AB-C	514	128			514				
D-ABC	26	7	334	0.079	26	0.1	0.1	11.687	B
C-D	50	12			50				
C-A	520	130			520				
C-B	6	1			6				
CD-AB	20	5	857	0.023	20	0.0	0.0	4.301	A
CD-A	512	128			512				

18:30 - 18:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	42	10	371	0.113	42	0.1	0.1	10.921	B
A-B	32	8			32				
A-C	564	141			564				
A-D	26	7			26				
AB-CD	93	23	851	0.109	93	0.2	0.2	4.756	A
AB-C	514	128			514				
D-ABC	26	7	334	0.079	26	0.1	0.1	11.697	B
C-D	50	12			50				
C-A	520	130			520				
C-B	6	1			6				
CD-AB	20	5	857	0.023	20	0.0	0.0	4.304	A
CD-A	512	128			512				

18:45 - 19:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	34	9	412	0.083	34	0.1	0.1	9.530	A
A-B	26	7			26				
A-C	460	115			460				
A-D	22	5			22				
AB-CD	61	15	784	0.078	62	0.2	0.1	4.947	A
AB-C	434	109			434				
D-ABC	22	5	374	0.058	22	0.1	0.1	10.211	B
C-D	40	10			40				
C-A	424	106			424				
C-B	4	1			4				
CD-AB	13	3	806	0.017	14	0.0	0.0	4.547	A
CD-A	421	105			421				

19:00 - 19:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-ACD	29	7	441	0.065	29	0.1	0.1	8.729	A
A-B	22	5			22				
A-C	385	96			385				
A-D	18	5			18				
AB-CD	44	11	737	0.060	44	0.1	0.1	5.165	A
AB-C	371	93			371				
D-ABC	18	5	403	0.045	18	0.1	0.0	9.352	A
C-D	34	8			34				
C-A	355	89			355				
C-B	4	0.94			4				

CD-AB	10	2	771	0.013	10	0.0	0.0	4.732	A
CD-A	354	88			354				

<h1>Junctions 9</h1>
<h2>PICADY 9 - Priority Intersection Module</h2>
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Filename: Wicken Road_London Road - 29.07.19 Sensitivity.j9

Path: M:\Project\6300 to 6399\6342 - Newport Neighbourhood Plan, Essex\Junction Modelling\29.07.19 - Sensitivity Test\Junction 2

Report generation date: 29/07/2019 10:28:03

»2024 with Adjusted Growth and Committed Flows (Sensitivity), AM
»2024 with Adjusted Growth and Committed Flows (Sensitivity), PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2024 with Adjusted Growth and Committed Flows (Sensitivity)						
Stream B-AC	19.7	199.32	1.07	1.7	30.70	0.64
Stream C-AB	1.9	9.22	0.51	4.1	14.57	0.71

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	Wicken Road/ London Road
Location	Newport Essex
Site number	
Date	09/07/2019
Version	
Status	[no status]
Identifier	
Client	
Jobnumber	
Enumerator	SM/rpwd
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Locked	Run automatically
			ONE					

D1	2019 Base	AM	HOUR	07:45	09:15	15	✓	
D2	2019 Base	PM	ONE HOUR	16:45	18:15	15	✓	
D3	2024 with Adjusted Growth and Committed Flows (Sensitivity)	AM	ONE HOUR	07:45	09:15	15		✓
D4	2024 with Adjusted Growth and Committed Flows (Sensitivity)	PM	ONE HOUR	16:45	18:15	15		✓
D5	2029 with Adjusted Growth and Committed Flows	AM	ONE HOUR	07:45	09:15	15	✓	
D6	2029 with Adjusted Growth and Committed Flows	PM	ONE HOUR	16:45	18:15	15	✓	
D7	2034 with Adjusted Growth and Committed Flows	AM	ONE HOUR	07:45	09:15	15	✓	
D8	2034 with Adjusted Growth and Committed Flows	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

2024 with Adjusted Growth and Committed Flows (Sensitivity), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	41.51	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	B1383, London Road (s)		Major
B	Wicken Road		Minor
C	London Road (n)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.45			70.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.76	12	14

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	526	0.090	0.227	0.143	0.324
1	B-C	681	0.098	0.247	-	-
1	C-B	615	0.223	0.223	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period	Traffic profile	Start time (HH:mm)	Finish time	Time segment length	Run automatically
----	---------------	-------------	-----------------	--------------------	-------------	---------------------	-------------------

		name	type		(HH:mm)	(min)	
D3	2024 with Adjusted Growth and Committed Flows (Sensitivity)	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	677	100.000
B		ONE HOUR	✓	318	100.000
C		ONE HOUR	✓	597	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	131	546
	B	145	0	173
	C	469	128	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	8	3
	B	3	0	5
	C	4	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	1.07	199.32	19.7	F	292	438
C-AB	0.51	9.22	1.9	A	288	431
C-A					260	390
A-B					120	180
A-C					501	752

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	239	60	413	0.579	234	0.0	1.3	19.559	C
C-AB	191	48	712	0.268	189	0.0	0.6	6.868	A
C-A	258	65			258				
A-B	99	25			99				
A-C	411	103			411				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC									
C-AB									
C-A									
A-B									
A-C									

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	286	71	379	0.755	280	1.3	2.7	34.748	D
C-AB	266	66	748	0.355	264	0.6	0.9	7.488	A
C-A	271	68			271				
A-B	118	29			118				
A-C	491	123			491				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	350	88	329	1.065	311	2.7	12.5	113.283	F
C-AB	403	101	800	0.504	399	0.9	1.8	9.087	A
C-A	255	64			255				
A-B	144	36			144				
A-C	601	150			601				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	350	88	328	1.067	321	12.5	19.7	199.321	F
C-AB	405	101	802	0.505	405	1.8	1.9	9.219	A
C-A	252	63			252				
A-B	144	36			144				
A-C	601	150			601				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	286	71	378	0.757	348	19.7	4.1	122.913	F
C-AB	268	67	751	0.357	272	1.9	1.0	7.584	A
C-A	269	67			269				
A-B	118	29			118				
A-C	491	123			491				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	239	60	413	0.580	250	4.1	1.5	23.415	C
C-AB	193	48	714	0.270	194	1.0	0.6	6.951	A
C-A	257	64			257				
A-B	99	25			99				
A-C	411	103			411				

2024 with Adjusted Growth and Committed Flows (Sensitivity), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	8.98	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024 with Adjusted Growth and Committed Flows (Sensitivity)	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	537	100.000
B		ONE HOUR	✓	184	100.000
C		ONE HOUR	✓	725	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	113	424
	B	101	0	83
	C	520	205	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	2	1
	B	4	0	1
	C	1	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.64	30.70	1.7	D	169	253
C-AB	0.71	14.57	4.1	B	457	686
C-A					208	312
A-B					104	156
A-C					389	584

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	139	35	406	0.341	137	0.0	0.5	13.246	B
C-AB	305	76	792	0.386	301	0.0	1.0	7.326	A
C-A	241	60			241				
A-B	85	21			85				
A-C	319	80			319				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	165	41	371	0.446	164	0.5	0.8	17.318	C
C-AB	423	106	834	0.507	420	1.0	1.6	8.740	A
C-A	229	57			229				
A-B	102	25			102				
A-C	381	95			381				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	203	51	321	0.632	199	0.8	1.6	28.954	D
C-AB	636	159	895	0.710	627	1.6	3.9	13.578	B
C-A	162	41			162				
A-B	124	31			124				
A-C	467	117			467				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	203	51	319	0.635	202	1.6	1.7	30.695	D
C-AB	643	161	900	0.714	642	3.9	4.1	14.575	B
C-A	155	39			155				
A-B	124	31			124				
A-C	467	117			467				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	165	41	369	0.449	169	1.7	0.8	18.268	C
C-AB	429	107	841	0.511	439	4.1	1.8	9.276	A

C-A	222	56			222				
A-B	102	25			102				
A-C	381	95			381				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	139	35	405	0.342	140	0.8	0.5	13.635	B
C-AB	309	77	795	0.388	312	1.8	1.0	7.543	A
C-A	237	59			237				
A-B	85	21			85				
A-C	319	80			319				

<h1>Junctions 9</h1>
<h2>PICADY 9 - Priority Intersection Module</h2>
Version: 9.0.1.4646 [] © Copyright TRL Limited, 2019
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Filename: Church St_London Road - 29.07.19 Sensitivity.j9

Path: M:\Project\6300 to 6399\6342 - Newport Neighbourhood Plan, Essex\Junction Modelling\29.07.19 - Sensitivity Test\Junction 3

Report generation date: 29/07/2019 10:42:22

»2024 with Adjusted Growth and Committed Flows (Sensitivity), AM
»2024 with Adjusted Growth and Committed Flows (Sensitivity), PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2024 with Adjusted Growth and Committed Flows (Sensitivity)						
Stream B-AC	0.1	9.31	0.06	0.0	0.00	0.00
Stream C-AB	0.0	4.56	0.01	0.0	4.01	0.03

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	Church Street/ London Road
Location	Essex Newport
Site number	
Date	09/07/2019
Version	
Status	[no status]
Identifier	
Client	
Jobnumber	
Enumerator	SM/rpwd
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Locked	Run automatically
			ONE					

D1	2019 Base	AM	HOUR	07:45	09:15	15	✓	
D2	2019 Base	PM	ONE HOUR	16:45	18:15	15	✓	
D3	2024 with Adjusted Growth and Committed Flows (Sensitivity)	AM	ONE HOUR	07:45	09:15	15		✓
D4	2024 with Adjusted Growth and Committed Flows (Sensitivity)	PM	ONE HOUR	16:45	18:15	15		✓
D5	2029 with Adjusted Growth and Committed Flows	AM	ONE HOUR	07:45	09:15	15	✓	
D6	2029 with Adjusted Growth and Committed Flows	PM	ONE HOUR	16:45	18:15	15	✓	
D7	2034 with Adjusted Growth and Committed Flows	AM	ONE HOUR	07:45	09:15	15	✓	
D8	2034 with Adjusted Growth and Committed Flows	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

2024 with Adjusted Growth and Committed Flows (Sensitivity), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Church Street/ London Road	T-Junction	Two-way	0.17	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	London Road (s)		Major
B	Church Street		Minor
C	London Road (n)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.50			70.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.42	14	18

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	512	0.091	0.230	0.145	0.329
1	B-C	662	0.099	0.251	-	-
1	C-B	615	0.233	0.233	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period	Traffic profile	Start time (HH:mm)	Finish time	Time segment length	Run automatically
----	---------------	-------------	-----------------	--------------------	-------------	---------------------	-------------------

		name	type		(HH:mm)	(min)	
D3	2024 with Adjusted Growth and Committed Flows (Sensitivity)	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	754	100.000
B		ONE HOUR	✓	23	100.000
C		ONE HOUR	✓	583	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	2	752
	B	2	0	21
	C	581	2	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	2
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.06	9.31	0.1	A	21	32
C-AB	0.01	4.56	0.0	A	5	8
C-A					530	795
A-B					2	3
A-C					690	1035

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	17	4	489	0.035	17	0.0	0.0	7.630	A
C-AB	3	0.84	795	0.004	3	0.0	0.0	4.548	A
C-A	436	109			436				
A-B	2	0.38			2				
A-C	566	142			566				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC									
C-AB									
C-A									
A-B									
A-C									

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	21	5	457	0.045	21	0.0	0.0	8.244	A
C-AB	5	1	838	0.006	5	0.0	0.0	4.316	A
C-A	519	130			519				
A-B	2	0.45			2				
A-C	676	169			676				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	25	6	412	0.061	25	0.0	0.1	9.308	A
C-AB	8	2	901	0.008	8	0.0	0.0	4.021	A
C-A	634	159			634				
A-B	2	0.55			2				
A-C	828	207			828				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	25	6	412	0.061	25	0.1	0.1	9.309	A
C-AB	8	2	901	0.008	8	0.0	0.0	4.029	A
C-A	634	159			634				
A-B	2	0.55			2				
A-C	828	207			828				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	21	5	457	0.045	21	0.1	0.0	8.248	A
C-AB	5	1	838	0.006	5	0.0	0.0	4.333	A
C-A	519	130			519				
A-B	2	0.45			2				
A-C	676	169			676				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	17	4	489	0.035	17	0.0	0.0	7.634	A
C-AB	3	0.84	795	0.004	3	0.0	0.0	4.558	A
C-A	436	109			436				
A-B	2	0.38			2				
A-C	566	142			566				

2024 with Adjusted Growth and Committed Flows (Sensitivity), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Church Street/ London Road	T-Junction	Two-way	0.09	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024 with Adjusted Growth and Committed Flows (Sensitivity)	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	503	100.000
B		ONE HOUR	✓	4	100.000
C		ONE HOUR	✓	737	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	2	501
	B	1	0	3
	C	729	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.03	4.01	0.0	A	24	36
C-A					652	978
A-B					2	3
A-C					460	690

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	426	0.000	0	0.0	0.0	0.000	A
C-AB	15	4	912	0.017	15	0.0	0.0	4.011	A
C-A	540	135			540				
A-B	2	0.38			2				
A-C	377	94			377				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	395	0.000	0	0.0	0.0	0.000	A
C-AB	22	5	977	0.022	22	0.0	0.0	3.768	A
C-A	641	160			641				
A-B	2	0.45			2				
A-C	450	113			450				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	349	0.000	0	0.0	0.0	0.000	A
C-AB	35	9	1069	0.033	35	0.0	0.0	3.481	A
C-A	776	194			776				
A-B	2	0.55			2				
A-C	552	138			552				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	349	0.000	0	0.0	0.0	0.000	A
C-AB	36	9	1069	0.033	36	0.0	0.0	3.483	A
C-A	776	194			776				
A-B	2	0.55			2				
A-C	552	138			552				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	395	0.000	0	0.0	0.0	0.000	A
C-AB	22	5	977	0.022	22	0.0	0.0	3.775	A

C-A	641	160			641				
A-B	2	0.45			2				
A-C	450	113			450				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	0	0	426	0.000	0	0.0	0.0	0.000	A
C-AB	15	4	912	0.017	15	0.0	0.0	4.015	A
C-A	540	135			540				
A-B	2	0.38			2				
A-C	377	94			377				

<h1>Junctions 9</h1>
<h2>PICADY 9 - Priority Intersection Module</h2>
Version: 9.0.1.4646 [] © Copyright TRL Limited, 2019
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Filename: Bury Water Lane_London Road - 29.07.19 Sensitivity.j9

Path: M:\Project\6300 to 6399\6342 - Newport Neighbourhood Plan, Essex\Junction Modelling\29.07.19 - Sensitivity Test\Junction 4

Report generation date: 29/07/2019 10:48:13

»2024 with Adjusted Growth and Committed Flows (Sensitivity), AM
»2024 with Adjusted Growth and Committed Flows (Sensitivity), PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2024 with Adjusted Growth and Committed Flows (Sensitivity)						
Stream B-AC	7.6	101.79	0.93	0.6	14.52	0.36
Stream C-AB	1.7	8.19	0.47	1.6	5.90	0.41

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	Bury Water Lane/ London Road
Location	
Site number	
Date	09/07/2019
Version	
Status	[no status]
Identifier	
Client	
Jobnumber	
Enumerator	SM/rpwd
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Locked	Run automatically
			ONE					

D1	2019 Base	AM	HOUR	07:45	09:15	15	✓	
D2	2019 Base	PM	ONE HOUR	16:45	18:15	15	✓	
D3	2024 with Adjusted Growth and Committed Flows (Sensitivity)	AM	ONE HOUR	07:45	09:15	15		✓
D4	2024 with Adjusted Growth and Committed Flows (Sensitivity)	PM	ONE HOUR	16:45	18:15	15		✓
D5	2029 with Adjusted Growth and Committed Flows	AM	ONE HOUR	07:45	09:15	15	✓	
D6	2029 with Adjusted Growth and Committed Flows	PM	ONE HOUR	16:45	18:15	15	✓	
D7	2034 with Adjusted Growth and Committed Flows	AM	ONE HOUR	07:45	09:15	15	✓	
D8	2034 with Adjusted Growth and Committed Flows	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

2024 with Adjusted Growth and Committed Flows (Sensitivity), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	18.53	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	London Road (s)		Major
B	Bury Water Lane		Minor
C	London Road (n)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.70			70.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.16	13	15

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	497	0.088	0.222	0.140	0.317
1	B-C	644	0.096	0.242	-	-
1	C-B	615	0.231	0.231	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period	Traffic profile	Start time (HH:mm)	Finish time	Time segment length	Run automatically
----	---------------	-------------	-----------------	--------------------	-------------	---------------------	-------------------

		name	type		(HH:mm)	(min)	
D3	2024 with Adjusted Growth and Committed Flows (Sensitivity)	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	715	100.000
B		ONE HOUR	✓	261	100.000
C		ONE HOUR	✓	612	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	80	635
	B	88	0	173
	C	489	123	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	1	3
	B	6	0	5
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.93	101.79	7.6	F	239	359
C-AB	0.47	8.19	1.7	A	275	413
C-A					286	430
A-B					73	110
A-C					583	874

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	196	49	394	0.498	193	0.0	1.0	17.549	C
C-AB	182	45	750	0.242	180	0.0	0.5	6.303	A
C-A	279	70			279				
A-B	60	15			60				
A-C	478	120			478				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC									
C-AB									
C-A									
A-B									
A-C									

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	235	59	360	0.652	232	1.0	1.7	27.430	D
C-AB	254	63	784	0.324	252	0.5	0.9	6.780	A
C-A	297	74			297				
A-B	72	18			72				
A-C	571	143			571				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	287	72	309	0.930	270	1.7	6.0	72.671	F
C-AB	387	97	833	0.465	384	0.9	1.7	8.045	A
C-A	287	72			287				
A-B	88	22			88				
A-C	699	175			699				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	287	72	308	0.932	281	6.0	7.6	101.790	F
C-AB	389	97	835	0.466	389	1.7	1.7	8.187	A
C-A	285	71			285				
A-B	88	22			88				
A-C	699	175			699				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	235	59	359	0.654	257	7.6	2.1	40.854	E
C-AB	256	64	786	0.325	259	1.7	0.9	6.935	A
C-A	295	74			295				
A-B	72	18			72				
A-C	571	143			571				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	196	49	394	0.499	201	2.1	1.0	19.014	C
C-AB	183	46	752	0.244	185	0.9	0.6	6.406	A
C-A	277	69			277				
A-B	60	15			60				
A-C	478	120			478				

2024 with Adjusted Growth and Committed Flows (Sensitivity), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.63	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024 with Adjusted Growth and Committed Flows (Sensitivity)	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 (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	501	100.000
B		ONE HOUR	✓	127	100.000
C		ONE HOUR	✓	804	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	26	475
	B	31	0	96
	C	702	102	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	3
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.36	14.52	0.6	B	117	175
C-AB	0.41	5.90	1.6	A	297	446
C-A					441	661
A-B					24	36
A-C					436	654

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	96	24	459	0.208	95	0.0	0.3	9.860	A
C-AB	187	47	898	0.208	184	0.0	0.5	5.042	A
C-A	419	105			419				
A-B	20	5			20				
A-C	358	89			358				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	114	29	430	0.265	114	0.3	0.4	11.364	B
C-AB	270	67	960	0.281	269	0.5	0.8	5.217	A
C-A	453	113			453				
A-B	23	6			23				
A-C	427	107			427				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	140	35	388	0.360	139	0.4	0.6	14.419	B
C-AB	432	108	1049	0.412	429	0.8	1.5	5.842	A
C-A	453	113			453				
A-B	29	7			29				
A-C	523	131			523				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	140	35	388	0.361	140	0.6	0.6	14.524	B
C-AB	434	109	1051	0.414	434	1.5	1.6	5.904	A
C-A	451	113			451				
A-B	29	7			29				
A-C	523	131			523				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	114	29	430	0.266	115	0.6	0.4	11.463	B
C-AB	272	68	963	0.282	275	1.6	0.9	5.282	A

C-A	451	113			451				
A-B	23	6			23				
A-C	427	107			427				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-AC	96	24	458	0.209	96	0.4	0.3	9.949	A
C-AB	188	47	900	0.209	190	0.9	0.5	5.097	A
C-A	417	104			417				
A-B	20	5			20				
A-C	358	89			358				