

Transport Assessment

Proposed Residential Development Holywell Road, Ewloe

June 2019

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1.0 INTRODUCTION

- 1.1 SCP have been appointed by to provide traffic and transport advice in support of a proposed residential development at land off Green Lane and Holywell Road, Ewloe.
- 1.2 The proposed development comprises up to 297 dwellings; for the purposes of capacity assessments with up to 197 served via Holywell Road and 100 dwellings served from Green Lane.
- 1.3 This Transport Assessment (TA) has been prepared to support the planning application and has been developed in accordance with the now superseded Department for Transport (DfT's) March 2007 "Guidance on Transport Assessment" document and gives due regard to Planning Policy Wales and TAN 18.
- 1.4 In addition, pre-application discussions have taken place with the Highway Officer at Flintshire County Council (FCC) to determine the extent of assessments required. The discussion agreed the report must address the impact of the development on the local highway network and a summary of the accessibility.
- 1.5 This report concludes that the proposed development of this site can be accommodated without detriment to the operational capacity or safety of the local highway network concentrating on the site access, the Green Lane/Mold Road junction, Holywell Road/Old Mold Road junction and the A494 intersection with Old Mold Road, and that it can be readily accessed on foot, by bicycle and by local public transport services.

Structure of Report

- 1.6 The structure of the TA is set out as follows: -
 - Chapter 2 describes in detail the site location, surrounding area, local highway network, existing traffic conditions and road safety record;
 - Chapter 3 defines the development proposals including the proposed access, servicing and car parking arrangements;
 - Chapter 4 summarises the national, regional and local transport policies and describes how the proposed development accords with these;
 - Chapter 5 considers the location of the site with regard to the existing local sustainable transport infrastructure;
 - Chapter 6 describes the future baseline traffic conditions on the local highway network in relation to committed development traffic flows and traffic growth;



- Chapter 7 estimates the number of multimodal trips generated by the development and distributes and assigns the vehicular trips on the local highway network;
- Chapter 8 presents an assessment of the impact of the development on the operational performance of the local highway network; and
- Chapter 9 provides summary and conclusions to this TA derived from the analysis presented in the above chapters.



2.0 **EXISTING CONDITIONS**

Overview

2.1 This Chapter provides a detailed description of the location of the site and composition, local highway network, existing traffic conditions and road safety record.

Site Location and Composition

- 2.2 The site is located approximately 0.6 miles to the north-west of Ewloe centre. The site is bordered by Holywell Road to the north, residential properties and Old Mold Road to the east, greenfield land to the west and Green Lane to the south.
- 2.3 The location of the site in relation to the wider area is shown on **Figure 2.1**.

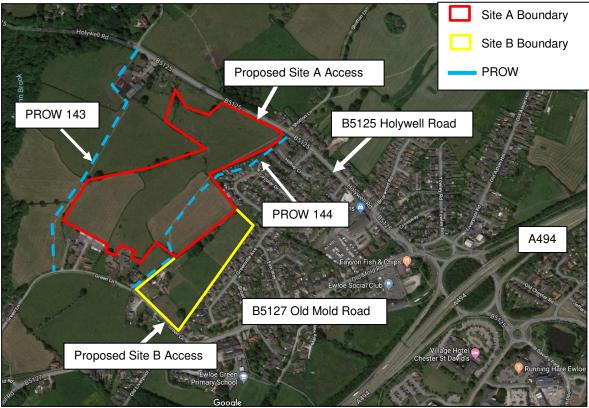
Figure 2.1 - Site Location Wider View

Source: Google Maps

2.4 The location of the site in relation to the local area is shown on **Figure 2.2**.



Figure 2.2 – Site Location, Local Highway Network



Source: Google Satellite

- 2.5 Public Right of way (PROW) 143 runs along the western boundary of the application site, providing a connection to Holywell Road to the north and Green Lane to the south.
- 2.6 PROW 144 runs through the site providing a further link between Holywell Road and Green Lane.

Local Highway Network

B5125 Holywell Road

- 2.7 The B5125 Holywell Road is located on the northern site boundary and connects the site to the B5127 Old Mold Road to the east and Connah's Quay Road to the north east. The B5125 Holywell Road is subject to a 60mph speed limit in the vicinity of the site and, the carriageway measures approximately 9m wide. Holywell Road benefits from footways on the eastern side and street lighting on both sides of the carriageway.
- 2.8 The B5125 Holywell Road provides direct frontage access to a number of residential dwellings as well as access to a number of residential cul-de-sacs. The B5125 Holywell Road meets the B5127 Old Mold Road at a priority junction, which is to be improved as part of the proposals, more details can be found in **Chapter 3**.



B5127 Old Mold Road

- 2.9 The B5127 Old Mold Road is located to the south-east of the site and connects the A494 to the east to Liverpool Road to the west which leads to Buckley. B5127 Old Mold Road is subject to a mandatory 30mph in the vicinity of the junction with Holywell Road and, the carriageway measures approximately 9m wide. The B5127 Old Mold Road benefits from footways and regular spaced street lighting on both sides of the carriageway and the majority of junctions along its length benefit from dropped kerbs.
- 2.10 The B5127 Old Mold Road becomes Mold Road and meets Green Lane at a simple priority junction.

Green Lane

- 2.11 Green Lane is located on the south western border of site B and connects the B5127 Mold Road to the south to Magazine Lane to the west. Green lane is a country lane in nature and is subject to a mandatory 30mph speed limit. The carriageway measures approximately 4m wide, there is no street lighting or footways present and the road is not suitable for heavy goods vehicles (HGVs). At the junction of Green Lane and the B5127 Mold Road footways begin and immediately opposite the junction Green Lane/ Mold Road a bus stop is located.
- 2.12 Green Lane is to be improved as part of the proposals, more details can be found in **Chapter 3.**

A494 Intersection

2.13 The A494 intersection is located immediately to the east of the Old Mold Road/Holywell Road junction. It is a large grade separate roundabout with slip roads for all movements onto and off the A494. The A494 is a trunk road which connects the M56 in the east with the A55 North Wales Expressway in the west.

Traffic Survey Data

- 2.14 In order to establish existing traffic flow demand on the local network traffic flow surveys were undertaken on Wednesday 19th May 2018 at the Holywell Road/Old Mold Road junction between the hours of 07:30-09:30 and 16:00-18:00. The raw survey data is included in **Appendix 1**.
- 2.15 The traffic surveys are shown dramatically on **Traffic Flow Figure 1**. The peak hours for the local highway network have been calculated as being between 07:45 08:45 and 17:00 18:00.



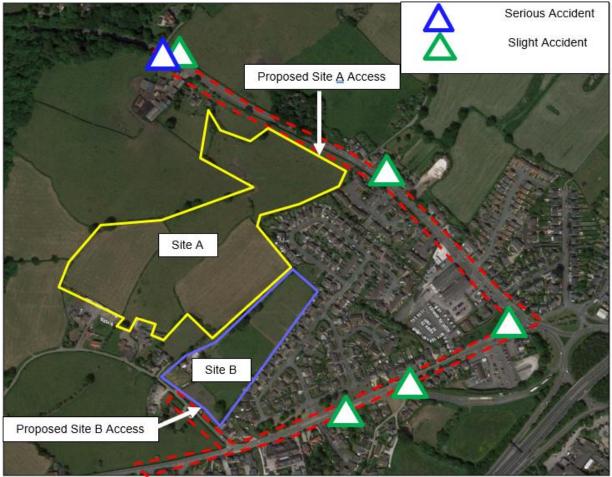
- 2.16 An additional traffic survey for the A494/B5125/B5127/Yowley Road roundabout to the south-east of the site was undertaken on Tuesday 5th March 2019 between the hours of 07:00-09:00 and 16:00-18:00. The raw survey data is included in **Appendix 2**.
- 2.17 The traffic surveys for the roundabout are shown on **Traffic Figure 11**. The peak hours for the local highway network have been calculated as being between 07:45-08:45 and 17:00-18:00.

Road Safety

- 2.18 The DfT document "Guidance on Transport Assessment" states that, "Critical locations on the road network with poor accident records should be identified. This is to determine if the proposed development will exacerbate existing problems or, if proposed, whether highway mitigation works, or traffic management measures will help to alleviate the problems".
- 2.19 In order to identify critical locations on the network with a poor accident record, the database CrashMap has been used for the most recently available five year period between 1st January 2013 and 31st December 2017. A plan showing the location of the accidents is shown in **Figure 2.3.**



Figure 2.3 – Accident Location Map



Source: CrashMap

- 2.20 Figure 2.3 shows there has been a total of six accidents in the vicinity of the site in the past five years. The accident which was classified as 'serious' happened at the Holywell Road/Private Residential drive development on 24th January 2014 and involved two vehicles colliding. The 'slight' incident which occurred at the same location on 29th July 2013 also involved two vehicles colliding.
- 2.21 The 'slight' incident which occurred at the Holywell Road/Hilltop Close Junction on 5th December 2013 involved a vehicle and a pedestrian and resulted in a 'slight' injury to the pedestrian.
- 2.22 The 'slight' accident occurred at the Holywell Road and Old Mold Road junction and involved two vehicles and resulted in one injury classified as 'slight'.
- 2.23 The fifth accident occurred at the Hey Lane/Old Mold Road junction on 29th March 2013 and involved two vehicles colliding. A further accident occurred along Old Mold Road on 7th June 2016 and involved two vehicles colliding.



2.24 Six accidents over a five year period is not considered to be an unusual frequency and as the accidents do not have a common causation factor, the road safety record in this area does not present a material concern in the context of the proposed development.



3.0 PROPOSED DEVELOPMENT

- 3.1 The proposed development will provide up to 297 residential dwellings.
- 3.2 Site A will be served by a vehicular access point from Holywell Road. Site B will be served by a vehicular access point from Green Lane.
- 3.3 For the purpose of capacity assessments Site A will serve 197 dwellings and Site B will serve 100 dwellings.

Proposed Access Arrangements

- 3.4 Both vehicular accesses to the development will be through the introduction of a priority T-junction onto Holywell Road and Green Lane, as shown on drawing number SCP/18415/F01 and SCP/18415/F03 presented in **Appendix 3** and **4**.
- 3.5 It is proposed that there will be a right turn lane created along Holywell Road to allow right turners into the site to queue without blocking those straight ahead movements. This can be seen in drawing number SCP/18415/F02 presented in **Appendix 3**.
- 3.6 As part of the proposals the 30mph speed limit of Holywell Road will be extended across the site frontage to reflect the urban character that will be created by the development proposals. A footway will also be provided along the site frontage, to connect with the existing footway located to the east of the access.
- 3.7 As part of the development, the junction of Green Lane and Old Mold Road is to be improved to accommodate development traffic.
- 3.8 Green Lane will be widened to have a carriageway width of 5.5m and 2m footways on either side of the carriageway.
- 3.9 The re-alignment of Green Lane onto Mold Road will provide visibility splays that have an 'x' distance (minor arm setback distance) of 2.4m and a 'y' (major road visibility) distance of 43m to the left and 43m to the right, which is in accordance with the guidance set out in Manual for Streets.
- 3.10 The proposed re-alignment of Green Lane and junction improvements can be seen in drawing number SCP/18415/F03 presented in **Appendix 4**.
- 3.11 The proposed site access along Holywell Road provides visibility splays that have an 'x' distance (minor arm setback distance) of 2.4m and a 'y' (major road visibility) distance of 43m to the left



and 43m to the right, which is in accordance with the guidance set out in Manual for Streets guidance.

- 3.12 The proposed site access along Green Lane provides visibility splays that have an 'x' distance (minor arm setback distance) of 2.4m and a 'y' (major road visibility) distance of 43m to the left and 43m to the right which is in accordance with the guidance present in the Manual for Streets.
- 3.13 There is an opportunity to separate the site by an emergency only link or to design the internal layout using the principles of Manual for Streets (including horizontal traffic calming) to prevent the opportunity for rat-running between Holywell Road and Green Lane.
- 3.14 Pedestrian and cycle access will be provided from the same location as the vehicular accesses. The proposed development will provide a 2m footway throughout the internal road network and the internal carriageway will measure 5.5m wide. Further pedestrian connections will be available via the public rights of way that pass through the site.

Internal Layout and Servicing Arrangements

3.15 The internal road network will be designed to ensure the movements of service and refuse vehicles can be accommodated without allowing their requirements to dominate the layout, in accordance with the principle set out in the Manual for Streets.

Car Parking

- 3.16 Car parking standards for a residential development are presented in Flintshire County Council SPG and are summarised below:
 - 2 bedroom house 2 car spaces per unit;
 - 3 bedroom house 2 car spaces per unit and;
 - 3+ bedroom house 3 car spaces per unit.
- 3.17 For cycle parking there is no prescribed parking.
- 3.18 The proposed development will meet Flintshire County Council's parking standards.

<u>Mitigation</u>

3.19 Due to an increase in traffic as part of the development, capacity assessments have revealed mitigation measures are required at the Holywell Road/Old Mold Road junction.



3.20 The widening of Holywell Road will take place on the eastern side of the carriageway using the existing paving area to create a two lane exit. The introduction of a right turn lane on Old Mold Road provides additional space for vehicles wanting to turn right into Holywell Road to wait safely whilst allowing westbound traffic along Old Mold Road to continue. This can be seen in drawing number SCP/18415/F04 presented in **Appendix 5**.



4.0 PLANNING POLICY CONTEXT

Introduction

- 4.1 This chapter provides a summary of relevant national, regional and local transport policies and provides a brief analysis of how the proposed development will contribute towards their aims and objectives. Technical Advice Note 18 (TAN 18) sets out the need for all TA supporting developments in Wales to include a Transport Implementation Strategy (TIS), which needs to include the following information in respect of each particular development proposal:
 - i) How the development and the TIS relate to transport planning policies and strategy. TIS's are intended to incorporate all the elements of a Travel Plan (TP) and ensure that these are integrated with design elements of the new development.
 - ii) Details of measures proposed to improve access by public transport, walking and cycling to reduce the number and impacts of motorised journeys associated with the development.

This TA is therefore prepared having regard to the advice from TAN 18, as outlined above. Policy Context - Planning Policy Wales (PPW).

- 4.2 In terms of the national transport policy that is relevant to the TIS, the latest 10th edition of PPW was published in December 2018 by the Welsh Government and sets out a framework for the Welsh planning authorities to prepare their development plans. Chapter 4 and 5 of PPW sets out the approach to Transport.
- 4.3 Paragraph 4.1.1 of PPW states that "The planning system should enable people to access jobs and services through shorter, more efficient and sustainable journeys, by walking, cycling and public transport. By influencing the location, scale, density, mix of uses and design of new development, the planning system can improve choice in transport and secure accessibility in a way which supports sustainable development, increases physical activity, improves health and helps to tackle the causes of climate change and airborne pollution by:
 - Enabling More Sustainable Travel Choices measures to increase walking, cycling and public transport, reduce dependency on the car for daily travel;
 - Network Management measures to make best use of the available capacity, supported by targeted new infrastructure; and



- 4.4 Demand Management the application of strategies and policies to reduce travel demand, specifically that of single-occupancy private vehicles." Paragraph 4.1.6 of PPW states that "Planning authorities must set out in their development plan an integrated planning and transport strategy. This should set out how the planning authority will:
 - integrate and co-ordinate sustainable transport and land use planning;
 - facilitate and promote accessibility for all;
 - reduce the need to travel; reduce dependency on private vehicles;
 - prioritise and support walking, cycling and use of public transport;
 - support the uptake of Ultra Low Emission Vehicles; reduce transport related airborne pollution; and
 - facilitate the provision of transport infrastructure and necessary sustainable transport improvements and development creation."

Paragraph 4.1.10 and 4.1.11 of PPW state that "Development proposals must seek to maximise accessibility by walking, cycling and public transport, by prioritising the provision of appropriate on-site infrastructure and, where necessary, mitigating transport impacts through the provision of off-site measures, such as the development of active travel routes, bus priority infrastructure and financial support for public transport services."

And

- 4.5 "It is Welsh Government policy to require the use of a sustainable transport hierarchy in relation to new development, which prioritises walking, cycling and public transport ahead of the private motor vehicles. The transport hierarchy recognises that Ultra Low Emission Vehicles also have an important role to play in the decarbonisation of transport, particularly in rural areas with limited public transport services."
- 4.6 In reference to supporting documentation with planning applications, paragraph 4.1.56 of PPW states that "Transport Assessments are an important mechanism for setting out the scale of anticipated impacts of a proposed development, or redevelopment, is likely to have. They assist in helping to anticipate the impacts of development so that they can be understood and catered for."

Local Policy – Flintshire Unitary Development Plan – Preferred Strategy Document 2017

4.7 The next Flintshire Unitary Development Plan (FUDP) is currently undergoing a process of consultation, as part of which a Preferred Strategy document has been produced, however it is currently in an outline form only.



- 4.8 The Preferred Strategy makes provision for: "a level of growth comprising 8-10,000 jobs through some 223 ha of employment land, supported by a housing provision for 7,645 new homes to meet a housing requirement of 6,950 dwellings"
- 4.9 Policy STR2 directs new development to:
 - Allocated sites
 - Principal Employment Areas Sustainable settlements based on the first 3 tiers of the settlement hierarchy.
 - Main Service Centres the main locations for new housing development.
 - Local Service Centres the location for more modest levels of housing growth.
 - Sustainable Villages the location for housing development related to the scale, character
 and role of the settlement Defined Villages will be the focus for a flexible and sustainable
 approach to delivering local needs affordable housing.
 - Defined Villages will be limited to small scale infill or rounding off for local needs affordable housing.
- 4.10 Policy STR6 will ensure that new development is supported by necessary and adequate infrastructure whether through CIL or planning obligations
- 4.11 Policy STR11 will set out the approach to and principles to be applied in making provision for viable and deliverable housing development to meet general, affordable and specific housing need.
- 4.12 NEW013/NEW004 are identified in the Preferred Strategy as green/amber candidate site for development, meaning that the site complies with the Council's Preferred Strategy, however there are site constraints that would need to be overcome to allow the site to be developed.

North Wales Local Authorities North Wales Joint Local Transport Plan (2015-2020)

4.13 The Local Transport Plan (LTP) has been jointly produced by the six North Wales Local Authorities of Conwy County Borough Council, Denbighshire County Council, Flintshire County Council, Gwynedd Council, Isle of Anglesey County Council and Wrexham County Borough Council and aims to remove barriers to economic growth, prosperity and well-being by delivering safe, sustainable, affordable and effective transport networks.



- 4.14 The LTP identifies the key transport issues for North Wales which includes the lack of viable and affordable alternatives to the car to access key employment sites and other services. The LTP recognises that there is an opportunity to reduce short commuter trips by improving the quality and provision of sustainable transport and promoting modal shift, predominantly for a distance less than 5km, which is considered appropriate for the promotion of active modes.
- 4.15 The LTP 'Outcomes' are identified as:
 - Connections to Key Destinations and Markets;
 - Access to Employment;
 - Access to Services;
 - Increasing Levels of Walking and Cycling;
 - Improved Safety and Security;
 - Benefits and Minimised Impacts on the Environment.
- 4.16 The LTP goes on to set out the 'Higher Level Interventions' that will address these issues and aid the achievement of the desired outcomes; these include encouraging sustainable transport through providing access to services through a range of integrated transport measures to improve access to education, health, community, shopping and other services by public transport, walking and cycling as well as community transport, taxi and car share

Active Travel (Wales) Act 2013

- 4.17 The Welsh Government seeks to enable more people to walk, cycle and generally travel by more active methods so that:
 - More people can experience the health benefits of active travel;
 - We reduce our greenhouse gas emissions;
 - We help address poverty and disadvantage and;
 - We help our economy to grow by unlocking sustainable economic growth.
- 4.18 The Design Guidance: Active Travel (Wales) Act 2013 is statutory guidance and is published by the Welsh Government for use throughout Wales when designing and maintain active travel routes and facilities. It is intended to ensure that the requirements of the Active Travel Act are applied consistently and appropriately throughout Wales.



Well Being of Future Generations Act

- 4.19 The Well-being of Future Generations (Wales) Act is about improving the social, economic, environmental and cultural well-being of Wales. The Act puts in place seven well-being goals:
 - A globally responsible Wales;
 - A prosperous Wales;
 - A resilient Wales;
 - A healthier Wales;
 - A more equal Wales;
 - A Wales of cohesive communities:
 - A Wales of vibrant culture and thriving Welsh language.
- 4.20 By having these goals in place it will make public bodies listen and think more about the long-term to prevent future problem and to take a more joined-up approach.
- 4.21 This travel plan has been developed in line with local and national transport policy and guidance and supports policies in the North Wales Joint Local Transport Plan, The Design Guidance: active Travel (Wales) Act 2013, The Well-being of Future Generations Act and the North Wales Regional Transport Plan.

Summary

- 4.22 The proposed development is in line with local and national policy to provide sustainable and affordable housing.
- 4.23 Necessary and adequate infrastructure will be provided by the development proposals.



5.0 SUSTAINABLE TRANSPORT ACCESSIBILITY

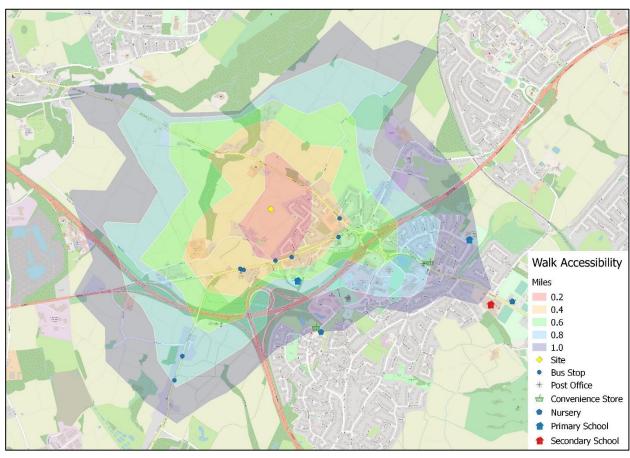
- 5.1 This chapter provides an assessment of the current accessibility of the proposed site for pedestrians, cyclists, and public transport.
- 5.2 It should be noted that this accessibility looks at the accessibility from Holywell Road and Green Lane.

<u>Walking</u>

- 5.3 Walking is the most important mode of travel at local level and offers the greatest potential to replace short car trips, particularly those under 1 mile.
- 5.4 The surrounding area benefits from a good level of pedestrian infrastructure. Old Mold Road and Holywell Road benefits from footways, street lighting and dropped kerbs on both sides of the carriageway. The pedestrian infrastructure on Green Lane is to be upgraded as part of the development.
- 5.5 The pedestrian accessibility of the development has been modelled using Geographical Information System (GIS) software to produce isochrones mapping. The purpose of the isochrones is to demonstrate the areas within an acceptable walk distance of the site, as shown on **Figure 5.1**.



Figure 5.1 - Walk Accessibility



5.6 **Table 5.1 and 5.2** demonstrates the facilities which are within a 2 mile walk of the site accesses.

Table 5.1 – Accessibility of Facilities – Holywell Road Site Access (Site A Access)

Facility	Detail	Distance from site (metres)
Takeaway	Fayon Fish and Chips	500m
Gym	Village Gym St David's Park	850m
Primary School	Ewloe Primary School	950m
Convenience Store	The Cooperative (The Hwy)	1000m
Post Office	Ewloe Post Office	1000m
Public House/Restaurant	Crown and Liver Public House	1100m
Primary School	Penarlag Community Primary School	1300m
Convenience Store	The Cooperative (St David's Park)	1400m
Nursery	Busy Bees	1400m
Secondary School	Hawarden High School	1500m
Nursery	The Highway Day Nursery	1500m



5.7 Hawarden Railway Station is just outside the 1 mile threshold and is located approximately 1.4miles to the east of the Holywell Road site access.

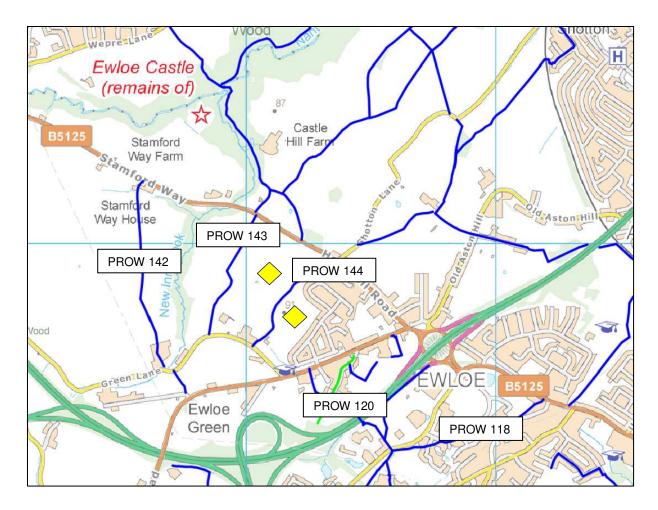
Table 5.2 – Accessibility of Facilities – Green Lane Site Access (Site B Access)

Facility	Detail	Distance from site
		(metres)
Primary School	Ewloe Primary School	200m
Takeaway	Fayon Fish and Chips	600m
Gym	Village Gym St David's Park	1000m
Nursery	Busy Bees	1000m
Convenience Store	The Cooperative (St David's Park)	1000m
Convenience Store	The Cooperative (The Hwy)	1200m
Post Office	Ewloe Post Office	1200m
Public House/Restaurant	Crown and Liver Public House	1300m
Primary School	Penarlag Community Primary School	1500m
Nursery	The Highway Day Nursery	1500m
Secondary School	Hawarden High School	1600m

- 5.8 Hawarden Railway Station is located just outside the 1 mile walking threshold and is located approximately 1.4miles to the east of Green Lane site access.
- 5.9 The site is well located to benefits from Public Rights of Way (PROW). This can be seen in **Figure**5.2.



Figure 5.2 – PROW's in the vicinity of the site



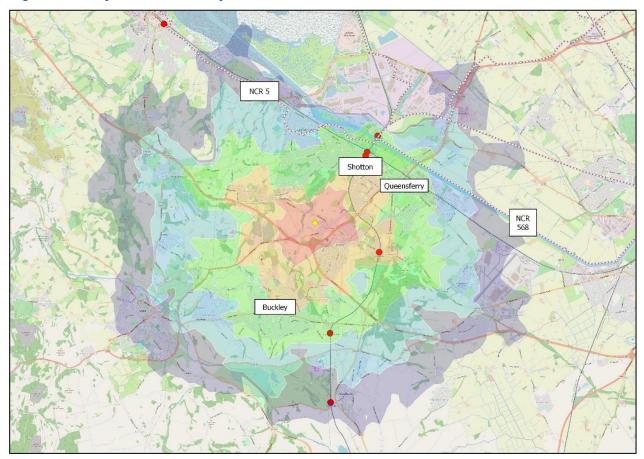
5.10 PROW 142, 143 and 144 all run in the immediate vicinity of the site. PROW 120 runs to the south of the site and connects Old Mold Road to St David's Park where the Co-operative Convenience Store and Busy Bees Children's Nursery is located.

Cycling

- 5.11 Cycling is an inexpensive, efficient and healthy way to travel. Cycling, depending on the destination, provides a predictable arrival time which is often quicker than driving or using public transport, and is subject to fewer traffic and congestion delays.
- 5.12 Transport Policy identifies that cycling represents a realistic and healthy alternative to the use of the private car for making journeys up to 5000m as a whole journey or as part of a longer journey by public transport.
- 5.13 GIS software has been used to model 3mile cycle catchment from the site and is shown on **Figure** 5.3.



Figure 5.3 - Cycle Accessibility



- 5.14 The site benefits from being located to the south of National Cycle Route 5 and 568.
- 5.15 Hawarden Railway Station is located within the cycle catchment approximately 1.4 miles and 1.6 miles to the south east of the development site.
- 5.16 The above plan shows that a number of areas can be accessed within a 3 mile cycle distance of the site. As the application site is within an acceptable cycle distance of a range of places and associated facilities, cycling is considered to be a viable alternative to private car use for prospective residents.

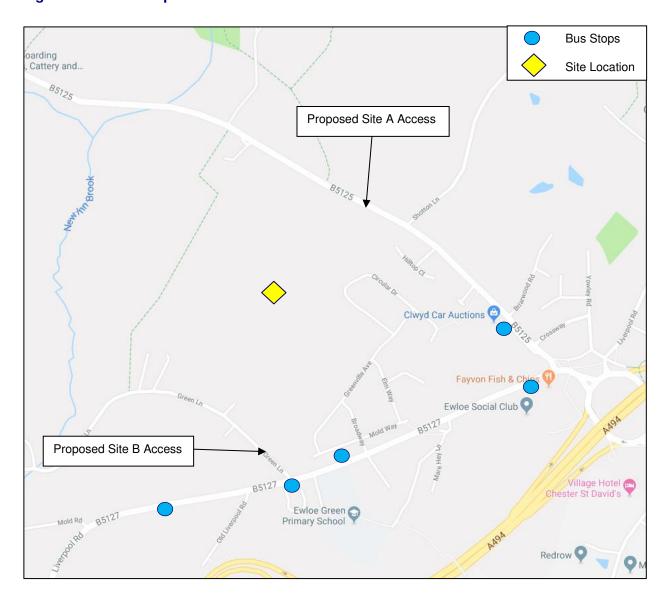
Public Transport

- 5.17 Guidance published by the IHT 'Planning for Public Transport in Developments' (1999), recommends that the maximum walking distance to a bus stop should be 400m, equating approximately to a five-minute walk.
- 5.18 The nearest bus stop in relation to the Green Lane site access is located within 100m. The nearest bus stop in relation to the Holywell Road site access is located approximately 400m to the south of the site on Old Mold Road.



5.19 **Figure 5.4** shows the bus stops closest to the development site.

Figure 5.4 – Bus Stops



5.20 **Table 5.3** shows a summary of the buses which run in the vicinity of the site.



Table 5.3 – Bus Service Summary

Service Number	Route	Bus Stop Location	Operator		Service He h Direction	
				Mon-Fri	Sat	Sun
5	Ellesmere Port – Wolverham – Garden City – Ewloe - Mold	Old Mold Road	Stagecoach	60	60	-
X4	Chester – Broughton – Hawarden – Buckley - Mold	Old Mold Road	Arriva	30	30	-

Public Transport - Train

- 5.21 Hawarden Railway Station is located approximately 1.4 miles south east of the site. Hawarden Railway Station provides cycle lockers. This station serves services to Neston, Wrexham Central and Bidston, whilst also stopping at many other destinations on route.
- 5.22 TRACC software has been used to map a 60 minute journey time using public transport, including the walk to the nearby bus stops, and railway stations, and are presented in **Figure 5.5**. The analysis demonstrates that it is possible to reach areas such as Chester, Ellesmere Port and Neston amongst others, within an acceptable 60 minute commute time



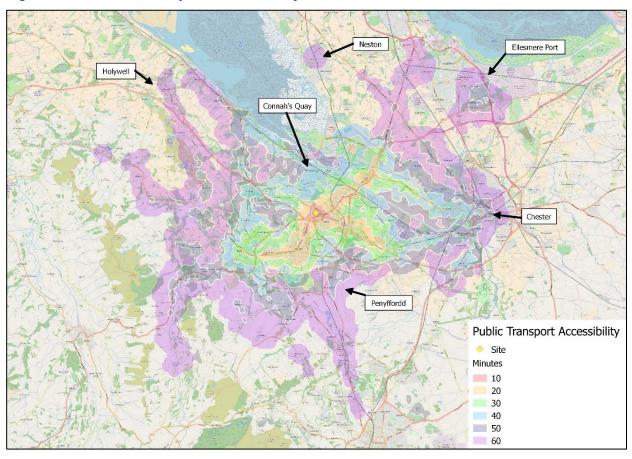


Figure 5.5 – Public Transport Accessibility

5.23 Therefore, future residents of the site will have access to bus and train services which provide travel to a range of destinations at an acceptable frequency, making the site accessible without the use of a private car.

<u>Summary</u>

5.24 Overall, the site is considered to be reasonably well located in terms of its accessibility by noncar modes of transport. Access to the site by foot, cycle and public transport is of an acceptable standard making the site accessible.



6.0 **FUTURE BASELINE TRAFFIC CONDITIONS**

Introduction

6.1 This chapter describes the future baseline traffic conditions on the local highway network in relation to traffic growth and committed development traffic flows.

Traffic Growth

- 6.2 Capacity assessments have been undertaken in the predicted year of opening and 5-years hence. The anticipated year of opening of the development is 2019 and the future assessment year is therefore 2024.
- 6.3 In order to quantify the level of background traffic growth that could occur on the local network National Traffic Model (NTM) growth factors, modified by TEMPRO local growth factors, have been used for the Flintshire Area (W02000070) 013 dataset.
- 6.4 The growth factors have been summarised as:

Period	AM Peak	PM Peak
2018-2019	1.0109	1.0104
2018 - 2024	1.0532	1.0513
2019-2024	1.0349	1.0335

6.5 The above growth factors are applied to the survey traffic flow data to obtain the 2019 and 2024 growthed surveyed traffic flows, as shown in **Traffic Flow Figures 2** and **3** and **12**.



7.0 TRIP GENERATION, DISTRIBUTION AND ASSIGNMENT

Introduction

7.1 This chapter provides an estimate of the trips generated by the proposed use of the site, along with its distribution and assignment on the local highway network.

Trip Generation

- 7.2 The Trip Rate Information Computer System (TRICS) database has been used to derive suitable multi-modal trip generation rates for the total development site of 297 dwellings. The trip generation will be assessed for a total of 300 residential dwellings to ensure a robust assessment. The TRICS output files are included at **Appendix 6**. The following criteria were applied to the TRICS category "Houses, Privately owned and Flats, Privately owned.
 - Sites in London, Republic of Ireland, Northern Ireland or Highlands were excluded;
 - Only Edge of Town and Suburban areas were selected;
 - Only surveys on weekdays are included;
 - Sites between 75 and 805 total number of dwellings were included; and
 - Only the most recent survey was included for each site.
- 7.3 Vehicle trip rates for the AM and PM peak hours extracted from the TA are shown at **Table 7.1**, along with the multi-modal TRICS.

Table 7.1: Trip Rates

Mode		AM Peak Hour 0 to 09:00)	Weekday PM Peak Hour (17:00 to 18:00)		
Wood	Arrivals	Departures	Arrivals	Departures	
Vehicles	0.124	0.377	0.33	0.163	
Pedestrians	0.027	0.097	0.054	0.032	
Cyclists	0.005	0.009	0.013	0.009	
Public Transport	0	0.025	0.016	0.003	

7.4 The above trip rates have been applied to 300 dwellings and summarised in **Table 7.2**.



Table 7.2: Trip Generation

Mode		AM Peak Hour 0 to 09:00)	Weekday PM Peak Hour (17:00 to 18:00)		
mouc	Arrivals	Departures	Arrivals	Departures	
Vehicles	37	113	99	49	
Pedestrians	8	29	16	10	
Cyclists	2	3	4	3	
Public Transport	0	8	5	1	

- 7.5 **Table 7.2** shows that the proposals will generate 150 two-way vehicle trips in the AM peak period and 148 two-way vehicle trips in the PM peak period.
- 7.6 The proposed development is likely to include an element of affordable housing which generally results in lower trip generation per unit. However, as the above assessments assume that all of the dwellings on site will be privately owned, the results are robust.

Trip Distribution

- 7.7 Vehicular trips generated by the proposed development are distributed on the local highway network based on travel to work data obtain from the 2011 National census for all travel to work "out-moves" for the Flintshire 013 Middle Super Output Area (MSOA), as presented in **Appendix 7.**
- 7.8 The flows have been distributed from the Holywell Road site access and Green Lane site access, it is presumed 197 houses will use the Holywell Road proposed access and for a robust assessment 100 houses will be served via the Green Lane access. For all vehicles using the Green Lane access it has been presumed that 100% of vehicles will turn left out of the site and go through the Green Lane/ Mold Road Junction.
- 7.9 Out-moves provide an indication of the numbers and destinations (on a MSOA) of people who reside in the Flintshire 013 MSOA and who work elsewhere, providing a good proxy for the distribution of the proposed residential development traffic. The trip distribution is shown in **Traffic Flow Figure 4** for Site A and **Traffic Flow Figure 5** for Site B.

Traffic Assignment

7.10 The development related traffic has been assigned to the above distribution method, and is shown in **Traffic Flow Figure 6**, **Traffic Flow Figure 7** and **Traffic Flow Figure 8**.



Assessment Flows

7.11 The Assessment flows for 2019 and 2024 (relevant base year plus development traffic) is included in **Traffic Flow Figures 9** and **10**. Assessment flows for 2019 and 2024 at the A494/B5125/B5127 roundabout are shown in **Traffic Flow Figures 13** and **14**.



8.0 ANTICIPATED HIGHWAY IMPACTS

Introduction

- 8.1 This Chapter describes the impact of the additional trips generated by the proposed development on the operation of the local highway network.
- 8.2 This TA has undertaken assessments of the capacity of the proposed site accesses, the Holywell Road/Old Mold Road junction, and the A494/B5125/B5127/Yowley Road roundabout.

Assessments Methodology

- 8.3 Assessments of the priority-controlled site access have been undertaken using Junctions 9 (PICADY) software, and the assessment of the A494/B5125/B5127/Yowley Road roundabout have been undertaken using Junctions 9 (ARCADY) software.
- 8.4 With the Junctions 9 models, the results generated provide a Ratio to Flow capacity (RFC) along with an estimate of the likely traffic queues. RFC values between 0.00 and 0.85 are generally accepted as representing stable and acceptable operating conditions. Values between 0.85 and one and represents variable operation (i.e. possible queues building up at the junction during the period under consideration and increases in vehicular delay moving through the junction). RFC values in excess of one represents overloaded conditions (i.e. congested conditions).
- 8.5 Assessments have been undertaken in the opening year of 2019 and the future assessment year of 2024.

Proposed Site Access - Holywell Road

8.6 Junctions 9 PICADY software has been used in the assessment of the proposed site access. The PICADY results are presented in **Appendix 8** with the results summarised in **Table 8.1**.



Table 8.1 - Proposed Site Access Junction 2019 and 2024

		АМ		РМ		
Movement	Stream	RFC	Queue (PCU)	RFC	Queue (PCU)	
	2019 'With' Development					
Site Access – Holywell Road West	B-C	0.01	0.0	0.00	0.0	
Site Access – Holywell Road East	B-A	0.20	0.3	0.10	0.1	
Holywell Road East - Site Access	С-В	0.00	0.0	0.01	0.0	
	2024 'With' Do	evelopment				
Site Access – Holywell Road West	B-C	0.01	0.0	0.00	0.0	
Site Access – Holywell Road East	B-A	0.21	0.3	0.11	0.1	
Holywell Road East – Site Access	С-В	0.00	0.0	0.01	0.0	

8.7 The assessments have been undertaken with the proposed right turn lane. The assessment demonstrated that the junction will operate well below theoretical capacity (0.85) and no queues are forecast at the site access on Holywell Road in the peak hours as a result of the proposed development.

Holywell Road/Old Mold Road Junction

- 8.8 Assessments of the Holywell Road/Old Mold Road junction have been undertaken using Junctions 9 (PICADY) software.
- 8.9 Assessments have been undertaken in the Base 2018 scenario, opening year of 2019 and the future assessment year of 2024.
- 8.10 The PICADY results are presented in **Appendix 9**, and 10 with the results summarised in **Table** 8.2 and 8.3.



Table 8.2 – Holywell Road/Old Mold Road Junction (Existing Layout)

Movement		A	М	F	PM			
wovement	Stream	RFC	Queue (PCU)	RFC	Queue (PCU)			
	Base 2019							
Holywell Road – Old Mold Road East	B-C	0.90	6.4	0.52	1.1			
Holywell Road – Old Mold Road West	B-A	0.70	1.8	0.46	0.8			
Old Mold Road West	C-AB	0.39	0.6	1.07	28.3			
	В	Base 2024						
Holywell Road – Old Mold Road East	B-C	0.98	11.5	0.60	1.4			
Holywell Road – Old Mold Road West	B-A	0.92	4.1	0.57	1.2			
Old Mold Road West	C-AB	0.41	0.7	1.12	39.7			
	Base 202	24 + Developme	ent					
Holywell Road – Old Mold Road East	B-C	1.19	43.9	1.13	14.1			
Holywell Road – Old Mold Road West	B-A	1.15	8.1	1.06	4.8			
Old Mold Road West	C-AB	0.48	0.9	1.25	77.8			

- 8.11 The results show that the Old Mold Road approach from the A494 is showing signs of stress in the evening peak hour, when right turning traffic into Holywell Road blocks the straight ahead movement. In the morning peak hour the left turn from Holywell Road to Old Mold Road also shows some stress in future years.
- 8.12 To overcome the current and potential worsening problems in the future, we have investigated potential improvements for the junction. The improvements that we have identified can be carried out wholly within highway land and involve creating two lanes at the give way on Holywell Road and a right turn lane from Old Mold Road west to Holywell Road.
- 8.13 **Table 8.3** shows the 2019 and 2024 scenario with development and proposed junction improvements.



Table 8.3 – Holywell Road/Old Mold Road Junction 2019 and 2024 (Junction Improvements)

Movement	AM		М	РМ	
ino volitorio	Stream	RFC	Queue (PCU)	RFC	Queue (PCU)
2019 'Wit	h' Developm	ent - Junction	Improvements	S	
Holywell Road – Old Mold Road East	B-C	0.91	7.7	0.49	1.0
Holywell Road – Old Mold Road West	B-A	0.28	0.4	0.43	0.7
Old Mold Road East – Holywell Road	C-AB	0.37	0.6	0.97	13.4
2024 'Wit	h' Developm	ent – Junction	Improvements	S	
Holywell Road – Old Mold Road East	B-C	0.97	11.7	0.53	1.1
Holywell Road – Old Mold Road West	B-A	0.31	0.4	0.4	0.9
Old Mold Road East – Holywell Road	C-AB	0.39	0.6	1.01	20.0

8.14 The above analysis shows that the improvements to the junction will significantly improve the operation of the junction, leaving the junction in a better position with the development and the improvement than it would be without the development and the improvement.

Proposed Site Access - Green Lane

8.15 Junctions 9 PICADY software has been used in the assessment of the proposed site access. The PICADY results are presented in **Appendix 11** with the results summarised in **Table 8.4.**

Table 8.4- Proposed Green Lane Site Access Junction 2024 - With Development

Movement		АМ		P	
	Stream	RFC	Queue (PCU)	RFC	Queue (PCU)
Site Access – Green Lane South	B-C	0.06	0.1	0.03	0.0
Site Access – Green Lane North	B-A	0.00	0.0	0.00	0.0
Green Lane South – Site Access	C-AB	0.02	0.0	0.06	0.1

8.16 The assessments demonstrate that the junction will operate well below theoretical capacity (0.85) and no queues are forecast at the site access or Green Lane in the peak hours as a result of the proposed development.



Green Lane/ Mold Road Junction

- 8.17 Assessments of the Green Lane/ Mold Road junction have been undertaken using Junctions 9 (PICADY) software.
- 8.18 Assessments have been undertaken in the opening year of 2019 and the future assessment year of 2024.
- 8.19 The PICADY results are presented in **Appendix 12** with the results summarised in **Table 8.5**.

Table 8.5- Green Lane/ Mold Road Junction - With Development

		A	М	Р	М
Movement	Stream	RFC	Queue (PCU)	RFC	Queue (PCU)
	2019 'With' D	evelopment			
Green Lane -Mold Road West	B-C	0.08	0.1	0.03	0.0
Green Lane – Mold Road East	B-A	0.02	0.0	0.01	0.0
Mold Road West – Green Lane	C-AB	0.03	0.0	0.08	0.2
	2024 'With' D	evelopment			
Green Lane -Mold Road West	B-C	0.08	0.1	0.03	0.0
Green Lane – Mold Road East	B-A	0.02	0.0	0.01	0.0
Mold Road West – Green Lane	C-AB	0.03	0.0	0.09	0.2

8.20 The assessments demonstrate that the junction will operate well below theoretical capacity (0.85) and no queues are forecast on Green Lane or Mold Road junction in the peak hours as a result of the proposed development.

A494 / B5125 Roundabout

- 8.21 Assessments of the A494/B5125/Yowley Road roundabout have been undertaken using Junctions 9 (ARCADY) software.
- 8.22 The ARCADY results are presented in **Appendix 13** and summarised in **Table 8.6**.



Table 8.6 - A494/B5125/B5127/Yowley Road Roundabout - with development

	A	М	Р	М
Arm	RFC	Queue (PCU)	RFC	Queue (PCU)
2019 +	development t	raffic		
A494 (East)	0.37	0.6	0.50	1.0
B5125 (South)	0.49	0.9	0.55	1.2
A494 (West)	0.37	0.6	0.39	0.6
B5127 (North)	0.76	3.1	0.39	0.6
Yowley Road	0.14	0.2	0.05	0.0
2024 +	development t	raffic		
A494 (East)	0.39	0.6	0.52	1.1
B5125 (South)	0.51	1.0	0.58	1.4
A494 (West)	0.39	0.6	0.41	0.7
B5127 (North)	0.80	3.8	0.40	0.7
Yowley Road	0.15	0.2	0.05	0.1

- 8.23 The assessments demonstrate that the roundabout will operate well below theoretical capacity (0.85) with the additional development traffic in both 2019 and 2024.
- 8.24 In the 2019 scenario the only queues forecast in the peak hours are on the B5127 (North) in the 2019 AM peak, and on the A494 (East) and B5125 (South) in the 2019 PM peak. The longest queue forecast is 3.1 PCUs which will have a negligible impact on the local highway network.
- 8.25 In the 2024 scenario, queues are forecast on the B5127 and B5125 in the AM peak and on the A494 (East) and B5125 (South) in the PM peak. The greatest queue forecast is 3.8 PCUs which will have a negligible impact on the local highway network.
- 8.26 Whilst site observations indicate that there can occasionally be a short delay in exiting the circulatory carriageway to enter Old Mold Road, this is caused by the current right turning vehicles into Holywell Road from Old Mold Road which block the junction for ahead movements. The proposed improvements to the Old Mold Road/Holywell Road junction,



described above, will remove the occasional blockage in the Old Mold Road carriageway and result in a corresponding improvement to the A494 roundabout.



9.0 **SUMMARY AND CONCLUSIONS**

- 9.1 SCP have been instructed by Mr G Gaunt on behalf of Messers P & S Moore to provide specialist transport planning, and engineering advice in support of a residential development on land to the south of Holywell Road, and north of Green lane in Ewloe.
- 9.2 The application site is located approximately 0.6 miles to the north-west of Ewloe Village.
- 9.3 The proposed development will provide up to 297 residential dwellings, comprising a mix of house types and sizes. The proposed development is served by two vehicular access points, one from Holywell Road and a second from Green Lane.
- 9.4 The proposals include the extension of the 30mph speed limit of Holywell Road across the site frontage.
- 9.5 The proposed Holywell Road site access provides visibility splays that have an 'x' distance (minor arm setback distance) of 2.4m and a 'y' (major road visibility) distance of 43m to the left and 43m to the right. The proposed Green Lane site access provides visibility splays that have an 'x' distance (minor arm setback distance) of 2.4m and a 'y' (major road visibility) distance of 43m to the left and 43m to the right.
- 9.6 The Green Lane and Mold Road junction also provides visibility splays that have an 'x' distance (minor arm setback distance) of 2.4m and a 'y' (major road visibility) distance of 43m to the left and 43m to the right. This has been modelled with 100% of vehicles using the Green Lane access going through this junction.
- 9.7 The internal layout will be designed such that the two sites will be separated by an emergency link only, or incorporate design features to prevent the opportunity for rat-running between Holywell Road and Green Lane.
- 9.8 Pedestrian and cycle access will be provided from the same location as the vehicular accesses. The proposed development will provide a 2m footway throughout the internal road network and the internal carriageway will measure 5.5m wide. Further pedestrian connections will be available via the public rights of way that pass through the site.
- 9.9 The internal road network will be designed to ensure the movements of service and refuse vehicles can be accommodated without allowing their requirements to dominate the layout, in accordance with the principle set out in the Manual for Streets.
- 9.10 The proposed development will meet Flintshire County Council's parking standards.



- 9.11 The personal injury accident data for the most recently available five-year period has been reviewed and does not represent a material concern in the context of the proposed development.
- 9.12 The development is compliant with local, regional and national policy as it will promote sustainable modes of travel and reduce the number of car trips to local facilities.
- 9.13 It has been demonstrated that the development is sustainable with acceptable accessibility to the site provided to those travelling by foot, bicycle and by bus.
- 9.14 The impact of the traffic arising from the scheme has been tested in detail at the following junctions:-
 - Holywell Road/Site Access A junction;
 - Holywell Road/Old Mold Road junction;
 - Green Lane/Mold Road junction and;
 - Green lane/Site Access B Junction
 - A494/B5125/B5127/Yowley Road Roundabout
- 9.15 The assessments show that at the Holywell Road/Site Access A, Green Lane/Old Mold Road Junction and Green Lane/Site Access B junction there is either sufficient spare capacity to accommodate the proposed development or the development will not have a material impact on the operation of these junctions.
- 9.16 Green Lane is to be upgraded as part of the development to allow for a 5.5m carriageway, 2m footways on either side and re-aligned so visibility splays of 2.4m by 43m can be achieved to the east and west.
- 9.17 The existing Holywell Road/Old Mold Road Junction has been shown to be stressed under current conditions on the Holywell Road and Old Mold Road east arm in the 2018 AM and PM base scenarios. The addition of the proposed development traffic would reduce capacity further and increase queuing at the junction. Improvements to the junction are proposed and will include a right turn lane for those vehicles waiting to turn right into Holywell Road as well as a right and left turn lane out of Holywell Road onto Old Mold Road. These improvements will more than mitigate the impact of the development.
- 9.18 The A494/B5125/B5127/Yowley Road is shown to continue to work within capacity with the additional development traffic in both 2019 and 2024 although the improvements to the Holywell Road/Old Mill Road junction, described above, will remove the occasional delays on the circulating carriageway and result in betterment for this roundabout.



Conclusions

9.19 Overall, subject to the works identified in this report being implemented, there are no highway, traffic or transport reasons to resist the development of this site for up to 297 dwellings.

S|C|P APPENDIX 1

Site 1 of 2 B5127 B5127 Old Mold Road B5125 Holywell Road

Lat/Long lat 53.192398° lon -3.054614°

Date Wednesday 19 September 2018

Weather Sunny Intervals Temp: 15°C

0700 - 0930 (Weekday AM Peak)

			Movement	1.1: Left from B5	127 to B5127 Old	Mold Road			Origii	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	23	0	6	2	0	1	32	34.00
0715 - 0730	1	1	25	0	5	1	1	0	34	34.40
0730 - 0745	1	1	33	0	4	3	1	1	44	46.40
0745 - 0800	1	0	37	0	6	0	0	0	44	43.20
Hourly Total	3	2	118	0	21	6	2	2	154	158.00
Hourly Average	0.75	0.50	29.50	0.00	5.25	1.50	0.50	0.50	38.50	39.50
0800 - 0815	0	0	63	0	4	1	0	3	71	74.50
0815 - 0830	0	0	119	0	3	1	0	0	123	123.50
0830 - 0845	1	0	71	0	10	0	0	1	83	83.20
0845 - 0900	0	0	30	0	7	3	1	1	42	45.80
Hourly Total	1	0	283	0	24	5	1	5	319	327.00
Hourly Average	0.25	0.00	70.75	0.00	6.00	1.25	0.25	1.25	79.75	81.75
0900 - 0915	0	1	34	0	2	2	2	1	42	46.00
0915 - 0930	0	0	26	0	2	3	1	0	32	34.80
1/2 Hourly Total	0	1	60	0	4	5	3	1	74	80.80
1/2 Hourly Average	0.00	0.50	30.00	0.00	2.00	2.50	1.50	0.50	37.00	40.40
	•	•	•	•	•				•	
Session Total	4	3	461	0	49	16	6	8	547	565.80
Session Average	0.40	0.30	46.10	0.00	4.90	1.60	0.60	0.80	54.70	56.58

Date Wednesday 19 September 2018

Weather

Cloudy Temp: 14°C

			Movement	1.1: Left from B5	127 to B5127 Old	Mold Road			Origin	al Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	1	96	0	9	0	0	0	106	105.40
1615 - 1630	0	1	103	0	13	1	1	1	120	122.20
1630 - 1645	0	3	112	0	10	0	0	2	127	127.20
1645 - 1700	1	0	116	0	16	4	0	1	138	140.20
Hourly Total	1	5	427	0	48	5	1	4	491	495.00
Hourly Average	0.25	1.25	106.75	0.00	12.00	1.25	0.25	1.00	122.75	123.75
1700 - 1715	1	1	121	0	6	2	0	0	131	130.60
1715 - 1730	0	0	148	0	18	1	0	1	168	169.50
1730 - 1745	0	1	120	0	10	1	0	1	133	133.90
1745 - 1800	0	1	127	1	7	0	0	0	136	135.40
Hourly Total	1	3	516	1	41	4	0	2	568	569.40
Hourly Average	0.25	0.75	129.00	0.25	10.25	1.00	0.00	0.50	142.00	142.35
				_						
Session Total	2	8	943	1	89	9	1	6	1059	1064.40
Session Average	0.25	1.00	117.88	0.13	11.13	1.13	0.13	0.75	132.38	133.05

Site 1 of 2 B5127 B5127 Old Mold Road B5125 Holywell Road

Lat/Long lat 53.192398° lon -3.054614°

Date Wednesday 19 September 2018

Weather Sunny Intervals Temp: 15°C

0700 - 0930 (Weekday AM Peak)

			Movement	1.2: Right from B	5127 to B5125 Ho	olywell Road			Origir	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	16	0	1	0	0	0	17	17.00
0715 - 0730	0	0	10	0	1	2	0	0	13	14.00
0730 - 0745	0	0	17	0	6	2	0	0	25	26.00
0745 - 0800	0	0	19	0	8	0	0	0	27	27.00
Hourly Total	0	0	62	0	16	4	0	0	82	84.00
Hourly Average	0.00	0.00	15.50	0.00	4.00	1.00	0.00	0.00	20.50	21.00
0800 - 0815	0	0	27	0	4	0	0	1	32	33.00
0815 - 0830	0	0	37	0	9	2	0	0	48	49.00
0830 - 0845	0	0	46	0	2	1	0	0	49	49.50
0845 - 0900	0	1	41	0	6	0	0	0	48	47.40
Hourly Total	0	1	151	0	21	3	0	1	177	178.90
Hourly Average	0.00	0.25	37.75	0.00	5.25	0.75	0.00	0.25	44.25	44.73
0900 - 0915	0	0	32	0	4	0	0	0	36	36.00
0915 - 0930	0	0	30	0	9	1	0	0	40	40.50
1/2 Hourly Total	0	0	62	0	13	1	0	0	76	76.50
1/2 Hourly Average	0.00	0.00	31.00	0.00	6.50	0.50	0.00	0.00	38.00	38.25
	•				•	•	•	•	•	
Session Total	0	1	275	0	50	8	0	1	335	339.40
Session Average	0.00	0.10	27.50	0.00	5.00	0.80	0.00	0.10	33.50	33.94

Date Wednesday 19 September 2018

Weather

Cloudy Temp: 14°C

			Movement 1	1.2: Right from B	5127 to B5125 Ho	olywell Road			Origir	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	1	67	0	15	0	0	0	83	82.40
1615 - 1630	1	0	100	0	12	1	1	0	115	116.00
1630 - 1645	1	2	81	0	13	2	0	0	99	98.00
1645 - 1700	0	0	107	0	16	0	0	0	123	123.00
Hourly Total	2	3	355	0	56	3	1	0	420	419.40
Hourly Average	0.50	0.75	88.75	0.00	14.00	0.75	0.25	0.00	105.00	104.85
1700 - 1715	2	0	103	0	14	1	0	0	120	118.90
1715 - 1730	0	2	111	0	7	1	0	1	122	122.30
1730 - 1745	0	1	144	0	8	1	1	0	155	156.20
1745 - 1800	0	1	101	1	11	0	0	0	114	113.40
Hourly Total	2	4	459	1	40	3	1	1	511	510.80
Hourly Average	0.50	1.00	114.75	0.25	10.00	0.75	0.25	0.25	127.75	127.70
Session Total	4	7	814	1	96	6	2	1	931	930.20
Session Average	0.50	0.88	101.75	0.13	12.00	0.75	0.25	0.13	116.38	116.28

Site 1 of 2 B5127 B5127 Old Mold Road B5125 Holywell Road

Lat/Long lat 53.192398° lon -3.054614°

Date Wednesday 19 September 2018

Weather Sunny Intervals Temp: 15°C

0700 - 0930 (Weekday AM Peak)

		M	ovement 1.3: Let	ft from B5127 Old	Mold Road to B5	125 Holywell Roa	ad		Origin	al Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	1	0	4	0	2	0	0	0	7	6.20
0715 - 0730	0	0	4	0	0	0	0	0	4	4.00
0730 - 0745	0	0	5	0	2	1	0	0	8	8.50
0745 - 0800	0	0	9	0	3	0	0	0	12	12.00
Hourly Total	1	0	22	0	7	1	0	0	31	30.70
Hourly Average	0.25	0.00	5.50	0.00	1.75	0.25	0.00	0.00	7.75	7.68
0800 - 0815	0	0	25	0	0	1	0	0	26	26.50
0815 - 0830	0	1	20	0	5	0	0	0	26	25.40
0830 - 0845	0	0	22	0	1	0	0	0	23	23.00
0845 - 0900	0	0	10	0	3	0	0	0	13	13.00
Hourly Total	0	1	77	0	9	1	0	0	88	87.90
Hourly Average	0.00	0.25	19.25	0.00	2.25	0.25	0.00	0.00	22.00	21.98
0900 - 0915	0	1	13	0	1	0	0	0	15	14.40
0915 - 0930	0	0	6	0	3	0	0	0	9	9.00
1/2 Hourly Total	0	1	19	0	4	0	0	0	24	23.40
1/2 Hourly Average	0.00	0.50	9.50	0.00	2.00	0.00	0.00	0.00	12.00	11.70
		•		•			•	•	•	
Session Total	1	2	118	0	20	2	0	0	143	142.00
Session Average	0.10	0.20	11.80	0.00	2.00	0.20	0.00	0.00	14.30	14.20

Date Wednesday 19 September 2018

Weather

Cloudy Temp: 14°C

		Me	ovement 1.3: Let	ft from B5127 Old	Mold Road to B5	125 Holywell Ro	ad		Origir	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	1	10	0	1	0	0	0	12	11.40
1615 - 1630	0	0	17	0	2	2	0	0	21	22.00
1630 - 1645	0	0	14	0	1	0	0	0	15	15.00
1645 - 1700	0	0	20	0	5	4	0	0	29	31.00
Hourly Total	0	1	61	0	9	6	0	0	77	79.40
Hourly Average	0.00	0.25	15.25	0.00	2.25	1.50	0.00	0.00	19.25	19.85
1700 - 1715	0	0	17	0	0	2	0	0	19	20.00
1715 - 1730	0	1	16	0	1	1	0	0	19	18.90
1730 - 1745	0	0	15	0	2	1	0	0	18	18.50
1745 - 1800	0	0	15	1	3	0	0	0	19	19.00
Hourly Total	0	1	63	1	6	4	0	0	75	76.40
Hourly Average	0.00	0.25	15.75	0.25	1.50	1.00	0.00	0.00	18.75	19.10
Session Total	0	2	124	1	15	10	0	0	152	155.80
Session Average	0.00	0.25	15.50	0.13	1.88	1.25	0.00	0.00	19.00	19.48

Site 1 of 2 B5127 B5127 Old Mold Road B5125 Holywell Road

Lat/Long lat 53.192398° lon -3.054614°

Date Wednesday 19 September 2018

Weather Sunny Intervals Temp: 15°C

0700 - 0930 (Weekday AM Peak)

			Movement 1	1.4: Right from B	5127 Old Mold Ro	ad to B5127			Origir	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	57	0	19	1	0	1	78	79.50
0715 - 0730	0	3	94	0	15	3	0	0	115	114.70
0730 - 0745	0	0	109	0	16	1	1	1	128	130.80
0745 - 0800	3	0	136	0	11	0	0	0	150	147.60
Hourly Total	3	3	396	0	61	5	1	2	471	472.60
Hourly Average	0.75	0.75	99.00	0.00	15.25	1.25	0.25	0.50	117.75	118.15
0800 - 0815	0	0	159	0	21	2	0	2	184	187.00
0815 - 0830	0	0	115	0	14	1	0	0	130	130.50
0830 - 0845	0	0	185	0	12	1	1	2	201	204.80
0845 - 0900	0	0	105	0	6	0	0	0	111	111.00
Hourly Total	0	0	564	0	53	4	1	4	626	633.30
Hourly Average	0.00	0.00	141.00	0.00	13.25	1.00	0.25	1.00	156.50	158.33
0900 - 0915	1	0	83	0	9	1	0	2	96	97.70
0915 - 0930	0	0	70	0	8	2	1	0	81	83.30
1/2 Hourly Total	1	0	153	0	17	3	1	2	177	181.00
1/2 Hourly Average	0.50	0.00	76.50	0.00	8.50	1.50	0.50	1.00	88.50	90.50
			•		•	•				
Session Total	4	3	1113	0	131	12	3	8	1274	1286.90
Session Average	0.40	0.30	111.30	0.00	13.10	1.20	0.30	0.80	127.40	128.69

Date Wednesday 19 September 2018

Weather

Cloudy Temp: 14°C

			Movement 1	1.4: Right from B	5127 Old Mold Ro	ad to B5127			Origir	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	1	65	0	9	0	1	2	78	80.70
1615 - 1630	0	0	69	0	13	1	0	1	84	85.50
1630 - 1645	1	0	62	0	13	0	0	1	77	77.20
1645 - 1700	2	0	61	0	8	0	0	1	72	71.40
Hourly Total	3	1	257	0	43	1	1	5	311	314.80
Hourly Average	0.75	0.25	64.25	0.00	10.75	0.25	0.25	1.25	77.75	78.70
1700 - 1715	0	2	79	0	10	0	0	0	91	89.80
1715 - 1730	1	0	80	0	7	0	0	2	90	91.20
1730 - 1745	1	0	61	0	8	0	0	0	70	69.20
1745 - 1800	2	1	82	0	6	0	0	1	92	90.80
Hourly Total	4	3	302	0	31	0	0	3	343	341.00
Hourly Average	1.00	0.75	75.50	0.00	7.75	0.00	0.00	0.75	85.75	85.25
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Session Total	7	4	559	0	74	1	1	8	654	655.80
Session Average	0.88	0.50	69.88	0.00	9.25	0.13	0.13	1.00	81.75	81.98

Site 1 of 2 B5127 B5127 Old Mold Road B5125 Holywell Road

Lat/Long lat 53.192398° lon -3.054614°

Date Wednesday 19 September 2018

Weather Sunny Intervals Temp: 15°C

0700 - 0930 (Weekday AM Peak)

			Movement	1.5: Left from B5	125 Holywell Roa	ad to B5127			Origir	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	1	39	0	12	0	0	0	52	51.40
0715 - 0730	1	0	81	0	4	2	0	0	88	88.20
0730 - 0745	0	1	81	0	11	0	0	1	94	94.40
0745 - 0800	0	0	90	0	9	0	0	0	99	99.00
Hourly Total	1	2	291	0	36	2	0	1	333	333.00
Hourly Average	0.25	0.50	72.75	0.00	9.00	0.50	0.00	0.25	83.25	83.25
0800 - 0815	0	1	82	0	9	1	1	0	94	95.20
0815 - 0830	0	0	89	0	8	2	0	1	100	102.00
0830 - 0845	0	1	57	0	6	1	0	0	65	64.90
0845 - 0900	0	1	75	0	3	1	0	0	80	79.90
Hourly Total	0	3	303	0	26	5	1	1	339	342.00
Hourly Average	0.00	0.75	75.75	0.00	6.50	1.25	0.25	0.25	84.75	85.50
0900 - 0915	1	2	54	0	10	1	0	0	68	66.50
0915 - 0930	1	0	51	0	8	3	0	1	64	65.70
1/2 Hourly Total	2	2	105	0	18	4	0	1	132	132.20
1/2 Hourly Average	1.00	1.00	52.50	0.00	9.00	2.00	0.00	0.50	66.00	66.10
Session Total	3	7	699	0	80	11	1	3	804	807.20
Session Average	0.30	0.70	69.90	0.00	8.00	1.10	0.10	0.30	80.40	80.72

Date Wednesday 19 September 2018

Weather

Cloudy Temp: 14°C

			Movement	1.5: Left from B5	125 Holywell Roa	ad to B5127			Origir	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	45	0	6	3	0	1	55	57.50
1615 - 1630	0	0	35	0	5	2	0	0	42	43.00
1630 - 1645	0	0	45	0	3	0	0	0	48	48.00
1645 - 1700	0	1	53	0	10	1	0	0	65	64.90
Hourly Total	0	1	178	0	24	6	0	1	210	213.40
Hourly Average	0.00	0.25	44.50	0.00	6.00	1.50	0.00	0.25	52.50	53.35
1700 - 1715	0	0	48	0	9	3	0	0	60	61.50
1715 - 1730	0	0	43	0	7	0	0	0	50	50.00
1730 - 1745	0	0	42	0	2	1	0	0	45	45.50
1745 - 1800	0	0	68	0	6	1	0	0	75	75.50
Hourly Total	0	0	201	0	24	5	0	0	230	232.50
Hourly Average	0.00	0.00	50.25	0.00	6.00	1.25	0.00	0.00	57.50	58.13
Session Total	0	1	379	0	48	11	0	1	440	445.90
Session Average	0.00	0.13	47.38	0.00	6.00	1.38	0.00	0.13	55.00	55.74

Site 1 of 2 B5127 B5127 Old Mold Road B5125 Holywell Road

Lat/Long lat 53.192398° lon -3.054614°

Date Wednesday 19 September 2018

Weather Sunny Intervals Temp: 15°C

0700 - 0930 (Weekday AM Peak)

		Mo	vement 1.6: Ria	nt from B5125 Ho	lywell Road to B5	5127 Old Mold Ro	ad	1	Origin	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	1	0	1	0	0	0	0	0	2	1.20
0715 - 0730	0	0	8	0	0	0	0	0	8	8.00
0730 - 0745	0	2	7	2	0	0	0	0	11	9.80
0745 - 0800	0	0	12	0	0	0	0	0	12	12.00
Hourly Total	1	2	28	2	0	0	0	0	33	31.00
Hourly Average	0.25	0.50	7.00	0.50	0.00	0.00	0.00	0.00	8.25	7.75
0800 - 0815	0	0	17	0	0	0	0	0	17	17.00
0815 - 0830	0	0	22	0	2	0	0	0	24	24.00
0830 - 0845	0	0	11	0	1	0	0	0	12	12.00
0845 - 0900	0	0	8	0	2	0	0	0	10	10.00
Hourly Total	0	0	58	0	5	0	0	0	63	63.00
Hourly Average	0.00	0.00	14.50	0.00	1.25	0.00	0.00	0.00	15.75	15.75
0900 - 0915	0	0	7	0	3	0	0	0	10	10.00
0915 - 0930	0	0	12	0	1	0	0	0	13	13.00
1/2 Hourly Total	0	0	19	0	4	0	0	0	23	23.00
1/2 Hourly Average	0.00	0.00	9.50	0.00	2.00	0.00	0.00	0.00	11.50	11.50
Session Total	1	2	105	2	9	0	0	0	119	117.00
Session Average	0.10	0.20	10.50	0.20	0.90	0.00	0.00	0.00	11.90	11.70

Date Wednesday 19 September 2018

Weather

Cloudy Temp: 14°C

		Mo	vement 1.6: Rig	ht from B5125 Ho	lywell Road to B	5127 Old Mold Ro	oad		Origir	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	18	0	8	2	0	0	28	29.00
1615 - 1630	0	0	14	0	2	0	0	0	16	16.00
1630 - 1645	0	0	10	0	3	2	0	0	15	16.00
1645 - 1700	0	0	10	0	2	0	0	0	12	12.00
Hourly Total	0	0	52	0	15	4	0	0	71	73.00
Hourly Average	0.00	0.00	13.00	0.00	3.75	1.00	0.00	0.00	17.75	18.25
1700 - 1715	0	0	16	0	3	0	0	0	19	19.00
1715 - 1730	1	0	18	0	0	0	0	0	19	18.20
1730 - 1745	0	0	4	0	1	0	0	0	5	5.00
1745 - 1800	0	0	15	0	2	0	0	0	17	17.00
Hourly Total	1	0	53	0	6	0	0	0	60	59.20
Hourly Average	0.25	0.00	13.25	0.00	1.50	0.00	0.00	0.00	15.00	14.80
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Session Total	1	0	105	0	21	4	0	0	131	132.20
Session Average	0.13	0.00	13.13	0.00	2.63	0.50	0.00	0.00	16.38	16.53

S|C|P APPENDIX 2

Weather Sunny Intervals Temp: 10°C

0700 - 0900 (Weekday AM Peak)

			Mover	nent 1.1: Left fro	m A494 (East) to	B5125			Origin	al Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	17	0	3	0	0	0	20	20.00
0715 - 0730	0	0	25	0	6	1	0	0	32	32.50
0730 - 0745	0	0	46	0	8	1	0	0	55	55.50
0745 - 0800	0	0	68	0	6	3	0	0	77	78.50
Hourly Total	0	0	156	0	23	5	0	0	184	186.50
Hourly Average	0.00	0.00	39.00	0.00	5.75	1.25	0.00	0.00	46.00	46.63
0800 - 0815	0	0	85	0	6	0	0	0	91	91.00
0815 - 0830	0	0	96	0	6	0	0	2	104	106.00
0830 - 0845	0	0	88	1	7	1	0	0	97	97.50
0845 - 0900	0	0	73	0	6	0	0	0	79	79.00
Hourly Total	0	0	342	1	25	1	0	2	371	373.50
Hourly Average	0.00	0.00	85.50	0.25	6.25	0.25	0.00	0.50	92.75	93.38
					·		•			
Session Total	0	0	498	1	48	6	0	2	555	560.00
Session Average	0.00	0.00	62.25	0.13	6.00	0.75	0.00	0.25	69.38	70.00

Date

Tuesday 05 March 2019

Weather

Cloudy Temp: 9°C

			Move	ment 1.1: Left fro	m A494 (East) to	B5125			Origi	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	61	0	10	0	0	2	73	75.00
1615 - 1630	0	0	82	0	10	0	0	0	92	92.00
1630 - 1645	0	0	100	0	6	0	0	2	108	110.00
1645 - 1700	0	1	90	1	6	0	0	0	98	97.40
Hourly Total	0	1	333	1	32	0	0	4	371	374.40
Hourly Average	0.00	0.25	83.25	0.25	8.00	0.00	0.00	1.00	92.75	93.60
1700 - 1715	0	1	94	0	13	0	0	0	108	107.40
1715 - 1730	0	0	109	1	3	0	0	0	113	113.00
1730 - 1745	0	0	99	1	4	1	0	0	105	105.50
1745 - 1800	0	2	95	0	5	0	0	0	102	100.80
Hourly Total	0	3	397	2	25	1	0	0	428	426.70
Hourly Average	0.00	0.75	99.25	0.50	6.25	0.25	0.00	0.00	107.00	106.68
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Session Total	0	4	730	3	57	1	0	4	799	801.10
Session Average	0.00	0.50	91.25	0.38	7.13	0.13	0.00	0.50	99.88	100.14

Weather Sunny Intervals Temp: 10°C

0700 - 0900 (Weekday AM Peak)

			Movement 1.	2: Westbound fro	om A494 (East) to	A494 (West)			Origir	al Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	0	0	0	0	0	0	0	0.00
0715 - 0730	0	0	0	0	0	0	0	0	0	0.00
0730 - 0745	0	0	0	0	0	0	0	0	0	0.00
0745 - 0800	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800 - 0815	0	0	2	0	2	0	0	0	4	4.00
0815 - 0830	0	0	0	0	0	0	0	0	0	0.00
0830 - 0845	0	0	0	0	0	0	0	0	0	0.00
0845 - 0900	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	3	0	2	0	0	0	5	5.00
Hourly Average	0.00	0.00	0.75	0.00	0.50	0.00	0.00	0.00	1.25	1.25
Session Total	0	0	3	0	2	0	0	0	5	5.00
Session Average	0.00	0.00	0.38	0.00	0.25	0.00	0.00	0.00	0.63	0.63

Date

Tuesday 05 March 2019

Weather

Cloudy Temp: 9°C

			Movement 1.	2: Westbound from	om A494 (East) to	o A494 (West)			Origir	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	1	0	0	0	0	0	1	1.00
1615 - 1630	0	0	0	0	0	0	0	0	0	0.00
1630 - 1645	0	0	0	0	0	0	0	0	0	0.00
1645 - 1700	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	1	0	0	0	0	0	1	1.00
Hourly Average	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.25	0.25
1700 - 1715	0	0	0	0	0	0	0	0	0	0.00
1715 - 1730	0	0	0	0	1	0	0	0	1	1.00
1730 - 1745	0	0	0	0	0	0	0	0	0	0.00
1745 - 1800	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	1	0	0	0	1	1.00
Hourly Average	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.25	0.25
•										
Session Total	0	0	1	0	1	0	0	0	2	2.00
Session Average	0.00	0.00	0.13	0.00	0.13	0.00	0.00	0.00	0.25	0.25

Weather

Sunny Intervals Temp: 10°C

0700 - 0900 (Weekday AM Peak)

			Movem	ent 1.3: Right fro	om A494 (East) to	B5127			Origin	al Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	21	0	3	0	0	0	24	24.00
0715 - 0730	0	1	19	0	6	0	0	0	26	25.40
0730 - 0745	0	0	20	0	4	0	1	0	25	26.30
0745 - 0800	0	0	21	0	10	1	0	0	32	32.50
Hourly Total	0	1	81	0	23	1	1	0	107	108.20
Hourly Average	0.00	0.25	20.25	0.00	5.75	0.25	0.25	0.00	26.75	27.05
0800 - 0815	0	0	31	0	7	1	0	2	41	43.50
0815 - 0830	0	0	46	1	12	0	0	0	59	59.00
0830 - 0845	0	0	47	0	8	0	0	0	55	55.00
0845 - 0900	0	0	30	0	3	0	1	1	35	37.30
Hourly Total	0	0	154	1	30	1	1	3	190	194.80
Hourly Average	0.00	0.00	38.50	0.25	7.50	0.25	0.25	0.75	47.50	48.70
				-	-					
Session Total	0	1	235	1	53	2	2	3	297	303.00
Session Average	0.00	0.13	29.38	0.13	6.63	0.25	0.25	0.38	37.13	37.88

Date

Tuesday 05 March 2019

Weather

Cloudy Temp: 9°C

			Moven	nent 1.3: Right fr	om A494 (East) to	B5127			Origi	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	87	0	10	0	0	0	97	97.00
1615 - 1630	0	0	98	1	16	0	0	0	115	115.00
1630 - 1645	0	0	82	0	6	0	0	1	89	90.00
1645 - 1700	0	0	101	1	18	0	0	0	120	120.00
Hourly Total	0	0	368	2	50	0	0	1	421	422.00
Hourly Average	0.00	0.00	92.00	0.50	12.50	0.00	0.00	0.25	105.25	105.50
1700 - 1715	0	1	99	0	17	0	0	0	117	116.40
1715 - 1730	0	1	112	0	6	0	0	1	120	120.40
1730 - 1745	0	0	80	0	8	0	0	0	88	88.00
1745 - 1800	0	0	110	0	7	0	0	1	118	119.00
Hourly Total	0	2	401	0	38	0	0	2	443	443.80
Hourly Average	0.00	0.50	100.25	0.00	9.50	0.00	0.00	0.50	110.75	110.95
_										
Session Total	0	2	769	2	88	0	0	3	864	865.80
Session Average	0.00	0.25	96.13	0.25	11.00	0.00	0.00	0.38	108.00	108.23

Weather

Sunny Intervals Temp: 10°C

0700 - 0900 (Weekday AM Peak)

			Movement	1.4: Right from	A494 (East) to Yo	wley Road			Origin	al Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	2	0	0	0	0	0	2	2.00
0715 - 0730	0	0	1	0	0	0	0	0	1	1.00
0730 - 0745	0	0	0	0	2	0	0	0	2	2.00
0745 - 0800	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	4	0	2	0	0	0	6	6.00
Hourly Average	0.00	0.00	1.00	0.00	0.50	0.00	0.00	0.00	1.50	1.50
0800 - 0815	0	0	5	0	0	0	0	0	5	5.00
0815 - 0830	0	0	6	0	1	0	0	0	7	7.00
0830 - 0845	0	0	5	0	1	0	1	0	7	8.30
0845 - 0900	0	0	3	0	0	0	1	0	4	5.30
Hourly Total	0	0	19	0	2	0	2	0	23	25.60
Hourly Average	0.00	0.00	4.75	0.00	0.50	0.00	0.50	0.00	5.75	6.40
		•		-	-					•
Session Total	0	0	23	0	4	0	2	0	29	31.60
Session Average	0.00	0.00	2.88	0.00	0.50	0.00	0.25	0.00	3.63	3.95

Date

Tuesday 05 March 2019

Weather

Cloudy Temp: 9°C

					1404 (F. 1) 1 N					10.4
			Movemen		A494 (East) to Yo	owley Road			Origii	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	5	0	3	0	0	0	8	8.00
1615 - 1630	0	0	1	0	1	0	0	0	2	2.00
1630 - 1645	0	0	3	0	0	0	0	0	3	3.00
1645 - 1700	0	0	1	0	2	0	0	0	3	3.00
Hourly Total	0	0	10	0	6	0	0	0	16	16.00
Hourly Average	0.00	0.00	2.50	0.00	1.50	0.00	0.00	0.00	4.00	4.00
1700 - 1715	0	0	5	0	3	0	0	0	8	8.00
1715 - 1730	0	0	4	0	1	0	0	0	5	5.00
1730 - 1745	0	0	5	0	1	0	0	0	6	6.00
1745 - 1800	0	0	6	0	0	0	0	0	6	6.00
Hourly Total	0	0	20	0	5	0	0	0	25	25.00
Hourly Average	0.00	0.00	5.00	0.00	1.25	0.00	0.00	0.00	6.25	6.25
Session Total	0	0	30	0	11	0	0	0	41	41.00
Session Average	0.00	0.00	3.75	0.00	1.38	0.00	0.00	0.00	5.13	5.13

Weather Sunny Intervals Temp: 10°C

0700 - 0900 (Weekday AM Peak)

			Movement	: 1.5: U-Turn fron	n A494 (East) to A	A494 (East)			Origir	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	0	0	0	0	0	0	0	0.00
0715 - 0730	0	0	0	0	0	0	0	0	0	0.00
0730 - 0745	0	0	0	0	0	0	0	0	0	0.00
0745 - 0800	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800 - 0815	0	0	0	0	0	0	0	0	0	0.00
0815 - 0830	0	0	1	0	0	0	0	0	1	1.00
0830 - 0845	0	0	0	0	0	0	0	0	0	0.00
0845 - 0900	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	1	0	0	0	0	0	1	1.00
Hourly Average	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.25	0.25
Session Total	0	0	1	0	0	0	0	0	1	1.00
Session Average	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.13	0.13

Date

Tuesday 05 March 2019

Weather

Cloudy Temp: 9°C

			Movement	t 1.5: LI-Turn fron	n A494 (East) to	Δ494 (Fast)			Origin	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	0	0	0	0	0	0	0	0.00
1615 - 1630	0	0	0	0	0	0	0	0	0	0.00
1630 - 1645	0	0	0	0	0	0	0	0	0	0.00
1645 - 1700	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700 - 1715	0	0	1	0	0	0	0	0	1	1.00
1715 - 1730	0	0	1	0	0	0	0	0	1	1.00
1730 - 1745	0	1	1	0	0	0	0	0	2	1.40
1745 - 1800	0	0	2	0	0	0	0	0	2	2.00
Hourly Total	0	1	5	0	0	0	0	0	6	5.40
Hourly Average	0.00	0.25	1.25	0.00	0.00	0.00	0.00	0.00	1.50	1.35
		•	•		•		•		•	
Session Total	0	1	5	0	0	0	0	0	6	5.40
Session Average	0.00	0.13	0.63	0.00	0.00	0.00	0.00	0.00	0.75	0.68

Weather

Sunny Intervals Temp: 10°C

0700 - 0900 (Weekday AM Peak)

			Moven	nent 1.6: Left from	m B5125 to A494	(West)			Origir	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	28	0	5	0	0	0	33	33.00
0715 - 0730	0	0	56	0	19	1	1	1	78	80.80
0730 - 0745	0	1	68	0	9	1	0	0	79	78.90
0745 - 0800	0	0	91	1	6	2	0	1	101	103.00
Hourly Total	0	1	243	1	39	4	1	2	291	295.70
Hourly Average	0.00	0.25	60.75	0.25	9.75	1.00	0.25	0.50	72.75	73.93
0800 - 0815	0	2	97	0	10	3	0	1	113	114.30
0815 - 0830	0	0	77	1	4	0	0	0	82	82.00
0830 - 0845	0	0	81	0	7	0	0	0	88	88.00
0845 - 0900	0	0	66	0	4	1	0	0	71	71.50
Hourly Total	0	2	321	1	25	4	0	1	354	355.80
Hourly Average	0.00	0.50	80.25	0.25	6.25	1.00	0.00	0.25	88.50	88.95
Session Total	0	3	564	2	64	8	1	3	645	651.50
Session Average	0.00	0.38	70.50	0.25	8.00	1.00	0.13	0.38	80.63	81.44

Date

Tuesday 05 March 2019

Weather

Cloudy Temp: 9°C

			Mover	nent 1.6: Left fro	m B5125 to A494	(West)			Origi	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	77	1	7	2	1	0	88	90.30
1615 - 1630	0	0	53	0	9	0	0	0	62	62.00
1630 - 1645	0	0	108	0	10	0	0	2	120	122.00
1645 - 1700	0	0	104	0	10	0	0	1	115	116.00
Hourly Total	0	0	342	1	36	2	1	3	385	390.30
Hourly Average	0.00	0.00	85.50	0.25	9.00	0.50	0.25	0.75	96.25	97.58
1700 - 1715	0	0	138	0	5	0	0	0	143	143.00
1715 - 1730	0	0	115	0	8	0	0	0	123	123.00
1730 - 1745	0	0	122	1	5	0	0	1	129	130.00
1745 - 1800	1	0	75	0	4	0	0	0	80	79.20
Hourly Total	1	0	450	1	22	0	0	1	475	475.20
Hourly Average	0.25	0.00	112.50	0.25	5.50	0.00	0.00	0.25	118.75	118.80
_										
Session Total	1	0	792	2	58	2	1	4	860	865.50
Session Average	0.13	0.00	99.00	0.25	7.25	0.25	0.13	0.50	107.50	108.19

Weather

Sunny Intervals Temp: 10°C

0700 - 0900 (Weekday AM Peak)

			Mov	vement 1.7: Left	from B5125 to B5	5127			Origir	al Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	8	0	2	0	0	1	11	12.00
0715 - 0730	1	0	14	0	1	0	0	0	16	15.20
0730 - 0745	0	0	15	0	1	0	0	1	17	18.00
0745 - 0800	0	0	23	0	1	0	0	0	24	24.00
Hourly Total	1	0	60	0	5	0	0	2	68	69.20
Hourly Average	0.25	0.00	15.00	0.00	1.25	0.00	0.00	0.50	17.00	17.30
0800 - 0815	0	0	27	0	12	1	0	2	42	44.50
0815 - 0830	0	0	77	0	5	0	0	0	82	82.00
0830 - 0845	0	0	57	1	4	1	0	0	63	63.50
0845 - 0900	0	0	35	0	1	0	0	1	37	38.00
Hourly Total	0	0	196	1	22	2	0	3	224	228.00
Hourly Average	0.00	0.00	49.00	0.25	5.50	0.50	0.00	0.75	56.00	57.00
Session Total	1	0	256	1	27	2	0	5	292	297.20
Session Average	0.13	0.00	32.00	0.13	3.38	0.25	0.00	0.63	36.50	37.15

Date

Tuesday 05 March 2019

Weather

Cloudy Temp: 9°C

			Mo	vement 1.7: Left	from B5125 to B5	5127			Origi	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	4	0	51	0	10	0	0	0	65	61.80
1615 - 1630	1	0	44	0	1	0	0	1	47	47.20
1630 - 1645	1	0	87	0	6	0	0	0	94	93.20
1645 - 1700	1	0	73	0	6	0	0	1	81	81.20
Hourly Total	7	0	255	0	23	0	0	2	287	283.40
Hourly Average	1.75	0.00	63.75	0.00	5.75	0.00	0.00	0.50	71.75	70.85
1700 - 1715	0	0	66	0	6	0	0	0	72	72.00
1715 - 1730	0	0	78	0	1	0	0	1	80	81.00
1730 - 1745	0	3	79	0	2	0	0	0	84	82.20
1745 - 1800	0	0	57	0	6	0	0	1	64	65.00
Hourly Total	0	3	280	0	15	0	0	2	300	300.20
Hourly Average	0.00	0.75	70.00	0.00	3.75	0.00	0.00	0.50	75.00	75.05
_										
Session Total	7	3	535	0	38	0	0	4	587	583.60
Session Average	0.88	0.38	66.88	0.00	4.75	0.00	0.00	0.50	73.38	72.95

Weather

Sunny Intervals Temp: 10°C

0700 - 0900 (Weekday AM Peak)

			Movement	1.8: Northbound	from B5125 to Ye	owley Road			Origin	al Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	0	0	0	0	0	0	0	0.00
0715 - 0730	0	0	0	0	0	0	0	0	0	0.00
0730 - 0745	0	0	0	0	0	0	0	0	0	0.00
0745 - 0800	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800 - 0815	0	0	0	0	0	0	0	0	0	0.00
0815 - 0830	0	0	0	0	0	0	0	0	0	0.00
0830 - 0845	0	0	0	0	0	0	0	1	1	2.00
0845 - 0900	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	1	1	2.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.25	0.50
-		-	•	· · · · · · · · · · · · · · · · · · ·	-	•	•	•		-
Session Total	0	0	0	0	0	0	0	1	1	2.00
Session Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.13	0.25

Date

Tuesday 05 March 2019

Weather

Cloudy Temp: 9°C

			Movement	1.8: Northbound	from B5125 to Y	owley Road			Origi	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	0	0	0	0	0	0	0	0.00
1615 - 1630	0	0	0	0	0	0	0	0	0	0.00
1630 - 1645	0	0	0	0	0	0	0	0	0	0.00
1645 - 1700	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700 - 1715	0	0	1	0	0	0	0	0	1	1.00
1715 - 1730	0	0	1	0	0	0	0	0	1	1.00
1730 - 1745	0	0	0	0	0	0	0	0	0	0.00
1745 - 1800	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	2	0	0	0	0	0	2	2.00
Hourly Average	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.50	0.50
								•		
Session Total	0	0	2	0	0	0	0	0	2	2.00
Session Average	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.25	0.25

Weather

Sunny Intervals Temp: 10°C

0700 - 0900 (Weekday AM Peak)

			Movem	ent 1.9: Right fro	m B5125 to A49	4 (East)			Origin	al Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	59	0	7	0	0	0	66	66.00
0715 - 0730	1	0	88	0	8	1	0	0	98	97.70
0730 - 0745	0	0	90	0	6	0	0	0	96	96.00
0745 - 0800	0	0	93	0	12	0	0	2	107	109.00
Hourly Total	1	0	330	0	33	1	0	2	367	368.70
Hourly Average	0.25	0.00	82.50	0.00	8.25	0.25	0.00	0.50	91.75	92.18
0800 - 0815	0	0	103	1	6	1	1	1	113	115.80
0815 - 0830	0	0	101	0	11	2	0	1	115	117.00
0830 - 0845	0	1	120	0	9	1	1	2	134	137.20
0845 - 0900	0	1	78	0	6	1	0	0	86	85.90
Hourly Total	0	2	402	1	32	5	2	4	448	455.90
Hourly Average	0.00	0.50	100.50	0.25	8.00	1.25	0.50	1.00	112.00	113.98
				-	-	-		-		•
Session Total	1	2	732	1	65	6	2	6	815	824.60
Session Average	0.13	0.25	91.50	0.13	8.13	0.75	0.25	0.75	101.88	103.08

Date

Tuesday 05 March 2019

Weather

Cloudy Temp: 9°C

			Movem	ent 1.9: Right fro	om B5125 to A49	4 (East)			Origin	al Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	72	0	6	2	0	0	80	81.00
1615 - 1630	0	1	58	1	7	0	0	0	67	66.40
1630 - 1645	0	0	75	0	4	1	0	0	80	80.50
1645 - 1700	0	1	63	0	8	0	0	0	72	71.40
Hourly Total	0	2	268	1	25	3	0	0	299	299.30
Hourly Average	0.00	0.50	67.00	0.25	6.25	0.75	0.00	0.00	74.75	74.83
1700 - 1715	0	0	78	0	2	0	0	0	80	80.00
1715 - 1730	1	0	87	1	5	0	0	0	94	93.20
1730 - 1745	0	0	109	0	4	0	0	0	113	113.00
1745 - 1800	0	0	74	0	5	0	0	0	79	79.00
Hourly Total	1	0	348	1	16	0	0	0	366	365.20
Hourly Average	0.25	0.00	87.00	0.25	4.00	0.00	0.00	0.00	91.50	91.30
Session Total	1	2	616	2	41	3	0	0	665	664.50
Session Average	0.13	0.25	77.00	0.25	5.13	0.38	0.00	0.00	83.13	83.06

Weather Sunny Intervals Temp: 10°C

0700 - 0900 (Weekday AM Peak)

			Move	ment 1.10: U-Tur	n from B5125 to	B5125			Origir	al Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	0	0	0	0	0	0	0	0.00
0715 - 0730	0	0	0	0	0	0	0	0	0	0.00
0730 - 0745	0	0	0	0	0	0	0	0	0	0.00
0745 - 0800	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800 - 0815	0	0	0	0	0	0	0	0	0	0.00
0815 - 0830	0	0	0	0	0	0	0	0	0	0.00
0830 - 0845	0	0	0	0	0	0	0	0	0	0.00
0845 - 0900	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Session Total	0	0	0	0	0	0	0	0	0	0.00
Session Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Date

Tuesday 05 March 2019

Weather

Cloudy Temp: 9°C

			Move	ment 1.10: U-Tu	rn from B5125 to	B5125			Origin	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	0	0	0	0	0	0	0	0.00
1615 - 1630	0	0	0	0	0	0	0	0	0	0.00
1630 - 1645	0	0	0	0	0	0	0	0	0	0.00
1645 - 1700	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700 - 1715	0	0	0	0	0	0	0	0	0	0.00
1715 - 1730	0	0	0	0	0	0	0	0	0	0.00
1730 - 1745	0	0	0	0	0	0	0	0	0	0.00
1745 - 1800	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Session Total	0	0	0	0	0	0	0	0	0	0.00
Session Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Weather Sunny Intervals Temp: 10°C

0700 - 0900 (Weekday AM Peak)

			Movem	ent 1.11: Left fro	m A494 (West) to	B5127			Origir	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LĠV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	11	0	6	0	0	0	17	17.00
0715 - 0730	0	0	17	0	5	0	0	0	22	22.00
0730 - 0745	0	0	20	0	3	2	0	0	25	26.00
0745 - 0800	0	1	24	0	2	0	2	0	29	31.00
Hourly Total	0	1	72	0	16	2	2	0	93	96.00
Hourly Average	0.00	0.25	18.00	0.00	4.00	0.50	0.50	0.00	23.25	24.00
0800 - 0815	0	1	26	0	8	0	0	0	35	34.40
0815 - 0830	0	0	29	0	3	1	0	0	33	33.50
0830 - 0845	0	0	22	0	7	1	0	0	30	30.50
0845 - 0900	0	1	29	0	7	0	0	0	37	36.40
Hourly Total	0	2	106	0	25	2	0	0	135	134.80
Hourly Average	0.00	0.50	26.50	0.00	6.25	0.50	0.00	0.00	33.75	33.70
				-	-		-			
Session Total	0	3	178	0	41	4	2	0	228	230.80
Session Average	0.00	0.38	22.25	0.00	5.13	0.50	0.25	0.00	28.50	28.85

Date

Tuesday 05 March 2019

Weather

Cloudy Temp: 9°C

			Movem	ent 1 11: Left fro	m A494 (West) to	n B5127			Origin	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	43	0	7	0	0	0	50	50.00
1615 - 1630	0	0	51	1	10	1	0	2	65	67.50
1630 - 1645	0	0	35	0	11	0	0	0	46	46.00
1645 - 1700	0	1	47	0	12	1	0	0	61	60.90
Hourly Total	0	1	176	1	40	2	0	2	222	224.40
Hourly Average	0.00	0.25	44.00	0.25	10.00	0.50	0.00	0.50	55.50	56.10
1700 - 1715	0	0	69	0	6	0	0	0	75	75.00
1715 - 1730	0	0	64	0	5	1	0	0	70	70.50
1730 - 1745	0	0	66	0	9	0	0	0	75	75.00
1745 - 1800	0	0	63	0	3	0	0	0	66	66.00
Hourly Total	0	0	262	0	23	1	0	0	286	286.50
Hourly Average	0.00	0.00	65.50	0.00	5.75	0.25	0.00	0.00	71.50	71.63
	•	•	•		•		•	•		
Session Total	0	1	438	1	63	3	0	2	508	510.90
Session Average	0.00	0.13	54.75	0.13	7.88	0.38	0.00	0.25	63.50	63.86

Weather Sunny Intervals Temp: 10°C

0700 - 0900 (Weekday AM Peak)

			Movement	1.12: Left from A	A494 (West) to Yo	wley Road			Origin	al Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	1	0	0	0	0	0	1	1.00
0715 - 0730	0	0	2	0	0	0	0	0	2	2.00
0730 - 0745	0	0	2	0	0	0	0	0	2	2.00
0745 - 0800	0	0	5	0	2	0	0	0	7	7.00
Hourly Total	0	0	10	0	2	0	0	0	12	12.00
Hourly Average	0.00	0.00	2.50	0.00	0.50	0.00	0.00	0.00	3.00	3.00
0800 - 0815	0	0	1	0	1	0	0	0	2	2.00
0815 - 0830	0	0	4	0	0	0	0	0	4	4.00
0830 - 0845	0	0	2	0	3	0	0	0	5	5.00
0845 - 0900	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	8	0	4	0	0	0	12	12.00
Hourly Average	0.00	0.00	2.00	0.00	1.00	0.00	0.00	0.00	3.00	3.00
				-	·		•			
Session Total	0	0	18	0	6	0	0	0	24	24.00
Session Average	0.00	0.00	2.25	0.00	0.75	0.00	0.00	0.00	3.00	3.00

Date

Tuesday 05 March 2019

Weather

Cloudy Temp: 9°C

			Movemen	t 1.12: Left from /	A494 (West) to Yo	owley Road			Origin	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	3	0	0	1	0	0	4	4.50
1615 - 1630	0	0	4	0	0	0	0	0	4	4.00
1630 - 1645	0	0	1	0	0	0	0	0	1	1.00
1645 - 1700	0	0	3	0	1	0	0	0	4	4.00
Hourly Total	0	0	11	0	1	1	0	0	13	13.50
Hourly Average	0.00	0.00	2.75	0.00	0.25	0.25	0.00	0.00	3.25	3.38
1700 - 1715	0	0	3	0	0	0	0	0	3	3.00
1715 - 1730	0	0	4	0	0	0	0	0	4	4.00
1730 - 1745	0	0	0	0	0	0	0	0	0	0.00
1745 - 1800	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	8	0	0	0	0	0	8	8.00
Hourly Average	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
	•		•		•			•	•	
Session Total	0	0	19	0	1	1	0	0	21	21.50
Session Average	0.00	0.00	2.38	0.00	0.13	0.13	0.00	0.00	2.63	2.69

Weather

Sunny Intervals Temp: 10°C

0700 - 0900 (Weekday AM Peak)

			Movement 1.	13: Eastbound fro	om A494 (West) t	to A494 (East)			Origin	al Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	1	0	0	0	0	0	1	1.00
0715 - 0730	0	0	1	0	0	0	0	0	1	1.00
0730 - 0745	0	0	3	0	0	0	0	0	3	3.00
0745 - 0800	0	0	7	0	3	0	1	0	11	12.30
Hourly Total	0	0	12	0	3	0	1	0	16	17.30
Hourly Average	0.00	0.00	3.00	0.00	0.75	0.00	0.25	0.00	4.00	4.33
0800 - 0815	0	0	3	0	0	0	0	0	3	3.00
0815 - 0830	0	0	2	0	0	0	0	0	2	2.00
0830 - 0845	0	0	1	0	0	0	0	0	1	1.00
0845 - 0900	0	0	2	0	0	0	0	0	2	2.00
Hourly Total	0	0	8	0	0	0	0	0	8	8.00
Hourly Average	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
		-		-	-					•
Session Total	0	0	20	0	3	0	1	0	24	25.30
Session Average	0.00	0.00	2.50	0.00	0.38	0.00	0.13	0.00	3.00	3.16

Date

Tuesday 05 March 2019

Weather

Cloudy Temp: 9°C

			Movement 1.	.13: Eastbound fr	om A494 (West)	to A494 (East)			Origi	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	1	0	0	0	0	0	1	1.00
1615 - 1630	0	0	0	0	0	0	0	0	0	0.00
1630 - 1645	0	0	2	0	0	0	0	0	2	2.00
1645 - 1700	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	4	0	0	0	0	0	4	4.00
Hourly Average	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
1700 - 1715	0	0	1	0	0	0	0	0	1	1.00
1715 - 1730	0	0	2	0	0	0	0	0	2	2.00
1730 - 1745	0	0	0	0	0	0	0	0	0	0.00
1745 - 1800	0	0	3	0	0	0	0	0	3	3.00
Hourly Total	0	0	6	0	0	0	0	0	6	6.00
Hourly Average	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	1.50	1.50
Session Total	0	0	10	0	0	0	0	0	10	10.00
Session Average	0.00	0.00	1.25	0.00	0.00	0.00	0.00	0.00	1.25	1.25

Weather

Sunny Intervals Temp: 10°C

0700 - 0900 (Weekday AM Peak)

			Moveme	ent 1.14: Right fro	om A494 (West) t	to B5125			Origin	al Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	25	0	8	3	0	0	36	37.50
0715 - 0730	0	0	48	0	12	0	0	0	60	60.00
0730 - 0745	0	0	70	0	7	1	0	1	79	80.50
0745 - 0800	0	1	81	0	10	1	0	1	94	94.90
Hourly Total	0	1	224	0	37	5	0	2	269	272.90
Hourly Average	0.00	0.25	56.00	0.00	9.25	1.25	0.00	0.50	67.25	68.23
0800 - 0815	0	0	96	0	6	1	0	0	103	103.50
0815 - 0830	0	0	112	0	9	0	0	0	121	121.00
0830 - 0845	0	0	133	0	7	0	0	0	140	140.00
0845 - 0900	0	0	129	0	5	0	2	0	136	138.60
Hourly Total	0	0	470	0	27	1	2	0	500	503.10
Hourly Average	0.00	0.00	117.50	0.00	6.75	0.25	0.50	0.00	125.00	125.78
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Session Total	0	1	694	0	64	6	2	2	769	776.00
Session Average	0.00	0.13	86.75	0.00	8.00	0.75	0.25	0.25	96.13	97.00

Date

Tuesday 05 March 2019

Weather

Cloudy Temp: 9°C

			Movem	ent 1.14: Right fr	om A494 (West)	to B5125			Origir	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	65	0	9	2	0	0	76	77.00
1615 - 1630	0	0	56	0	5	0	0	1	62	63.00
1630 - 1645	0	0	65	0	15	1	0	1	82	83.50
1645 - 1700	0	0	69	0	10	0	0	1	80	81.00
Hourly Total	0	0	255	0	39	3	0	3	300	304.50
Hourly Average	0.00	0.00	63.75	0.00	9.75	0.75	0.00	0.75	75.00	76.13
1700 - 1715	0	0	59	1	6	0	0	2	68	70.00
1715 - 1730	0	1	95	0	11	0	0	1	108	108.40
1730 - 1745	0	0	63	0	7	0	0	1	71	72.00
1745 - 1800	0	0	76	0	4	0	0	0	80	80.00
Hourly Total	0	1	293	1	28	0	0	4	327	330.40
Hourly Average	0.00	0.25	73.25	0.25	7.00	0.00	0.00	1.00	81.75	82.60
_										
Session Total	0	1	548	1	67	3	0	7	627	634.90
Session Average	0.00	0.13	68.50	0.13	8.38	0.38	0.00	0.88	78.38	79.36

Weather

Sunny Intervals Temp: 10°C

0700 - 0900 (Weekday AM Peak)

			Movement 1	1.15: U-Turn from	n A494 (West) to	A494 (West)			Origin	al Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	4	0	2	3	2	0	11	15.10
0715 - 0730	0	0	9	0	5	0	1	0	15	16.30
0730 - 0745	0	0	2	0	4	2	0	0	8	9.00
0745 - 0800	0	0	1	0	4	2	3	0	10	14.90
Hourly Total	0	0	16	0	15	7	6	0	44	55.30
Hourly Average	0.00	0.00	4.00	0.00	3.75	1.75	1.50	0.00	11.00	13.83
0800 - 0815	0	0	14	0	5	1	2	0	22	25.10
0815 - 0830	0	0	8	0	2	3	1	0	14	16.80
0830 - 0845	0	0	5	0	2	3	0	0	10	11.50
0845 - 0900	0	0	1	1	6	0	2	0	10	12.60
Hourly Total	0	0	28	1	15	7	5	0	56	66.00
Hourly Average	0.00	0.00	7.00	0.25	3.75	1.75	1.25	0.00	14.00	16.50
				-	-					
Session Total	0	0	44	1	30	14	11	0	100	121.30
Session Average	0.00	0.00	5.50	0.13	3.75	1.75	1.38	0.00	12.50	15.16

Date

Tuesday 05 March 2019

Weather

Cloudy Temp: 9°C

			Movement	1.15: U-Turn fron	n A494 (West) to	A494 (West)			Origir	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	2	0	2	0	0	0	4	4.00
1615 - 1630	0	0	8	0	4	1	1	0	14	15.80
1630 - 1645	0	0	0	0	0	0	3	0	3	6.90
1645 - 1700	0	0	0	0	2	0	1	0	3	4.30
Hourly Total	0	0	10	0	8	1	5	0	24	31.00
Hourly Average	0.00	0.00	2.50	0.00	2.00	0.25	1.25	0.00	6.00	7.75
1700 - 1715	0	0	0	0	1	1	1	0	3	4.80
1715 - 1730	0	0	0	0	0	0	0	0	0	0.00
1730 - 1745	0	0	0	0	0	0	0	0	0	0.00
1745 - 1800	0	0	0	0	0	0	1	0	1	2.30
Hourly Total	0	0	0	0	1	1	2	0	4	7.10
Hourly Average	0.00	0.00	0.00	0.00	0.25	0.25	0.50	0.00	1.00	1.78
Session Total	0	0	10	0	9	2	7	0	28	38.10
Session Average	0.00	0.00	1.25	0.00	1.13	0.25	0.88	0.00	3.50	4.76

Weather

Sunny Intervals Temp: 10°C

0700 - 0900 (Weekday AM Peak)

			Movem	ent 1.16: Left froi	m B5127 to Yowl	ey Road			Origin	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	2	0	1	0	0	0	3	3.00
0715 - 0730	0	0	1	0	0	0	0	0	1	1.00
0730 - 0745	0	0	1	0	0	0	0	0	1	1.00
0745 - 0800	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	4	0	1	0	0	0	5	5.00
Hourly Average	0.00	0.00	1.00	0.00	0.25	0.00	0.00	0.00	1.25	1.25
0800 - 0815	0	0	3	0	0	0	0	0	3	3.00
0815 - 0830	0	0	0	0	1	0	0	0	1	1.00
0830 - 0845	0	0	4	0	0	0	0	0	4	4.00
0845 - 0900	0	0	8	1	1	0	0	0	10	10.00
Hourly Total	0	0	15	1	2	0	0	0	18	18.00
Hourly Average	0.00	0.00	3.75	0.25	0.50	0.00	0.00	0.00	4.50	4.50
Session Total	0	0	19	1	3	0	0	0	23	23.00
Session Average	0.00	0.00	2.38	0.13	0.38	0.00	0.00	0.00	2.88	2.88

Date

Tuesday 05 March 2019

Weather

Cloudy Temp: 9°C

			Movem	ent 1.16: Left fro	m B5127 to Yowl	ey Road			Origin	al Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	2	0	0	0	0	0	2	2.00
1615 - 1630	0	0	2	0	1	0	0	0	3	3.00
1630 - 1645	0	0	5	0	0	0	0	1	6	7.00
1645 - 1700	0	0	4	0	0	0	0	0	4	4.00
Hourly Total	0	0	13	0	1	0	0	1	15	16.00
Hourly Average	0.00	0.00	3.25	0.00	0.25	0.00	0.00	0.25	3.75	4.00
1700 - 1715	0	0	3	0	0	0	0	0	3	3.00
1715 - 1730	0	0	3	0	0	0	0	0	3	3.00
1730 - 1745	1	0	3	0	0	0	0	0	4	3.20
1745 - 1800	0	0	2	0	0	0	0	0	2	2.00
Hourly Total	1	0	11	0	0	0	0	0	12	11.20
Hourly Average	0.25	0.00	2.75	0.00	0.00	0.00	0.00	0.00	3.00	2.80
Session Total	1	0	24	0	1	0	0	1	27	27.20
Session Average	0.13	0.00	3.00	0.00	0.13	0.00	0.00	0.13	3.38	3.40

Weather

Sunny Intervals Temp: 10°C

0700 - 0900 (Weekday AM Peak)

			Movem	ent 1.17: Left fro	m B5127 to A494	4 (East)			Origin	al Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	72	0	15	0	0	0	87	87.00
0715 - 0730	0	1	98	0	11	1	0	0	111	110.90
0730 - 0745	0	0	113	0	10	0	0	2	125	127.00
0745 - 0800	0	0	104	1	9	0	0	0	114	114.00
Hourly Total	0	1	387	1	45	1	0	2	437	438.90
Hourly Average	0.00	0.25	96.75	0.25	11.25	0.25	0.00	0.50	109.25	109.73
0800 - 0815	0	1	101	0	14	1	0	0	117	116.90
0815 - 0830	0	1	100	0	7	1	0	0	109	108.90
0830 - 0845	0	0	80	0	7	0	0	0	87	87.00
0845 - 0900	0	0	119	0	6	1	0	0	126	126.50
Hourly Total	0	2	400	0	34	3	0	0	439	439.30
Hourly Average	0.00	0.50	100.00	0.00	8.50	0.75	0.00	0.00	109.75	109.83
							-			
Session Total	0	3	787	1	79	4	0	2	876	878.20
Session Average	0.00	0.38	98.38	0.13	9.88	0.50	0.00	0.25	109.50	109.78

Date

Tuesday 05 March 2019

Weather

Cloudy Temp: 9°C

			Moven	nent 1.17: Left fro	om B5127 to A49	4 (East)			Origi	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	36	0	7	0	0	2	45	47.00
1615 - 1630	0	1	42	0	3	0	0	0	46	45.40
1630 - 1645	0	0	51	0	5	0	0	0	56	56.00
1645 - 1700	0	0	43	0	5	0	0	0	48	48.00
Hourly Total	0	1	172	0	20	0	0	2	195	196.40
Hourly Average	0.00	0.25	43.00	0.00	5.00	0.00	0.00	0.50	48.75	49.10
1700 - 1715	0	1	29	0	6	0	0	0	36	35.40
1715 - 1730	0	1	41	0	1	0	0	1	44	44.40
1730 - 1745	0	0	53	0	1	0	0	0	54	54.00
1745 - 1800	0	0	43	0	4	0	0	0	47	47.00
Hourly Total	0	2	166	0	12	0	0	1	181	180.80
Hourly Average	0.00	0.50	41.50	0.00	3.00	0.00	0.00	0.25	45.25	45.20
Session Total	0	3	338	0	32	0	0	3	376	377.20
Session Average	0.00	0.38	42.25	0.00	4.00	0.00	0.00	0.38	47.00	47.15

Weather Sunny Intervals Temp: 10°C

0700 - 0900 (Weekday AM Peak)

			Move	ement 1.18: Righ	t from B5127 to E	35125			Origin	al Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	10	0	2	0	0	1	13	14.00
0715 - 0730	0	0	24	0	5	2	0	1	32	34.00
0730 - 0745	1	1	49	0	2	1	0	0	54	53.10
0745 - 0800	0	1	60	0	6	0	0	0	67	66.40
Hourly Total	1	2	143	0	15	3	0	2	166	167.50
Hourly Average	0.25	0.50	35.75	0.00	3.75	0.75	0.00	0.50	41.50	41.88
0800 - 0815	0	0	71	0	6	0	0	1	78	79.00
0815 - 0830	0	0	75	0	2	1	0	1	79	80.50
0830 - 0845	0	0	71	0	1	1	0	1	74	75.50
0845 - 0900	0	0	54	1	6	0	0	0	61	61.00
Hourly Total	0	0	271	1	15	2	0	3	292	296.00
Hourly Average	0.00	0.00	67.75	0.25	3.75	0.50	0.00	0.75	73.00	74.00
				-	•	-	-	-		•
Session Total	1	2	414	1	30	5	0	5	458	463.50
Session Average	0.13	0.25	51.75	0.13	3.75	0.63	0.00	0.63	57.25	57.94

Date

Tuesday 05 March 2019

Weather

Cloudy Temp: 9°C

			Move	mont 1 10: Diah	t from B5127 to E	05105		1	Origin	ad Data
										nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	40	0	2	0	0	1	43	44.00
1615 - 1630	1	0	34	0	4	0	0	2	41	42.20
1630 - 1645	0	0	37	0	4	0	0	0	41	41.00
1645 - 1700	1	0	45	0	9	0	0	0	55	54.20
Hourly Total	2	0	156	0	19	0	0	3	180	181.40
Hourly Average	0.50	0.00	39.00	0.00	4.75	0.00	0.00	0.75	45.00	45.35
1700 - 1715	1	0	58	0	1	0	0	0	60	59.20
1715 - 1730	4	0	36	0	4	0	0	1	45	42.80
1730 - 1745	0	0	40	0	0	0	0	0	40	40.00
1745 - 1800	0	0	41	0	3	0	0	1	45	46.00
Hourly Total	5	0	175	0	8	0	0	2	190	188.00
Hourly Average	1.25	0.00	43.75	0.00	2.00	0.00	0.00	0.50	47.50	47.00
Session Total	7	0	331	0	27	0	0	5	370	369.40
Session Average	0.88	0.00	41.38	0.00	3.38	0.00	0.00	0.63	46.25	46.18

Weather

Sunny Intervals Temp: 10°C

0700 - 0900 (Weekday AM Peak)

			Moveme	ent 1.19: Right fro	om B5127 to A49	4 (West)			Origii	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	33	0	5	0	0	0	38	38.00
0715 - 0730	0	0	51	0	7	0	0	0	58	58.00
0730 - 0745	0	1	75	1	6	1	0	0	84	83.90
0745 - 0800	0	1	71	0	10	0	0	0	82	81.40
Hourly Total	0	2	230	1	28	1	0	0	262	261.30
Hourly Average	0.00	0.50	57.50	0.25	7.00	0.25	0.00	0.00	65.50	65.33
0800 - 0815	0	0	50	1	8	0	0	0	59	59.00
0815 - 0830	0	0	44	0	8	0	0	0	52	52.00
0830 - 0845	0	0	60	3	6	0	0	1	70	71.00
0845 - 0900	0	0	51	0	10	1	0	0	62	62.50
Hourly Total	0	0	205	4	32	1	0	1	243	244.50
Hourly Average	0.00	0.00	51.25	1.00	8.00	0.25	0.00	0.25	60.75	61.13
·		-	•	-	-	•	-			-
Session Total	0	2	435	5	60	2	0	1	505	505.80
Session Average	0.00	0.25	54.38	0.63	7.50	0.25	0.00	0.13	63.13	63.23

Date

Tuesday 05 March 2019

Weather

Cloudy Temp: 9°C

			Moveme	ent 1.19: Right fro	om B5127 to A49	4 (West)			Origi	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	31	0	7	1	0	0	39	39.50
1615 - 1630	0	0	23	0	5	0	0	0	28	28.00
1630 - 1645	0	0	40	0	4	0	0	0	44	44.00
1645 - 1700	0	0	36	0	8	0	0	0	44	44.00
Hourly Total	0	0	130	0	24	1	0	0	155	155.50
Hourly Average	0.00	0.00	32.50	0.00	6.00	0.25	0.00	0.00	38.75	38.88
1700 - 1715	0	0	41	0	10	0	0	0	51	51.00
1715 - 1730	0	0	37	0	7	0	0	0	44	44.00
1730 - 1745	0	0	40	0	6	0	0	0	46	46.00
1745 - 1800	0	0	26	1	10	0	0	0	37	37.00
Hourly Total	0	0	144	1	33	0	0	0	178	178.00
Hourly Average	0.00	0.00	36.00	0.25	8.25	0.00	0.00	0.00	44.50	44.50
Session Total	0	0	274	1	57	1	0	0	333	333.50
Session Average	0.00	0.00	34.25	0.13	7.13	0.13	0.00	0.00	41.63	41.69

Weather Sunny Intervals Temp: 10°C

0700 - 0900 (Weekday AM Peak)

			Move	ment 1.20: U-Tui	n from B5127 to	B5127			Origir	al Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	0	0	0	0	0	0	0	0.00
0715 - 0730	0	0	0	0	0	0	0	0	0	0.00
0730 - 0745	0	0	0	0	0	0	0	0	0	0.00
0745 - 0800	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800 - 0815	0	0	0	0	0	0	0	0	0	0.00
0815 - 0830	0	0	0	0	0	0	0	0	0	0.00
0830 - 0845	0	0	0	0	0	0	0	0	0	0.00
0845 - 0900	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Session Total	0	0	0	0	0	0	0	0	0	0.00
Session Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Date

Tuesday 05 March 2019

Weather

Cloudy Temp: 9°C

					, DE107.	D = 107			0.1.1	10.4
			Move	ment 1.20: U-Tur	n from B5127 to	B5127			Origir	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	0	0	0	0	0	0	0	0.00
1615 - 1630	0	0	0	0	0	0	0	0	0	0.00
1630 - 1645	0	0	0	0	0	0	0	0	0	0.00
1645 - 1700	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700 - 1715	0	0	0	0	0	0	0	0	0	0.00
1715 - 1730	0	0	0	0	0	0	0	0	0	0.00
1730 - 1745	0	0	0	0	0	0	0	0	0	0.00
1745 - 1800	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Session Total	0	0	0	0	0	0	0	0	0	0.00
Session Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Weather Sunny Intervals Temp: 10°C

0700 - 0900 (Weekday AM Peak)

			Movement	t 1.21: Left from '	Yowley Road to A	494 (East)			Origin	al Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	2	0	1	0	0	0	3	3.00
0715 - 0730	0	0	2	0	0	0	0	0	2	2.00
0730 - 0745	1	0	4	0	1	0	0	0	6	5.20
0745 - 0800	0	0	4	0	0	0	0	0	4	4.00
Hourly Total	1	0	12	0	2	0	0	0	15	14.20
Hourly Average	0.25	0.00	3.00	0.00	0.50	0.00	0.00	0.00	3.75	3.55
0800 - 0815	0	0	5	0	0	0	0	0	5	5.00
0815 - 0830	0	0	6	0	1	0	0	0	7	7.00
0830 - 0845	0	0	4	0	1	0	0	1	6	7.00
0845 - 0900	0	0	1	0	1	0	0	0	2	2.00
Hourly Total	0	0	16	0	3	0	0	1	20	21.00
Hourly Average	0.00	0.00	4.00	0.00	0.75	0.00	0.00	0.25	5.00	5.25
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Session Total	1	0	28	0	5	0	0	1	35	35.20
Session Average	0.13	0.00	3.50	0.00	0.63	0.00	0.00	0.13	4.38	4.40

Date

Tuesday 05 March 2019

Weather

Cloudy Temp: 9°C

			Movemen	t 1.21: Left from	Yowley Road to A	A494 (East)			Origii	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	2	0	0	0	0	0	2	2.00
1615 - 1630	0	0	0	0	0	0	0	0	0	0.00
1630 - 1645	0	0	2	0	0	0	0	0	2	2.00
1645 - 1700	0	0	3	0	0	0	0	0	3	3.00
Hourly Total	0	0	7	0	0	0	0	0	7	7.00
Hourly Average	0.00	0.00	1.75	0.00	0.00	0.00	0.00	0.00	1.75	1.75
1700 - 1715	0	0	0	0	0	0	0	0	0	0.00
1715 - 1730	0	0	4	0	1	0	0	0	5	5.00
1730 - 1745	0	0	5	0	0	0	0	0	5	5.00
1745 - 1800	0	0	2	0	0	0	0	0	2	2.00
Hourly Total	0	0	11	0	1	0	0	0	12	12.00
Hourly Average	0.00	0.00	2.75	0.00	0.25	0.00	0.00	0.00	3.00	3.00
_	•		•			•	•	•	•	
Session Total	0	0	18	0	1	0	0	0	19	19.00
Session Average	0.00	0.00	2.25	0.00	0.13	0.00	0.00	0.00	2.38	2.38

Weather

Sunny Intervals Temp: 10°C

0700 - 0900 (Weekday AM Peak)

			Movement 1	1.22: Southbound	d from Yowley Ro	ad to B5125			Origir	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	4	0	0	0	0	0	4	4.00
0715 - 0730	0	0	3	0	1	0	0	0	4	4.00
0730 - 0745	0	0	2	0	0	0	0	0	2	2.00
0745 - 0800	0	0	4	0	0	0	0	0	4	4.00
Hourly Total	0	0	13	0	1	0	0	0	14	14.00
Hourly Average	0.00	0.00	3.25	0.00	0.25	0.00	0.00	0.00	3.50	3.50
0800 - 0815	0	0	6	0	2	0	0	0	8	8.00
0815 - 0830	1	0	9	0	1	0	0	0	11	10.20
0830 - 0845	0	0	4	0	0	0	0	0	4	4.00
0845 - 0900	0	0	6	0	0	0	0	0	6	6.00
Hourly Total	1	0	25	0	3	0	0	0	29	28.20
Hourly Average	0.25	0.00	6.25	0.00	0.75	0.00	0.00	0.00	7.25	7.05
Session Total	1	0	38	0	4	0	0	0	43	42.20
Session Average	0.13	0.00	4.75	0.00	0.50	0.00	0.00	0.00	5.38	5.28

Date

Tuesday 05 March 2019

Weather

Cloudy Temp: 9°C

			Movement	1.22: Southboun	d from Yowley Ro	ad to B5125			Origi	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	6	0	1	0	0	0	7	7.00
1615 - 1630	0	0	6	0	1	0	0	0	7	7.00
1630 - 1645	0	0	3	0	1	0	0	1	5	6.00
1645 - 1700	0	0	2	0	0	0	0	0	2	2.00
Hourly Total	0	0	17	0	3	0	0	1	21	22.00
Hourly Average	0.00	0.00	4.25	0.00	0.75	0.00	0.00	0.25	5.25	5.50
1700 - 1715	0	0	1	0	1	0	0	0	2	2.00
1715 - 1730	0	0	6	0	0	0	0	0	6	6.00
1730 - 1745	0	0	5	0	1	0	0	0	6	6.00
1745 - 1800	0	0	4	0	0	0	0	0	4	4.00
Hourly Total	0	0	16	0	2	0	0	0	18	18.00
Hourly Average	0.00	0.00	4.00	0.00	0.50	0.00	0.00	0.00	4.50	4.50
Session Total	0	0	33	0	5	0	0	1	39	40.00
Session Average	0.00	0.00	4.13	0.00	0.63	0.00	0.00	0.13	4.88	5.00

Date Tuesday 05 March 2019

Weather Sunny Intervals Temp: 10°C

0700 - 0900 (Weekday AM Peak)

			Movement	1.23: Right from	Yowley Road to A	A494 (West)			Origin	al Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	0	0	0	0	0	0	0	0.00
0715 - 0730	0	0	0	0	0	0	0	0	0	0.00
0730 - 0745	0	0	1	0	0	0	0	0	1	1.00
0745 - 0800	0	0	4	0	1	0	0	0	5	5.00
Hourly Total	0	0	5	0	1	0	0	0	6	6.00
Hourly Average	0.00	0.00	1.25	0.00	0.25	0.00	0.00	0.00	1.50	1.50
0800 - 0815	0	0	3	0	0	0	0	0	3	3.00
0815 - 0830	0	0	2	0	1	0	0	0	3	3.00
0830 - 0845	0	0	3	0	1	0	0	0	4	4.00
0845 - 0900	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	9	0	2	0	0	0	11	11.00
Hourly Average	0.00	0.00	2.25	0.00	0.50	0.00	0.00	0.00	2.75	2.75
				-	-	-	-			•
Session Total	0	0	14	0	3	0	0	0	17	17.00
Session Average	0.00	0.00	1.75	0.00	0.38	0.00	0.00	0.00	2.13	2.13

Date

Tuesday 05 March 2019

Weather

Cloudy Temp: 9°C

1600 - 1800 (Weekday PM Peak)

			Movement	1.23: Right from	Yowley Road to	A494 (West)			Origi	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	0	0	1	0	0	0	1	1.00
1615 - 1630	0	0	1	0	0	0	0	0	1	1.00
1630 - 1645	0	0	4	0	0	0	0	0	4	4.00
1645 - 1700	0	0	4	0	1	0	0	0	5	5.00
Hourly Total	0	0	9	0	2	0	0	0	11	11.00
Hourly Average	0.00	0.00	2.25	0.00	0.50	0.00	0.00	0.00	2.75	2.75
1700 - 1715	0	0	1	0	0	0	0	0	1	1.00
1715 - 1730	0	0	1	0	0	0	0	0	1	1.00
1730 - 1745	0	0	0	0	0	0	0	0	0	0.00
1745 - 1800	0	0	0	0	1	0	0	0	1	1.00
Hourly Total	0	0	2	0	1	0	0	0	3	3.00
Hourly Average	0.00	0.00	0.50	0.00	0.25	0.00	0.00	0.00	0.75	0.75
_			•			•	•	•	•	
Session Total	0	0	11	0	3	0	0	0	14	14.00
Session Average	0.00	0.00	1.38	0.00	0.38	0.00	0.00	0.00	1.75	1.75

Date Tuesday 05 March 2019

Weather Sunny Intervals Temp: 10°C

0700 - 0900 (Weekday AM Peak)

	Movement 1.24: Right from Yowley Road to B5127									al Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	0	0	0	0	0	0	0	0.00
0715 - 0730	0	0	0	0	1	0	0	0	1	1.00
0730 - 0745	0	0	0	0	0	0	0	0	0	0.00
0745 - 0800	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	1	0	0	0	1	1.00
Hourly Average	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.25	0.25
0800 - 0815	0	0	1	0	0	0	0	0	1	1.00
0815 - 0830	0	0	1	0	0	0	0	0	1	1.00
0830 - 0845	0	0	7	0	2	0	0	0	9	9.00
0845 - 0900	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	9	0	2	0	0	0	11	11.00
Hourly Average	0.00	0.00	2.25	0.00	0.50	0.00	0.00	0.00	2.75	2.75
				-	-		-			•
Session Total	0	0	9	0	3	0	0	0	12	12.00
Session Average	0.00	0.00	1.13	0.00	0.38	0.00	0.00	0.00	1.50	1.50

Date

Tuesday 05 March 2019

Weather

Cloudy Temp: 9°C

1600 - 1800 (Weekday PM Peak)

			Moveme	ent 1.24: Right fro	om Yowley Road	to B5127			Origir	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	1	0	0	0	0	0	1	1.00
1615 - 1630	0	0	1	0	0	0	0	0	1	1.00
1630 - 1645	0	0	0	0	0	0	0	0	0	0.00
1645 - 1700	0	0	3	0	1	0	0	0	4	4.00
Hourly Total	0	0	5	0	1	0	0	0	6	6.00
Hourly Average	0.00	0.00	1.25	0.00	0.25	0.00	0.00	0.00	1.50	1.50
1700 - 1715	0	0	1	0	0	0	0	0	1	1.00
1715 - 1730	0	0	2	0	0	0	0	0	2	2.00
1730 - 1745	0	0	0	0	0	0	0	0	0	0.00
1745 - 1800	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	3	0	0	0	0	0	3	3.00
Hourly Average	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.75	0.75
Session Total	0	0	8	0	1	0	0	0	9	9.00
Session Average	0.00	0.00	1.00	0.00	0.13	0.00	0.00	0.00	1.13	1.13

Date Tuesday 05 March 2019

Weather Sunny Intervals Temp: 10°C

0700 - 0900 (Weekday AM Peak)

			Movement 1	.25: U-Turn from	Yowley Road to	Yowley Road			Origin	al Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	0	0	0	0	0	0	0	0.00
0715 - 0730	0	0	0	0	0	0	0	0	0	0.00
0730 - 0745	0	0	0	0	0	0	0	0	0	0.00
0745 - 0800	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800 - 0815	0	0	0	0	0	0	0	0	0	0.00
0815 - 0830	0	0	0	0	0	0	0	0	0	0.00
0830 - 0845	0	0	0	0	0	0	0	0	0	0.00
0845 - 0900	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		-	•	•	-	-	•	•		-
Session Total	0	0	0	0	0	0	0	0	0	0.00
Session Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Date

Tuesday 05 March 2019

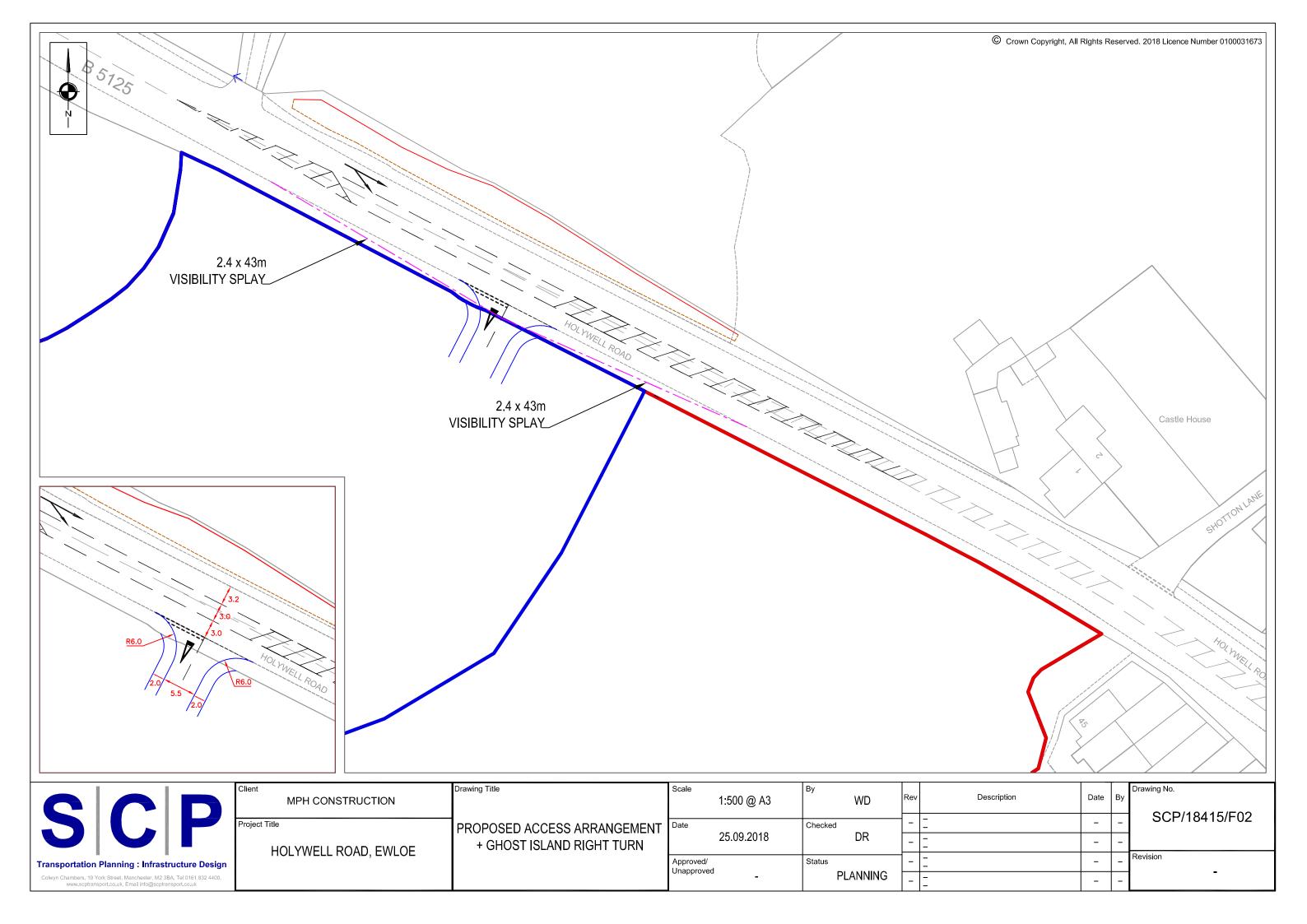
Weather

Cloudy Temp: 9°C

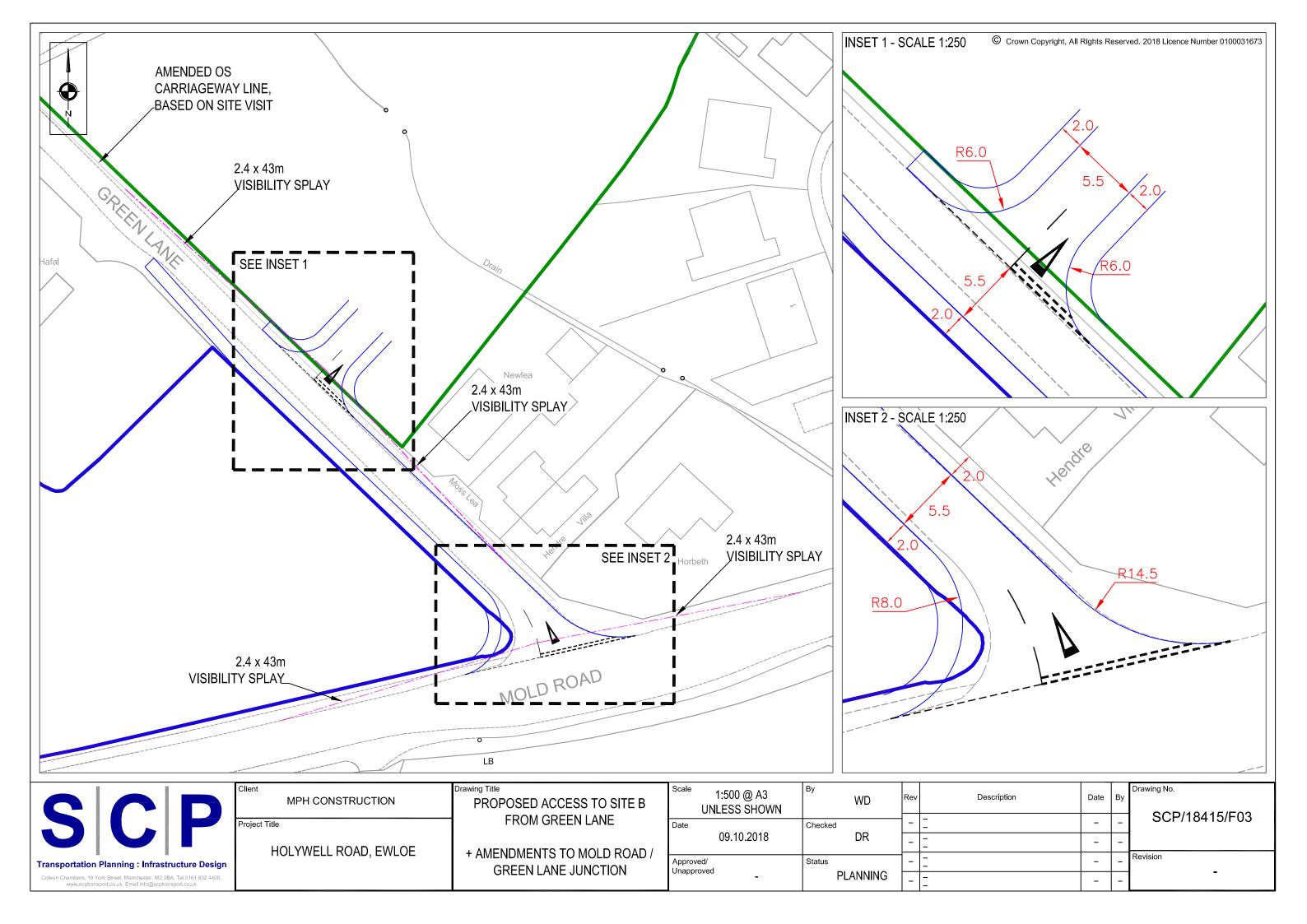
1600 - 1800 (Weekday PM Peak)

			Movement 1	.25: U-Turn from	Yowley Road to	Yowley Road			Origi	nal Data
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	0	0	1	0	0	0	1	1.00
1615 - 1630	0	0	0	0	0	0	0	0	0	0.00
1630 - 1645	0	0	0	0	0	0	0	0	0	0.00
1645 - 1700	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	1	0	0	0	1	1.00
Hourly Average	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.25	0.25
1700 - 1715	0	0	0	0	0	0	0	0	0	0.00
1715 - 1730	0	0	0	0	0	0	0	0	0	0.00
1730 - 1745	0	0	0	0	0	0	0	0	0	0.00
1745 - 1800	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Session Total	0	0	0	0	1	0	0	0	1	1.00
Session Average	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.13	0.13

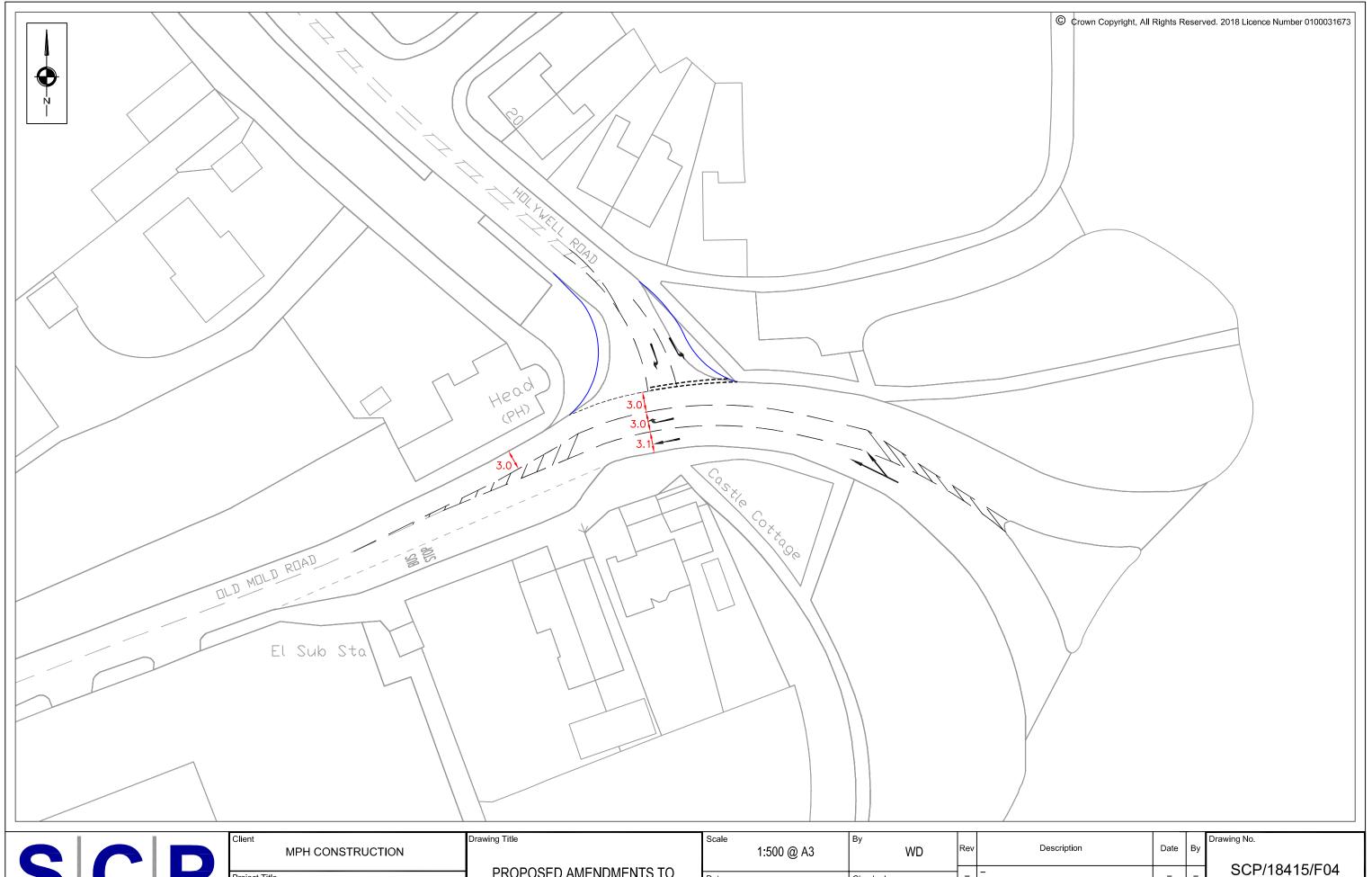
SCP APPENDIX 3



S|C|P APPENDIX 4



S|C|P APPENDIX 5



Transportation Planning: Infrastructure Design
Colwyn Chambers, 19 York Street, Manchester, M2 3BA, Tel 0161 832 4400,

MPH CONSTRUCTION

Project Title

HOLYWELL ROAD, EWLOE

PROPOSED AMENDMENTS TO HOLYWELL ROAD / OLD MOLD ROAD JUNCTION

| 1:500 @ A3 | By | WD | Rev | Description | Date | By | Date | By | Date | Dat

S|C|P APPENDIX 6

TRICS 7.5.4 151218 B18.54 Database right of TRICS Consortium Limited, 2019. All rights reserved Thursday 31/01/19

OFF-LINE VERSION SCP Colwyn Chambers, 19 York Street Manchester Licence No: 726001

Calculation Reference: AUDIT-726001-190131-0129

Page 1

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL

Category : A - HOUSES PRIVATELY OWNED

MULTI-MODAL VEHICLES

Selected regions and areas: **O2 SOUTH EAST**

SOUTH EAST EAST SUSSEX ES 2 days KC **KENT** 3 days WS WEST SUSSEX 4 days **SOUTH WEST** DV **DEVON** 1 days **EAST ANGLIA NORFOLK** NF 1 days **WEST MIDLANDS** ST **STAFFORDSHIRE** 1 days YORKSHIRE & NORTH LINCOLNSHIRE NORTH EAST LINCOLNSHIRE 1 days NF NORTH YORKSHIRE 1 days

11 SCOTLAND

03

04

06

07

FA FALKIRK 1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Secondary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Number of dwellings Actual Range: 98 to 805 (units:) Range Selected by User: 75 to 805 (units:)

Parking Spaces Range: Selected: 12 to 1726 Actual: 12 to 1726

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 05/07/18

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday 3 days Wednesday 4 days Thursday 4 days Friday 4 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count 15 days
Directional ATC Count 0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre) 5
Edge of Town 10

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone 14 No Sub Category 1

Licence No: 726001

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This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

15 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	1 days
5,001 to 10,000	2 days
10,001 to 15,000	6 days
15,001 to 20,000	2 days
20,001 to 25,000	3 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	3 days
50,001 to 75,000	3 days
75,001 to 100,000	3 days
100,001 to 125,000	1 days
125,001 to 250,000	5 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	12 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	4 days
No	11 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present 15 days

This data displays the number of selected surveys with PTAL Ratings.

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OFF-LINE VERSION SCP Colwyn Chambers, 19 York Street Manchester Licence No: 726001

LIST OF SITES relevant to selection parameters

DV-03-A-02 **HOUSES & BUNGALOWS DEVON**

MILLHEAD ROAD **HONITON**

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 116

Survey date: FRIDAY 25/09/15 Survey Type: MANUAL

ES-03-A-03 **MIXED HOUSES & FLATS EAST SUSSEX**

SHEPHAM LANE **POLEGATE**

Edge of Town Residential Zone

Total Number of dwellings: 212

Survey date: MONDAY Survey Type: MANUAL 11/07/16

ES-03-A-04 **MIXED HOUSES & FLATS EAST SUSSEX**

NEW LYDD ROAD

CAMBER

Edge of Town Residential Zone

Total Number of dwellings: 134

Survey date: FRIDAY 15/07/16 Survey Type: MANUAL

FA-03-A-02 **MIXED HOUSES FALKIRK**

ROSEBANK AVENUE & SPRINGFIELD DRIVE

FALKIRK

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 161

Survey date: WEDNESDAY 29/05/13 Survey Type: MANUAL

KC-03-A-04 **SEMI-DETACHED & TERRACED KENT**

KILN BARN ROAD **AYLESFORD** DITTON Edge of Town

Residential Zone

Total Number of dwellings: 110

Survey date: FRIDAY 22/09/17 Survey Type: MANUAL

KC-03-A-06 **MIXED HOUSES & FLATS KENT**

MARGATE ROAD HERNE BAY

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 363

Survey date: WEDNESDAY 27/09/17 Survey Type: MANUAL

MIXED HOUSES KC-03-A-07 **KFNT**

RECULVER ROAD HERNE BAY

Edge of Town Residential Zone

Total Number of dwellings: 288 Survey date: WEDNESDAY 27/09/17

Survey Type: MANUAL **SEMI DETACHED & DETACHED** NORTH EAST LINCOLNSHIRE NE-03-A-02

HANOVER WALK **SCUNTHORPE**

Edge of Town No Sub Category

Total Number of dwellings: 432

Survey date: MONDAY 12/05/14 Survey Type: MANUAL

Thursday 31/01/19

OFF-LINE VERSION SCP Colwyn Chambers, 19 York Street Manchester Licence No: 726001

LIST OF SITES relevant to selection parameters (Cont.)

HOUSES & FLATS NORFOLK 9 NF-03-A-02

DEREHAM ROAD **NORWICH**

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 98

Survey date: MONDAY 22/10/12 Survey Type: MANUAL 10 NY-03-A-06 **BUNGALOWS & SEMI DET. NORTH YORKSHIRE**

HORSEFAIR

BOROUGHBRIDGE

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings:

Survey date: FRIDAY 14/10/11 Survey Type: MANUAL

ST-03-A-07 **DETACHED & SEMI-DETACHED STAFFORDSHIRE** 11

BEACONSIDE STAFFORD MARSTON GATE Edge of Town Residential Zone

Total Number of dwellings: 248

Survey date: WEDNESDAY Survey Type: MANUAL 22/11/17

WS-03-A-04 **MIXED HOUSES WEST SUSSEX**

HILLS FARM LANE

HORSHAM

BROADBRIDGE HEATH

Edge of Town Residential Zone

Total Number of dwellings: 151

Survey Type: MANUAL Survey date: THURSDAY 11/12/14

WS-03-A-06 13 **MIXED HOUSES WEST SUSSEX**

ELLIS ROAD

WEST HORSHAM

S BROADBRIDGE HEATH

Edge of Town Residential Zone

Total Number of dwellings: 805

Survey date: THURSDAY 02/03/17 Survey Type: MANUAL

WS-03-A-08 **MIXED HOUSES WEST SUSSEX** 14

ROUNDSTONE LANE

ANGMERING

Edge of Town Residential Zone

Total Number of dwellings: 180

> Survey date: THURSDAY 19/04/18 Survey Type: MANUAL

MIXED HOUSES & FLATS WEST SUSSEX 15 WS-03-A-09

LITTLEHAMPTON ROAD

WORTHING

WEST DURRINGTON

Edge of Town

Residential Zone

Total Number of dwellings:

197 Survey date: THURSDAY Survey Type: MANUAL 05/07/18

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

Licence No: 726001

OFF-LINE VERSION

SCP Colwyn Chambers, 19 York Street

Manchester

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			[DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
00:00 - 01:00				·						
01:00 - 02:00										
02:00 - 03:00										
03:00 - 04:00										
04:00 - 05:00										
05:00 - 06:00										
06:00 - 07:00										
07:00 - 08:00	15	241	0.078	15	241	0.281	15	241	0.359	
08:00 - 09:00	15	241	0.124	15	241	0.377	15	241	0.501	
09:00 - 10:00	15	241	0.148	15	241	0.164	15	241	0.312	
10:00 - 11:00	15	241	0.126	15	241	0.159	15	241	0.285	
11:00 - 12:00	15	241	0.133	15	241	0.150	15	241	0.283	
12:00 - 13:00	15	241	0.161	15	241	0.148	15	241	0.309	
13:00 - 14:00	15	241	0.166	15	241	0.160	15	241	0.326	
14:00 - 15:00	15	241	0.164	15	241	0.189	15	241	0.353	
15:00 - 16:00	15	241	0.258	15	241	0.173	15	241	0.431	
16:00 - 17:00	15	241	0.272	15	241	0.171	15	241	0.443	
17:00 - 18:00	15	241	0.330	15	241	0.163	15	241	0.493	
18:00 - 19:00	15	241	0.297	15	241	0.188	15	241	0.485	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00					•					
Total Rates:			2.257			2.323			4.580	

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

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Thursday 31/01/19
Page 6

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Parameter summary

Trip rate parameter range selected: 98 - 805 (units:) Survey date date range: 01/01/10 - 05/07/18

Number of weekdays (Monday-Friday): 15
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

OFF-LINE VERSION SCP Colwyn Chambers, 19 York Street

Manchester

Licence No: 726001

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL CYCLISTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	3	TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
00:00 - 01:00										
01:00 - 02:00										
02:00 - 03:00										
03:00 - 04:00										
04:00 - 05:00										
05:00 - 06:00										
06:00 - 07:00										
07:00 - 08:00	15	241	0.004	15	241	0.007	15	241	0.011	
08:00 - 09:00	15	241	0.005	15	241	0.009	15	241	0.014	
09:00 - 10:00	15	241	0.000	15	241	0.002	15	241	0.002	
10:00 - 11:00	15	241	0.001	15	241	0.003	15	241	0.004	
11:00 - 12:00	15	241	0.003	15	241	0.002	15	241	0.005	
12:00 - 13:00	15	241	0.003	15	241	0.004	15	241	0.007	
13:00 - 14:00	15	241	0.002	15	241	0.003	15	241	0.005	
14:00 - 15:00	15	241	0.002	15	241	0.003	15	241	0.005	
15:00 - 16:00	15	241	0.005	15	241	0.004	15	241	0.009	
16:00 - 17:00	15	241	0.005	15	241	0.008	15	241	0.013	
17:00 - 18:00	15	241	0.013	15	241	0.009	15	241	0.022	
18:00 - 19:00	15	241	0.009	15	241	0.006	15	241	0.015	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.052			0.060			0.112	

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

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TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL PEDESTRIANS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

		ARRIVALS		DEPARTURES					
	No.	Ave.	Trip	No. Ave. Trip		No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	15	241	0.017	15	241	0.027	15	241	0.044
08:00 - 09:00	15	241	0.027	15	241	0.097	15	241	0.124
09:00 - 10:00	15	241	0.039	15	241	0.041	15	241	0.080
10:00 - 11:00	15	241	0.039	15	241	0.041	15	241	0.080
11:00 - 12:00	15	241	0.026	15	241	0.027	15	241	0.053
12:00 - 13:00	15	241	0.036	15	241	0.030	15	241	0.066
13:00 - 14:00	15	241	0.027	15	241	0.027	15	241	0.054
14:00 - 15:00	15	241	0.034	15	241	0.045	15	241	0.079
15:00 - 16:00	15	241	0.099	15	241	0.046	15	241	0.145
16:00 - 17:00	15	241	0.065	15	241	0.037	15	241	0.102
17:00 - 18:00	15	241	0.054	15	241	0.032	15	241	0.086
18:00 - 19:00	15	241	0.038	15	241	0.041	15	241	0.079
19:00 - 20:00									
20:00 - 21:00				•					
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00				·	•		•		
Total Rates:			0.501			0.491			0.992

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

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OFF-LINE VERSION SCP Colwyn Chambers, 19 York Street Manchester

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL PUBLIC TRANSPORT USERS Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

	ARRIVALS			[DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
00:00 - 01:00										
01:00 - 02:00										
02:00 - 03:00										
03:00 - 04:00										
04:00 - 05:00										
05:00 - 06:00										
06:00 - 07:00										
07:00 - 08:00	15	241	0.002	15	241	0.014	15	241	0.016	
08:00 - 09:00	15	241	0.000	15	241	0.025	15	241	0.025	
09:00 - 10:00	15	241	0.001	15	241	0.011	15	241	0.012	
10:00 - 11:00	15	241	0.002	15	241	0.003	15	241	0.005	
11:00 - 12:00	15	241	0.001	15	241	0.004	15	241	0.005	
12:00 - 13:00	15	241	0.002	15	241	0.005	15	241	0.007	
13:00 - 14:00	15	241	0.004	15	241	0.003	15	241	0.007	
14:00 - 15:00	15	241	0.004	15	241	0.003	15	241	0.007	
15:00 - 16:00	15	241	0.017	15	241	0.006	15	241	0.023	
16:00 - 17:00	15	241	0.014	15	241	0.005	15	241	0.019	
17:00 - 18:00	15	241	0.016	15	241	0.003	15	241	0.019	
18:00 - 19:00	15	241	0.016	15	241	0.004	15	241	0.020	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00				·						
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.079			0.086			0.165	

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

S|C|P APPENDIX 7

Left out of the site along 85125	Right out of site then right at Old Mold Road Junction then south west along B5127	Right out of site then left at Old Mold Road Junction then north east along A494	Right out of site then left at Old Mold Road Junction then South west along A494	Right ou of site then left at Old Mold Road Junction then straight ahead to 85125
A		C	D	
5%	3%	34%	41%	17%

	usual	
	residence	
ut area	W02000070:	
ut area	Flintshire	
	012	

place of wo		residen	00			
middle lave	rk : 2011 super output area r	Flintsh	170 : iire			
MODOOOTO	- Filestables OAF	013	115	Distribution	346	Rou
W02000072	Flintshire 015 : Flintshire 015 : Flintshire 015 : Flintshire 009 : Flintshire 013 Cheshire West and Chester		115 115 115		3% 3% 3%	C D E C E C
W02000070 W02000070	: Flintshire 009		311		9% 8%	ċ
W02000070 E02003803 E02003803 E02003803	- Finishine OVA - The Company of the		290 89 89		3% 3%	ċ
E02003803 : W02000073	Cheshire West and Chester		89 225		3% 7%	E
W0200073 W0200068 W0200068 E02003809 E02003809 W0200074 W0200074 W0200069 W0200069 W0200069	: Flintshire 016 : Flintshire 011		77		7% 2%	EDC EDC 8D A 8D A D A C D C D C D D D
W02000068 E02003809	: Flintshire 011 : Cheshire West and Chester		77 77 62 62 47 47 31 31		2% 2% 2% 1% 1% 1%	E D
E02003809: W02000074	Cheshire West and Chester : Flintshire 017		62 47		2% 1%	c B
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place of work : 2011 super output area - middle layer	W02000070 : Flintshire	
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E0000066: Warrington 017 E00001066: Warrington 017 E00001061: Machinetis 602 E00001038: Liverpool 022 E00001338: Liverpool 022 E00001033: Shropsithe 003 E00000233: Shropsithe 007 E00000235: Shropsithe 007 W00000027: Conwy 010 W00000027: Conwy 011	2 2	0% E 0% C
E02006023 : Shropshire 003 E02006025 : Shropshire 007	2 2	0% A 0% A
E02006025 : Shropshire 007 W02000027 : Conwy 001	2 2	0% E 0% A
W02000027 : Conwý 001 W02000038 : Conwy 012	4 2	0% E 0% A
W02000038 : Conwy 012	2	0% E 0% F
W02000419 : Denbighshire 017 W02000080 : Wrexham 003	4 2	
W02000080 : Wrexham 003 W02000094 : Wrexham 017	2 2	0% E 0% A 0% E 0% A
W02000491 : Dendighanire 0.08 W02000491 : Dendighanire 0.17 W02000880 : Wresham 00.3 W02000881 : Wresham 00.3 W02000894 : Wresham 01.7 W02000894 : Wresham 01.7 W02000860 : Wresham 01.7 W02000860 : Wresham 01.9	3 3 5 5 5 2 2 2 2 4 4 2 2 2 2 2 2 4 4 2 2 2 2	0% E 0% A
W02000096 : Wrexham 019	2 3,432	0% E

A494

SCP APPENDIX 8



Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896 © Copyright TRL Limited, 2018

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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Site Access A and Holywell Road Junction.j9

Path: Z:\Job Library\2018\18415D - Holywell Road, Ewloe\Traffic Data\PICADY

Report generation date: 01/02/2019 10:25:34

»Base 2019 + Dev, AM

»Base 2019 + Dev, PM

»Base 2024 + Dev, AM

»Base 2024 + Dev, PM

Summary of junction performance

		AM				PM		
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
			Bas	se 20	19 + Dev			
Stream B-C	0.0	6.76	0.01	А	0.0	7.63	0.00	А
Stream B-A	0.3	11.60	0.20	В	0.1	12.24	0.10	В
Stream C-B	0.0	5.57	0.00	Α	0.0	6.63	0.01	Α
	Base 20			se 20	24 + Dev			
Stream B-C	0.0	6.80	0.01	А	0.0	7.73	0.00	Α
Stream B-A	0.3	11.79	0.21	В	0.1	12.54	0.11	В
Stream C-B	0.0	5.60	0.00	Α	0.0	6.71	0.01	Α

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

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

File summary

File Description

Title	Site Access/Holywell Road
Location	Ewloe
Site number	
Date	03/10/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	18415
Enumerator	SCP\vicky.lomas
Description	

Units

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



Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	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	Base 2019 + Dev	AM	ONE HOUR	07:30	09:00	15	✓
D2	Base 2019 + Dev	PM	ONE HOUR	16:45	18:15	15	✓
D3	Base 2024 + Dev	AM	ONE HOUR	07:30	09:00	15	✓
D4	Base 2024 + Dev	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)		
A 1	✓	100.000	100.000		



Base 2019 + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare		Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

	Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
ĺ	1	untitled	T-Junction	Two-way		1.11	Α

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
Α	Holywell Road East		Major
В	Site A Access		Minor
С	Holywell Road West		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
С	9.20		✓	3.00	151.0		-

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

Minor Arm Geometry

Aı	Minor arm type	Width at give- way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
E	One lane plus flare	7.90	2.80	2.80	2.80	2.80	✓	1.00	24	20

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	507	0.079	0.201	0.126	0.287
1	B-C	630	0.083	0.210	-	-
1	С-В	719	0.240	0.240	-	-

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

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

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



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	Base 2019 + Dev	AM	ONE HOUR	07:30	09:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
Α		ONE HOUR	✓	273	100.000
В		ONE HOUR	✓	76	100.000
С		ONE HOUR	✓	432	100.000

Origin-Destination Data

Demand (PCU/hr)

	То				
		Α	В	С	
	Α	0	25	248	
From	В	72	0	4	
	С	431	1	0	

Vehicle Mix

Heavy Vehicle Percentages

		То					
		Α	В	ပ			
	Α	0	0	0			
From	В	0	0	0			
ĺ	С	0	0	0			

Results

Results Summary for whole modelled period

		•				
Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.01	6.76	0.0	Α	4	6
B-A	0.20	11.60	0.3	В	66	99
C-A					395	593
С-В	0.00	5.57	0.0	Α	0.92	1
A-B					23	34
A-C					228	341



Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	3	0.75	570	0.005	3	0.0	0.0	6.354	Α
B-A	54	14	427	0.127	54	0.0	0.1	9.634	Α
C-A	324	81			324				
С-В	0.75	0.19	670	0.001	0.75	0.0	0.0	5.380	Α
A-B	19	5			19				
A-C	187	47			187				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	4	0.90	556	0.006	4	0.0	0.0	6.513	Α
B-A	65	16	411	0.157	65	0.1	0.2	10.382	В
C-A	387	97			387				
С-В	0.90	0.22	660	0.001	0.90	0.0	0.0	5.460	Α
A-B	22	6			22				
A-C	223	56			223				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	4	1	537	0.008	4	0.0	0.0	6.762	Α
B-A	79	20	390	0.203	79	0.2	0.3	11.578	В
C-A	475	119			475				
С-В	1	0.28	647	0.002	1	0.0	0.0	5.573	Α
A-B	28	7			28				
A-C	273	68			273				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	4	1	537	0.008	4	0.0	0.0	6.764	Α
B-A	79	20	390	0.203	79	0.3	0.3	11.598	В
C-A	475	119			475				
С-В	1	0.28	647	0.002	1	0.0	0.0	5.573	Α
A-B	28	7			28				
A-C	273	68			273				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	4	0.90	556	0.006	4	0.0	0.0	6.519	А
B-A	65	16	411	0.157	65	0.3	0.2	10.408	В
C-A	387	97			387				
С-В	0.90	0.22	660	0.001	0.90	0.0	0.0	5.462	А
A-B	22	6			22				
A-C	223	56			223				

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08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	3	0.75	569	0.005	3	0.0	0.0	6.357	A
B-A	54	14	427	0.127	54	0.2	0.1	9.671	А
C-A	324	81			324				
С-В	0.75	0.19	670	0.001	0.75	0.0	0.0	5.383	A
A-B	19	5			19				
A-C	187	47			187				



Base 2019 + Dev, PM

Data Errors and Warnings

Severity	Area Item		Description
Warning	Minor arm flare		Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

ĺ	Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
ĺ	1	untitled	T-Junction	Two-way		0.42	Α

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
П	D2	Base 2019 + Dev	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)	
Α		ONE HOUR	✓	656	100.000	
В		ONE HOUR	✓	33	100.000	
С		ONE HOUR	✓	299	100.000	

Origin-Destination Data

Demand (PCU/hr)

	То						
		Α	В	С			
_	Α	0	63	593			
From	В	31	0	2			
	С	296	3	0			

Vehicle Mix

Heavy Vehicle Percentages

	То				
		Α	В	O	
_	Α	0	0	0	
From	В	0	0	0	
	C	0	0	0	



Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
в-с	0.00	7.63	0.0	А	2	3
B-A	0.10	12.24	0.1	В	28	43
C-A					272	407
С-В	0.01	6.63	0.0	А	3	4
A-B					58	87
A-C					544	816

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	2	0.38	524	0.003	1	0.0	0.0	6.886	Α
B-A	23	6	385	0.061	23	0.0	0.1	9.948	Α
C-A	223	56			223				
С-В	2	0.56	601	0.004	2	0.0	0.0	6.016	Α
A-B	47	12			47				
A-C	446	112			446				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	2	0.45	503	0.004	2	0.0	0.0	7.179	A
B-A	28	7	361	0.077	28	0.1	0.1	10.802	В
C-A	266	67			266				
С-В	3	0.67	578	0.005	3	0.0	0.0	6.261	A
A-B	57	14			57				
A-C	533	133			533				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	2	0.55	474	0.005	2	0.0	0.0	7.631	Α
B-A	34	9	328	0.104	34	0.1	0.1	12.234	В
C-A	326	81			326				
С-В	3	0.83	546	0.006	3	0.0	0.0	6.635	А
A-B	69	17			69				
A-C	653	163			653				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	2	0.55	474	0.005	2	0.0	0.0	7.632	A
B-A	34	9	328	0.104	34	0.1	0.1	12.243	В
C-A	326	81			326				
С-В	3	0.83	546	0.006	3	0.0	0.0	6.635	А
A-B	69	17			69				
A-C	653	163			653				

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17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	2	0.45	503	0.004	2	0.0	0.0	7.183	A
B-A	28	7	361	0.077	28	0.1	0.1	10.817	В
C-A	266	67			266				
С-В	3	0.67	578	0.005	3	0.0	0.0	6.263	A
A-B	57	14			57				
A-C	533	133			533				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	2	0.38	524	0.003	2	0.0	0.0	6.888	Α
B-A	23	6	385	0.061	23	0.1	0.1	9.966	A
C-A	223	56			223				
С-В	2	0.56	601	0.004	2	0.0	0.0	6.018	A
A-B	47	12			47				
A-C	446	112			446				



Base 2024 + Dev, AM

Data Errors and Warnings

Severity	Area Item		Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

ſ	Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
ſ	1	untitled	T-Junction	Two-way		1.09	Α

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	Base 2024 + Dev	AM	ONE HOUR	07:30	09:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
Α		ONE HOUR	✓	284	100.000
В		ONE HOUR	✓	76	100.000
С		ONE HOUR	✓	450	100.000

Origin-Destination Data

Demand (PCU/hr)

		То				
		Α	В	С		
F	Α	0	24	260		
From	В	72	0	4		
	С	449	1	0		

Vehicle Mix

Heavy Vehicle Percentages

		То				
		Α	В	ပ		
F	Α	0	0	0		
From	В	0	0	0		
	С	0	0	0		



Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
в-с	0.01	6.80	0.0	А	4	6
B-A	0.21	11.79	0.3	В	66	99
C-A					412	618
С-В	0.00	5.60	0.0	А	0.92	1
A-B					22	33
A-C					239	358

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	3	0.75	568	0.005	3	0.0	0.0	6.376	A
B-A	54	14	423	0.128	54	0.0	0.1	9.725	A
C-A	338	85			338				
С-В	0.75	0.19	668	0.001	0.75	0.0	0.0	5.396	Α
A-B	18	5			18				
A-C	196	49			196				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service	
в-с	4	0.90	554	0.006	4	0.0	0.0	6.542	Α	
B-A	65	16	407	0.159	65	0.1	0.2	10.506	В	
C-A	404	101			404					
С-В	0.90	0.22	658	0.001	0.90	0.0	0.0	5.479	A	
A-B	22	5			22					
A-C	234	58			234					

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	4	1	534	0.008	4	0.0	0.0	6.802	Α
B-A	79	20	385	0.206	79	0.2	0.3	11.770	В
C-A	494	124			494				
С-В	1	0.28	644	0.002	1	0.0	0.0	5.598	А
A-B	26	7			26				
A-C	286	72			286				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	4	1	533	0.008	4	0.0	0.0	6.804	A
B-A	79	20	385	0.206	79	0.3	0.3	11.791	В
C-A	494	124			494				
С-В	1	0.28	644	0.002	1	0.0	0.0	5.598	А
A-B	26	7			26				
A-C	286	72			286				

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08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	4	0.90	554	0.007	4	0.0	0.0	6.547	Α
B-A	65	16	407	0.159	65	0.3	0.2	10.535	В
C-A	404	101			404				
С-В	0.90	0.22	658	0.001	0.90	0.0	0.0	5.479	Α
A-B	22	5			22				
A-C	234	58			234				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	3	0.75	567	0.005	3	0.0	0.0	6.382	A
B-A	54	14	423	0.128	54	0.2	0.1	9.765	A
C-A	338	85			338				
С-В	0.75	0.19	668	0.001	0.75	0.0	0.0	5.399	A
A-B	18	5			18				
A-C	196	49			196				



Base 2024 + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare		Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

ĺ	Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
ĺ	1	untitled	T-Junction	Two-way		0.41	А

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	Base 2024 + Dev	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
Α		ONE HOUR	✓	680	100.000
В		ONE HOUR	✓	33	100.000
С		ONE HOUR	✓	311	100.000

Origin-Destination Data

Demand (PCU/hr)

	То				
		Α	В	С	
F	Α	0	63	617	
From	В	31	0	2	
	С	308	3	0	

Vehicle Mix

Heavy Vehicle Percentages

	То			
		Α	В	ပ
F	Α	0	0	0
From	В	0	0	0
	С	0	0	0



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
в-с	0.00	7.73	0.0	А	2	3
B-A	0.11	12.54	0.1	В	28	43
C-A					283	424
С-В	0.01	6.71	0.0	А	3	4
A-B					58	87
A-C					566	849

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	2	0.38	520	0.003	1	0.0	0.0	6.937	Α
B-A	23	6	380	0.061	23	0.0	0.1	10.081	В
C-A	232	58			232				
С-В	2	0.56	596	0.004	2	0.0	0.0	6.060	Α
A-B	47	12			47				
A-C	465	116			465				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	2	0.45	499	0.004	2	0.0	0.0	7.245	Α
B-A	28	7	355	0.078	28	0.1	0.1	10.990	В
C-A	277	69			277				
С-В	3	0.67	572	0.005	3	0.0	0.0	6.318	А
A-B	57	14			57				
A-C	555	139			555				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	2	0.55	468	0.005	2	0.0	0.0	7.726	Α
B-A	34	9	321	0.106	34	0.1	0.1	12.531	В
C-A	339	85			339				
С-В	3	0.83	539	0.006	3	0.0	0.0	6.713	А
A-B	69	17			69				
A-C	679	170			679				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	2	0.55	468	0.005	2	0.0	0.0	7.727	А
B-A	34	9	321	0.106	34	0.1	0.1	12.541	В
C-A	339	85			339				
С-В	3	0.83	539	0.006	3	0.0	0.0	6.713	A
A-B	69	17			69				
A-C	679	170			679				



17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	2	0.45	498	0.004	2	0.0	0.0	7.247	Α
B-A	28	7	355	0.078	28	0.1	0.1	11.003	В
C-A	277	69			277				
С-В	3	0.67	572	0.005	3	0.0	0.0	6.320	А
A-B	57	14			57				
A-C	555	139			555				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	2	0.38	520	0.003	2	0.0	0.0	6.939	Α
B-A	23	6	380	0.061	23	0.1	0.1	10.101	В
C-A	232	58			232				
С-В	2	0.56	596	0.004	2	0.0	0.0	6.062	Α
A-B	47	12			47				
A-C	465	116			465				

SCP APPENDIX 9



Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896 © Copyright TRL Limited, 2018

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Filename: Holywell Road and Old Mold Road Junction_26.11.18.j9

Path: Z:\Job Library\2018\18415D - Holywell Road, Ewloe\Traffic Data\PICADY\26.11.18

Report generation date: 01/02/2019 10:48:29

»Base 2019, AM

»Base 2019, PM

»Base 2024, AM

»Base 2024, PM

»2024 + Dev, AM

»2024 + Dev, PM

Summary of junction performance

		AM				PM		
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
				Base	2019			
Stream B-C	6.4	62.13	0.90	F	1.1	15.26	0.52	С
Stream B-A	1.8	99.83	0.70	F	0.8	46.14	0.46	Е
Stream C-B	0.6	13.01	0.39	В	28.3	173.38	1.07	F
				Base	2024			
Stream B-C	11.5	101.86	0.98	F	1.4	19.59	0.60	С
Stream B-A	4.1	203.47	0.92	F	1.2	66.10	0.57	F
Stream C-B	0.7	13.78	0.41	В	39.7	231.42	1.12	F
			:	2024	+ Dev			
Stream B-C	43.9	303.39	1.19	F	14.1	138.91	1.13	F
Stream B-A	8.3	422.18	1.15	F	4.8	253.03	1.06	F
Stream C-B	0.9	15.78	0.48	С	77.8	516.05	1.25	F

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

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



File summary

File Description

Title	Holywell Road/Old Mold Road Junction
Location	Ewloe
Site number	
Date	02/10/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	18415
Enumerator	SCP\vicky.lomas
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	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	Base 2019	AM	ONE HOUR	07:30	09:00	15	✓
D2	Base 2019	PM	ONE HOUR	16:45	18:15	15	✓
D3	Base 2024	AM	ONE HOUR	07:30	09:00	15	✓
D4	Base 2024	PM	ONE HOUR	16:45	18:15	15	✓
D5	2024 + Dev	AM	ONE HOUR	07:30	09:00	15	✓
D6	2024 + Dev	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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



Base 2019, AM

Data Errors and Warnings

Severity	everity Area Item		y Area Item Description		Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.		

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		18.63	С

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
Α	Old Mold Road West		Major
В	Holywell Road		Minor
С	Old Mold Road East		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)
С	9.00			100.0		-

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	Width at give- way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
В	One lane plus flare	10.00	4.80	3.70	3.50	3.40	✓	1.00	80	40

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	516	0.082	0.207	0.130	0.295
1	B-C	710	0.095	0.239	-	-
1	С-В	632	0.213	0.213	-	-

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
ı	D1	Base 2019	AM	ONE HOUR	07:30	09:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
Α		ONE HOUR	✓	764	100.000
В		ONE HOUR	✓	431	100.000
С		ONE HOUR	✓	488	100.000

Origin-Destination Data

Demand (PCU/hr)

	То				
		Α	В	С	
F	Α	0	88	676	
From	В	66	0	365	
	С	328	160	0	

Vehicle Mix

Heavy Vehicle Percentages

		То					
From		Α	В	ပ			
	Α	0	0	0			
	В	0	0	0			
	С	0	0	0			

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
В-С	0.90	62.13	6.4	F	335	502
B-A	0.70	99.83	1.8	F	61	91
C-A					301	451
С-В	0.39	13.01	0.6	В	147	220
A-B					81	121
A-C					620	930



Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	275	69	555	0.495	271	0.0	1.0	12.506	В
B-A	50	12	303	0.164	49	0.0	0.2	14.124	В
C-A	247	62			247				
С-В	120	30	509	0.236	119	0.0	0.3	9.198	А
A-B	66	17			66				
A-C	509	127			509				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	328	82	518	0.634	325	1.0	1.6	18.431	С
B-A	59	15	237	0.250	59	0.2	0.3	20.097	С
C-A	295	74			295				
С-В	144	36	486	0.296	143	0.3	0.4	10.504	В
A-B	79	20			79				
A-C	608	152			608				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	402	100	455	0.884	387	1.6	5.3	46.107	E
B-A	73	18	121	0.602	69	0.3	1.3	65.438	F
C-A	361	90			361				
С-В	176	44	453	0.389	175	0.4	0.6	12.933	В
A-B	97	24			97				
A-C	744	186			744				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	402	100	448	0.897	397	5.3	6.4	62.134	F
B-A	73	18	104	0.699	70	1.3	1.8	99.835	F
C-A	361	90			361				
С-В	176	44	453	0.389	176	0.6	0.6	13.010	В
A-B	97	24			97				
A-C	744	186			744				

08:30 - 08:45

00.00	••••											
Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service			
в-с	328	82	511	0.642	346	6.4	1.9	23.910	С			
B-A	59	15	222	0.267	65	1.8	0.4	23.735	С			
C-A	295	74			295							
С-В	144	36	486	0.296	145	0.6	0.4	10.580	В			
A-B	79	20			79							
A-C	608	152			608							



08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	275	69	554	0.496	278	1.9	1.0	13.223	В
B-A	50	12	299	0.166	50	0.4	0.2	14.492	В
C-A	247	62			247				
С-В	120	30	509	0.236	121	0.4	0.3	9.278	А
A-B	66	17			66				
A-C	509	127			509				



Base 2019, PM

Data Errors and Warnings

Severity	erity Area Item		Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		53.03	F

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	Base 2019	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	Profile type Use O-D data Average Demand (PCU/hr)		Scaling Factor (%)
Α		ONE HOUR	✓	421	100.000
В		ONE HOUR	✓	295	100.000
С		ONE HOUR	✓	1091	100.000

Origin-Destination Data

Demand (PCU/hr)

	То						
		Α	В	C			
	Α	0	77	344			
From	В	60	0	235			
	С	575	516	0			

Vehicle Mix

Heavy Vehicle Percentages

	То					
From		Α	В	С		
	Α	0	0	0		
	В	0	0	0		
	C	0	0	0		



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
в-с	0.52	15.26	1.1	С	216	323
B-A	0.46	46.14	0.8	E	55	83
C-A					528	791
С-В	1.07	173.38	28.3	F	473	710
A-B					71	106
A-C					316	473

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	177	44	611	0.290	175	0.0	0.4	8.238	А
B-A	45	11	284	0.159	44	0.0	0.2	14.966	В
C-A	433	108			433				
С-В	388	97	564	0.688	380	0.0	2.1	18.799	С
A-B	58	14			58				
A-C	259	65			259				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	211	53	581	0.364	211	0.4	0.6	9.700	Α
B-A	54	13	232	0.232	54	0.2	0.3	20.069	С
C-A	517	129			517				
С-В	464	116	551	0.841	455	2.1	4.3	34.302	D
A-B	69	17			69				
A-C	309	77			309				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	259	65	513	0.504	257	0.6	1.0	13.958	В
B-A	66	17	159	0.416	65	0.3	0.7	37.599	Е
C-A	633	158			633				
С-В	568	142	533	1.066	514	4.3	17.8	96.858	F
A-B	85	21			85				
A-C	379	95			379				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	259	65	494	0.524	258	1.0	1.1	15.259	С
B-A	66	17	143	0.463	66	0.7	0.8	46.138	Е
C-A	633	158			633				
С-В	568	142	533	1.066	526	17.8	28.3	173.379	F
A-B	85	21			85				
A-C	379	95			379				



17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	211	53	568	0.372	213	1.1	0.6	10.182	В
B-A	54	13	202	0.268	56	0.8	0.4	24.939	С
C-A	517	129			517				
С-В	464	116	551	0.841	532	28.3	11.1	140.582	F
A-B	69	17			69				
A-C	309	77			309				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	177	44	608	0.291	178	0.6	0.4	8.386	A
B-A	45	11	271	0.167	46	0.4	0.2	16.034	С
C-A	433	108			433				
С-В	388	97	564	0.688	423	11.1	2.4	30.663	D
A-B	58	14			58				
A-C	259	65			259				



Base 2024, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction Name Junction type		Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS	
1	untitled	T-Junction	Two-way		31.28	D

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	Base 2024	AM	ONE HOUR	07:30	09:00	15	✓

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

Demand overview (Traffic)

Arm	m Linked arm Profile type		Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)	
Α		ONE HOUR	✓	797	100.000	
В		ONE HOUR	✓	448	100.000	
С		ONE HOUR	✓	508	100.000	

Origin-Destination Data

Demand (PCU/hr)

	То					
		Α	В	С		
F	Α	0	92	705		
From	В	68	0	380		
	С	341	167	0		

Vehicle Mix

Heavy Vehicle Percentages

		То					
		Α	В	ပ			
F	Α	0	0	0			
From	В	0	0	0			
	U	0	0	0			



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
в-с	0.98	101.86	11.5	F	349	523
B-A	0.92	203.47	4.1	F	62	94
C-A					313	469
С-В	0.41	13.78	0.7	В	153	230
A-B					84	127
A-C					647	970

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	286	72	548	0.522	282	0.0	1.1	13.332	В
B-A	51	13	290	0.176	50	0.0	0.2	14.948	В
C-A	257	64			257				
С-В	126	31	504	0.249	124	0.0	0.3	9.449	Α
A-B	69	17			69				
A-C	531	133			531				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service		
В-С	342	85	508	0.673	338	1.1	1.9	20.775	С		
B-A	61	15	219	0.280	60	0.2	0.4	22.679	С		
C-A	307	77			307						
С-В	150	38	479	0.313	150	0.3	0.4	10.902	В		
A-B	83	21			83						
A-C	634	158			634						

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	418	105	438	0.956	394	1.9	7.9	63.066	F
B-A	75	19	88	0.849	66	0.4	2.7	129.872	F
C-A	375	94			375				
С-В	184	46	445	0.413	183	0.4	0.7	13.681	В
A-B	101	25			101				
A-C	776	194			776				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	418	105	427	0.979	404	7.9	11.5	101.856	F
B-A	75	19	81	0.920	69	2.7	4.1	203.471	F
C-A	375	94			375				
С-В	184	46	445	0.413	184	0.7	0.7	13.775	В
A-B	101	25			101				
A-C	776	194			776				



08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	342	85	490	0.697	377	11.5	2.5	39.360	Е
B-A	61	15	183	0.334	75	4.1	0.5	37.270	E
C-A	307	77			307				
С-В	150	38	479	0.313	151	0.7	0.5	10.997	В
A-B	83	21			83				
A-C	634	158			634				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	286	72	546	0.524	292	2.5	1.1	14.434	В
B-A	51	13	285	0.179	52	0.5	0.2	15.533	С
C-A	257	64			257				
С-В	126	31	504	0.249	126	0.5	0.3	9.540	A
A-B	69	17			69				
A-C	531	133			531				



Base 2024, PM

Data Errors and Warnings

Severity	Area	Item	Description	
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.	

Junction Network

Junctions

	Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
ĺ	1	untitled	T-Junction	Two-way		70.78	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

	ID	Scenario name Time Period name Traffic profile type		Traffic profile type	Start time (HH:mm) Finish time (HH:mm)		Time segment length (min)	Run automatically
ſ	D4	Base 2024	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
Α		ONE HOUR	✓	438	100.000
В		ONE HOUR	✓	306	100.000
С		ONE HOUR	✓	1134	100.000

Origin-Destination Data

Demand (PCU/hr)

	То					
		Α	В	С		
F	Α	0	80	358		
From	В	62	0	244		
	С	598	536	0		

Vehicle Mix

Heavy Vehicle Percentages

	То				
		Α	В	С	
	Α	0	0	0	
From	В	0	0	0	
	C	0	0	0	



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
В-С	0.60	19.59	1.4	С	224	336
B-A	0.57	66.10	1.2	F	57	85
C-A					549	823
С-В	1.12	231.42	39.7	F	492	738
A-B					73	110
A-C					329	493

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	184	46	606	0.303	182	0.0	0.4	8.462	Α
B-A	47	12	274	0.170	46	0.0	0.2	15.704	С
C-A	450	113			450				
С-В	404	101	562	0.718	394	0.0	2.4	20.488	С
A-B	60	15			60				
A-C	270	67			270				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	219	55	573	0.383	219	0.4	0.6	10.146	В
B-A	56	14	220	0.253	55	0.2	0.3	21.789	С
C-A	538	134			538				
С-В	482	120	548	0.879	470	2.4	5.4	40.551	Е
A-B	72	18			72				
A-C	322	80			322				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	269	67	489	0.550	266	0.6	1.2	16.018	С
B-A	68	17	142	0.481	66	0.3	0.8	46.374	Е
C-A	658	165			658				
С-В	590	148	529	1.115	517	5.4	23.7	120.615	F
A-B	88	22			88				
A-C	394	99			394				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	269	67	450	0.597	268	1.2	1.4	19.588	С
B-A	68	17	120	0.570	67	0.8	1.2	66.104	F
C-A	658	165			658				
С-В	590	148	529	1.115	526	23.7	39.7	231.419	F
A-B	88	22			88				
A-C	394	99			394				



17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	219	55	549	0.400	222	1.4	0.7	11.131	В
B-A	56	14	176	0.317	58	1.2	0.5	31.318	D
C-A	538	134			538				
С-В	482	120	548	0.879	535	39.7	26.5	225.756	F
A-B	72	18			72				
A-C	322	80			322				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	184	46	599	0.307	185	0.7	0.4	8.709	А
B-A	47	12	243	0.192	48	0.5	0.2	18.512	С
C-A	450	113			450				
С-В	404	101	562	0.718	498	26.5	3.0	84.108	F
A-B	60	15			60				
A-C	270	67			270				



2024 + Dev, AM

Data Errors and Warnings

Severity	Severity Area Item Description		Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		89.49	F

Junction Network Options

Driving side			
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	2024 + Dev	AM	ONE HOUR	07:30	09:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
Α		ONE HOUR	✓	831	100.000
В		ONE HOUR	✓	521	100.000
С		ONE HOUR	✓	542	100.000

Origin-Destination Data

Demand (PCU/hr)

	То					
		Α	В	С		
F	Α	0	94	737		
From	В	71	0	450		
	С	352	190	0		

Vehicle Mix

Heavy Vehicle Percentages

		То					
From		Α	В	С			
	Α	0	0	0			
	В	0	0	0			
	C	0	0	0			



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
в-с	1.19	303.39	43.9	F	413	619
B-A	1.15	422.18	8.3	F	65	98
C-A					323	485
С-В	0.48	15.78	0.9	С	174	262
A-B					86	129
A-C					676	1014

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	339	85	539	0.629	332	0.0	1.6	16.956	С
B-A	53	13	252	0.213	52	0.0	0.3	17.989	С
C-A	265	66			265				
С-В	143	36	499	0.287	141	0.0	0.4	10.034	В
A-B	71	18			71				
A-C	555	139			555				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service			
В-С	405	101	493	0.820	396	1.6	3.8	34.239	D			
B-A	64	16	153	0.418	62	0.3	0.7	39.124	E			
C-A	316	79			316							
С-В	171	43	473	0.361	170	0.4	0.6	11.870	В			
A-B	85	21			85							
A-C	663	166			663							

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	495	124	428	1.158	417	3.8	23.4	139.496	F
B-A	78	20	68	1.154	59	0.7	5.5	250.676	F
C-A	388	97			388				
С-В	209	52	437	0.479	208	0.6	0.9	15.609	С
A-B	103	26			103				
A-C	811	203			811				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	495	124	415	1.194	413	23.4	43.9	303.388	F
B-A	78	20	71	1.108	67	5.5	8.3	422.180	F
C-A	388	97			388				
С-В	209	52	437	0.479	209	0.9	0.9	15.781	С
A-B	103	26			103				
A-C	811	203			811				



08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	405	101	465	0.870	454	43.9	31.5	297.964	F
B-A	64	16	78	0.821	70	8.3	6.7	370.544	F
C-A	316	79			316				
С-В	171	43	473	0.361	172	0.9	0.6	12.023	В
A-B	85	21			85				
A-C	663	166			663				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	339	85	509	0.666	455	31.5	2.4	108.812	F
B-A	53	13	134	0.397	77	6.7	0.7	82.210	F
C-A	265	66			265				
С-В	143	36	499	0.287	144	0.6	0.4	10.162	В
A-B	71	18			71				
A-C	555	139			555				



2024 + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		179.62	F

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	2024 + Dev	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)	
Α		ONE HOUR	✓	455	100.000	
В		ONE HOUR	✓	339	100.000	
С		ONE HOUR	✓	1224	100.000	

Origin-Destination Data

Demand (PCU/hr)

		То							
From		Α	В	C					
	Α	0	83	372					
	В	64	0	275					
	С	627	597	0					

Vehicle Mix

Heavy Vehicle Percentages

		То						
From		Α	В	С				
	Α	0	0	0				
	В	0	0	0				
	C	0	0	0				



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
в-с	1.13	138.91	14.1	F	252	379
B-A	1.06	253.03	4.8	F	59	88
C-A					575	863
С-В	1.25	516.05	77.8	F	548	822
A-B					76	114
A-C					341	512

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	207	52	599	0.346	205	0.0	0.5	9.086	А
B-A	48	12	252	0.191	47	0.0	0.2	17.513	С
C-A	472	118			472				
С-В	449	112	559	0.804	435	0.0	3.5	26.727	D
A-B	62	16			62				
A-C	280	70			280				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	247	62	558	0.443	246	0.5	0.8	11.510	В
B-A	58	14	191	0.301	57	0.2	0.4	26.664	D
C-A	564	141			564				
С-В	537	134	545	0.985	508	3.5	10.8	67.467	F
A-B	75	19			75				
A-C	334	84			334				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	303	76	412	0.735	296	0.8	2.5	29.481	D
B-A	70	18	100	0.707	65	0.4	1.8	93.405	F
C-A	690	173			690				
С-В	657	164	525	1.251	522	10.8	44.6	208.525	F
A-B	91	23			91				
A-C	410	102			410				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	303	76	269	1.126	256	2.5	14.1	138.908	F
B-A	70	18	67	1.057	58	1.8	4.8	253.033	F
C-A	690	173			690				
С-В	657	164	525	1.251	525	44.6	77.8	428.311	F
A-B	91	23			91				
A-C	410	102			410				



17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	247	62	370	0.668	294	14.1	2.3	64.772	F
B-A	58	14	91	0.633	68	4.8	2.2	169.688	F
C-A	564	141			564				
С-В	537	134	545	0.985	537	77.8	77.7	516.046	F
A-B	75	19			75				
A-C	334	84			334				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	207	52	554	0.373	214	2.3	0.6	10.766	В
B-A	48	12	160	0.301	55	2.2	0.5	36.221	Е
C-A	472	118			472				
С-В	449	112	559	0.804	552	77.7	52.1	425.833	F
A-B	62	16			62				
A-C	280	70			280				

S|C|P APPENDIX 10



Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896 © Copyright TRL Limited, 2018

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Filename: Holywell Road and Old Mold Road Improvements_VAL_26.11.18.j9

Path: Z:\Job Library\2018\18415D - Holywell Road, Ewloe\Traffic Data\PICADY\26.11.18

Report generation date: 01/02/2019 10:19:33

»2019 + Dev, AM

»2019 + Dev, PM

»2024 + Dev, AM

»2024 + Dev, PM

Summary of junction performance

		AM			PM					
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS		
			- :	2019 -	+ Dev					
Stream B-C	7.7	7.7 61.89 0.91 F 1.0 11.93 0.4								
Stream B-A	0.4	18.70	0.28	С	0.7	38.93	0.43	Е		
Stream C-B	0.6	10.30	0.37	В	13.4	79.56	0.97	F		
			:	2024 -	+ Dev					
Stream B-C	11.7	89.39	0.97	F	1.1	13.16	0.53	В		
Stream B-A	0.4	20.34	0.31	С	0.9	50.38	0.50	F		
Stream C-B	0.6	10.82	0.39	В	20.0	109.73	1.01	F		

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

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

File summary

File Description

Title	Holywell Road/Old Mold Road Junction Improvements
Location	Ewloe
Site number	
Date	12/10/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	18415
Enumerator	SCP\vicky.lomas
Description	

Units

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



Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	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
D3	2019 + Dev	AM	ONE HOUR	07:30	09:00	15	✓
D4	2019 + Dev	PM	ONE HOUR	16:45	18:15	15	✓
D7	2024 + Dev	AM	ONE HOUR	07:30	09:00	15	✓
D8	2024 + Dev	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)		
A 1	✓	100.000	100.000		



2019 + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		16.50	С

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
Α	Old Mold Road West		Major
В	Holywell Road		Minor
С	Old Mold Road East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
С	9.10		✓	3.00	250.0		-

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

Minor Arm Geometry

ſ	Arm Minor arm type Lane Width (Left) (m		Lane Width (Right) (m)	Visibility to left (m)	Visibility to right (m)	
	В	Two lanes	5.00	4.00	80	40

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for AC	Slope for C-A	Slope for C-B
1	B-A	576	0.091	0.229	0.144	0.328
1	B-C	779	0.103	0.261	-	-
1	С-В	781	0.262	0.262	-	-

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	2019 + Dev	AM	ONE HOUR	07:30	09:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
Α		ONE HOUR	✓	799	100.000
В		ONE HOUR	✓	503	100.000
С		ONE HOUR	✓	521	100.000

Origin-Destination Data

Demand (PCU/hr)

		То						
		Α	В	С				
	Α	0	90	709				
From	В	68	0	435				
	С	338	183	0				

Vehicle Mix

Heavy Vehicle Percentages

		T	ō	То						
		Α	В	ပ						
	Α	0	0	0						
From	В	0	0	0						
	С	0	0	0						

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
В-С	0.91	61.89	7.7	F	399	599
B-A	0.28	18.70	0.4	С	62	94
C-A					310	465
С-В	0.37	10.30	0.6	В	168	252
A-B					83	124
A-C					651	976



Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	327	82	611	0.536	323	0.0	1.1	12.338	В
B-A	51	13	365	0.140	51	0.0	0.2	11.413	В
C-A	254	64			254				
С-В	138	34	624	0.221	137	0.0	0.3	7.374	A
A-B	68	17			68				
A-C	534	133			534				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	391	98	575	0.680	388	1.1	2.0	18.799	С
B-A	61	15	324	0.189	61	0.2	0.2	13.659	В
C-A	304	76			304				
С-В	165	41	593	0.277	164	0.3	0.4	8.382	A
A-B	81	20			81				
A-C	637	159			637				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	479	120	525	0.912	461	2.0	6.5	46.890	E
B-A	75	19	268	0.280	74	0.2	0.4	18.507	С
C-A	372	93			372				
С-В	201	50	551	0.366	201	0.4	0.6	10.257	В
A-B	99	25			99				
A-C	781	195			781				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	479	120	525	0.913	474	6.5	7.7	61.887	F
B-A	75	19	267	0.280	75	0.4	0.4	18.697	С
C-A	372	93			372				
С-В	201	50	551	0.366	201	0.6	0.6	10.299	В
A-B	99	25			99				
A-C	781	195			781				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	391	98	575	0.680	413	7.7	2.3	24.618	С
B-A	61	15	324	0.189	62	0.4	0.2	13.769	В
C-A	304	76			304				
С-В	165	41	593	0.277	165	0.6	0.4	8.426	A
A-B	81	20			81				
A-C	637	159			637				



08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	327	82	610	0.537	332	2.3	1.2	13.126	В
B-A	51	13	365	0.140	51	0.2	0.2	11.499	В
C-A	254	64			254				
С-В	138	34	624	0.221	138	0.4	0.3	7.418	А
A-B	68	17			68				
A-C	534	133			534				



2019 + Dev, PM

Data Errors and Warnings

Severity	ty Area Item		Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

	Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
ĺ	1	untitled	T-Junction	Two-way		26.47	D

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	2019 + Dev	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	n Linked arm Profile type		Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)	
Α		ONE HOUR	✓	438	100.000	
В		ONE HOUR	✓	327	100.000	
С		ONE HOUR	✓	1180	100.000	

Origin-Destination Data

Demand (PCU/hr)

		То						
		Α	В	С				
F	Α	0	80	358				
From	В	62	0	265				
	С	603	577	0				

Vehicle Mix

Heavy Vehicle Percentages

	То				
		Α	В	С	
	Α	0	0	0	
From	В	0	0	0	
	С	0	0	0	



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
в-с	0.49	11.93	1.0	В	243	365
B-A	0.43	38.93	0.7	Е	57	85
C-A					553	830
С-В	0.97	79.56	13.4	F	529	794
A-B					73	110
A-C					329	493

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	200	50	675	0.295	198	0.0	0.4	7.516	Α
B-A	47	12	301	0.155	46	0.0	0.2	14.093	В
C-A	454	113			454				
С-В	434	109	695	0.625	428	0.0	1.6	13.189	В
A-B	60	15			60				
A-C	270	67			270				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	238	60	648	0.368	238	0.4	0.6	8.756	Α
B-A	56	14	245	0.227	55	0.2	0.3	18.915	С
C-A	542	136			542				
С-В	519	130	678	0.765	513	1.6	3.0	21.117	С
A-B	72	18			72				
A-C	322	80			322				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	292	73	599	0.487	290	0.6	0.9	11.616	В
B-A	68	17	170	0.403	67	0.3	0.6	34.596	D
C-A	664	166			664				
С-В	635	159	655	0.970	606	3.0	10.3	54.044	F
A-B	88	22			88				
A-C	394	99			394				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	292	73	593	0.492	292	0.9	1.0	11.928	В
B-A	68	17	160	0.427	68	0.6	0.7	38.933	Е
C-A	664	166			664				
С-В	635	159	655	0.970	623	10.3	13.4	79.559	F
A-B	88	22			88				
A-C	394	99			394				



17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	238	60	644	0.370	240	1.0	0.6	8.940	A
B-A	56	14	230	0.243	57	0.7	0.3	21.043	С
C-A	542	136			542				
С-В	519	130	678	0.765	558	13.4	3.6	36.347	Е
A-B	72	18			72				
A-C	322	80			322				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	200	50	674	0.296	200	0.6	0.4	7.610	А
B-A	47	12	296	0.158	47	0.3	0.2	14.508	В
C-A	454	113			454				
С-В	434	109	695	0.625	442	3.6	1.7	14.626	В
A-B	60	15			60				
A-C	270	67			270				



2024 + Dev, AM

Data Errors and Warnings

Severity	ity Area Item		Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		23.09	С

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	2024 + Dev	AM	ONE HOUR	07:30	09:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
Α		ONE HOUR	✓	831	100.000
В		ONE HOUR	✓	521	100.000
С		ONE HOUR	✓	542	100.000

Origin-Destination Data

Demand (PCU/hr)

	То					
		Α	В	C		
F	Α	0	94	737		
From	В	71	0	450		
	С	352	190	0		

Vehicle Mix

Heavy Vehicle Percentages

	То				
		Α	В	С	
	Α	0	0	0	
From	В	0	0	0	
	C	0	0	0	



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
в-с	0.97	89.39	11.7	F	413	619
B-A	0.31	20.34	0.4	С	65	98
C-A					323	485
С-В	0.39	10.82	0.6	В	174	262
A-B					86	129
A-C					676	1014

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	339	85	603	0.561	334	0.0	1.2	13.127	В
B-A	53	13	357	0.150	53	0.0	0.2	11.807	В
C-A	265	66			265				
С-В	143	36	617	0.232	142	0.0	0.3	7.551	Α
A-B	71	18			71				
A-C	555	139			555				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	405	101	567	0.714	400	1.2	2.3	21.080	С
B-A	64	16	314	0.203	64	0.2	0.3	14.346	В
C-A	316	79			316				
С-В	171	43	586	0.292	170	0.3	0.4	8.660	А
A-B	85	21			85				
A-C	663	166			663				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	495	124	513	0.965	469	2.3	9.0	60.087	F
B-A	78	20	255	0.306	77	0.3	0.4	20.159	С
C-A	388	97			388				
С-В	209	52	542	0.386	208	0.4	0.6	10.771	В
A-B	103	26			103				
A-C	811	203			811				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	495	124	513	0.966	484	9.0	11.7	89.387	F
B-A	78	20	255	0.307	78	0.4	0.4	20.340	С
C-A	388	97			388				
С-В	209	52	542	0.386	209	0.6	0.6	10.824	В
A-B	103	26			103				
A-C	811	203			811				



08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	405	101	566	0.715	441	11.7	2.7	34.785	D
B-A	64	16	314	0.203	65	0.4	0.3	14.484	В
C-A	316	79			316				
С-В	171	43	586	0.292	172	0.6	0.4	8.711	Α
A-B	85	21			85				
A-C	663	166			663				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	339	85	603	0.562	344	2.7	1.3	14.216	В
B-A	53	13	356	0.150	54	0.3	0.2	11.907	В
C-A	265	66			265				
С-В	143	36	617	0.232	143	0.4	0.3	7.601	Α
A-B	71	18			71				
A-C	555	139			555				



2024 + Dev, PM

Data Errors and Warnings

Severity	y Area Item		Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

	Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
ĺ	1	untitled	T-Junction	Two-way		35.85	E

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	2024 + Dev	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
Α		ONE HOUR	✓	455	100.000
В		ONE HOUR	✓	339	100.000
С		ONE HOUR	✓	1224	100.000

Origin-Destination Data

Demand (PCU/hr)

	То					
		Α	В	С		
F	Α	0	83	372		
From	В	64	0	275		
	С	627	597	0		

Vehicle Mix

Heavy Vehicle Percentages

	То				
From		Α	В	С	
	Α	0	0	0	
	В	0	0	0	
	C	0	0	0	



Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
в-с	0.53	13.16	1.1	В	252	379
B-A	0.50	50.38	0.9	F	59	88
C-A					575	863
С-В	1.01	109.73	20.0	F	548	822
A-B					76	114
A-C					341	512

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	207	52	670	0.309	205	0.0	0.4	7.709	А
B-A	48	12	291	0.166	47	0.0	0.2	14.760	В
C-A	472	118			472				
С-В	449	112	692	0.650	442	0.0	1.8	14.075	В
A-B	62	16			62				
A-C	280	70			280				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	247	62	641	0.386	247	0.4	0.6	9.104	Α
B-A	58	14	233	0.247	57	0.2	0.3	20.418	С
C-A	564	141			564				
С-В	537	134	674	0.796	530	1.8	3.5	23.838	С
A-B	75	19			75				
A-C	334	84			334				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	303	76	586	0.517	301	0.6	1.0	12.579	В
B-A	70	18	154	0.457	69	0.3	0.8	41.289	Е
C-A	690	173			690				
С-В	657	164	650	1.011	616	3.5	13.9	66.980	F
A-B	91	23			91				
A-C	410	102			410				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	303	76	576	0.526	303	1.0	1.1	13.157	В
B-A	70	18	140	0.502	70	0.8	0.9	50.379	F
C-A	690	173			690				
С-В	657	164	650	1.011	633	13.9	20.0	109.734	F
A-B	91	23			91				
A-C	410	102			410				

14



17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	247	62	634	0.390	249	1.1	0.6	9.394	A
B-A	58	14	209	0.275	60	0.9	0.4	24.430	С
C-A	564	141			564				
С-В	537	134	674	0.796	598	20.0	4.6	60.144	F
A-B	75	19			75				
A-C	334	84			334				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	207	52	669	0.310	208	0.6	0.5	7.822	А
B-A	48	12	284	0.169	49	0.4	0.2	15.328	С
C-A	472	118			472				
С-В	449	112	692	0.650	460	4.6	1.9	16.209	С
A-B	62	16			62				
A-C	280	70			280				

S|C|P APPENDIX 11



Junctions 9

PICADY 9 - Priority Intersection Module

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Filename: Site Access B and Green Lane Junction.j9

Path: Z:\Job Library\2018\18415D - Holywell Road, Ewloe\Traffic Data\PICADY

Report generation date: 01/02/2019 10:32:18

»2024 + Dev, AM
»2024 + Dev, PM

Summary of junction performance

		AM				PM		
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
			:	2024	+ Dev			
Stream B-C	0.1	5.93	0.06	А	0.0	5.70	0.03	Α
Stream B-A	0.0	0.00	0.00	Α	0.0	0.00	0.00	Α
Stream C-AB	0.0	5.70	0.02	Α	0.1	5.92	0.06	Α

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

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

File summary

File Description

Title	Green Lane/Proposed Site Access
Location	Ewloe
Site number	
Date	15/10/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	18415
Enumerator	SCP\vicky.lomas
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	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
D3	2024 + Dev	AM	ONE HOUR	07:30	09:00	15	✓
D4	2024 + Dev	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A 1	✓	100.000	100.000



2024 + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	,	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

	Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
ĺ	1	untitled	T-Junction	Two-way		5.87	Α

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A Green Lane North			Major
В	Proposed Site Access		Minor
С	Green Lane South		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)
С	5.50			122.0	✓	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	Width at give- way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
В	One lane plus flare	7.00	2.75	2.75	2.75	2.75		1.00	17	19

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	443	0.083	0.209	0.131	0.298
1	B-C	649	0.102	0.257	-	-
1	С-В	645	0.255	0.255	-	-

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 + Dev	AM	ONE HOUR	07:30	09:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
Α		ONE HOUR	✓	0	100.000
В		ONE HOUR	✓	38	100.000
С		ONE HOUR	✓	12	100.000

Origin-Destination Data

Demand (PCU/hr)

		То				
		Α	В	С		
F	A	0	0	0		
From	В	0	0	38		
	C	0	12	0		

Vehicle Mix

Heavy Vehicle Percentages

	То				
		Α	В	С	
	Α	0	0	0	
From	В	0	0	0	
	С	0	0	0	

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
В-С	0.06	5.93	0.1	А	35	52
B-A	0.00	0.00	0.0	Α	0	0
C-AB	0.02	5.70	0.0	А	11	17
C-A					0	0
A-B					0	0
A-C					0	0



Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	29	7	649	0.044	28	0.0	0.0	5.801	A
B-A	0	0	441	0.000	0	0.0	0.0	0.000	Α
C-AB	9	2	645	0.014	9	0.0	0.0	5.663	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	34	9	649	0.053	34	0.0	0.1	5.856	A
B-A	0	0	440	0.000	0	0.0	0.0	0.000	Α
C-AB	11	3	645	0.017	11	0.0	0.0	5.679	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	42	10	649	0.064	42	0.1	0.1	5.930	A
B-A	0	0	439	0.000	0	0.0	0.0	0.000	A
C-AB	13	3	645	0.021	13	0.0	0.0	5.700	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	42	10	649	0.064	42	0.1	0.1	5.930	Α
B-A	0	0	439	0.000	0	0.0	0.0	0.000	А
C-AB	13	3	645	0.021	13	0.0	0.0	5.700	А
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	34	9	649	0.053	34	0.1	0.1	5.857	А
B-A	0	0	440	0.000	0	0.0	0.0	0.000	А
C-AB	11	3	645	0.017	11	0.0	0.0	5.681	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

5



08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	29	7	649	0.044	29	0.1	0.0	5.804	Α
B-A	0	0	441	0.000	0	0.0	0.0	0.000	Α
C-AB	9	2	645	0.014	9	0.0	0.0	5.663	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				



2024 + Dev, PM

Data Errors and Warnings

Severity	y Area Item		Description
Warning	Major arm width	•	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

	Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
ĺ	1	untitled	T-Junction	Two-way		5.85	Α

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 + Dev	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
Α		ONE HOUR	✓	0	100.000
В		ONE HOUR	✓	16	100.000
С		ONE HOUR	✓	33	100.000

Origin-Destination Data

Demand (PCU/hr)

		То					
		Α	В	O			
F	Α	0	0	0			
From	В	0	0	16			
	С	0	33	0			

Vehicle Mix

Heavy Vehicle Percentages

		То				
		Α	В	ပ		
F	Α	0	0	0		
From	В	0	0	0		
	C	0	0	0		



Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
в-с	0.03	5.70	0.0	А	15	22
B-A	0.00	0.00	0.0	А	0	0
C-AB	0.06	5.92	0.1	А	30	45
C-A					0	0
A-B					0	0
A-C					0	0

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	12	3	649	0.019	12	0.0	0.0	5.652	A
B-A	0	0	436	0.000	0	0.0	0.0	0.000	A
C-AB	25	6	645	0.039	25	0.0	0.0	5.805	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	14	4	649	0.022	14	0.0	0.0	5.673	A
B-A	0	0	434	0.000	0	0.0	0.0	0.000	A
C-AB	30	7	645	0.046	30	0.0	0.0	5.853	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	18	4	649	0.027	18	0.0	0.0	5.702	А
B-A	0	0	433	0.000	0	0.0	0.0	0.000	A
C-AB	36	9	645	0.056	36	0.0	0.1	5.917	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	18	4	649	0.027	18	0.0	0.0	5.702	A
B-A	0	0	432	0.000	0	0.0	0.0	0.000	A
C-AB	36	9	645	0.056	36	0.1	0.1	5.917	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				



17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	14	4	649	0.022	14	0.0	0.0	5.676	A
B-A	0	0	434	0.000	0	0.0	0.0	0.000	A
C-AB	30	7	645	0.046	30	0.1	0.0	5.854	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	12	3	649	0.019	12	0.0	0.0	5.653	Α
B-A	0	0	436	0.000	0	0.0	0.0	0.000	A
C-AB	25	6	645	0.039	25	0.0	0.0	5.808	Α
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

S|C|P APPENDIX 12



Junctions 9

PICADY 9 - Priority Intersection Module

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Filename: Green Lane and Old Mold Road Junction.j9

Path: Z:\Job Library\2018\18415D - Holywell Road, Ewloe\Traffic Data\PICADY

Report generation date: 01/02/2019 10:34:52

»2019 + Dev, AM

»2019 + Dev, PM

»2024 + Dev, AM

»2024 + Dev, PM

Summary of junction performance

		AM				PM				
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS		
			:	2019	+ Dev					
Stream B-C	0.1	8.28	0.08	А	0.0	6.55	0.03	А		
Stream B-A	0.0	14.06	0.02	В	0.0	12.13	0.01	В		
Stream C-AB	0.0	4.96	0.03	Α	0.2	4.12	0.08	Α		
			:	2024	+ Dev					
Stream B-C	0.1	8.45	0.08	А	0.0	6.61	0.03	А		
Stream B-A	0.0	14.61	0.02	В	0.0	12.44	0.01	В		
Stream C-AB	0.0	4.95	0.03	Α	0.2	4.09	0.09	Α		

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

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

File summary

File Description

Title	Green Lane/Old Mold Road Junction
Location	Ewloe
Site number	
Date	15/10/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	18415
Enumerator	SCP\vicky.lomas
Description	

Units

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



Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	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 + Dev	AM	ONE HOUR	07:30	09:00	15	✓
D2	2019 + Dev	PM	ONE HOUR	16:45	18:15	15	✓
D3	2024 + Dev	AM	ONE HOUR	07:30	09:00	15	✓
D4	2024 + Dev	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A 1	✓	100.000	100.000



2019 + Dev, AM

Data Errors and Warnings

Severity	Severity Area Item		erity Area Item Description					
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.					

Junction Network

Junctions

	Junction Name Junction type Major		Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS	
ĺ	1	untitled	T-Junction	Two-way		0.38	Α

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
Α	Old Mold Road East		Major
В	Green Lane		Minor
С	Old Mold Road West		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)
С	7.40			250.0	✓	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	Width at give- way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
В	One lane plus flare	10.00	5.50	3.20	2.75	2.75		1.00	45	22

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B	
1	B-A	492	0.084	0.213	0.134	0.304	
1	B-C	684	0.098	0.249	-	-	
1	С-В	719	0.262	0.262	-	-	

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 + Dev	AM	ONE HOUR	07:30	09:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type Use O-D data		Average Demand (PCU/hr)	Scaling Factor (%)	
Α		ONE HOUR	✓	766	100.000	
В		ONE HOUR	✓	38	100.000	
С		ONE HOUR	✓	341	100.000	

Origin-Destination Data

Demand (PCU/hr)

		Т	o	
		Α	В	С
F	Α	0	1	765
From	В	4	0	34
	С	330	11	0

Vehicle Mix

Heavy Vehicle Percentages

		T	ō	
		Α	В	ပ
	Α	0	0	0
From	В	0	0	0
	С	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
В-С	0.08	8.28	0.1	Α	31	47
B-A	0.02	14.06	0.0	В	4	6
C-AB	0.03	4.96	0.0	А	17	26
C-A					296	443
A-B					0.92	1
A-C					702	1053



Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	26	6	539	0.047	25	0.0	0.0	7.006	A
B-A	3	0.75	334	0.009	3	0.0	0.0	10.882	В
C-AB	12	3	738	0.017	12	0.0	0.0	4.961	A
C-A	244	61			244				
A-B	0.75	0.19			0.75				
A-C	576	144			576				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	31	8	511	0.060	31	0.0	0.1	7.491	A
B-A	4	0.90	303	0.012	4	0.0	0.0	12.024	В
C-AB	16	4	747	0.022	16	0.0	0.0	4.930	A
C-A	290	73			290				
A-B	0.90	0.22			0.90				
A-C	688	172			688				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	37	9	472	0.079	37	0.1	0.1	8.278	A
B-A	4	1	260	0.017	4	0.0	0.0	14.061	В
C-AB	23	6	761	0.031	23	0.0	0.0	4.879	A
C-A	352	88			352				
A-B	1	0.28			1				
A-C	842	211			842				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	37	9	472	0.079	37	0.1	0.1	8.282	Α
B-A	4	1	260	0.017	4	0.0	0.0	14.061	В
C-AB	23	6	761	0.031	23	0.0	0.0	4.881	A
C-A	352	88			352				
A-B	1	0.28			1				
A-C	842	211			842				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	31	8	511	0.060	31	0.1	0.1	7.497	А
B-A	4	0.90	303	0.012	4	0.0	0.0	12.025	В
C-AB	16	4	747	0.022	17	0.0	0.0	4.933	А
C-A	290	73			290				
A-B	0.90	0.22			0.90				
A-C	688	172			688				

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08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	26	6	539	0.047	26	0.1	0.1	7.012	А
B-A	3	0.75	334	0.009	3	0.0	0.0	10.884	В
C-AB	13	3	738	0.017	13	0.0	0.0	4.964	А
C-A	244	61			244				
A-B	0.75	0.19			0.75				
A-C	576	144			576				



2019 + Dev, PM

Data Errors and Warnings

Severity	verity Area Item		Description				
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.				

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.38	Α

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 + Dev	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)	
Α		ONE HOUR	✓	427	100.000	
В		ONE HOUR	✓	17	100.000	
С		ONE HOUR	✓	605	100.000	

Origin-Destination Data

Demand (PCU/hr)

	То						
From		Α	В	С			
	Α	0	4	423			
	В	2	0	15			
	С	576	29	0			

Vehicle Mix

Heavy Vehicle Percentages

	То					
From		Α	В	C		
	Α	0	0	0		
	В	0	0	0		
	С	0	0	0		



Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU) Max LOS		Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
В-С	0.03	6.55	0.0	А	14	21
B-A	0.01	12.13	0.0	В	2	3
C-AB	0.08	4.12	0.2	А	61	92
C-A					494	741
A-B					4	6
A-C					388	582

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	11	3	603	0.019	11	0.0	0.0	6.084	А
B-A	2	0.38	361	0.004	1	0.0	0.0	10.021	В
C-AB	41	10	915	0.045	41	0.0	0.1	4.117	Α
C-A	414	103			414				
A-B	3	0.75			3				
A-C	318	80			318				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	3	587	0.023	13	0.0	0.0	6.273	Α
B-A	2	0.45	335	0.005	2	0.0	0.0	10.809	В
C-AB	57	14	958	0.059	57	0.1	0.1	3.994	А
C-A	487	122			487				
A-B	4	0.90			4				
A-C	380	95			380				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	17	4	566	0.029	16	0.0	0.0	6.554	A
B-A	2	0.55	299	0.007	2	0.0	0.0	12.126	В
C-AB	85	21	1020	0.083	84	0.1	0.2	3.849	A
C-A	581	145			581				
A-B	4	1			4				
A-C	466	116			466				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	17	4	566	0.029	17	0.0	0.0	6.554	A
B-A	2	0.55	299	0.007	2	0.0	0.0	12.127	В
C-AB	85	21	1020	0.083	85	0.2	0.2	3.851	A
C-A	581	145			581				
A-B	4	1			4				
A-C	466	116			466				

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17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	13	3	587	0.023	14	0.0	0.0	6.274	А
B-A	2	0.45	335	0.005	2	0.0	0.0	10.812	В
C-AB	57	14	959	0.059	57	0.2	0.1	3.996	A
C-A	487	122			487				
A-B	4	0.90			4				
A-C	380	95			380				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	11	3	603	0.019	11	0.0	0.0	6.085	А
B-A	2	0.38	361	0.004	2	0.0	0.0	10.024	В
C-AB	42	10	916	0.045	42	0.1	0.1	4.122	A
C-A	414	103			414				
A-B	3	0.75			3				
A-C	318	80			318				



2024 + Dev, AM

Data Errors and Warnings

Severity	rerity Area Item		Description				
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.				

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.37	Α

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	raffic profile type Start time (HH:mm)		Time segment length (min)	Run automatically
D3	2024 + Dev	AM	ONE HOUR	07:30	09:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm Profile type		Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)	
Α		ONE HOUR	✓	798	100.000	
В		ONE HOUR	✓	38	100.000	
С		ONE HOUR	✓	355	100.000	

Origin-Destination Data

Demand (PCU/hr)

		То					
		Α	В	С			
F	Α	0	1	797			
From	В	4	0	34			
	С	344	11	0			

Vehicle Mix

Heavy Vehicle Percentages

	То					
		Α	В	С		
	Α	0	0	0		
From	В	0	0	0		
	С	0	0	0		



Results

Results Summary for whole modelled period

Stream	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Max RFC Max Delay (s) Max Queue (PCU) Max LOS		Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
В-С			0.1	А	31	47
B-A	0.02	14.61	0.0	В	4	6
C-AB	0.03	4.95	0.0 A		18	27
C-A					308	462
A-B					0.92	1
A-C					731	1097

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
в-с	26	6	533	0.048	25	0.0	0.1	7.089	Α
B-A	3	0.75	327	0.009	3	0.0	0.0	11.101	В
C-AB	13	3	740	0.017	13	0.0	0.0	4.950	А
C-A	255	64			255				
A-B	0.75	0.19			0.75				
A-C	600	150			600				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service	
в-с	31	8	504	0.061	31	0.1	0.1	7.604	Α	
B-A	4	0.90	295	0.012	4	0.0	0.0	12.346	В	
C-AB	17	4	749	0.023	17	0.0	0.0	4.915	А	
C-A	302	76			302					
A-B	0.90	0.22			0.90					
A-C	716	179			716					

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	37	9	463	0.081	37	0.1	0.1	8.449	Α
B-A	4	1	251	0.018	4	0.0	0.0	14.607	В
C-AB	24	6	765	0.031	24	0.0	0.0	4.859	A
C-A	367	92			367				
A-B	1	0.28			1				
A-C	878	219			878				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	37	9	463	0.081	37	0.1	0.1	8.453	A
B-A	4	1	251	0.018	4	0.0	0.0	14.606	В
C-AB	24	6	765	0.031	24	0.0	0.0	4.861	A
C-A	367	92			367				
A-B	1	0.28			1				
A-C	878	219			878				

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08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	31	8	504	0.061	31	0.1	0.1	7.608	А
B-A	4	0.90	295	0.012	4	0.0	0.0	12.347	В
C-AB	17	4	749	0.023	17	0.0	0.0	4.918	A
C-A	302	76			302				
A-B	0.90	0.22			0.90				
A-C	716	179			716				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	26	6	533	0.048	26	0.1	0.1	7.093	А
B-A	3	0.75	327	0.009	3	0.0	0.0	11.106	В
C-AB	13	3	740	0.017	13	0.0	0.0	4.951	A
C-A	254	64			254				
A-B	0.75	0.19			0.75				
A-C	600	150			600				



2024 + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.37	Α

Junction Network Options

Driving side		
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 + Dev	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
Α		ONE HOUR	✓	444	100.000
В		ONE HOUR	✓	17	100.000
С		ONE HOUR	✓	628	100.000

Origin-Destination Data

Demand (PCU/hr)

	То				
		Α	В	С	
F	Α	0	4	440	
From	В	2	0	15	
	С	599	29	0	

Vehicle Mix

Heavy Vehicle Percentages

	То				
		Α	В	С	
	Α	0	0	0	
From	В	0	0	0	
	C	0	0	0	



Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
в-с	0.03	6.61	0.0	А	14	21
B-A	0.01	12.44	0.0	В	2	3
C-AB	0.09	4.09	0.2	А	63	95
C-A					513	769
A-B					4	6
A-C					404	606

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	11	3	600	0.019	11	0.0	0.0	6.117	А
B-A	2	0.38	356	0.004	1	0.0	0.0	10.165	В
C-AB	43	11	924	0.046	42	0.0	0.1	4.082	Α
C-A	430	108			430				
A-B	3	0.75			3				
A-C	331	83			331				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	13	3	583	0.023	13	0.0	0.0	6.315	А
B-A	2	0.45	329	0.005	2	0.0	0.0	11.008	В
C-AB	59	15	969	0.061	59	0.1	0.1	3.956	А
C-A	506	126			506				
A-B	4	0.90			4				
A-C	396	99			396				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	17	4	561	0.029	16	0.0	0.0	6.610	А
B-A	2	0.55	292	0.008	2	0.0	0.0	12.435	В
C-AB	88	22	1034	0.086	88	0.1	0.2	3.809	A
C-A	603	151			603				
A-B	4	1			4				
A-C	484	121			484				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	17	4	561	0.029	17	0.0	0.0	6.610	A
B-A	2	0.55	292	0.008	2	0.0	0.0	12.437	В
C-AB	89	22	1034	0.086	89	0.2	0.2	3.808	A
C-A	603	151			603				
A-B	4	1			4				
A-C	484	121			484				

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17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	13	3	583	0.023	14	0.0	0.0	6.318	A
B-A	2	0.45	329	0.005	2	0.0	0.0	11.012	В
C-AB	59	15	969	0.061	59	0.2	0.1	3.959	A
C-A	506	126			506				
A-B	4	0.90			4				
A-C	396	99			396				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
В-С	11	3	600	0.019	11	0.0	0.0	6.118	А
B-A	2	0.38	356	0.004	2	0.0	0.0	10.167	В
C-AB	43	11	924	0.046	43	0.1	0.1	4.085	A
C-A	430	107			430				
A-B	3	0.75			3				
A-C	331	83			331				

S|C|P APPENDIX 13



Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896 © Copyright TRL Limited, 2018

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Filename: A494 B5125 roundabout_check.j9

Path: Z:\Job Library\2018\18415D - Holywell Road, Ewloe\Traffic Data\ARCADY

Report generation date: 14/03/2019 12:37:29

»2019, AM

»2019, PM

»2024, AM

»2024, PM

»2019 + Development, AM

»2019 + Development, PM

»2024 + Development, AM

»2024 + Development, PM



Summary of junction performance

		AM				PM		
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
				20	19			
1 - A494 (East)	0.6	3.07	0.36	А	0.9	3.31	0.47	Α
2 - B5125 (South)	0.9	2.74	0.48	Α	1.2	3.20	0.54	Α
3 - A494 (West)	0.6	2.70	0.36	Α	0.6	2.91	0.36	Α
4 - B5127 (North)	2.2	7.21	0.69	Α	0.5	3.13	0.36	Α
5 - Yowley Road	0.1	6.36	0.13	Α	0.0	3.68	0.05	Α
				20	24			
1 - A494 (East)	0.6	3.20	0.37	А	1.0	3.47	0.50	Α
2 - B5125 (South)	1.0	2.86	0.49	Α	1.3	3.38	0.56	Α
3 - A494 (West)	0.6	2.81	0.38	Α	0.6	3.04	0.38	Α
4 - B5127 (North)	2.6	8.22	0.72	Α	0.6	3.23	0.37	Α
5 - Yowley Road	0.2	6.84	0.14	Α	0.1	3.77	0.05	Α
			2019	+ De	velopment			
1 - A494 (East)	0.6	3.22	0.37	А	1.0	3.48	0.50	Α
2 - B5125 (South)	0.9	2.84	0.49	Α	1.2	3.37	0.55	Α
3 - A494 (West)	0.6	2.76	0.37	Α	0.6	3.11	0.39	Α
4 - B5127 (North)	3.1	9.47	0.76	Α	0.6	3.32	0.39	Α
5 - Yowley Road	0.2	6.99	0.14	Α	0.0	3.77	0.05	Α
			2024	+ De	velopment			
1 - A494 (East)	0.6	3.37	0.39	А	1.1	3.66	0.52	Α
2 - B5125 (South)	1.0	2.97	0.51	Α	1.4	3.57	0.58	Α
3 - A494 (West)	0.6	2.87	0.39	Α	0.7	3.25	0.41	Α
4 - B5127 (North)	3.8	11.25	0.80	В	0.7	3.44	0.40	Α
5 - Yowley Road	0.2	7.57	0.15	А	0.1	3.86	0.05	Α

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

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

File summary

File Description

Title	A494/B5127 Roundabout
Location	Ewloe
Site number	
Date	13/03/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	18415
Enumerator	SCP\anna.stephens
Description	

Units

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

Analysis Options

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



Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2019	AM	ONE HOUR	07:30	09:00	15
D2	2019	PM	ONE HOUR	16:30	18:00	15
D3	2024	AM	ONE HOUR	07:30	09:00	15
D4	2024	PM	ONE HOUR	16:30	18:00	15
D5	2019 + Development	AM	ONE HOUR	07:30	09:00	15
D6	2019 + Development	PM	ONE HOUR	16:30	18:00	15
D7	2024 + Development	AM	ONE HOUR	07:30	09:00	15
D8	2024 + Development	PM	ONE HOUR	16:30	18:00	15

Analysis Set Details

ID	Network flow scaling factor (%)
A 1	100.000



2019, AM

Data Errors and Warnings

Severity	ity Area Item Description		Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.16	Α

Junction Network Options

Driving side	Lighting		
Left	Normal/unknown		

Arms

Arms

Arm	Name	Description
1	A494 (East)	
2	B5125 (South)	
3	A494 (West)	
4	B5127 (North)	
5	Yowley Road	

Roundabout Geometry

Arm	V - Approach road half- width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A494 (East)	6.50	8.50	16.0	36.0	100.0	18.0	
2 - B5125 (South)	7.50	10.00	10.0	90.0	100.0	18.0	
3 - A494 (West)	6.00	13.00	10.0	124.0	100.0	14.0	
4 - B5127 (North)	6.50	8.50	5.0	15.0	100.0	29.0	
5 - Yowley Road	4.50	6.00	4.0	57.0	100.0	22.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)			
1 - A494 (East)	0.583	2555			
2 - B5125 (South)	0.635	2908			
3 - A494 (West)	0.612	2711			
4 - B5127 (North)	0.518	2207			
5 - Yowley Road	0.457	1664			

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



Traffic Demand

Demand Set Details

П	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D	2019	AM	ONE HOUR	07:30	09:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A494 (East)		✓	589	100.000
2 - B5125 (South)		✓	1082	100.000
3 - A494 (West)		✓	692	100.000
4 - B5127 (North)		✓	999	100.000
5 - Yowley Road		✓	75	100.000

Origin-Destination Data

Demand (PCU/hr)

	То							
		1 - A494 (East)	2 - B5125 (South)	3 - A494 (West)	4 - B5127 (North)	5 - Yowley Road		
	1 - A494 (East)	1	373	4	190	21		
	2 - B5125 (South)	479	0	387	214	2		
From	3 - A494 (West)	18	459	68	129	18		
	4 - B5127 (North)	427	301	263	0	8		
	5 - Yowley Road	23	26	15	11	0		

Vehicle Mix

Heavy Vehicle Percentages

	То						
		1 - A494 (East)	2 - B5125 (South)	3 - A494 (West)	4 - B5127 (North)	5 - Yowley Road	
	1 - A494 (East)	0	0	0	0	0	
	2 - B5125 (South)	0	0	0	0	0	
From	3 - A494 (West)	0	0	0	0	0	
	4 - B5127 (North)	0	0	0	0	0	
	5 - Yowley Road	0	0	0	0	0	

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A494 (East)	0.36	3.07	0.6	А
2 - B5125 (South)	0.48	2.74	0.9	Α
3 - A494 (West)	0.36	2.70	0.6	А
4 - B5127 (North)	0.69	7.21	2.2	А
5 - Yowley Road	0.13	6.36	0.1	Α

5



Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	443	858	2055	0.216	442	0.3	2.231	А
2 - B5125 (South)	815	430	2635	0.309	813	0.4	1.974	A
3 - A494 (West)	521	690	2290	0.228	520	0.3	2.033	A
4 - B5127 (North)	752	801	1792	0.420	749	0.7	3.444	А
5 - Yowley Road	56	1513	972	0.058	56	0.1	3.931	А

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	529	1026	1957	0.271	529	0.4	2.521	A
2 - B5125 (South)	973	515	2581	0.377	972	0.6	2.236	A
3 - A494 (West)	622	825	2207	0.282	622	0.4	2.271	A
4 - B5127 (North)	898	958	1711	0.525	897	1.1	4.414	A
5 - Yowley Road	67	1810	836	0.081	67	0.1	4.683	Α

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	649	1255	1823	0.356	648	0.5	3.061	А
2 - B5125 (South)	1191	629	2508	0.475	1190	0.9	2.729	А
3 - A494 (West)	762	1010	2094	0.364	761	0.6	2.700	А
4 - B5127 (North)	1100	1173	1599	0.688	1096	2.1	7.087	А
5 - Yowley Road	83	2214	651	0.127	82	0.1	6.325	А

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	649	1258	1821	0.356	648	0.6	3.068	A
2 - B5125 (South)	1191	631	2507	0.475	1191	0.9	2.735	А
3 - A494 (West)	762	1011	2093	0.364	762	0.6	2.703	A
4 - B5127 (North)	1100	1174	1599	0.688	1100	2.2	7.208	A
5 - Yowley Road	83	2220	649	0.127	83	0.1	6.356	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	529	1031	1954	0.271	530	0.4	2.528	А
2 - B5125 (South)	973	517	2580	0.377	974	0.6	2.244	A
3 - A494 (West)	622	826	2206	0.282	623	0.4	2.274	А
4 - B5127 (North)	898	959	1710	0.525	902	1.1	4.482	А
5 - Yowley Road	67	1818	833	0.081	68	0.1	4.709	Α

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	443	862	2053	0.216	444	0.3	2.237	Α
2 - B5125 (South)	815	432	2633	0.309	815	0.4	1.980	А
3 - A494 (West)	521	692	2288	0.228	521	0.3	2.037	A
4 - B5127 (North)	752	803	1791	0.420	754	0.7	3.478	А
5 - Yowley Road	56	1520	969	0.058	57	0.1	3.948	А



2019, PM

Data Errors and Warnings

Severity	rity Area Item		Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	3.17	Α

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)
D2	2019	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A494 (East)		✓	894	100.000
2 - B5125 (South)		✓	1188	100.000
3 - A494 (West)		✓	636	100.000
4 - B5127 (North)		✓	576	100.000
5 - Yowley Road		✓	43	100.000

Origin-Destination Data

Demand (PCU/hr)

	То							
		1 - A494 (East)	2 - B5125 (South)	3 - A494 (West)	4 - B5127 (North)	5 - Yowley Road		
	1 - A494 (East)	3	423	1	445	22		
F	2 - B5125 (South)	358	0	512	316	2		
From	3 - A494 (West)	4	331	9	281	11		
	4 - B5127 (North)	182	196	185	0	13		
	5 - Yowley Road	13	16	7	7	0		



	То							
		1 - A494 (East)	2 - B5125 (South)	3 - A494 (West)	4 - B5127 (North)	5 - Yowley Road		
	1 - A494 (East)	0	0	0	0	0		
	2 - B5125 (South)	0	0	0	0	0		
From	3 - A494 (West)	0	0	0	0	0		
	4 - B5127 (North)	0	0	0	0	0		
	5 - Yowley Road	0	0	0	0	0		

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A494 (East)	0.47	3.31	0.9	Α
2 - B5125 (South)	0.54	3.20	1.2	Α
3 - A494 (West)	0.36	2.91	0.6	Α
4 - B5127 (North)	0.36	3.13	0.5	А
5 - Yowley Road	0.05	3.68	0.0	А

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	673	564	2226	0.302	671	0.4	2.314	А
2 - B5125 (South)	894	510	2584	0.346	892	0.5	2.125	A
3 - A494 (West)	479	866	2182	0.219	478	0.3	2.111	A
4 - B5127 (North)	434	556	1919	0.226	432	0.3	2.422	А
5 - Yowley Road	32	952	1228	0.026	32	0.0	3.009	А

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	804	675	2162	0.372	803	0.6	2.648	Α
2 - B5125 (South)	1068	610	2520	0.424	1067	0.7	2.476	Α
3 - A494 (West)	572	1036	2078	0.275	571	0.4	2.389	Α
4 - B5127 (North)	518	665	1862	0.278	517	0.4	2.676	Α
5 - Yowley Road	39	1139	1143	0.034	39	0.0	3.259	А

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	984	826	2073	0.475	983	0.9	3.299	А
2 - B5125 (South)	1308	747	2433	0.538	1306	1.2	3.190	A
3 - A494 (West)	700	1268	1936	0.362	700	0.6	2.910	А
4 - B5127 (North)	634	814	1785	0.355	634	0.5	3.124	A
5 - Yowley Road	47	1395	1026	0.046	47	0.0	3.677	А



17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	984	827	2073	0.475	984	0.9	3.306	A
2 - B5125 (South)	1308	748	2433	0.538	1308	1.2	3.199	A
3 - A494 (West)	700	1269	1935	0.362	700	0.6	2.914	А
4 - B5127 (North)	634	815	1785	0.355	634	0.5	3.128	A
5 - Yowley Road	47	1396	1025	0.046	47	0.0	3.680	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	804	676	2161	0.372	805	0.6	2.657	А
2 - B5125 (South)	1068	611	2519	0.424	1070	0.7	2.487	А
3 - A494 (West)	572	1038	2076	0.275	572	0.4	2.396	А
4 - B5127 (North)	518	666	1862	0.278	518	0.4	2.683	А
5 - Yowley Road	39	1141	1142	0.034	39	0.0	3.265	Α

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	673	566	2225	0.303	674	0.4	2.323	A
2 - B5125 (South)	894	512	2583	0.346	895	0.5	2.135	A
3 - A494 (West)	479	869	2180	0.220	479	0.3	2.118	Α
4 - B5127 (North)	434	558	1918	0.226	434	0.3	2.428	A
5 - Yowley Road	32	955	1227	0.026	32	0.0	3.013	А



2024, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.55	Α

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)
D3	2024	AM	ONE HOUR	07:30	09:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)	
1 - A494 (East)		✓	610	100.000	
2 - B5125 (South)		✓	1120	100.000	
3 - A494 (West)		✓	718	100.000	
4 - B5127 (North)		✓	1035	100.000	
5 - Yowley Road		✓	78	100.000	

Origin-Destination Data

Demand (PCU/hr)

		То											
		1 - A494 (East)	2 - B5125 (South)	3 - A494 (West)	4 - B5127 (North)	5 - Yowley Road							
	1 - A494 (East)	1	386	4	197	22							
F	2 - B5125 (South)	496	0	401	221	2							
From	3 - A494 (West)	19	475	71	134	19							
	4 - B5127 (North)	442	312	273	0	8							
	5 - Yowley Road	24	27	16	11	0							



			Т	0		
		1 - A494 (East)	2 - B5125 (South)	3 - A494 (West)	4 - B5127 (North)	5 - Yowley Road
	1 - A494 (East)	0	0	0	0	0
	2 - B5125 (South)	0	0	0	0	0
From	3 - A494 (West)	0	0	0	0	0
	4 - B5127 (North)	0	0	0	0	0
	5 - Yowley Road	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A494 (East)	0.37	3.20	0.6	Α
2 - B5125 (South)	0.49	2.86	1.0	Α
3 - A494 (West)	0.38	2.81	0.6	Α
4 - B5127 (North)	0.72	8.22	2.6	А
5 - Yowley Road	0.14	6.84	0.2	А

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	459	889	2037	0.226	458	0.3	2.280	А
2 - B5125 (South)	843	446	2624	0.321	841	0.5	2.017	A
3 - A494 (West)	541	714	2275	0.238	539	0.3	2.073	А
4 - B5127 (North)	779	830	1777	0.439	776	0.8	3.587	А
5 - Yowley Road	59	1568	947	0.062	58	0.1	4.051	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	548	1064	1935	0.283	548	0.4	2.596	Α
2 - B5125 (South)	1007	534	2568	0.392	1006	0.6	2.303	Α
3 - A494 (West)	645	853	2189	0.295	645	0.4	2.331	Α
4 - B5127 (North)	930	993	1693	0.550	929	1.2	4.702	Α
5 - Yowley Road	70	1876	806	0.087	70	0.1	4.891	А

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	672	1301	1797	0.374	671	0.6	3.196	А
2 - B5125 (South)	1233	653	2493	0.495	1232	1.0	2.852	A
3 - A494 (West)	791	1045	2072	0.381	790	0.6	2.805	А
4 - B5127 (North)	1140	1215	1577	0.722	1134	2.5	8.032	A
5 - Yowley Road	86	2294	615	0.140	86	0.2	6.797	А



08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	672	1305	1795	0.374	672	0.6	3.205	A
2 - B5125 (South)	1233	655	2492	0.495	1233	1.0	2.859	A
3 - A494 (West)	791	1046	2072	0.382	791	0.6	2.809	A
4 - B5127 (North)	1140	1217	1577	0.723	1139	2.6	8.224	А
5 - Yowley Road	86	2300	612	0.140	86	0.2	6.840	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	548	1069	1932	0.284	549	0.4	2.606	A
2 - B5125 (South)	1007	537	2567	0.392	1008	0.6	2.313	А
3 - A494 (West)	645	855	2188	0.295	646	0.4	2.335	А
4 - B5127 (North)	930	995	1692	0.550	936	1.2	4.797	А
5 - Yowley Road	70	1884	802	0.087	70	0.1	4.923	Α

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	459	894	2034	0.226	460	0.3	2.288	A
2 - B5125 (South)	843	449	2623	0.321	844	0.5	2.025	A
3 - A494 (West)	541	716	2274	0.238	541	0.3	2.079	Α
4 - B5127 (North)	779	833	1776	0.439	781	0.8	3.628	A
5 - Yowley Road	59	1575	943	0.062	59	0.1	4.071	А



2024, PM

Data Errors and Warnings

Severity	Area	Item	Description		
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.		

Junction Network

Junctions

	Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
ĺ	1	untitled	Standard Roundabout		1, 2, 3, 4, 5	3.32	Α

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)
D4	2024	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Arm Linked arm		Average Demand (PCU/hr)	Scaling Factor (%)	
1 - A494 (East)		✓	925	100.000	
2 - B5125 (South)		✓	1228	100.000	
3 - A494 (West)		✓	658	100.000	
4 - B5127 (North)		✓	596	100.000	
5 - Yowley Road		✓	44	100.000	

Origin-Destination Data

Demand (PCU/hr)

	То										
		1 - A494 (East)	2 - B5125 (South)	3 - A494 (West)	4 - B5127 (North)	5 - Yowley Road					
	1 - A494 (East)	4	437	1	460	23					
F	2 - B5125 (South)	370	0	529	327	2					
From	3 - A494 (West)	4	343	9	291	11					
	4 - B5127 (North)	188	203	191	0	14					
	5 - Yowley Road	13	17	7	7	0					



	То										
		1 - A494 (East)	2 - B5125 (South)	3 - A494 (West)	4 - B5127 (North)	5 - Yowley Road					
	1 - A494 (East)	0	0	0	0	0					
	2 - B5125 (South)	0	0	0	0	0					
From	3 - A494 (West)	0	0	0	0	0					
	4 - B5127 (North)	0	0	0	0	0					
	5 - Yowley Road	0	0	0	0	0					

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A494 (East)	0.50	3.47	1.0	Α
2 - B5125 (South)	0.56	3.38	1.3	Α
3 - A494 (West)	0.38	3.04	0.6	Α
4 - B5127 (North)	0.37	3.23	0.6	А
5 - Yowley Road	0.05	3.77	0.1	А

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	696	583	2215	0.314	695	0.5	2.365	А
2 - B5125 (South)	925	527	2573	0.359	922	0.6	2.178	A
3 - A494 (West)	495	896	2163	0.229	494	0.3	2.156	A
4 - B5127 (North)	449	575	1909	0.235	447	0.3	2.461	А
5 - Yowley Road	33	985	1213	0.027	33	0.0	3.050	А

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	832	698	2148	0.387	831	0.6	2.732	А
2 - B5125 (South)	1104	631	2507	0.440	1103	0.8	2.562	Α
3 - A494 (West)	592	1072	2056	0.288	591	0.4	2.457	A
4 - B5127 (North)	536	688	1850	0.290	535	0.4	2.738	A
5 - Yowley Road	40	1179	1125	0.035	40	0.0	3.316	Α

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	1018	855	2057	0.495	1017	1.0	3.458	А
2 - B5125 (South)	1352	772	2417	0.559	1350	1.3	3.367	A
3 - A494 (West)	724	1312	1909	0.379	724	0.6	3.035	А
4 - B5127 (North)	656	842	1770	0.371	655	0.6	3.227	A
5 - Yowley Road	48	1443	1004	0.048	48	0.1	3.766	А



17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	1018	855	2056	0.495	1018	1.0	3.468	Α
2 - B5125 (South)	1352	773	2417	0.559	1352	1.3	3.380	Α
3 - A494 (West)	724	1313	1908	0.380	724	0.6	3.040	Α
4 - B5127 (North)	656	843	1770	0.371	656	0.6	3.231	А
5 - Yowley Road	48	1445	1003	0.048	48	0.1	3.769	А

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	832	699	2147	0.387	833	0.6	2.743	Α
2 - B5125 (South)	1104	632	2506	0.440	1106	0.8	2.573	А
3 - A494 (West)	592	1074	2054	0.288	592	0.4	2.463	А
4 - B5127 (North)	536	690	1849	0.290	537	0.4	2.742	А
5 - Yowley Road	40	1181	1124	0.035	40	0.0	3.323	А

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	696	585	2213	0.315	697	0.5	2.374	A
2 - B5125 (South)	925	529	2572	0.359	925	0.6	2.187	A
3 - A494 (West)	495	899	2162	0.229	496	0.3	2.161	А
4 - B5127 (North)	449	577	1908	0.235	449	0.3	2.468	A
5 - Yowley Road	33	989	1212	0.027	33	0.0	3.056	А



2019 + Development, AM

Data Errors and Warnings

Severity	verity Area Item Description		Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

	Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
ĺ	1	untitled	Standard Roundabout		1, 2, 3, 4, 5	5.02	Α

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)
D5	2019 + Development	AM	ONE HOUR	07:30	09:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A494 (East)		✓	602	100.000
2 - B5125 (South)		✓	1088	100.000
3 - A494 (West)		✓	707	100.000
4 - B5127 (North)		✓	1101	100.000
5 - Yowley Road		✓	75	100.000

Origin-Destination Data

Demand (PCU/hr)

	То								
		1 - A494 (East)	2 - B5125 (South)	3 - A494 (West)	4 - B5127 (North)	5 - Yowley Road			
	1 - A494 (East)	1	373	4	190	34			
F	2 - B5125 (South)	479	0	387	220	2			
From	3 - A494 (West)	18	459	68	144	18			
	4 - B5127 (North)	466	320	307	0	8			
	5 - Yowley Road	23	26	15	11	0			



	То								
		1 - A494 (East)	2 - B5125 (South)	3 - A494 (West)	4 - B5127 (North)	5 - Yowley Road			
	1 - A494 (East)	0	0	0	0	0			
	2 - B5125 (South)	0	0	0	0	0			
From	3 - A494 (West)	0	0	0	0	0			
	4 - B5127 (North)	0	0	0	0	0			
	5 - Yowley Road	0	0	0	0	0			

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A494 (East)	0.37	3.22	0.6	Α
2 - B5125 (South)	0.49	2.84	0.9	Α
3 - A494 (West)	0.37	2.76	0.6	А
4 - B5127 (North)	0.76	9.47	3.1	А
5 - Yowley Road	0.14	6.99	0.2	А

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	453	905	2027	0.224	452	0.3	2.284	А
2 - B5125 (South)	819	473	2608	0.314	817	0.5	2.009	A
3 - A494 (West)	532	704	2281	0.233	531	0.3	2.056	A
4 - B5127 (North)	829	810	1787	0.464	825	0.9	3.730	А
5 - Yowley Road	56	1589	937	0.060	56	0.1	4.086	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	541	1083	1924	0.281	541	0.4	2.603	А
2 - B5125 (South)	978	566	2549	0.384	977	0.6	2.290	А
3 - A494 (West)	636	842	2197	0.289	635	0.4	2.305	A
4 - B5127 (North)	990	969	1705	0.581	988	1.4	5.007	A
5 - Yowley Road	67	1901	794	0.085	67	0.1	4.952	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	663	1323	1784	0.372	662	0.6	3.208	А
2 - B5125 (South)	1198	691	2469	0.485	1197	0.9	2.828	А
3 - A494 (West)	778	1031	2081	0.374	778	0.6	2.760	А
4 - B5127 (North)	1212	1187	1592	0.761	1205	3.1	9.152	A
5 - Yowley Road	83	2324	601	0.137	82	0.2	6.937	Α



08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	663	1328	1781	0.372	663	0.6	3.218	Α
2 - B5125 (South)	1198	694	2467	0.486	1198	0.9	2.835	Α
3 - A494 (West)	778	1032	2080	0.374	778	0.6	2.764	Α
4 - B5127 (North)	1212	1188	1591	0.762	1212	3.1	9.467	Α
5 - Yowley Road	83	2332	598	0.138	83	0.2	6.989	А

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	541	1089	1920	0.282	542	0.4	2.612	A
2 - B5125 (South)	978	569	2547	0.384	979	0.6	2.300	A
3 - A494 (West)	636	843	2195	0.289	636	0.4	2.309	A
4 - B5127 (North)	990	971	1704	0.581	997	1.4	5.139	A
5 - Yowley Road	67	1912	789	0.085	68	0.1	4.991	А

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	453	910	2025	0.224	454	0.3	2.293	A
2 - B5125 (South)	819	475	2606	0.314	820	0.5	2.017	A
3 - A494 (West)	532	706	2280	0.234	533	0.3	2.061	А
4 - B5127 (North)	829	813	1786	0.464	831	0.9	3.781	A
5 - Yowley Road	56	1597	933	0.061	57	0.1	4.108	А



2019 + Development, PM

Data Errors and Warnings

Severity	Area	Item Description	
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	3.34	Α

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)
D6	2019 + Development	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A494 (East)		✓	928	100.000
2 - B5125 (South)		✓	1205	100.000
3 - A494 (West)		✓	674	100.000
4 - B5127 (North)		✓	620	100.000
5 - Yowley Road		✓	43	100.000

Origin-Destination Data

Demand (PCU/hr)

	То							
		1 - A494 (East)	2 - B5125 (South)	3 - A494 (West)	4 - B5127 (North)	5 - Yowley Road		
	1 - A494 (East)	3	423	1	445	56		
F	2 - B5125 (South)	358	0	512	333	2		
From	3 - A494 (West)	4	331	9	319	11		
	4 - B5127 (North)	199	204	204	0	13		
	5 - Yowley Road	13	16	7	7	0		



	То							
		1 - A494 (East)	2 - B5125 (South)	3 - A494 (West)	4 - B5127 (North)	5 - Yowley Road		
	1 - A494 (East)	0	0	0	0	0		
	2 - B5125 (South)	0	0	0	0	0		
From	3 - A494 (West)	0	0	0	0	0		
	4 - B5127 (North)	0	0	0	0	0		
	5 - Yowley Road	0	0	0	0	0		

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A494 (East)	0.50	3.48	1.0	Α
2 - B5125 (South)	0.55	3.37	1.2	Α
3 - A494 (West)	0.39	3.11	0.6	А
4 - B5127 (North)	0.39	3.32	0.6	Α
5 - Yowley Road	0.05	3.77	0.0	А

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	699	584	2214	0.316	697	0.5	2.369	А
2 - B5125 (South)	907	550	2559	0.355	905	0.5	2.174	А
3 - A494 (West)	507	904	2158	0.235	506	0.3	2.178	А
4 - B5127 (North)	467	581	1906	0.245	465	0.3	2.497	А
5 - Yowley Road	32	985	1213	0.027	32	0.0	3.048	А

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	834	699	2147	0.388	834	0.6	2.738	Α
2 - B5125 (South)	1083	658	2490	0.435	1082	0.8	2.556	Α
3 - A494 (West)	606	1081	2050	0.296	605	0.4	2.492	Α
4 - B5127 (North)	557	695	1847	0.302	557	0.4	2.791	Α
5 - Yowley Road	39	1179	1125	0.034	39	0.0	3.313	А

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	1022	856	2056	0.497	1020	1.0	3.471	А
2 - B5125 (South)	1327	805	2396	0.554	1325	1.2	3.354	A
3 - A494 (West)	742	1324	1902	0.390	741	0.6	3.101	А
4 - B5127 (North)	683	851	1766	0.387	682	0.6	3.319	A
5 - Yowley Road	47	1443	1004	0.047	47	0.0	3.762	A



17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	1022	857	2056	0.497	1022	1.0	3.481	А
2 - B5125 (South)	1327	806	2396	0.554	1327	1.2	3.366	А
3 - A494 (West)	742	1326	1901	0.390	742	0.6	3.106	Α
4 - B5127 (North)	683	852	1765	0.387	683	0.6	3.324	А
5 - Yowley Road	47	1445	1003	0.047	47	0.0	3.765	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	834	700	2147	0.389	836	0.6	2.748	А
2 - B5125 (South)	1083	659	2489	0.435	1085	0.8	2.569	А
3 - A494 (West)	606	1084	2048	0.296	607	0.4	2.500	А
4 - B5127 (North)	557	697	1846	0.302	558	0.4	2.796	А
5 - Yowley Road	39	1181	1124	0.034	39	0.0	3.320	Α

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	699	586	2213	0.316	699	0.5	2.380	A
2 - B5125 (South)	907	552	2557	0.355	908	0.6	2.185	A
3 - A494 (West)	507	907	2156	0.235	508	0.3	2.185	А
4 - B5127 (North)	467	583	1905	0.245	467	0.3	2.506	A
5 - Yowley Road	32	989	1212	0.027	32	0.0	3.052	А



2024 + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	5.66	Α

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)
D7	2024 + Development	AM	ONE HOUR	07:30	09:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A494 (East)		✓	623	100.000
2 - B5125 (South)		✓	1127	100.000
3 - A494 (West)		✓	732	100.000
4 - B5127 (North)		✓	1136	100.000
5 - Yowley Road		✓	78	100.000

Origin-Destination Data

Demand (PCU/hr)

			Т	0		
		1 - A494 (East)	2 - B5125 (South)	3 - A494 (West)	4 - B5127 (North)	5 - Yowley Road
	1 - A494 (East)	1	386	4	197	35
F	2 - B5125 (South)	496	0	401	228	2
From	3 - A494 (West)	19	475	71	148	19
	4 - B5127 (North)	481	331	316	0	8
	5 - Yowley Road	24	27	16	11	0



		То											
		1 - A494 (East)	2 - B5125 (South)	3 - A494 (West)	4 - B5127 (North)	5 - Yowley Road							
	1 - A494 (East)	0	0	0	0	0							
	2 - B5125 (South)	0	0	0	0	0							
From	3 - A494 (West)	0	0	0	0	0							
	4 - B5127 (North)	0	0	0	0	0							
	5 - Yowley Road	0	0	0	0	0							

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A494 (East)	0.39	3.37	0.6	Α
2 - B5125 (South)	0.51	2.97	1.0	Α
3 - A494 (West)	0.39	2.87	0.6	Α
4 - B5127 (North)	0.80	11.25	3.8	В
5 - Yowley Road	0.15	7.57	0.2	Α

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	469	936	2010	0.233	468	0.3	2.331	А
2 - B5125 (South)	848	488	2598	0.327	847	0.5	2.054	А
3 - A494 (West)	551	729	2266	0.243	550	0.3	2.097	A
4 - B5127 (North)	855	840	1772	0.483	852	0.9	3.896	А
5 - Yowley Road	59	1643	912	0.064	58	0.1	4.215	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	560	1119	1903	0.294	560	0.4	2.681	A
2 - B5125 (South)	1013	584	2537	0.399	1012	0.7	2.360	А
3 - A494 (West)	658	871	2178	0.302	658	0.4	2.367	А
4 - B5127 (North)	1021	1004	1687	0.606	1019	1.5	5.372	A
5 - Yowley Road	70	1966	765	0.092	70	0.1	5.181	Α

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	686	1367	1758	0.390	685	0.6	3.351	А
2 - B5125 (South)	1241	714	2454	0.506	1239	1.0	2.961	A
3 - A494 (West)	806	1067	2059	0.391	805	0.6	2.870	А
4 - B5127 (North)	1251	1230	1570	0.797	1242	3.7	10.701	В
5 - Yowley Road	86	2401	566	0.152	86	0.2	7.492	А



08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	686	1373	1755	0.391	686	0.6	3.367	А
2 - B5125 (South)	1241	717	2453	0.506	1241	1.0	2.970	Α
3 - A494 (West)	806	1068	2058	0.392	806	0.6	2.874	Α
4 - B5127 (North)	1251	1231	1569	0.797	1250	3.8	11.247	В
5 - Yowley Road	86	2411	561	0.153	86	0.2	7.569	А

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	560	1127	1898	0.295	561	0.4	2.693	A
2 - B5125 (South)	1013	588	2534	0.400	1015	0.7	2.372	А
3 - A494 (West)	658	873	2177	0.302	659	0.4	2.373	A
4 - B5127 (North)	1021	1006	1686	0.606	1030	1.6	5.566	А
5 - Yowley Road	70	1979	759	0.092	70	0.1	5.231	Α

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	469	941	2007	0.234	469	0.3	2.344	A
2 - B5125 (South)	848	491	2596	0.327	849	0.5	2.063	A
3 - A494 (West)	551	731	2264	0.243	552	0.3	2.102	Α
4 - B5127 (North)	855	842	1770	0.483	858	0.9	3.956	Α
5 - Yowley Road	59	1652	908	0.065	59	0.1	4.238	A



2024 + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description			
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.			

Junction Network

Junctions

	Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
ĺ	1	untitled	Standard Roundabout		1, 2, 3, 4, 5	3.51	Α

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)
D8	2024 + Development	PM	ONE HOUR	16:30	18:00	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)	
1 - A494 (East)		✓	959	100.000	
2 - B5125 (South)		✓	1245	100.000	
3 - A494 (West)		✓	696	100.000	
4 - B5127 (North)		✓	640	100.000	
5 - Yowley Road		✓	44	100.000	

Origin-Destination Data

Demand (PCU/hr)

	То										
		1 - A494 (East)	2 - B5125 (South)	3 - A494 (West)	4 - B5127 (North)	5 - Yowley Road					
	1 - A494 (East)	4	437	1	460	57					
F	2 - B5125 (South)	370	0	529	344	2					
From	3 - A494 (West)	4	343	9	329	11					
	4 - B5127 (North)	205	211	210	0	14					
	5 - Yowley Road	13	17	7	7	0					



	То										
		1 - A494 (East)	2 - B5125 (South)	3 - A494 (West)	4 - B5127 (North)	5 - Yowley Road					
	1 - A494 (East)	0	0	0	0	0					
	2 - B5125 (South)	0	0	0	0	0					
From	3 - A494 (West)	0	0	0	0	0					
	4 - B5127 (North)	0	0	0	0	0					
	5 - Yowley Road	0	0	0	0	0					

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A494 (East)	0.52	3.66	1.1	Α
2 - B5125 (South)	0.58	3.57	1.4	Α
3 - A494 (West)	0.41	3.25	0.7	Α
4 - B5127 (North)	0.40	3.44	0.7	А
5 - Yowley Road	0.05	3.86	0.1	Α

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	722	604	2203	0.328	720	0.5	2.424	A
2 - B5125 (South)	937	567	2548	0.368	935	0.6	2.229	A
3 - A494 (West)	524	934	2140	0.245	523	0.3	2.223	A
4 - B5127 (North)	482	601	1896	0.254	480	0.3	2.542	А
5 - Yowley Road	33	1018	1198	0.028	33	0.0	3.089	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	862	722	2134	0.404	861	0.7	2.827	A
2 - B5125 (South)	1119	678	2477	0.452	1118	0.8	2.648	A
3 - A494 (West)	626	1117	2028	0.309	625	0.4	2.566	A
4 - B5127 (North)	575	719	1835	0.314	575	0.5	2.858	A
5 - Yowley Road	40	1218	1107	0.036	40	0.0	3.372	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	1056	884	2040	0.518	1054	1.1	3.647	А
2 - B5125 (South)	1371	830	2380	0.576	1369	1.3	3.550	A
3 - A494 (West)	766	1368	1875	0.409	765	0.7	3.241	А
4 - B5127 (North)	705	880	1751	0.402	704	0.7	3.433	A
5 - Yowley Road	48	1491	982	0.049	48	0.1	3.856	А



17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	1056	885	2039	0.518	1056	1.1	3.661	А
2 - B5125 (South)	1371	831	2380	0.576	1371	1.4	3.567	А
3 - A494 (West)	766	1370	1874	0.409	766	0.7	3.250	А
4 - B5127 (North)	705	881	1751	0.403	705	0.7	3.441	А
5 - Yowley Road	48	1493	981	0.049	48	0.1	3.860	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	862	724	2133	0.404	864	0.7	2.839	А
2 - B5125 (South)	1119	680	2476	0.452	1121	0.8	2.661	А
3 - A494 (West)	626	1120	2026	0.309	627	0.4	2.573	А
4 - B5127 (North)	575	720	1834	0.314	576	0.5	2.866	А
5 - Yowley Road	40	1221	1105	0.036	40	0.0	3.377	Α

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A494 (East)	722	606	2202	0.328	723	0.5	2.437	А
2 - B5125 (South)	937	569	2546	0.368	938	0.6	2.241	A
3 - A494 (West)	524	938	2138	0.245	524	0.3	2.233	А
4 - B5127 (North)	482	603	1894	0.254	482	0.3	2.549	A
5 - Yowley Road	33	1022	1196	0.028	33	0.0	3.094	А

S|C|P FIGURES

