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TA01 – Transport Assessment

Land off Ploughley Road, Ambrosden, Oxfordshire

B05927

Archstone Ambrosden Ltd and
Bellway Homes Ltd

clarkebond

MULTIDISCIPLINARY ENGINEERING CONSULTANTS

Land off Ploughley Road, Ambrosden

Report No.	Date.
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Project
Land off Ploughley Road, Ambrosden, Oxfordshire

Client Name
Archstone Ambrosden Ltd and Bellway Homes Ltd.

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1 Introduction

1.1 Background

This Transport Assessment (TA) has been prepared by Clarkebond on behalf of Archstone Ambrosden Ltd and Bellway Homes Ltd to support an Outline planning application for up to 120 dwellings on land off Ploughley Road, Ambrosden.

The proposed development site is situated on the northern edge of the village of Ambrosden which is to the south-east of the town of Bicester, Oxfordshire. The site is to the immediate east of Ploughley Road which is the main highway link between Ambrosden and Bicester.

Drawing B05927-CLK-XX-XX-DR-C-0008-P01 shows the site location in both its strategic context in relation to Bicester and its local context in relation to Ambrosden.

Oxfordshire County Council (the local Highway Authority) are currently introducing a traffic signal-controlled junction improvement at the Ploughley Road junction with the A41 to the northwest of the site. Ploughley Road is currently closed to traffic while these works are being implemented with traffic flow data therefore having been extracted from a previous TA prepared in support of the 2016 / 2017 application for residential development at Church Leys Farm, Ambrosden. This previous application (Cherwell District Council reference 16/02370/FUL) was consented and has now been built out. For ease of reference, this previous report will be referred to as the 'Church Leys Farm TA' in the remainder of this document.

1.2 Overview of Transport Assessment

This TA has been prepared in accordance with relevant advice and guidance. It demonstrates that the site accords with national, regional and local transport policies.

Suitable access to the site can be achieved. It is proposed that the primary vehicular access to the site will be via a new priority junction with Ploughley Road. Pedestrian and cycle access will be taken to Ploughley Road and the existing shared use path that links towards Bicester in one direction and the village centre in the other. This will provide a safe off-road route from the site to existing bus stops and the various services and amenities available within the village.

The site is accessible by sustainable modes of transport including walking, cycling, and bus. There is a good network of existing footways and shared use paths throughout Ambrosden, and a range of local facilities are within acceptable walking and cycling distances.

Junction modelling shows that the volume of traffic generated by the proposed development will not adversely affect the safe operation of the surrounding highway network.

A Residential Travel Plan has been prepared to encourage more development journeys to be undertaken by walking, cycling and public transport.

It is concluded that the proposed development accords with national and local transport policy and there is no transport or highway reason why the planning application should not be granted.

1.3 Structure of Report

This TA is set out as follows:

- Chapter 2 provides a summary of relevant national and local policy as well as Transport Assessment and other design guidance;
- Chapter 3 describes the development context, including the existing highway and transport conditions in the vicinity of the site. It also includes an assessment of highway safety through reference to personal injury collision data;
- Chapter 4 assesses the accessibility of the proposed development by sustainable transport modes;
- Chapter 5 summarises the proposed development and site access arrangements in the context of the Outline nature of the application;
- Chapter 6 details the trip generation and distribution associated with the proposed development;
- Chapter 7 details the derivation of baseline traffic flows;
- Chapter 8 considers the impact of the proposed development on the operation of the local highway network;
- Chapter 9 outlines the mitigation measures that are proposed as part of the proposed development; and
- Chapter 10 provides a summary and conclusions.

1.4 Limitations

The information, views and conclusions drawn concerning the site are based, in part, on information supplied to Clarkebond by other parties. Clarkebond has proceeded in good faith on the assumption that this information is accurate. Clarkebond accepts no liability for any inaccurate conclusions, assumptions or actions taken resulting from any inaccurate information supplied to Clarkebond from others.

2 Relevant Policy and Guidance

2.1 Introduction

This chapter describes the national and local transport policies that are of relevance to the proposed development as follows:

- National Planning Policy Framework (2021);
- PPG: Travel Plans, Transport Assessments and Statements in Decision Taking (2014);
- Transport Assessment Guidance;
- CIHT Better Planning, Better Transport, Better Places (2019);
- Cherwell Local Plan 2011-2031 Part 1;
- Cherwell Residential Design Guide (2018);
- Oxfordshire County Council Residential Road Design Guide (RRDG) (July 2008);
- Oxfordshire County Council Transport for New Developments – Transport Assessments and Travel Plans (2014); and
- Highways and Access Design Guidance.

2.2 National Planning Policy Framework (July 2021)

The National Planning Policy Framework (NPPF) was first published in March 2012 and replaced the previous national planning policies that were set out in the various Planning Policy Guidance Notes and Statements. With regard to transport, the NPPF replaced policy contained within PPG13 (Transport).

The NPPF sets out a presumption in favour of sustainable development that recognises the importance of transport policies in facilitating sustainable development. It also aims to promote sustainable transport whilst recognising that opportunities vary between urban and rural areas.

Paragraphs 104 and 105 set out the transport issues that should be considered at the earliest stages of planning:

> *104. Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:*
> *a) the potential impacts of development on transport networks can be addressed;*
> *b) opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;*
> *c) opportunities to promote walking, cycling and public transport use are identified and pursued;*
> *d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and*
> *e) patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places.*

105. The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making.

Paragraph 110 sets out the transport requirements for allocations or applications:

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

- *a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
- *b) safe and suitable access to the site can be achieved for all users;*
- *c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and*
- *d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.*

Paragraphs 111 and 112 state that developments should not be prevented on highways grounds unless the cumulative impacts are severe:

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

112. Within this context, applications for development should:

- *a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*
- *b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*
- *c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*
- *d) allow for the efficient delivery of goods, and access by service and emergency vehicles; and*
- *e) be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.*

Paragraph 113 states the requirement for significant developments to produce Travel Plans and Transport Statements or Transport Assessments:

113. All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed.

2.3 NPPF Planning Practice Guidance: Travel Plans, Transport Assessments and Statements in Decision Taking (2014)

Transport Assessments (TAs) and Transport Statements (TSs) are seen as ways of assessing the potential impacts or developments. TAs are thorough assessments of the transport implications of development and TSs are a 'lighter touch' evaluation to be used where this would be more proportionate to the potential impact of the development.

Travel Plans, Transport Assessments and Statements can positively contribute to:

- *Encouraging sustainable travel;*
- *Lessening traffic generation and its detrimental impacts;*
- *Reducing carbon emissions and climate impacts;*
- *Creating accessible, connected, inclusive communities;*
- *Improving health outcomes and quality of life;*
- *Improving road safety; and*
- *Reducing the need for new development to increase existing road capacity or provide new roads.*

This planning practice guidance identifies when a TA or TS is required and recommends that local planning authorities consider a number of factors including local plan policies, scale of development and existing intensity of transport use.

In determining whether a Travel Plan is required local planning authorities are asked to take account of various relevant matters including any Travel Plan policies in the Local Plan, the scale of the development, the intensity of transport use and the availability of public transport.

Travel Plans should identify the specific required outcomes, targets and measures and set out clear future monitoring and management arrangements. They should be scoped at pre-application stage and address all journeys from the proposed development.

Travel Plans should benchmark travel data, provide travel forecasts and include proposals to reduce the need to travel as well as proposals for improved public transport services and walking and cycling facilities. They should be monitored until the objectives and targets are met.

2.4 Transport Assessment Guidance

The above NPPF Planning Practice Guidance superseded the Department for Transport Guidance on Transport Assessment published in 2007. In turn the DfT Guidance superseded the Chartered Institution of Highways and Transportation (CIHT) Traffic Impact Assessment Guidelines published in 1992. Although superseded, both previous guidance documents provide some detailed technical advice that is still relevant in carrying out TAs.

2.5 CIHT Better Planning, Better Transport, Better Places (2019)

This advice document prepared by the Chartered Institution of Highways and Transportation (CIHT) with the Royal Town Planning Institute (RTPI) and Transport Planning Society (TPS) aims to improve better planning and practice in respect of new developments and to realize a more sustainable approach to transport.

The advice is the result of increasing frustration that current practice is leading to more car-based development, contrary to the stated aims of national planning policy. It has been written for Professionals, Politicians and local communities and focuses on new housing development in the context of the planning regime in England.

The document notes that sustainable development in a transport context means creating places that maximize accessibility by walking, cycling and public transport. This is not practiced despite a range of consistently supportive policies in the NPPF. It is noted that poorly located and designed new development seriously hinders healthy lifestyles.

Three barriers to integrating sustainable transport into new development are identified as follows:

- Local authorities not setting out a vision in the Local Plan – Accessibility and Mode Share Targets needed;
- Limited examples showing how to deliver sustainable transport outcomes; and
- Collaboration between planning and transport regulatory bodies is insufficient or ineffective.

The document considers that the *effective integration of planning and transport is fundamental* to create the places required in the 21st century. It considers that current practice can be improved by the following:

- Create Clear Vision in Local Plan
  - Commit to place-based vision;
  - Create partnerships;
  - Include accessibility and mode share requirements;
  - Develop a strategy;
  - Flexibility to evolve;
  - Abandon 'predict and provide', focus on health and wellbeing, lifestyle and environmental criteria;
  - Robust scenario testing of allocations;
  - Opportunities and constraints in evidence base;
- Deliver the plan
  - Drive and manage implementation of the plan;
  - Infrastructure Delivery Plan (IDP) developed in collaboration;
  - Statements of Common Ground show collaboration with transport stakeholders;
  - S106 and CIL to support Sustainable Transport;
- Manage new developments (development proposals)
- Development proposals describe how they support place-based vision;
- Level of accessibility to transport services key;

- Test land use/transport options to optimize sustainable transport strategy; and
- Government and Planning Inspectorate to place greater weight on sustainable transport.

2.6 Cherwell Local Plan 2011-2031 Part 1

The Cherwell Local Plan was formally adopted on 20th July 2015 and sets out the vision and strategy for the development of Cherwell through to 2031.

Policy PSD1: Presumption in Favour of Sustainable Development states:

> *Planning applications that accord with the policies in this Local Plan ... will be approved without delay unless material considerations indicate otherwise.*

Policy SLE4: Improved Transport and Connections states:

> *All development where reasonable to do so, should facilitate the use of sustainable modes of transport to make the fullest possible use of public transport, walking and cycling. Encouragement will be given to solutions which support reductions in greenhouse gas emissions and reduce congestion. Development which is not suitable for the roads that serve the development and which have a severe traffic impact will not be supported.*

Policy BSC2 requires a new housing density of at least 30 dwellings per hectare.

Policy ESD1: Mitigating and Adapting to Climate Change includes at a strategic level:

> *Delivering development that seeks to reduce the need to travel and which encourages sustainable travel options including walking, cycling and public transport to reduce dependence on private cars.*

Policy Villages 1: Village Categorisation identifies Ambrosden as a Category A Service Village suitable for minor development, infilling and conversions.

Policy Villages 2: Distributing Growth across the Rural Areas notes that a total of 750 homes will be delivered in the Category A villages. In identifying and considering sites the following transport related criteria is relevant:

- *Whether satisfactory vehicular and pedestrian access/egress could be provided;*
- *Whether the site is well located to services and facilities; and*
- *Whether necessary infrastructure could be provided.*

2.7 Cherwell Residential Design Guide (July 2018)

Section 5 of the Cherwell design guide identifies that new development in the District should promote:

- *A connected and legible network of streets.*
- *Street design responsive to hierarchy, character and location.*

- *A movement network and street design which encourages walking and cycling over vehicle movements.*
- *Design of the street in three dimensions creating a comfortable sense of enclosure by buildings.*
- *Traffic calming integrated as part of the street layout and urban form.*
- *Integrated design of all elements within the street including parking, bins, utilities, SuDS, trees and signage.*

The design guide requires evidence that sustainability considerations have been taken into account in the design of the masterplan given the layout of a site has a fundamental impact on its sustainability.

The location of a development also has a significant impact on how a place will function in the future and its associated impact on the environment. Section 8.2 states:

- *Locating development in proximity to existing community facilities, town centres and employment areas assists in reducing the need to travel by vehicle for day to day activities, as does the creation of new places with sufficient scale and diversity to generate the need for new local centres and services.*
- *Tying into existing public transport routes, walking and cycling networks also supports a shift towards more sustainable modes of travel and reduced energy consumption.*

Detailed consideration should also be given to movement such that (inter alia):

- *Creating a connected, permeable street layout which encourages walking, cycling and the use of public transport rather than use of private cars.*
- *Connecting new places into the existing movement network of the surrounding area.*
- *Providing appropriate levels of cycle parking and safe and convenient cycling routes to encourage cycling for medium length journeys.*
- *Incorporating infrastructure for electric vehicles. Every home should have access to at least one electric charging point.*

2.8 Oxfordshire County Council Residential Road Design Guide (RRDG) (July 2008)

Oxfordshire County Council's Residential Road Design Guidance (RRDG) provides guidance to housing developers with the aim of ensuring that housing developments contribute towards encouraging more sustainable travel.

The Main Objectives of the RRDG are:

- *to ensure that housing layouts encourage sustainable travel by minimising the need to use cars;*
- *provision of quality facilities for pedestrians, cyclists and public transport, with a view to reducing car usage;*
- *to help create attractive developments that are enjoyable to live in and safe for all users;*
- *to help create developments that are accessible, legible and convenient to all users;*
- *to provide developments designed to emphasise a sense of place and community, but with full links with adjacent areas to ensure permeability;*
- *that design speeds in residential areas will be 20 mph or less; and*
- *to secure an adoptable movement network at a reasonable cost with an extensive design life and low maintenance costs.*

The RRDG is being updated by OCC and gradually being replaced. Where a new document is not yet available, OCC advise to continue to refer to the RRDG.

2.9 Oxfordshire County Council Transport for New Developments – Transport Assessments and Travel Plans 2014

This guidance was published by Oxfordshire County Council (OCC) in March 2014 and sets out its requirements in respect of Transport Assessments and Travel Plans.

Transport Assessments are required for residential developments of 80 dwellings and greater. Paragraph 3.3 identifies that a scoping report form should be filled in and submitted to the highway authority at the outset.

Paragraph 3.7 identifies details that need to be included in the Transport Assessment:

- *The extent and feasibility of the development access proposals, including plans showing any necessary highway improvements and the impact these and any additional traffic will have on the existing local environment;*
- *How the development can be accessed by walking, cycling, motorcycling, public transport, cars, service and delivery vehicles, and emergency vehicles;*
- *How encouragement will be given to travel by walking and cycling within the development;*
- *Proposals for new public transport provisions and details of any facilities related to these;*
- *How future travel patterns will be monitored and reviewed; and*
- *Parking provisions to be made for cars, cycles and motorcycles.*

2.10 Highways and Access Design Guidance

The development has been designed with reference to the guidance identified in the following paragraphs.

Manual for Streets 1 and 2 (MfS and MfS2)

The MfS provides the design guidance for development in residential areas, focussed upon function rather than absolute standards, allowing designers to approach highway and access provision in a less prescriptive manner. It is also based on a new set of technical and research reports considering, in particular, driver behaviour as it is affected by the travel environment, rather than allowing drivers to dominate the environment.

MfS2 is a 'companion guide' to MfS that identifies how the principles of design set out in MfS can be applied to other urban locations. It identifies MfS as the starting point for all highway design affecting non-trunk roads, although its application on inter urban routes is less likely to provide acceptable arrangements.

Creating Better Streets: Inclusive and accessible places (CIHT 2018)

This document provides a review of shared space and provides recommendations for practitioners which includes suggested street design approaches of Pedestrianised prioritised streets, Informal Streets and Enhanced streets.

Planning for Walking (CIHT 2015)
This document provides advice for developing a strategy and plans for walking in the context of the trends, benefits and legal and regulatory requirements.

Cycle Infrastructure Design LTN 1/20 (DfT)
This guidance, issued to support local authorities in their decision to fund cycle improvements on the network, provides good practice guidelines in the design of cycle infrastructure.

Buses in Urban Developments (CIHT 2018)
This document provides a reference for spatial and transport planners and other practitioners to ensure buses can perform efficiently in the urban travel market. It sets out the requirements of bus services with a focus on the configuration of development.

Bus Services and New Residential Developments: General Highways and Urban Design advice to applicants and Highway Authorities (Stagecoach UK Bus 2018)
This document provides practical advice on design aspects that have an impact of bus operations and is intended to supplement other guidance such as Manual for Streets.

Design Manual for Roads and Bridges (DMRB)
DMRB provides the design standards and guidance for highway arrangements for development outside built up areas. It is presented as a standard led set of Technical Advice and Technical Design documents and covers design of highways from minor County roads up to Motorways.

3 Development Context and Existing Highway Network

3.1 Introduction

This chapter describes the site, setting out its context within the surrounding highway network. It then goes on to provide an overview of the collision history on the network under assessment and looks at existing traffic flows at the key junctions. It comprises:

- A description of the site and its surrounds;
- A description of the local highway network;
- An overview of recorded Personal Injury Collisions on the highway network; and
- A summary of existing traffic flows on the local highway network.

3.2 The Site

The proposed development site consists of level agricultural land of approximately 9.46 hectares located to the east of Ploughley Road and to the immediate north of the Ambrosden built-up area. To the north the site is bound by agricultural fields, to the east and south it is bound by a Bridleway and the rear gardens of properties that front West Hawthorn Road and Briar Furlong, and to the west it is bound by Ploughley Road from which vehicle access will be taken.

3.3 Local Highway Network

The primary route in the vicinity of the site is the A41 Aylesbury Road that runs broadly east-west approximately 400m to the north of the site. The A41 leads west to Bicester (3km) and then beyond to the south to connect with the M40 Motorway (6.5km) and the A34 towards Oxford (21km). To the east it leads to Aylesbury (22km) and beyond to Hemel Hempstead (50km), Watford (58km) and North London (70km).

Access to and from Ambrosden is primarily taken from the A41 via a junction with Ploughley Road located approximately 650m to the northwest of the proposed site access. The junction has historically been a ghost island right turn lane priority arrangement but is currently being upgraded to a signal-controlled arrangement where the left turn in to and the right turn out of the Ploughley Road side arm movements will be prevented. For completeness, the Oxfordshire County Council (OCC) layout plan of the works is attached as **Appendix A** with the works understood to be programmed for completion in November 2022.

Beyond the Ploughley Road junction, the A41 is a high standard single carriageway road in both directions. To the west a large roundabout is currently being constructed that will facilitate access to development within the Graven Hill area. Further west again, the A41 connects with a large traffic-signal controlled five-arm roundabout from which residential development access is taken to the south, the A41 continues west, the B4100 London Road links northwest to Bicester town centre, and the A4421 Wretchwick Way heads northeast and forms part of the eastern ring road to the town. This ring road connects with all radial routes to the north, east and west of the town with the A41 effectively forming the southern section.

The proposed development site will take vehicle access from Ploughley Road which is a single carriageway road of approximately 6m width as it passes the site. It currently has a speed limit of 60mph at the proposed site access location with this limit reducing to 30mph at the southern end of the site frontage. Its alignment is broadly straight and level as it passes the site.

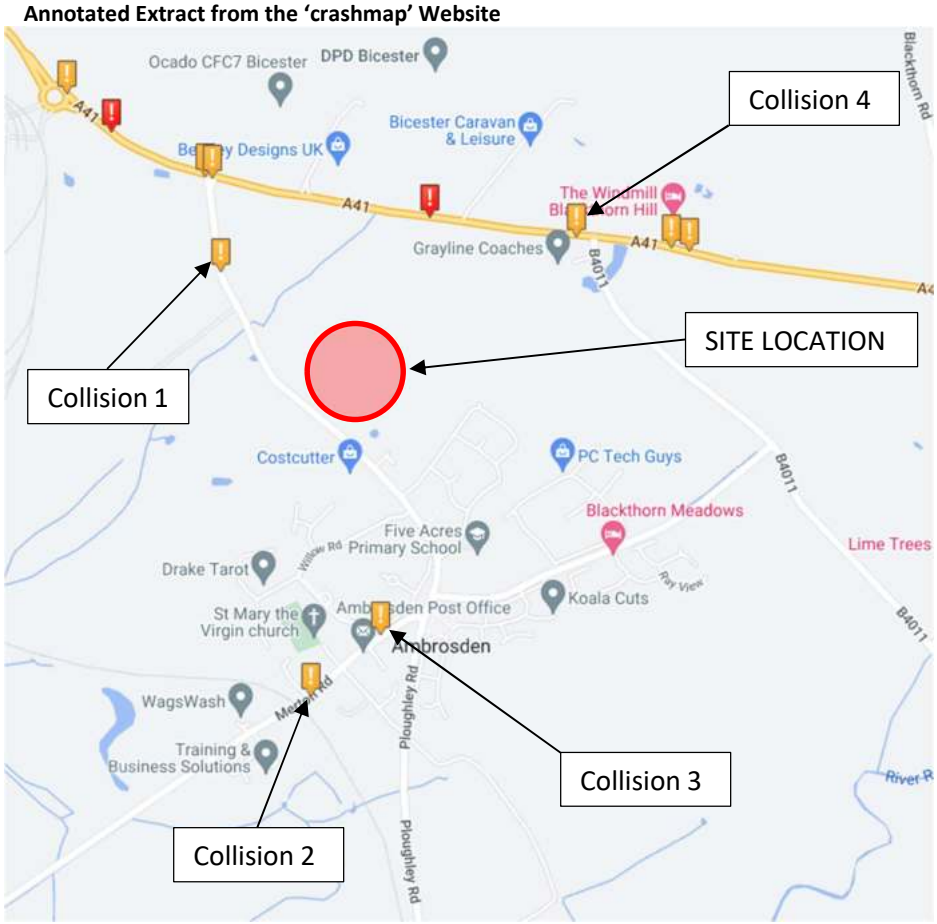
Continuing to the southeast, Ploughley Road is the priority route through all junctions within Ambrosden before continuing out of the village towards Arncott and beyond. In the village centre, Merton Road leads west away from Ploughley Road providing local access towards Merton and Islip, while Blackthorn Road leads east away from Ploughley Road. Blackthorn Road connects with the B4011 which itself leads north back to the A41 Aylesbury Road and south towards Oakley and Thame.

As previously identified, the highway network is shown on **Drawing B05927-CLK-XX-XX-DR-C-0008-P01**.

3.4 Highway Safety Record

Recorded Personal Injury Collisions (PICs) for the latest five year period available have been identified through reference to the 'crashmap.co.uk' website. The extract below identifies the location of the recorded collisions with those shown in orange being classified as 'slight' and those shown in red classified as 'serious'. No 'fatal' accidents are identified within the area shown.

Annotated Extract from the 'crashmap' Website



It is not considered appropriate to review the PICs recorded at the A41 / Ploughley Road junction as they are related to the previous ghost island priority junction arrangement. The current conversion to traffic-signal control will likely address many of the road safety issues that may have been associated with the previous junction form.

Similarly, it is not considered necessary to review the PICs on the A41 Aylesbury Road corridor to the west as considerable changes are currently being made to its standard and associated junctions. The one PIC recorded close to the A41 / B4011 junction is however reviewed below as are those PICs that have occurred on Ploughley Road and within the village itself. The associated data sheets are attached as **Appendix B** and are summarised in **Table 3-1** below.

Table 3-1 Recorded Personal Injury Collisions (PICs) 2016 to 2021

Time and Date	Description	Location	Casualties[1]		
			Fa	Se	Sl
Collision 1 – Ploughley Road					
09:30 Saturday 06 Oct 2018	Car heading south on Ploughley Road appears to have caused cyclist to fall even though no impact between the two	Approx. 200m south of A41 junction	0	0	1
Collision 2 – Merton Road					
16:00 Wednesday 30 Jan 2019	Car and pedal cycle both proceeding normally along the carriageway come into conflict	At Park Rise side road junction	0	0	1
Collision 3 – Merton Road					
16:00 Sunday 21 Feb 2021	Details not available as provisional data only	At Birch Road side road junction	0	0	1
Collision 4 – A41 Aylesbury Road					
09:58 Thursday 07 Dec 2017	Motorcyclist hits rear of goods vehicle (less than 7.5t) as it slows	Approx. 40m west of A41 / B4011 junction	0	0	1
		Totals	0	0	4
			4		

Notes: 1. Fa = Fatal, Se = Serious, Sl = Slight

A total of four people suffered personal injuries as a result of the four recorded collisions on the local highway network during the specified period. All the recorded collisions were 'slight' in nature with no serious of fatal casualties.

Vulnerable road users (cyclists) were involved in two of the collisions for which a full description is available. The number and severity of collisions does not

3.5 Existing Traffic Flows

As previously noted, Ploughley Road is currently closed to traffic to enable implementation of traffic-signal control at its junction with the A41 Aylesbury Road. It has not therefore been possible to undertake up-to-date traffic surveys at this junction. The closure of Ploughley Road is also leading to increased traffic flows on the B4011 and Blackthorn Road diversionary route which means undertaking surveys at these junctions would also not be representative at this time.

Given the above factors, a prediction of 2022 existing traffic flows for the Ambrosden area has been derived from the Transport Assessment and associated Addendum submitted in support of the Bellway Homes development at Church Leys Farm, Ambrosden. That site was referenced 16/02370/FUL and related to the development of 85 residential properties to the south of Blackthorn Road. The application was permitted, and the scheme has now been built out and occupied. It should be noted that Bellway Homes are also the applicant for the site the subject of this report.

The Clarkebond TA submitted for the Church Leys Farm site was subject to a detailed review by OCC highway officers and the provision of detailed traffic flow information and additional junction capacity assessments. This information included predictions for traffic flows on the local road network for a 2022 design year inclusive of committed development and the development proposed at that time. These traffic flow predictions were endorsed by OCC given their subsequent 'no objection' response to the planning application.

This TA therefore takes the previous 2022 with committed development and proposed development flows derived for the Church Leys Farm site as being representative of the current 2022 traffic flows on the local road network. Further discussion on the base traffic flows is included within Section 7 of this report.

4 Accessibility by Sustainable Transport Modes

4.1 Introduction

This chapter describes the accessibility of the proposed development. It is divided into sub-sections that provide:

- A description of the local walking network;
- A description of the local cycling network;
- Details of national walking and cycling accessibility criteria;
- A review of local facilities that are within walking and cycling distance;
- Details of local bus services; and
- Details of local rail services.

4.2 Walking Network

The application site is adjacent to an existing 1.8m wide shared use path that runs north-south along the eastern verge of Ploughley Road past the site. The on-site network of pedestrian footways will provide direct access to this existing route.

To the north, the existing shared use path continues beside the A41 towards Bicester with signalised crossing facilities incorporated within the main A41 / London Road roundabout at the edge of the town. To the south, the existing shared use path widens to 2.5m at the West Hawthorn Road junction before continuing towards the village centre, crossing the Blackthorn Road junction, and continuing south out of the village.

This shared use path lies on the desire line between the site and all the amenities available within the village. A kerbed central refuge island connects the shared use path across Ploughley Road to the convenience food store, GP Surgery and Pre-School available at Bicester Garrison. A further central refuge island and a signalised crossing provide additional opportunities to safely cross Ploughley Road on the walking route between the site and the Village Shop, Village Hall, Public House and Church. Dropped kerbs are provided at all side road crossings with tactile paving also being available at most of these crossing points.

Bridleway reference 105/2/10 runs along the southeast boundary of the site linking the B4011 at Blackthorn Hill Farm to West Hawthorn Road and Ploughley Road. A new pedestrian connection will be provided between the site and this Bridleway to enhance the overall permeability and accessibility of the site. The walking route via this Bridleway (which will be improved to an appropriate standard), West Hawthorn Road and Ash Lane will provide a shorter walking route for some of the new properties within the site when accessing the bus stops, the Primary School and the village centre. A good standard of footway provision is available beside West Hawthorn Road, Ash Lane and East Hawthorn Road.

Generally, the local walking network is of a good standard allowing convenient and safe access to the services, amenities and facilities available within the village.

4.3 Cycling Network

The shared use path identified above also caters for cycling movements both towards Bicester and towards the village centre. A similar shared use path runs east beside Blackthorn Road connecting Ploughley Road to the eastern residential areas of the village.

Although these off-road facilities are clearly beneficial for cyclists, it should be noted that the local roads are not heavily trafficked and are of a good standard meaning cyclists can safely share the carriageway with vehicles should they choose to do so. The local topography is relatively level which further encourages cycling as a mode of travel.

Further afield the shared use path from Ambrosden connects via signalised crossings to a shared use path beside the A4421 eastern bypass and to a shared use path that links to Peregrine Way. Use of these allows cyclists to safely access the wider Bicester built up area via off-road facilities or lightly trafficked side roads. The current upgrading of the A41 Aylesbury Road / Ploughley Road junction to traffic-signal control will further improve the standard and attractiveness of the cycling route towards Bicester.

The National Cycle Network (NCN) Route 51 passes through Bicester and provides a safe cycle route northbound to Milton Keynes and Southbound to Oxford, with off-road facilities provided for significant parts of its length. NCN Route 51 can be accessed in Bicester town centre as it passes through Market Square or by using the shared use path beside the A4421 eastern bypass at the Gavray Drive roundabout. This latter location is approximately 3.1km cycle distance from the centre of the proposed site with shared use paths and signalised crossing provided along the full distance.

Bicester also boasts several other defined cycle routes in addition to NCN Route 51. These include the Gold, Silver, Bronze and Langford Routes which offer safe cycling opportunities throughout most of the Bicester built-up area.

4.4 Accessibility Criteria

When assessing the accessibility of a site for pedestrians, the document *'Guidelines for Providing for Journeys on Foot (CIHT, 2000)'* identifies an average walking speed of 1.4 m/s with this equating to approximately 400 metres in 5 minutes or 3mph. This document also contains a table of suggested walking distances for different purposes which is recreated in **Table 4-1**:

Table 4-1 Suggested Walking Distances

	Town Centres	Commuting / School	Elsewhere
Desirable	200m	500m	400m
Acceptable	400m	1000m	800m
Maximum	800m	2000m	1200m

Source: CIHT 'Guidelines for Providing for Journeys on Foot'

The desirable maximum walking distance to the nearest bus stop is considered to be 400m (*CIHT Guidelines for Planning for Public Transport in Developments, 1999*).

The DfT Manual for Streets (2007) describes the walkable neighbourhood as:

> *Walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes' (up to about 800 m) walking distance of residential areas which residents may access comfortably on foot. However, this is not an upper limit and walking offers the greatest potential to replace short car trips, particularly those under 2 km. MfS encourages a reduction in the need to travel by car through the creation of mixed-use neighbourhoods with interconnected street patterns, where daily needs are within walking distance of most residents.*

The CIHT notes that three quarters of journeys are less than five miles (8km), and half are less than two miles (3.2km). These distances can be cycled comfortably by a reasonably fit person. Based on an average cycling speed of 4.0m/s (14.4kph), 8 kilometres can be cycled in just over half an hour and 3.2 kilometres can be cycled in less than 15 minutes. It is also generally accepted that cycling has the potential to substitute for short car trips, particularly those less than 5km.

4.5 Walking and Cycling Distances and Times

There are a variety of local facilities within walking and cycling distance of the development site. These key facilities, as well as their distances and walking and cycling times from the centre of the proposed development, are shown by **Table 4-2**.

Table 4-2 Local Facilities Including Distances and Walking and Cycling Times

Facility	Distance (metres)	Walking time (minutes)	Cycling Time (minutes)
Public Transport			
Bus Stop – Willow Road	380m	4.5 mins	1.5 mins
Education			
Tiddlywinks Preschool	430m	5.0 mins	1.75 mins
Five Acres Primary School & Foundation Stage	450m	5.25 mins	2.0 mins
Employment			
Symmetry Park	1,200m	14.25 mins	5.0 mins
Talisman Business Centre	2,900m	-	12.0 mins
Bicester Town Centre	3,600m	-	15.0 mins
Bicester Village Retail Park	3,650m	-	15.25 mins
Northeast Bicester Industrial Estates	4,200m	-	17.5 mins
Health			
Ambrosden (GP) Surgery	360m	4.25 mins	1.5 mins
Leisure			
Bicester Garrison Gym and Swimming Pool	410m	5.0 mins	1.75 mins
Equipped play area	770m	9.25 mins	3.25 mins
Village Hall	940m	11.25 mins	4.0 mins
Turners Arms Public House	1,000m	12.0 mins	4.25 mins
St Mary's Church	1,075m	12.75 mins	4.5 mins
Retail			
Costcutter	350m	4.25 mins	1.5 mins
Village Shop and Post Office	925m	11.0 mins	4.0 mins
The Hair Lounge	930m	11.0 mins	4.0 mins

Note: Assumes average walking speed of 1.4m/s and average cycling speed of 4.0m/s.

Education

The National Travel Survey (NTS) 2019 identifies the modal split of trips to school made by school age children. For the 5-10 year old group (primary school pupils) it has been identified that 46% walk to school, 47% travel by car and 5% travel by bus. For the 11-16 year old group (secondary school pupils) it has been identified that 39% walk to school, 26% travel by car and 29% travel by bus. Walking is the main mode of transport for trips under one mile for both primary and secondary school pupils, whereas for trips of over two miles the predominant mode of transport becomes the car for primary school children and the bus for secondary school children.

The nearest primary school is situated 450m from the site, reached via West Hawthorn Road and Oak Lane. Foundation places from three years of age are also available at the school. Tiddlywinks on Alder Drive provide pre-school education with a children's nursery also working out of the Village Hall.

Employment

The modal split of commuter trips is set out by NTS 2019. Car travel is the predominant mode and accounts for 61% of all commuter trips whilst rail accounts for 7%, walking for 12%, bus for 8% with 12% for other modes. Commuting trips typically take longer than trips for other purposes with the average commuter trip taking 30 minutes.

The nearest employment centre to the proposed development site is at Symmetry Park beside the A41 with other large scale employment opportunities available at Bicester Village, Bicester Town Centre and various other Business Parks and Industrial Estates within the wider Bicester area. Many of these are beyond an appropriate walking distance but easily accessed by cycling and public transport.

Health

Trips for personal business and escort account for 18% of all trips (NTS 2019). Personal business includes visits to services or medical consultations whilst escort trips are those made to accompany somebody else.

Ambrosden Surgery is within the Bicester Garrison complex approximately 360m from the centre of the site. This is a National Health Service facility and available to all.

Leisure

Leisure trips account for 32% of all trips with a higher proportion of all trips for leisure purposes on weekends than weekdays (NTS 2019). Just under half of all leisure trips are to visit friends whilst the remainder are for purposes such as entertainment, sport, holidays or day trips.

A Village Hall, Church, equipped play areas and Public House are all within a 10 to 13 minute walk (3.25 to 4.5 minute cycle) of the centre of the site and therefore readily accessible.

Retail

Shopping trips account for 19% of all trips with 64% of these being made by car, 25% by walking and 7% by bus (NTS 2019). The average person makes between 3-4 shopping trips per week.

There are two convenience stores available in Ambrosden with these located 350m and 925m from the centre of the site. Larger scale retail opportunities are available in Bicester which can be accessed by cycling and public transport. Opportunities for home delivery are also available.

Summary

In summary, it is evident that there are a wide range of destinations and facilities within walking and cycling distance of the proposed development. Future residents of the proposed development can choose to walk or cycle to most of these local facilities, especially those within Ambrosden itself

4.6 Bus Transport Accessibility

Bus stops are provided on either side of Ploughley Road near the Willow Road side road junction approximately 380m walking distance from the centre of the proposed site. These stops provide laybys, flag signs and timetable casements showing up-to-date timetable information. A central refuge island allows pedestrians to cross between the two stops.

Two bus services operate through Ambrosden as summarised in **Table 4-3** below.

Table 4-3 Summary of Existing Bus Services

Service	Day	First Bus	Services per Day (approximate frequency[1])	Last Bus
29 – Stagecoach				
Bicester – Ambrosden – Bullingdon Prison	Weekday	05:45	16 (60 mins)	20:10
	Saturday	06:50	15 (60 mins)	20:10
	Sunday	-	No service	-
Bullingdon Prison – Ambrosden – Bicester	Weekday	05:45	17 (60 mins)	20:15
	Saturday	07:00	15 (60 mins)	20:15
	Sunday	-	No service	-
H5 – Stagecoach				
Bicester – Ambrosden – JR Hospital – Headington (Oxford)	Weekday	06:10	13 (60 mins)	19:30
	Saturday	06:10	13 (60 mins)	19:30
	Sunday	-	No Service	-
Headington (Oxford) – JR Hospital – Ambrosden – Bicester	Weekday	07:30	13 (60 mins)	20:45
	Saturday	07:30	13 (60 mins)	20:45
	Sunday	-	No Service	-

Notes: [1] Frequency may vary slightly through the day e.g., during peak/ off-peak periods.
* Bank holiday services may vary.

The above services overlap such that there is a 30 minute frequency of bus on the section of route between Ambrosden village and Bicester town centre. This is considered a reasonable level of service with bus timings being suitable for wide range of trip purpose.

4.7 Rail Services

Bicester is well served by rail with two stations in the town with services provided by Chiltern Railways. Bicester North lies approximately 600m north of the town centre and offers frequent services southeast to High Wycombe and London Marylebone and northwest to Banbury and Birmingham. Bicester Village station lies approximately 700m south of the town centre and provides frequent additional services between Oxford, High Wycombe and London Marylebone.

Bicester Village and Bicester North Railway Stations are located approximately 3.3km and 4.5km from the centre of the site respectively and are therefore within an appropriate cycling distance. The available bus services from Ambrosden also pass close to the Stations.

A summary of the available rail services is shown in **Table 4-4**.

Table 4-4 Summary of Existing Rail Services

Service	Day	First Train	Services per Day (approximate frequency[1])	Last Train
From Bicester Village Station				
London Marylebone – Bicester Village – Oxford	Weekday	05:51	37 (30 mins)	00:56
	Saturday	06:55	35 (30 mins)	00:10
	Sunday	07:49	32 (30 mins)	00:10
Oxford – Bicester Village – London Marylebone	Weekday	05:52	36 (30 mins)	23:31
	Saturday	06:28	34 (30 mins)	23:46
	Sunday	07:57	31 (30 mins)	23:46
From Bicester North Station				
London Marylebone – Bicester North – Birmingham	Weekday	05:48	31 (30 mins)	01:06
	Saturday	06:46	24 (60 mins)	00:51
	Sunday	08:53	21 (60 mins)	01:08
Birmingham – Bicester North – London Marylebone	Weekday	05:33	33 (30 mins)	22:54
	Saturday	06:20	23 (60 mins)	22:35
	Sunday	08:04	18 (60 mins)	22:35

Notes: [1] Frequency may vary slightly through the day e.g., during peak/ off-peak periods.
* Bank holiday services may vary.

5 Proposed Development

5.1 Overview

This TA has been produced to support an Outline planning application with the following description:

"Outline planning application for up to 120 dwellings, vehicular and pedestrian access off Ploughley Road, new pedestrian access to West Hawthorn Road, surface water drainage, foul water drainage, landscaping, public open space, biodiversity and associated infrastructure. Access off Ploughley Road is not reserved for future consideration."

The Architect's illustrative site layout is attached as **Appendix C** and identifies a range of dwelling sizes and tenures with vehicle access taken via a new priority junction on Ploughley Road. Pedestrian cycle access is also taken to / from Ploughley Road with appropriate connections to the existing shared use path that runs across the site frontage and connects Ambrosden village centre in one direction with Bicester in the other. A pedestrian connection will also be provided to the Public Right of Way that runs along the site's eastern boundary and beyond to West Hawthorn Road.

The on-site roads will be designed to an adoptable standard and follow the principles of Manual for Streets and the Oxfordshire County Council residential design guides. Vehicle and cycle parking will also be provided in full accordance with the Oxfordshire County Council standards.

Full details of the site layout and associated accommodation schedule will follow at the Reserved Matters stage.

5.2 Proposed Vehicle Access

The proposed vehicle access is shown on the plan attached as **Appendix D**. It comprises a simple priority junction arrangement with the development access being the side arm.

A 6m carriageway width is proposed for the site access with this being linked to the eastern channel line of Ploughley Road by 6m radii kerb lines. These are standard dimensions for a residential development of the nature proposed and enable appropriate turning movements by refuse collections vehicles and similar. Within the site, the carriageway width will reduce to 5.5m.

Visibility splays of at least 2.4m by 70m will be provided in both directions on egress from the side road. The speed limit past the access is currently 60mph with this reducing to 30mph approximately 100m to the southeast of the proposed access location. It is proposed that the existing start of the 30mph limit be relocated to a point approximately 100m to the northwest of the site access such that it then falls within the 30mph limit.

A 30mph speed limit would normally require minimum splays of 2.4m by 43m however it is considered appropriate to provide 70m splays to recognise the fact that drivers are likely to still be reducing speed as they enter the village and beginning to increase speed as they accelerate out of the village. A 70m splay equates to an 85th percentile traffic speed of approximately 37mph which is considered appropriate in this scenario. It should however be noted that the straight and level alignment of Ploughley Road is such that visibility greater than 70m will be available in practice.

5.3 Proposed Pedestrian and Cycle Access

The existing shared use path beside Ploughley Road is at an offset of approximately 5.75m from the eastern channel line. This distance would enable priority to be given to the shared use path as it crosses the site access through provision of a raised table, i.e., broadly similar to the scenarios shown in Figure 10.15 of Local Transport Note 1/20: Cycle Infrastructure Design. Full design details can be discussed and agreed with OCC highway officers as part of the detailed design process.

Standard 1.8m footways will be provided on both sides of the main site access road with these connecting to the above shared use path as shown on the proposed access plan.

An additional 3m wide pedestrian and cycle connection to the existing Ploughley Road shared use path will be provided towards the southern end of the site frontage. Here, the existing field gate access to the site will be converted to a shared use path that will reduce the travel distance between the site and the village centre and also provide pedestrians and cyclists with a route that for the most part will be clear of vehicles.

An existing Bridleway reference 105/2/10 runs along the southeast boundary of the site connecting Ploughley Road in the southwest with the B4011 at Blackthorn Hill Farm in the northeast. It also connects through to West Hawthorn Road which in turn provides an alternative walking route towards the local bus stops, the Primary School and the village centre. It is therefore proposed that a pedestrian connection be provided between the site and the Bridleway to further improve the accessibility and permeability of the site.

The Bridleway and the link to West Hawthorn Road are currently unmade routes. The proposed development will therefore upgrade the section between the site and West Hawthorn Road to an appropriate standard, details of which will be discussed and agreed with the relevant OCC highway and Public Rights of Way officers at the appropriate time.

6 Trip Generation and Distribution

6.1 Introduction

This chapter provides details of the anticipated travel behaviour of the future users of the proposed development with reference to existing travel patterns and trends. It is divided into sub-sections that provide:

- The anticipated modal split of trips originating from the proposed development;
- The anticipated car ownership levels at the proposed development;
- The anticipated trip generation of the proposed development; and
- The anticipated trip distribution.

6.2 Mode Shares

The 2011 Census *'QS703EW - Method of Travel to Work'* data has been analysed for the E05006518 Ambrosden and Chesterton Ward that includes the Ploughley Road site. The results are summarised in **Table 6-1**.

Table 6-1 2011 Census 'QS703EW - Method of Travel to Work'

Mode of Travel	2011 Ward area: E05006518		
	Persons	Percentage	Adjusted
Not in employment	575	20.7%	Discounted
Works mainly at or from home	253	9.1%	Discounted
Underground, metro, light rail or tram	2	0.1%	Added to Train
Train	49	1.8%	2.6%
Bus, minibus or coach	55	2.0%	2.8%
Taxi or minicab	8	0.3%	0.4%
Motorcycle, scooter or moped	23	0.8%	1.2%
Driving a car or van	1,325	47.8%	68.1%
Passenger in a car or van	86	3.1%	4..4%
Bicycle	70	2.5%	3.6%
On foot	319	11.5%	16.4%
Other	9	0.3%	0.5%
TOTAL	**2,774**	**100.0%**	**100.0%**

The figures have been adjusted to remove those people who are either not in employment or work mainly at or from home so that the final percentages for the various modes represent only those who commute to work.

The adjusted figures show that 68.1% of those who commute to work do so driving a car or van which is slightly higher than the national average for England & Wales which is 61%.

The sustainable modes of travel which are on foot, cycling (including motorcycles) and public transport equate to 26.6% of all journeys to work when combined which is slightly lower than the England & Wales national average of 33%. It should however be noted that the national values are weighted by the higher populations in larger towns and cities where alternative modes of travel are more readily available.

Full details of the 2011 Census *'QS703EW - Method of Travel to Work'* query is included at **Appendix E**.

6.3 Car Ownership

The 2011 census *'QS416EW - Car or Van Availability'* data has been analysed for the same Ambrosden and Chesterton Ward. The results are summarised in **Table 6-2**.

Table 6-2 2011 Census 'QS416EW - Car or Van Availability'

Number of Vehicles	2011 Ward areas: E05006518		
	Count	Percentage	Cars or Vans
No car or van	82	6.2%	0
1 car or van	526	39.7%	526
2 cars or vans	540	40.7%	1,080
3 cars or vans	128	9.7%	384
4 or more cars or vans	50	3.8%	223
Total Households	**1,326**	**100.0%**	**2,213**

The level of car or van ownership in Ambrosden and Chesterton is higher than the national average. The percentage of households without access to a car or van is 6.2% compared to 25.6% for England & Wales. 54.2% of households have access to two or more cars or vans which is higher than the England & Wales national average (32.2%). The average number of cars or vans per household is 1.67.

It is considered that the rural village location of Ambrosden is largely to account for its higher levels of car ownership.

Full details of the 2011 Census *'QS416EW - Car or Van Availability'* query is included at **Appendix F**.

This census information provides useful baseline data, and some indication of how future residents will travel to work and the likely levels of car ownership. It should be noted however, that the census does not include modal split information for other important journeys that are made from a residential site such as the school run, etc.

6.4 Vehicle Trip Generation

The TRICS database has been used to derive appropriate vehicle trip rates for the 08:00 – 09:00 AM and 17:00 – 18:00 PM peak hour periods. The parameters used in the TRICS query are as follows and are considered to provide a robust assessment of the trip generating potential of the site:

- Houses privately owned
- Multi-modal data
- Greater London and Ireland excluded

- Range 40-400 units
- Bedroom range 2 to 4
- Parking range 2 to 4
- Weekdays only
- Locations: Suburban Area and Edge of Town
- Population within 1 mile less than 20k; within 5 miles 25k to 250k

The TRICS datasheets are attached as **Appendix G** and include the multi modal 'all people' trip rate output. These multi modal TRICS values have been adjusted to vehicles through use of the 68.1% 'driving a car or van' value identified in Table 6.1 above. Again, this is considered robust as it is based solely on the method of travel to work and does not take account of more local trip purposes, such as accessing the Primary School, which are more likely to be undertaken by sustainable modes.

Table 6-3 below identifies the resultant number of vehicle trips predicted for the proposed 120 residential unit development.

Table 6-3 Peak Hour Trip Rates and Trips

	Vehicle Trip Rates			Vehicle Trips		
	Arrive	**Depart**	**Total**	**Arrive**	**Depart**	**Total**
AM peak	0.142	0.546	0.688	17	66	83
PM peak	0.447	0.163	0.610	54	20	73

6.5 Trip Distribution and Assignment

The direction of travel when arriving and departing the site is likely to be dependent to a large degree on the workplace location of future residents. National Census data for the Super Output Area Lower Layer covering Ambrosden and Graven Hill (E01028425) identifies this and can therefore be extrapolated to provide a proxy for the proposed development.

Vehicles have been routed between the site and the workplace destination via what is considered to be the most appropriate, and primarily the most direct route. Where there is a choice of available routes of an equal attractiveness, the routes chosen have been split as appropriate. It is accepted that local knowledge may lead to alternative route choices for some, but this is unlikely to have a material impact on the overall percentages identified.

The relevant Census data and calculations are attached as **Appendix H** and are summarised in **Table 6-4** below.

Table 6-4 Vehicle Trip Distribution

Route	% Vehicles
A41 (west)	63.8%
A41 (east)	7.6%
Ploughley Road (south)	25.0%
B4011 (south)	3.6%

In the context of the proposed site access, the above suggests approximately 63.8% of the development traffic will travel north to and from the A41 Aylesbury Road with the remaining 36.2% travelling to and from the south.

The results demonstrate that approximately half of the journeys to work are undertaken within the Cherwell District with approximately 73% of these being to and from the north and west via the A41. This high proportion of trips to and from the Bicester direction is to be expected given the location of Ambrosden within the Cherwell District area.

Outside of Cherwell, the majority workplace destinations are Oxford, Vale of White Horse, Aylesbury Vale, South Oxfordshire and South Northamptonshire with approximately 55% of these to and from the north and west via the A41.

Combining the trips within Cherwell and those to other Local Authorities leads to the overall trip distribution shown in Table 6-4.

7 Derivation of 2022 Base Flows

7.1 Introduction

As previously noted, traffic surveys are not currently possible given the temporary closure of Ploughley Road. This Section therefore identifies and justifies how the 2022 base flows used within this TA have been derived.

7.2 2016 / 2017 Church Leys Farm Application (16/02370/FUL)

The Clarkebond TA that supported the Church Leys Farm application was primarily based on AM and PM peak hour traffic surveys undertaken on Wednesday 3rd June 2015. These surveys were undertaken at the A41 / Ploughley Road, A41 / B4011, B4011 / Blackthorn Road and Ploughley Road / Blackthorn Road junctions, as agreed with OCC highways at the time.

TEMPro derived background growth factors were applied to the 2015 survey flows to represent the likely traffic flows in the 2022 design year. The traffic flows associated with three committed development sites (Springfield Farm, Ambrosden Court and the large mixed use site at Graven Hill) were then added to the growthed flows to predict the total traffic on the local road network in the 2022 design year.

Traffic from the proposed Church Leys Farm site was subsequently added to the above to represent the 2022 plus committed development plus proposed development scenario. These predicted flows for the 2022 with Church Leys Farm development scenario were endorsed by OCC highways through their subsequent 'no objection' consultation response.

Given the above, and in the absence of more up-to date traffic flow data, it is considered appropriate to simply use the previously agreed 2022 base plus committed development plus Church Leys Farm development flows as being representative of current traffic flow conditions on the local road network. These flows have been extracted directly from Figures 2.21 and 2.22 of the June 2017 Addendum to the Church Leys Farm TA which formed the final submission to OCC at that time. These are replicated as Figures 8.1 and 8.2 of this TA which are included as part of the traffic flow diagrams that form **Appendix I.**

It is noted that a planning application for residential development of land to the north of Blackthorn Road has recently been submitted to Cherwell District Council and referenced 22/01976/OUT. The TA submitted in support of that application is based on traffic surveys undertaken in November 2021, i.e., before the closure of Ploughley Road. The traffic flows identified within the Blackthorn Road TA (2021 surveys) have therefore been compared to those derived from the previous Church Leys Farm TA (2022 base plus committed development and proposed development) with the results set out in **Table 7-1** overleaf.

The comparison identifies that the total traffic flows through the various junctions are considerably higher based on the previous Church Leys Farm application methodology than those recorded through the recent surveys undertaken for the land north of Blackthorn Road TA. This may be a function of the recent Covid pandemic and increased working from home or be linked to slower than expected delivery of local committed development sites such as Graven Hill.

Table 7-1 Comparison of Base Flows

Junction	AM Peak Hour			PM Peak Hour		
	Blackthorn Road	Church Leys Farm	Difference	Blackthorn Road	Church Leys Farm	Difference
A41/Plough. Rd	1,981	2,528	+27.6%	2,062	2,517	+22.1%
A41/B4011	1,383	1,838	+32.9%	1,479	1,903	+28.7%
B4011/Black. Rd	498	728	+46.2%	512	737	+43.9%
Plough. Rd/Black. Rd	625	917	+46.7%	584	904	+54.8%

Irrespective of the reason, using the 2022 flows from the previous Church Leys Farm application as the base when assessing the traffic impact of the Ploughley Road development the subject of this TA will clearly represent a robust approach. The significant difference between the two sets of flows identified above must also draw in to question the accuracy of the traffic impact assessments reported within the Blackthorn Road TA.

The traffic flows identified through the above approach have been used for the capacity assessments at the A41 / B4011 junction, the B4011 / Blackthorn Road junction and the Ploughley Road / Blackthorn Road junction, referenced 2, 3 and 4 respectively within the flow diagrams.

For the A41 / Ploughley Road junction (referenced 1 within the flow diagrams), OCC requested that the Church Leys Farm development undertook the capacity assessments based on flows derived from the Council's SATURN model of the local area. 2022 flows with committed development and with the Church Leys Farm development were provided by OCC. These formed Figures 2.35 and 2.36 of the June 2017 Addendum to the Church Leys Farm TA and have been replicated as Figures 8.3 and 8.4 of the traffic flow diagrams that form Appendix I of this TA. As previously, these SATURN derived flows have been used as the base for the capacity assessments at the A41 / Ploughley Road junction.

8 Traffic Impact

8.1 Introduction

This chapter provides details of the assessments undertaken when considering the impact of the additional traffic associated with the proposed development on the operation of the local highway network. It is divided into sub-sections that identify:

- The junctions considered;
- The assessment years and associated growth factors; and
- The operation of the junctions assessed in the with and without development scenarios.

8.2 Junctions Considered

Four off-site junctions have been considered as shown in **Table 8-1**. These are the key junctions on the local highway network and are as agreed with OCC and assessed through the previous Church Leys Farm TA.

Table 8-1 Analysed Junctions

Junction No.	Junction Name	No. Arms	Type
01	A41 / Ploughley Road	3	Signalised
02	A41 / B4011	3	Ghost Island Priority
03	B4011 / Blackthorn Road	3	Simple Priority
04	Ploughley Road / Blackthorn Road	3	Simple Priority

The proposed site access junction has also been subject to a capacity assessment for the design year scenario.

8.3 Assessment Years and Growth Factors

The base year assessments have been undertaken using 2022 traffic flows as discussed previously in Section 7. This represents the year of application. Design year assessments have been undertaken for 2027 which represents the year of application plus five years and accords with relevant guidance.

Growth factors between the 2022 base year and the 2027 design year have been derived through use of TEMPro and in particular the AF15 dataset for the Cherwell local authority area. This identifies growth factors of 1.0729 in the AM peak period and 1.0754 in the PM peak period.

It is not considered necessary to apply committed development as the growth factors used allow for the anticipated development and traffic growth in the areas. Also, the 2022 base flows already include committed development some of which has yet to be built out.

The 2027 base traffic flows for the network are shown as Figures 8.5 and 8.6 (for junctions 2 to 4) and as Figures 8.7 and 8.8 (for junction 1) within the flow diagrams attached as Appendix I.

8.4 Junction Modelling

Figures 8.9 to 8.11 of the flow diagrams (Appendix I) identify the predicted trip distribution and assignment associated with the proposed development as derived previously in Section 6. These have then been added to the 2027 base flows to identify the 2027 with development flows for use in the capacity assessments. Figures 8.12 and 8.13 are the design flows for junction 2 to 3 with Figures 8.14 and 8.15 being the design flows for junction 1.

8.4.1 A41 / Ploughley Road Signalised Junction (1)

A LinSig model of the A41 / Ploughley Road signal-controlled junction has been created based on the junction layout plan attached as Appendix A of this report. In the absence of exact information on the proposed cycle time, staging, phasing and carriageway dimensions this model should be treated as indicative only. It does however indicate the likely scale of change in junction operation associated with the additional traffic flows arising from the proposed development.

The results of the LinSig assessment are attached as **Appendix J** and are summarised in **Table 8-2** below.

Table 8-2 Junction 1 – A41/Ploughley Road – Results of LinSig Modelling

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Queue[1]	Delay[2]	Sat %[3]	Queue[1]	Delay[2]	Sat %[3]
2022 Base						
1/1 A41 East Entry Ahead	18.7	16.1	76.7	30.0	26.2	91.1
2/1 Ploughley Road Entry Left	7.5	44.8	67.3	13.2	76.2	91.4
3/1+3/2 A41 West Entry Ahead+Right	8.3	12.8	76.2	7.5	11.2	72.9
4/1 A41 East Exit	0.4	1.7	44.6	0.5	1.8	50.5
5/1 Ploughley Road Exit	0.1	1.1	15.2	0.1	1.0	13.8
6/1 A41 West Exit	0.9	2.5	64.1	1.8	4.1	78.5
Junction PRC[4] and delay[5]	17.3% and 12.27 pcu/Hr			-1.5% and 23.00 pcu/Hr		
2027 Base						
1/1 A41 East Entry Ahead	22.0	18.7	82.3	43.5	48.1	97.9
2/1 Ploughley Road Entry Left	8.4	47.4	72.2	18.2	111.5	98.3
3/1+3/2 A41 West Entry Ahead+Right	9.3	13.7	81.6	8.5	11.9	78.3
4/1 A41 East Exit	0.5	1.8	47.9	0.6	2.0	54.3
5/1 Ploughley Road Exit	0.1	1.1	16.3	0.1	1.0	14.9
6/1 A41 West Exit	1.1	2.8	68.7	2.7	5.6	84.4
Junction PRC[4] and delay[5]	9.4% and 16.12 pcu/Hr			-9.2% and 37.59 pcu/Hr		
2027 Base plus Development						
1/1 A41 East Entry Ahead	22.9	20.2	83.7	48.9	60.7	99.5
2/1 Ploughley Road Entry Left	9.9	50.2	78.2	17.2	96.4	96.4
3/1+3/2 A41 West Entry Ahead+Right	9.4	13.5	80.3	9.4	12.8	82.9
4/1 A41 East Exit	0.5	1.8	47.9	0.6	2.0	54.3
5/1 Ploughley Road Exit	0.1	1.1	16.9	0.1	1.1	16.6
6/1 A41 West Exit	1.2	3.0	70.8	2.8	5.9	85.1
Junction PRC[4] and delay[5]	7.5% and 17.50 pcu/Hr			-10.6% and 41.44 pcu/Hr		

Notes:
1. The mean maximum queue predicted by the model across all cycles for the whole time period.
2. The mean delay per second/PCU (Passenger Car Unit) predicted by the model for the whole time period.
3. The Degree of Saturation predicted by the model for the time period.
4. The PRC (Practical Reserve Capacity) of the junction.
5. The total delay through junction in pcu/Hr

The results identify that the signalised junction is predicted to operate with a maximum Degree of Saturation of 76.7% in the AM peak and 91.4% in the PM peak under 2022 base traffic flow conditions. The addition of background traffic growth up to the 2027 design year increases these maximum Degree of Saturation values to 82.3% and 98.3% with the proposed development flows increasing them again to 83.7% and 99.5% respectively.

It is acknowledged that these saturation values are high but the impact of the proposed development on their operation is small at little more than 1%. This scale of impact cannot be considered severe in the context of National Planning Policy Framework paragraph 111.

It should also be noted that the current junction improvements will undoubtedly have been designed to accommodate committed and future development in the local region and to operate appropriately over the long term. The relatively small number of additional vehicle movements associated with the proposed Ploughley Road development will do little to alter this position.

8.4.2 A41 / B4011 Ghost Island Priority Junction (2)

Table 8-3 below provides a summary of the Junction 9 (PICADY module) assessment of the A41 Aylesbury Road / B4011 junction under the various assessment scenarios with the full results being attached as **Appendix K**.

Table 8-3 Junction 2 – A41/B4011 – Results of PICADY Modelling

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Queue[1]	Delay[2]	RFC[3]	Queue[1]	Delay[2]	RFC[3]
2022 Base						
Left turn out of B4011	0.7	11.73	0.40	4.7	37.93	0.84
Right turn out of B4011	0.3	37.19	0.21	0.5	41.02	0.34
Right turn into B4011	5.4	32.42	0.83	0.5	9.93	0.34
2027 Base						
Left turn out of B4011	0.9	12.77	0.46	9.7	72.12	0.94
Right turn out of B4011	0.5	58.99	0.32	2.6	194.40	0.86
Right turn into B4011	11.0	45.98	0.91	0.6	10.73	0.38
2027 Base plus Development						
Left turn out of B4011	0.9	14.38	0.47	10.0	73.90	0.94
Right turn out of B4011	0.6	64.51	0.38	3.0	211.19	0.91
Right turn into B4011	11.1	46.12	0.91	0.6	10.77	0.38

Notes:
1. The maximum mean queue predicted by the model for any 15-minute time period.
2. The maximum mean delay per vehicle predicted by the model for any 15-minute time period.
3. The maximum RFC (Ratio of Flow to Capacity) predicted by the model for any 15-minute time period.

The results identify that the junction currently (2022 base) operates within capacity and with a maximum Ratio of Flow to Capacity (RFC) value of 0.83 in the AM peak and 0.84 in the PM peak. Junction capacity only starts to become a potential concern when the RFC value exceeds 0.85.

Traffic growth up to the 2027 design year takes the junction close to its theoretical capacity with the maximum RFC value increasing to 0.91 in the AM peak and 0.94 in the PM peak. The addition of the development trips associated with the proposed Ploughley Road development has a minimal impact on the results with the maximum RFC values remaining at these 0.91 and 0.94 values.

There are minor increases in queue lengths and delays but this minor deterioration in junction performance cannot be considered severe in the context of National Planning Policy Framework paragraph 111.

The method by which the traffic flow data has been input to the Picady capacity model also needs to be taken into consideration. The results in Table 8-3 are based on the default 'OD Tab' function, which generates a 'peak within a peak' traffic flow profile which can over-estimate the operation of the junction at the peak of the peak hour. Where traffic flows are high, and junctions are approaching capacity, it is commonplace for there to be 'peak spreading'. This occurs when drivers choose to start their journeys before, or to delay their journeys until after the peak of the peak. This leads to a more even traffic profile across the peak hour which can be replicated in the Junctions 9 software through use of a 'FLAT' traffic flow profile.

An additional Picady run using a 'FLAT' profile has therefore been undertaken with the results also being included as part of Appendix K. This identifies maximum RFCs of 0.72 (AM) and 0.73 (PM) in the 2022 Base, 0.80 and 0.81 in the 2027 Base and again 0.80 and 0.81 in the 2027 plus development scenario. The likely peak spreading of traffic at the junction over time will ensure that it continues to operate satisfactorily in the future with or without development.

8.4.3 B4011 / Blackthorn Road Priority Junction (3)

Table 8-4 below provides a summary of the PICADY assessment of the B4011 / Blackthorn Road junction under the various assessment scenarios with the full results being attached as **Appendix L**.

Table 8-4 Junction 3 – A41/Blackthorn Road – Results of PICADY Modelling

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Queue[1]	Delay[2]	RFC[3]	Queue[1]	Delay[2]	RFC[3]
2022 Base						
Left turn out of Blackthorn Road	0.1	5.88	0.08	0.4	8.38	0.26
Right turn out of Blackthorn Road	0.1	10.01	0.09	0.1	10.03	0.11
Right turn into Blackthorn Road	0.3	5.12	0.16	0.2	5.95	0.11
2027 Base						
Left turn out of Blackthorn Road	0.1	5.98	0.08	0.4	8.82	0.29
Right turn out of Blackthorn Road	0.1	10.39	0.10	0.1	10.50	0.13
Right turn into Blackthorn Road	0.4	5.11	0.18	0.2	6.01	0.12
2027 Base plus Development						
Left turn out of Blackthorn Road	0.1	6.03	0.09	0.4	8.86	0.29
Right turn out of Blackthorn Road	0.1	10.50	0.11	0.1	10.59	0.13
Right turn into Blackthorn Road	0.4	5.12	0.18	0.2	6.08	0.13

Notes:
1. The maximum mean queue predicted by the model for any 15-minute time period.
2. The maximum mean delay per vehicle predicted by the model for any 15-minute time period.
3. The maximum RFC (Ratio of Flow to Capacity) predicted by the model for any 15-minute time period.

The results demonstrate that the junction currently operates well within capacity with a maximum RFC value of 0.16 in the AM peak and 0.26 in the PM peak. Growth to 2027 increases these values to 0.18 and 0.29 respectively with the proposed Ploughley Road development not increasing the RFC values any further. The proposed development will therefore have no material impact on the operation of the B4011 / Blackthorn Road junction.

8.4.4 Ploughley Road / Blackthorn Road Priority Junction (4)

Table 8-5 below provides a summary of the PICADY assessment of the Ploughley Road / Blackthorn Road junction under the various assessment scenarios with the full results being attached as **Appendix M**.

Table 8-5 Junction 4 – Ploughley Road/Blackthorn Road – Results of PICADY Modelling

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Queue[1]	Delay[2]	RFC[3]	Queue[1]	Delay[2]	RFC[3]
2022 Base						
Left turn out of Blackthorn Road	0.3	8.26	0.21	0.1	6.59	0.12
Right turn out of Blackthorn Road	0.1	8.96	0.11	0.1	9.56	0.11
Right turn into Blackthorn Road	0.2	5.68	0.11	1.0	8.35	0.41
2027 Base						
Left turn out of Blackthorn Road	0.3	8.62	0.23	0.1	6.79	0.13
Right turn out of Blackthorn Road	0.1	9.44	0.12	0.1	10.17	0.12
Right turn into Blackthorn Road	0.2	5.68	0.12	1.2	8.91	0.45
2027 Base plus Development						
Left turn out of Blackthorn Road	0.3	8.76	0.23	0.1	6.85	0.13
Right turn out of Blackthorn Road	0.1	9.69	0.13	0.2	10.51	0.14
Right turn into Blackthorn Road	0.3	5.70	0.13	1.2	8.91	0.46

Notes:
1. The maximum mean queue predicted by the model for any 15-minute time period.
2. The maximum mean delay per vehicle predicted by the model for any 15-minute time period.
3. The maximum RFC (Ratio of Flow to Capacity) predicted by the model for any 15-minute time period.

The results demonstrate that the junction currently operates well within capacity with a maximum RFC value of 0.21 in the AM peak and 0.41 in the PM peak. Growth to 2027 increases these values to 0.23 and 0.45 respectively with the proposed Ploughley Road development not increasing the RFC value in the AM peak but marginally increase the RFC to 0.46 in the PM peak. The proposed development will therefore have no material impact on the operation of the Ploughley Road / Blackthorn Road junction.

8.4.5 Site Access Junction

The proposed site access junction has been assessed for the 2027 with development flow scenario only, i.e., to identify its operation once the development has been completed. **Table 8-6** below provides a summary of the PICADY assessment with the full results being attached as **Appendix M**.

Table 8-6 Proposed Site Access Junction – Results of PICADY Modelling

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Queue[1]	Delay[2]	RFC[3]	Queue[1]	Delay[2]	RFC[3]
2027 Base plus Development						
Left and right turns out of Site	0.2	11.33	0.19	0.2	10.83	0.18
Right turn into Site	0.0	4.89	0.02	0.0	5.08	0.02

Notes:
1. The maximum mean queue predicted by the model for any 15-minute time period.
2. The maximum mean delay per vehicle predicted by the model for any 15-minute time period.
3. The maximum RFC (Ratio of Flow to Capacity) predicted by the model for any 15-minute time period.

The results identify that the site access junction will operate with a maximum RFC of 0.19 in the AM peak and 0.18 in the PM peak. These values are well below the 0.85 practical operational capacity value and indicates that the proposed site access junction will be appropriate to accommodate the traffic movements associated with the Ploughley Road development site.

9 Mitigation

9.1 Introduction

This section addresses any issues arising from the proposed development on the local highway network.

9.2 Junction Capacity

It has been shown that the proposed development will have no material impact on the operational capacity of the local highway network and that junction capacity improvements are not required.

The junction between the A41 Aylesbury Road and Ploughley Road has previously been the key capacity constraint on the network however this is currently being resolved through the introduction of traffic signal controls at the junction. Construction works are on-site with completion scheduled for November 2022. This TA has assumed the works to be complete and has shown that the improved junction will operate appropriately under the 2027 with development scenario

9.3 Non-Car Travel

Notwithstanding the lack of a significant traffic impact, the proposed development will bring with it general enhancements to pedestrian and cycle infrastructure in the local area. Dropped kerbs and tactile paving will be added to the existing footways where necessary to improve the standard of the walking routes to and from the key local facilities available within the village. Similarly, the section of Bridleway that links the site to West Hawthorn Road will be upgraded to an appropriate standard to be discussed and agreed with OCC Public Rights of Way officers. It is also envisaged that improvements to bus stop infrastructure will be introduced with these again to be discussed and agreed with OCC Public Transport officers and the local bus operator.

Defined proposals in relation to the above are not currently included as part of this TA. It is considered appropriate that these form the basis of further discussions as the Outline application goes through the review and determination process.

9.4 Sustainability

In order to maximise sustainability at the site, a Residential Travel Plan has been prepared to accompany this TA. The document contains measures that will assist in reducing trip generation by single-occupancy vehicles, thereby further reducing congestion and pollution on the local highway network.

10 Summary and Conclusions

10.1 Introduction

This chapter provides a summary of each of the chapters in this report and draws appropriate conclusions.

10.2 Policy

Relevant policy was consulted to ensure that the transport aspects of the proposed development are in accordance with both policy and guidance contained in a range of documents, with reference to the Cherwell District Council and Oxfordshire County Council policy requirements.

10.3 Existing Highway Network

The local highway network in the vicinity of the site consists primarily of the A41 Aylesbury Road to the north of the site and Ploughley Road as it links south from the A41, past the site and beyond to and through Ambrosden village. The B4011 to the east of the site and then Blackthorn Road to the south of site provide an alternative route to and from Ploughley Road.

A junction improvement scheme at the A41 / Ploughley Road junction is currently being implemented with this set to remove the only major highway capacity constraint within the immediate vicinity of Ambrosden.

The local highway network is of a good standard with footways and / or shared use paths available throughout the village. Personal injury collision records identify that it currently operates safely and there is no reason to believe that this situation will alter post completion of the proposed development.

10.4 Accessibility

Ambrosden offers good cycle and pedestrian facilities and there is an existing shared use path beside Ploughley Road. This links south towards the village centre and beyond and is also continuous towards Bicester where it connects with the wider existing pedestrian and cycle network in the town.

There are a wide range of local services, facilities and amenities within Ambrosden with all of these being within a maximum 13 minute walk or 4.5 minute cycle of the centre of the proposed development site.

Bus services are available for journeys to higher order settlements with these combining to offer a broadly 30 minute frequency to and from Bicester and a broadly 60 minute frequency to and from Oxford, Monday to Saturday. Frequent rail services are also available to and from Oxford, Birmingham and London Marylebone (and all stations between).

10.5 Proposed Development

The application relates to a residential development of up to 120 dwellings involving a range of sizes and tenures. It is made in Outline with all matters other than access reserved for determination at a later stage.

The development will take vehicle access from Ploughley Road via a simple priority junction that will benefit from appropriate visibility splays in both directions. The existing speed limit change and entry feature on Ploughley Road will be relocated to a point approximately 100m to the north of the access such that the proposed access falls within the 30mph speed limit.

An on-site network of pedestrian footways will connect to the existing shared use path beside Ploughley Road and to the existing Bridleway that links through to West Hawthorn Road. This will ensure that the site has a high level of accessibility and permeability.

10.6 Trip Generation and Distribution

Multi-modal trips have been derived through use of the TRICS trip rate database with these being cross-referenced to Census based 'method of travel to work' data to identify the likely number of vehicle trips to and from the site in the morning and evening peak hours. This identifies 83 additional two-way vehicles trips in the morning peak hour and 73 additional two-way vehicle trips in the evening peak hour.

Census 'location of usual residence and place of work' data has been used to predict the likely routing of the additional vehicles generated on the local highway network. This identifies approximately 63.8% travelling to and from the A41 west, 25% to and from Ploughley Road south, 7.6% to and from the A41 east and 3.6% to and from the B4011 south.

10.7 Derivation of 2022 Base flows

The current closure of Ploughley Road to enable construction of the new signal-controlled junction with the A41 means that up-to date traffic surveys have not been possible. Instead, 2022 base flows have been taken from a previous Transport Assessment for the Church Leys Farm development in Ambrosden which used 2022 with committed development with Church Leys Farm as its future design year. These predicted flows from the previous TA were endorsed by OCC Highways at that time and are therefore considered appropriate to use as the base flows for this TA.

A check of the validity of the above approach has been made through a comparison with traffic surveys undertaken at the same junctions by a third party in 2021. This demonstrates that the 2022 base flows derived from the Church Leys Farm development are consistently higher than those undertaken by others in 2021 and can therefore be considered robust.

10.8 Junction Modelling

The traffic impact was considered at five junctions:

- A41 / Ploughley Road traffic signals;
- A41 / B4011 ghost island priority;
- B4011 / Blackthorn Road simple priority;
- Ploughley Road / Blackthorn Road simple priority; and
- Proposed simple priority site access junction.

Assessments have been made for the 2022 Base, 2027 Base and 2027 Base plus development scenarios with growth having been derived through reference to TEMPro. The operation of the various junctions has been assessed using the industry standard LinSig and Junctions 9 (PICADY module) software packages.

The results indicate that the proposed development will have a minimal impact on the operation of all the junctions assessed. Only the A41 / Ploughley Road and A41 / B4011 junctions are close to capacity but the proposed development will not lead to any material change in the maximum Degree of Saturation and RFC values at the junctions in 2027.

10.9 Mitigation

Capacity improvements on the local highway network are not required. Accessibility improvements will however be provided (where necessary) in the form of dropped kerbs and tactile paving on the walking routes to the local services and facilities available within the village. A new pedestrian link will be created between the site and the existing footways beside West Hawthorn Road with appropriate upgrades to bus stop infrastructure also to be discussed and agreed with the OCC and the local bus operator.

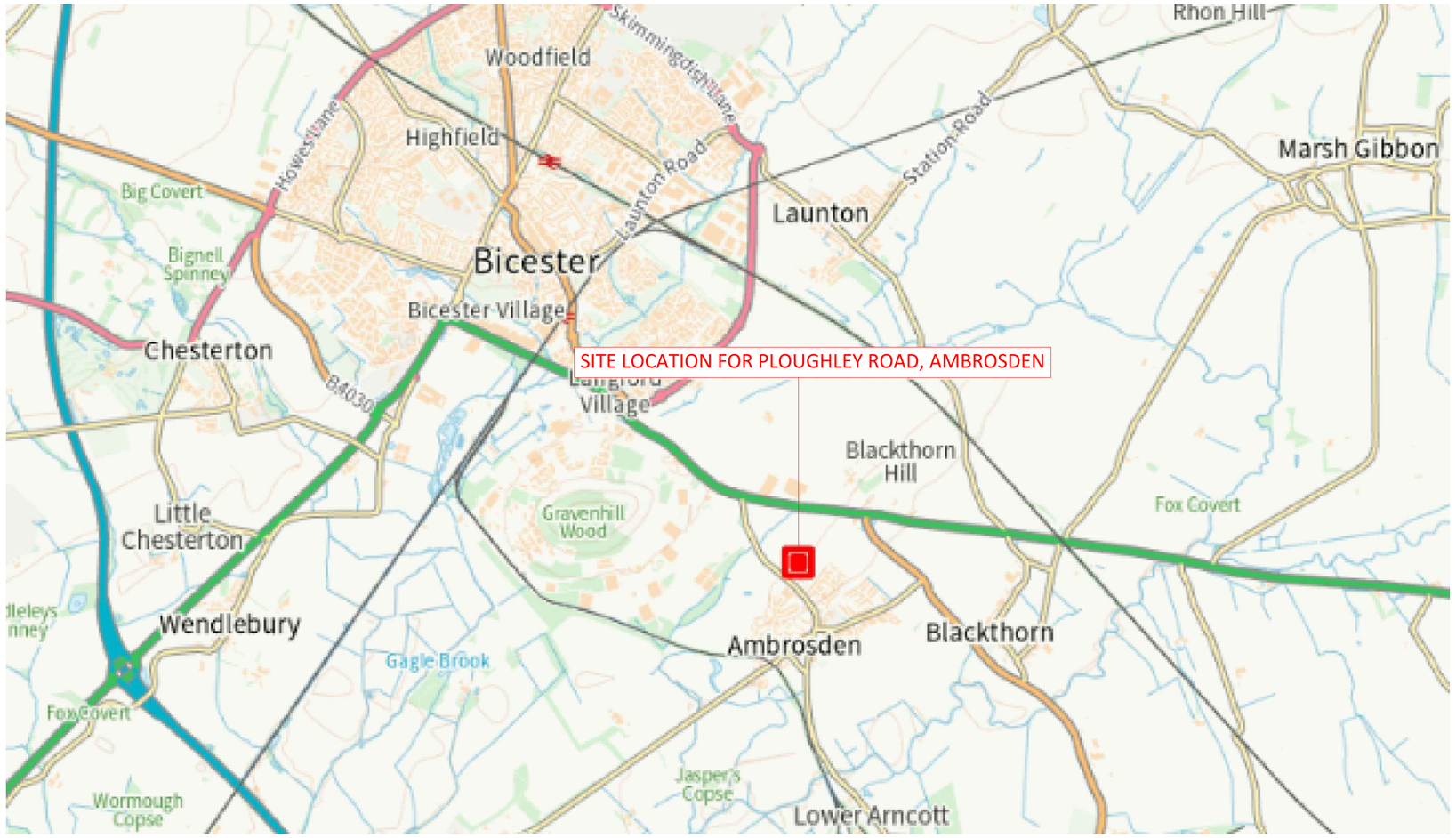
A Residential Travel Plan will be implemented at the site with this seeking to reduce the number of single-occupancy car-borne journeys to and from the development thereby further improving the operation of the local road network and reducing vehicle emissions.

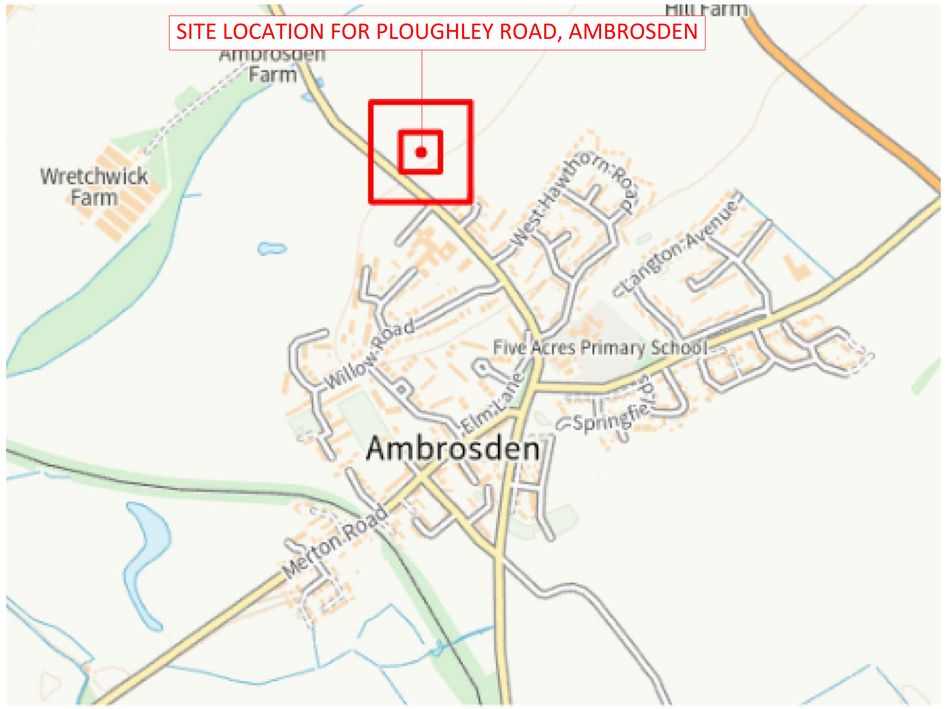
10.10 Conclusions

It has been demonstrated that the proposed development site at Ploughley Road, Ambrosden is in a sustainable location and will provide an opportunity for future residents to travel by non-car modes. It can be provided with an appropriate vehicle access and will not give rise to any adverse junction capacity issues on the local highway network

As such, it is concluded that there is no reason why, in traffic and transport terms, the proposed development should not be granted planning consent.

Drawings





CDM RESIDUAL RISKS

The work shown on this drawing is both familiar to the designers and routinely safely built in similar circumstances by competent contractors.

Risks are not considered significant.

~~**Relevent data is included in the Pre-Construction Information Pack.**~~

Signed: M.Thurgood **Date: 24.08.2022**

DO NOT SCALE THIS DRAWING FOR CONSTRUCTION PURPOSES.

CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER.

Rev	Detail	By	Chk	Date
P01	FIRST ISSUE.	JB	MT	24.08.22

Revisions

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Client
BELLWAY HOMES

Project
LAND OFF PLOUGHLEY ROAD
AMBROSDEN

Drawing Title
SITE LOCATION PLAN

Purpose of Issue
ISSUE FOR INFORMATION

ClarkeBond Project No.	Status
B05927	S2

Project	Originator	Volume	Level	Type	Role	Drg No.
B05927	CLK	XX	XX	DR	C	0008

Scale	Date	Revision
1/250 & 1/100 @ A1	24.08.2022	P01

Drawn	Checked	Sheet Size
JB	MT	A1

Appendices

Appendix A A41 / Ploughley Road Junction Improvements

PROPOSED FOOTWAY/CYCLEWAY

PROPOSED TRAFFIC SIGNAL JUNCTION

PROPOSED FOOTWAY/CYCLEWAY

A41

A41

A41

HGV1 ONLY

BANNED LEFT TURN
INTO PLOUGHLEY ROAD

IMPROVED NON-MOTORISED
USERS' CROSSING FACILITIES

PROPOSED FOOTWAY/CYCLEWAY

BANNED RIGHT TURN OUT
OF PLOUGHLEY ROAD

PLOUGHLEY ROAD

PROPOSED MAINTENANCE BAY FOR SIGNALS

0 12.5 25 m
1:500 SCALE @A1

AECOM

PROJECT

PLOUGHLEY RD / A41 JUNCTION

OX26 6HQ

CLIENT

OXFORDSHIRE COUNTY COUNCIL

County Hall, New Road
Oxford, OX1 1ND
Tel: 01865 792422
www.oxfordshire.gov.uk

CONSULTANT

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AECOM HOUSE, 63-77 Victoria Street,
St Albans, Herts AL1 3ER
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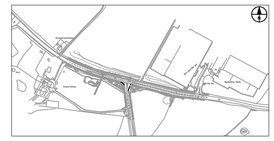
NOTES

1. THIS DRAWING IS BASED ON OS MAPPING AND TOPO SURVEY INFORMATION FROM AECOM TOPO SURVEY FEBRUARY 2021.
2. DO NOT SCALE FROM THIS DRAWING. USE FIGURED DIMENSIONS ONLY. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.
3. THIS DRAWING SHOWS THE PRELIMINARY DESIGN LAYOUT. THE DESIGN HAS BEEN PRODUCED TO IMPROVE SAFETY AND INCREASE CAPACITY AT THE JUNCTION. THE DESIGN CONCEPT IS BASED ON NO LAND TAKE TO THE NORTH, VERGE SIDE SEGREGATION STRIP 0.5m FOR PROPOSED 40MPH SPEED LIMIT AND TRAFFIC MODELLING SHOWING THE NEED FOR BANNED RIGHT TURN OUT OF PLOUGHLEY ROAD ONTO A41 AND BANNED LEFT TURN INTO PLOUGHLEY ROAD FROM A41.

KEY

- HIGHWAY BOUNDARY
- EXISTING KERB TO REMAIN
- PROPOSED KERBS
- PROPOSED EDGING KERB
- PROPOSED ROAD MARKING
- PROPOSED CARRIAGEWAY
- PROPOSED FOOTWAY/CYCLEWAY
- PROPOSED LANDSCAPING
- PROPOSED HARDSTANDING
- PROPOSED GRASS VERGE
- PROPOSED TACTILE PAVING (RED BLISTER)
- PROPOSED TACTILE PAVING (BUFF BLISTER)
- PROPOSED PEDESTRIAN GURADRAILING
- PROPOSED TRAFFIC SIGNALS
- PROPOSED MARKER POST
- PROPOSED GULLY

KEY PLAN



ISSUE/REVISION

I/R	DATE	DESCRIPTION
02	03/08/2021	FOLLOWING OCC COMMENTS
01	29/06/2021	DRAFT PRELIM DESIGN

DRAWING STATUS

WORK IN PROGRESS

PROJECT NUMBER

60651838

SHEET TITLE

PLOUGHLEY ROAD
PRELIMINARY DESIGN
PROPOSED LAYOUT

SHEET NUMBER

P 60651838-PLO-DWG-SK--13

Last Plotted: 03 August 2021 13:58:52
Filename: C:\PWWORKING\AECOM_DS02_UK-CLTFAKHAR.ALAM@AECOM.COM\D0235948\60651838-PLO-DWG-SK-13.DWG

Appendix B Personnel Injury Collision Records

crashmap.co.uk

Validated Data

Crash Date:	Saturday, October 06, 2018	**Time of Crash:**	9:30:00 AM	**Crash Reference:**	**2018430311848**

Highest Injury Severity:	Slight	**Road Number:**	U0	**Number of Casualties:**	1
Highway Authority:	Oxfordshire			**Number of Vehicles:**	2
Local Authority:	Cherwell District			**OS Grid Reference:**	460079 220311
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	60				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Not at or within 20 metres of junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Not Applicable				

Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	-1	Unknown	Unknown	Vehicle proceeding normally along the carriageway, on a left hand bend	Did not impact	Unknown	None	None
2	Pedal cycle	-1	Male	56 - 65	Vehicle proceeding normally along the carriageway, not on a bend	Did not impact	Unknown	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Slight	Driver or rider	Male	56 - 65	Unknown or other	Unknown or other

crashmap.co.uk

Validated Data

Crash Date:	Wednesday, January 30, 2019	**Time of Crash:**	4:00:00 PM	**Crash Reference:**	**2019430033561**

Highest Injury Severity:	Slight	**Road Number:**	U0	**Number of Casualties:**	1
Highway Authority:	Oxfordshire			**Number of Vehicles:**	2
Local Authority:	Cherwell District			**OS Grid Reference:**	460313 219272
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	T or staggered junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				

For more information about the data please visit: *www.crashmap.co.uk/home/Faq*
To subscribe to unlimited reports using CrashMap Pro visit *www.crashmap.co.uk/Home/Premium_Services*

powered by agilysis

Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	12	Female	26 - 35	Vehicle proceeding normally along the carriageway, not on a bend	Front	Unknown	None	None
2	Pedal cycle	-1	Male	46 - 55	Vehicle proceeding normally along the carriageway, not on a bend	Front	Unknown	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Slight	Driver or rider	Male	46 - 55	Unknown or other	Unknown or other

crashmap.co.uk

Provisional Data does not include vehicle and casualty records

Crash Date:	Sunday, February 21, 2021	**Time of Crash:**	4:00:00 PM	**Crash Reference:**	**2021430073817**

Highest Injury Severity:	Slight	**Road Number:**	U0	**Number of Casualties:**	1
Highway Authority:				**Number of Vehicles:**	3
Local Authority:				**OS Grid Reference:**	460484 219424
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	T or staggered junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				

For more information about the data please visit: *www.crashmap.co.uk/home/Faq*
To subscribe to unlimited reports using CrashMap Pro visit *www.crashmap.co.uk/Home/Premium_Services*

powered by agilysis

Provisional Data does not include vehicle and casualty records

crashmap.co.uk

Validated Data

Crash Date:	Thursday, December 07, 2017	**Time of Crash:**	9:58:00 AM	**Crash Reference:**	**2017430327164**

Highest Injury Severity:	Slight	**Road Number:**	A41	**Number of Casualties:**	1
Highway Authority:	Oxfordshire			**Number of Vehicles:**	2
Local Authority:	Cherwell District			**OS Grid Reference:**	460951 220406
Weather Description:	Raining without high winds				
Road Surface Description:	Wet or Damp				
Speed Limit:	50				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Not at or within 20 metres of junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Not Applicable				

Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Motorcycle over 50cc and up to 125cc	10	Male	16 - 20	Vehicle is passing another moving vehicle on its offside	Front	Unknown	None	None
2	Goods vehicle over 3.5 tonnes and under 7.5 tonnes mgw	8	Male	26 - 35	Vehicle is slowing down or stopping	Back	Journey as part of work	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Male	16 - 20	Unknown or other	Unknown or other

Appendix C Architect's Illustrative Site Layout

The scaling of this drawing cannot be assured

Date Drn Ckd

A Site access

B Existing hedges and trees to be retained and enhanced.

C New Pedestrian Link to connect site to West Hawthorne Road.

D Potential play/recreational facilities

E Potential attenuation feature

F Main spine road to have street tree planting

G Pedestrian Link to Ploughley Road

H Development around the edges of the site to be more informal to provide a rural edge character.

I Primary street to have greater formality with emphasis on structured landscape and tree planting to front gardens

J Extensive green spaces that interconnect to provide green corridors and enhance the rural feel of the development as well as potential for biodiversity enhancement.

K A mix of 2, 3 & 4 bedroom houses with an emphasis on smaller family homes.

L North West boundary to have new hedge planting and potential ditch feature

M Indicative Pumping Station Location

Site boundary

Primary frontage

Secondary frontage

Shared Surface Road

Existing trees and hedges

Proposed tree planting to open space areas.

N

Project
Ploughley Road, Ambrosden

Drawing Title
Framework Plan

Date	Scale	Drawn by	Check by
09.06.2022	1:1000@A1	BW	JT

Project No	Drawing No	Revision
32948	FP-01	

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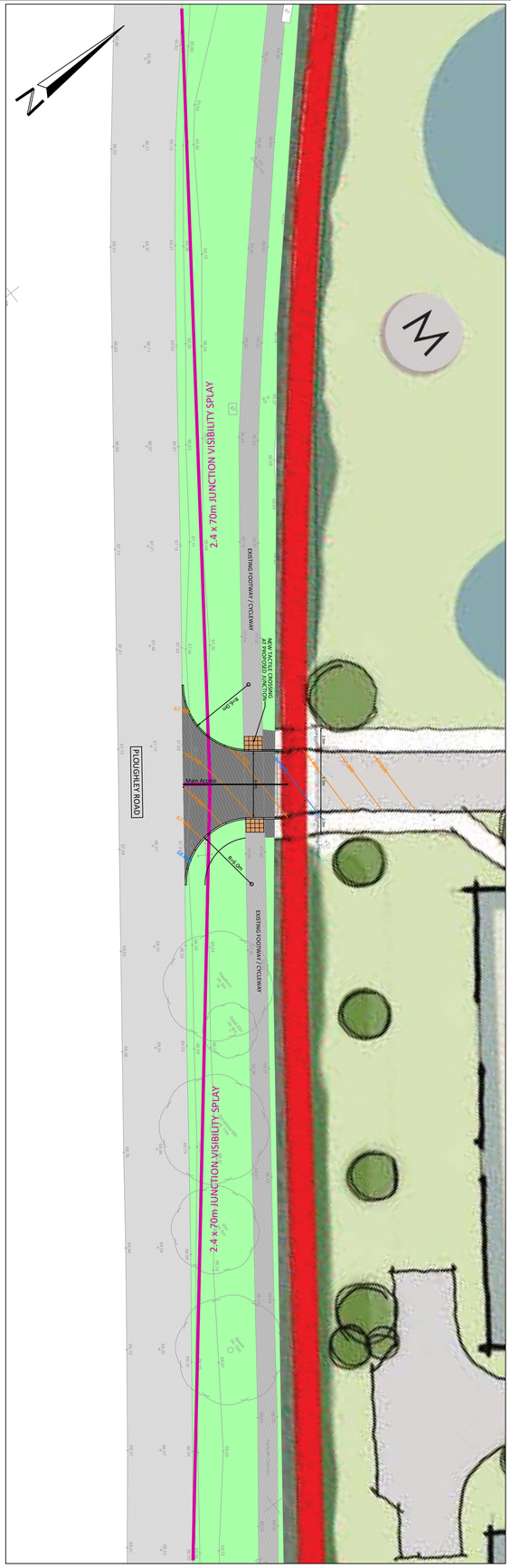
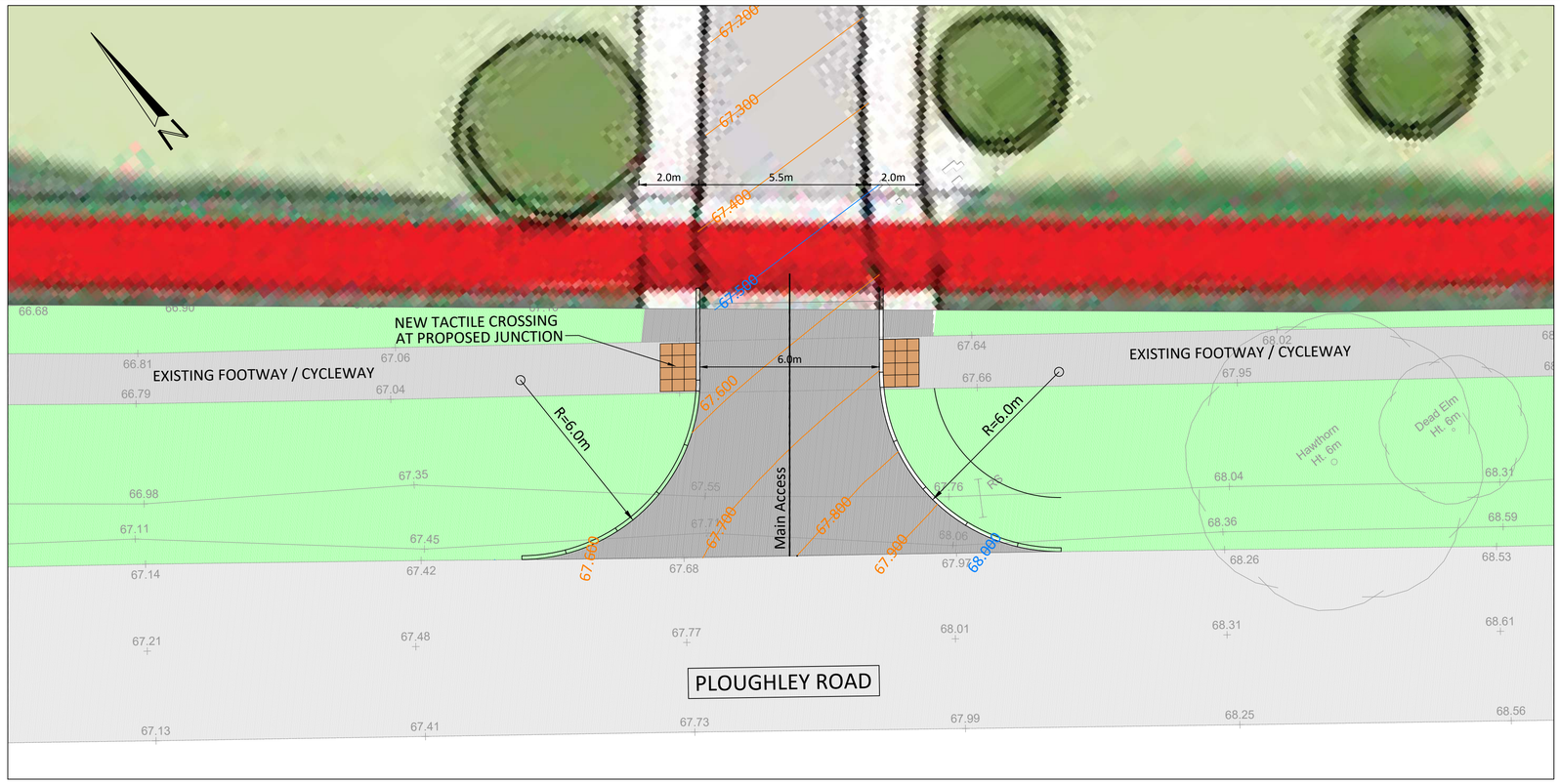
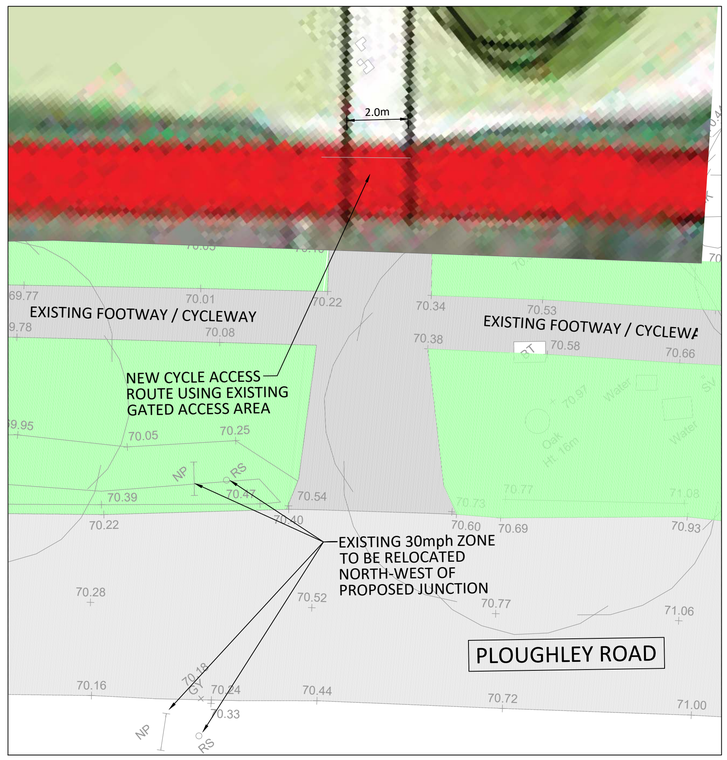
Appendix D Proposed Site Access Plan



JUNCTION VISIBILITY
SCALE 1:250



JUNCTION ACCESS PLAN
SCALE 1:100



PROPOSED CYCLE ACCESS
SCALE 1:100

JUNCTION ACCESS LOCATION OVERVIEW
SCALE 1:1000

0 10 20 30 40 50 60 70 80 90 100
SCALE 1:1000 (A1) METRES

0 5 10 15 20
SCALE 1:250 (A1) METRES

0 5 10
SCALE 1:100 (A1) METRES

CDM RESIDUAL RISKS

The work shown on this drawing is both familiar to the designers and routinely safely built in similar circumstances by competent contractors.

Risks are not considered significant.

~~Relevent data is included in the Pre-Construction Information Pack.~~

Signed: Samuel Ihle Date: 20.07.2022

DO NOT SCALE THIS DRAWING FOR CONSTRUCTION PURPOSES.

CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER.

Rev	Detail	By	Chk	Date
P03	BASE MASTERPLAN UPDATED	JB	MT	06.09.22
P02	30mph GATEWAY FEATURE SHOWN. SCALES ADDED.	JB	MT	25.08.22
P01	FIRST ISSUE.	JB	DH	15.06.22

Revisions

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Client
ARCHSTONE AMBROSDEN LTD. AND BELLWAY HOMES LTD.

Project
LAND OFF PLOUGHLEY ROAD
AMBROSDEN

Drawing Title
SITE ACCESS SKETCH

Purpose of Issue
ISSUE FOR INFORMATION

ClarkeBond Project No.	Status
B05927	S2

Project	Originator	Volume	Level	Type	Role	Drg No.
B05927	CLK	XX	XX	DR	C	0007

Scale	Date	Revision
1/250 & 1/100 @ A1	20.07.2022	P03

Drawn	Checked	Sheet Size
JB	SI	A1

Appendix E 2011 Census 'QS703EW - Method of Travel to Work'

QS703EW - Method of Travel to Work (2001 specification)

population	All usual residents aged 16 to 74
units	Persons
area type	2011 wards
area name	E05006518 : Ambrosden and Chesterton

Method of Travel to Work	2011			
All categories: Method of tra	2,774		1,946	
Work mainly at or from hom	253	9.1%	0	0.0%
Underground, metro, light ra	2	0.1%	0	0.0%
Train	49	1.8%	51	2.6%
Bus, minibus or coach	55	2.0%	55	2.8%
Taxi	8	0.3%	8	0.4%
Motorcycle, scooter or mop	23	0.8%	23	1.2%
Driving a car or van	1,325	47.8%	1,325	68.1%
Passenger in a car or van	86	3.1%	86	4.4%
Bicycle	70	2.5%	70	3.6%
On foot	319	11.5%	319	16.4%
Other method of travel to w	9	0.3%	9	0.5%
Not in employment	575	20.7%	0	0.0%

In order to protect against disclosure of personal information, records have been swapped between different geographic areas Some counts will be affected, particularly small counts at the lowest geographies.

Appendix F 2011 Census 'QS416EW - Car or Van Availability'

QS416EW - Car or van availability

population	All households; All cars or vans
units	Households
area type	2011 wards
area name	E05006518 : Ambrosden and Chesterton
rural urban	Total

Cars	2011	
All categories: Car or van availa	1,326	
No cars or vans in household	82	6.2%
1 car or van in household	526	39.7%
2 cars or vans in household	540	40.7%
3 cars or vans in household	128	9.7%
4 or more cars or vans in house	50	3.8%
sum of All cars or vans in the ar	2,213	

In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.

Appendix G TRICS Outputs

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE

Selected regions and areas:

02	**SOUTH EAST**		
	ES	EAST SUSSEX	1 days
	HC	HAMPSHIRE	4 days
	KC	KENT	2 days
	SC	SURREY	2 days
	WS	WEST SUSSEX	3 days
03	**SOUTH WEST**		
	DC	DORSET	1 days
04	**EAST ANGLIA**		
	NF	NORFOLK	2 days
05	**EAST MIDLANDS**		
	DS	DERBYSHIRE	1 days
06	**WEST MIDLANDS**		
	ST	STAFFORDSHIRE	1 days
09	**NORTH**		
	DH	DURHAM	1 days
11	**SCOTLAND**		
	HI	HIGHLAND	1 days

Primary Filtering selection:

Parameter: No of Dwellings
Actual Range: 40 to 371 (units:)
Range Selected by User: 40 to 400 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: Selected: 2 to 4 Actual: 0.83 to 6.26

Bedrooms per Dwelling Range: Selected: 2 to 4 Actual: 1.60 to 4.50

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/14 to 23/11/21

Selected survey days:

Monday	2 days
Tuesday	3 days
Wednesday	6 days
Thursday	6 days
Friday	2 days

Selected survey types:

Manual count	19 days
Directional ATC Count	0 days

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Edge of Town	16

Selected Location Sub Categories:

Residential Zone	17
Out of Town	1
No Sub Category	1

Secondary Filtering selection:

Use Class:	
C3	19 days
Population within 500m Range:	
All Surveys Included	
Population within 1 mile:	
5,001 to 10,000	8 days
10,001 to 15,000	6 days
15,001 to 20,000	5 days
Population within 5 miles:	
25,001 to 50,000	3 days
50,001 to 75,000	4 days
75,001 to 100,000	5 days
100,001 to 125,000	1 days
125,001 to 250,000	6 days
Car ownership within 5 miles:	
0.6 to 1.0	2 days
1.1 to 1.5	16 days
1.6 to 2.0	1 days
Travel Plan:	
Yes	12 days
No	7 days
PTAL Rating:	
No PTAL Present	19 days

LIST OF SITES relevant to selection parameters

1 **DC-03-A-09** **MIXED HOUSES** **DORSET**
A350
SHAFTESBURY

Edge of Town
No Sub Category
Total No of Dwellings: 50
Survey date: FRIDAY *19/11/21* *Survey Type: MANUAL*

2 **DH-03-A-03** **SEMI-DETACHED & TERRACED** **DURHAM**
PILGRIMS WAY
DURHAM

Edge of Town
Residential Zone
Total No of Dwellings: 57
Survey date: FRIDAY *19/10/18* *Survey Type: MANUAL*

3 **DS-03-A-02** **MIXED HOUSES** **DERBYSHIRE**
RADBOURNE LANE
DERBY

Edge of Town
Residential Zone
Total No of Dwellings: 371
Survey date: TUESDAY *10/07/18* *Survey Type: MANUAL*

4 **ES-03-A-07** **MIXED HOUSES & FLATS** **EAST SUSSEX**
NEW ROAD
HAILSHAM
HELLINGLY
Edge of Town
Residential Zone
Total No of Dwellings: 91
Survey date: THURSDAY *07/11/19* *Survey Type: MANUAL*

5 **HC-03-A-22** **MIXED HOUSES** **HAMPSHIRE**
BOW LAKE GARDENS
NEAR EASTLEIGH
BISHOPSTOKE
Edge of Town
Residential Zone
Total No of Dwellings: 40
Survey date: WEDNESDAY *31/10/18* *Survey Type: MANUAL*

6 **HC-03-A-23** **HOUSES & FLATS** **HAMPSHIRE**
CANADA WAY
LIPHOOK

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 62
Survey date: TUESDAY *19/11/19* *Survey Type: MANUAL*

7 **HC-03-A-26** **MIXED HOUSES & FLATS** **HAMPSHIRE**
BOTLEY ROAD
WHITELEY

Edge of Town
Out of Town
Total No of Dwellings: 270
Survey date: THURSDAY *24/06/21* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

8 **HC-03-A-27** **MIXED HOUSES** **HAMPSHIRE**
DAIRY ROAD
ANDOVER

Edge of Town
Residential Zone
Total No of Dwellings: 73
Survey date: TUESDAY *16/11/21* *Survey Type: MANUAL*

9 **HI-03-A-14** **SEMI-DETACHED & TERRACED** **HIGHLAND**
KING BRUDE ROAD
INVERNESS
SCORGUIE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 40
Survey date: WEDNESDAY *23/03/16* *Survey Type: MANUAL*

10 **KC-03-A-03** **MIXED HOUSES & FLATS** **KENT**
HYTHE ROAD
ASHFORD
WILLESBOROUGH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 51
Survey date: THURSDAY *14/07/16* *Survey Type: MANUAL*

11 **KC-03-A-07** **MIXED HOUSES** **KENT**
RECULVER ROAD
HERNE BAY

Edge of Town
Residential Zone
Total No of Dwellings: 288
Survey date: WEDNESDAY *27/09/17* *Survey Type: MANUAL*

12 **NF-03-A-04** **MIXED HOUSES** **NORFOLK**
NORTH WALSHAM ROAD
NORTH WALSHAM

Edge of Town
Residential Zone
Total No of Dwellings: 70
Survey date: WEDNESDAY *18/09/19* *Survey Type: MANUAL*

13 **NF-03-A-06** **MIXED HOUSES** **NORFOLK**
BEAUFORT WAY
GREAT YARMOUTH
BRADWELL
Edge of Town
Residential Zone
Total No of Dwellings: 275
Survey date: MONDAY *23/09/19* *Survey Type: MANUAL*

14 **SC-03-A-04** **DETACHED & TERRACED** **SURREY**
HIGH ROAD
BYFLEET

Edge of Town
Residential Zone
Total No of Dwellings: 71
Survey date: THURSDAY *23/01/14* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

15 **SC-03-A-05** **MIXED HOUSES** **SURREY**
REIGATE ROAD
HORLEY

Edge of Town
Residential Zone
Total No of Dwellings: 207
Survey date: MONDAY *01/04/19* *Survey Type: MANUAL*

16 **ST-03-A-07** **DETACHED & SEMI-DETACHED** **STAFFORDSHIRE**
BEACONSIDE
STAFFORD
MARSTON GATE
Edge of Town
Residential Zone
Total No of Dwellings: 248
Survey date: WEDNESDAY *22/11/17* *Survey Type: MANUAL*

17 **WS-03-A-04** **MIXED HOUSES** **WEST SUSSEX**
HILLS FARM LANE
HORSHAM
BROADBRIDGE HEATH
Edge of Town
Residential Zone
Total No of Dwellings: 151
Survey date: THURSDAY *11/12/14* *Survey Type: MANUAL*

18 **WS-03-A-08** **MIXED HOUSES** **WEST SUSSEX**
ROUNDSTONE LANE
ANGMERING

Edge of Town
Residential Zone
Total No of Dwellings: 180
Survey date: THURSDAY *19/04/18* *Survey Type: MANUAL*

19 **WS-03-A-14** **MIXED HOUSES** **WEST SUSSEX**
TODDINGTON LANE
LITTLEHAMPTON
WICK
Edge of Town
Residential Zone
Total No of Dwellings: 117
Survey date: WEDNESDAY *20/10/21* *Survey Type: MANUAL*

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

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 1.73

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip 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	19	143	0.129	19	143	0.595	19	143	0.724
08:00 - 09:00	19	143	0.209	**19**	**143**	**0.802**	**19**	**143**	**1.011**
09:00 - 10:00	19	143	0.223	19	143	0.305	19	143	0.528
10:00 - 11:00	19	143	0.197	19	143	0.256	19	143	0.453
11:00 - 12:00	19	143	0.185	19	143	0.243	19	143	0.428
12:00 - 13:00	19	143	0.263	19	143	0.250	19	143	0.513
13:00 - 14:00	19	143	0.272	19	143	0.250	19	143	0.522
14:00 - 15:00	19	143	0.263	19	143	0.301	19	143	0.564
15:00 - 16:00	19	143	0.571	19	143	0.303	19	143	0.874
16:00 - 17:00	19	143	0.572	19	143	0.275	19	143	0.847
17:00 - 18:00	**19**	**143**	**0.657**	19	143	0.239	19	143	0.896
18:00 - 19:00	19	143	0.529	19	143	0.298	19	143	0.827
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.070			4.117			8.187

Appendix H 2011 Census Based Trip Distribution Calculations

WF01BEW - Location of usual residence and place of work (OA level)

population	All usual residents ages 16 and over in employment the week before the census
units	Persons
date	2011

place of work	currently residing in E01028425 : Cherwell 011A
E01028443 : Cherwell 002C	2
E01028445 : Cherwell 003A	4
E01028446 : Cherwell 003B	3
E01028435 : Cherwell 004A	5
E01028437 : Cherwell 004C	6
E01032941 : Cherwell 004G	6
E01032942 : Cherwell 004H	3
E01028427 : Cherwell 007B	3
E01028474 : Cherwell 009A	4
E01028505 : Cherwell 010C	2
E01028506 : Cherwell 010D	4
E01028507 : Cherwell 010E	3
E01028478 : Cherwell 011C	2
E01028483 : Cherwell 011D	2
E01028499 : Cherwell 011F	7
E01028459 : Cherwell 012A	5
E01028455 : Cherwell 013A	32
E01028456 : Cherwell 013B	10
E01028457 : Cherwell 013C	3
E01028467 : Cherwell 013E	11
E01028466 : Cherwell 014A	11
E01028469 : Cherwell 014B	2
E01028463 : Cherwell 015A	7
E01028464 : Cherwell 015B	4
E01028468 : Cherwell 015D	82
E01028424 : Cherwell 016A	7
E01028497 : Cherwell 016B	5
E01028500 : Cherwell 016D	59
E01028501 : Cherwell 016E	8
E01028502 : Cherwell 016F	7
E01028491 : Cherwell 017D	3
E01028488 : Cherwell 019A	13
E01028511 : Cherwell 019C	11
Wiltshire	2
Stratford-on-Avon	4
Harrogate	2
South Kesteven	2
South Northamptonshire	27
Camden	2
Ealing	2
Hillingdon	2
Southwark	2
Westminster,City of London	4
Aylesbury Vale	43
Milton Keynes	5
Oxford	130
Slough	2
South Bucks	4
South Oxfordshire	36
Surrey Heath	3
Vale of White Horse	45
West Berkshire	3
West Oxfordshire	16
Wycombe	9

In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.

NOTE: Output areas with zero or one values manually deleted as statistically insignificant

WF01BEW - Location of usual residence and place of work (OA level)

Place of Work: 2011 super output area - lower layer		Currently residing in E01028425 Cherwell 011A	Route							
			A41 West		A41 East		Ploughley Road South		B4011 South	
			%age of trips	Distribution	%age of trips	Distribution	%age of trips	Distribution	%age of trips	Distribution
Cherwell	E01028443 : Cherwell 002C	2	100%	2						
	E01028445 : Cherwell 003A	4	100%	4						
	E01028446 : Cherwell 003B	3	100%	3						
	E01028435 : Cherwell 004A	5	100%	5						
	E01028437 : Cherwell 004C	6	100%	6						
	E01032941 : Cherwell 004G	6	100%	6						
	E01032942 : Cherwell 004H	3	100%	3						
	E01028427 : Cherwell 007B	3	100%	3						
	E01028474 : Cherwell 009A	4	100%	4						
	E01028505 : Cherwell 010C	2	100%	2						
	E01028506 : Cherwell 010D	4	100%	4						
	E01028507 : Cherwell 010E	3	100%	3						
	E01028478 : Cherwell 011C	2	100%	2						
	E01028483 : Cherwell 011D	2	100%	2						
	E01028499 : Cherwell 011F	7	50%	3.5	25%	1.75			25%	1.75
	E01028459 : Cherwell 012A	5	100%	5						
	E01028455 : Cherwell 013A	32	100%	32						
	E01028456 : Cherwell 013B	10	100%	10						
	E01028457 : Cherwell 013C	3	100%	3						
	E01028467 : Cherwell 013E	11	100%	11						
	E01028466 : Cherwell 014A	11	100%	11						
	E01028469 : Cherwell 014B	2	100%	2						
	E01028463 : Cherwell 015A	7	100%	7						
	E01028464 : Cherwell 015B	4	100%	4						
	E01028468 : Cherwell 015D	82	100%	82						
	E01028424 : Cherwell 016A	7	100%	7						
	E01028497 : Cherwell 016B	5	100%	5						
	E01028500 : Cherwell 016D	59					100%	59		
	E01028501 : Cherwell 016E	8					100%	8		
	E01028502 : Cherwell 016F	7					100%	7		
	E01028491 : Cherwell 017D	3	50%	1.5			50%	1.5		
	E01028488 : Cherwell 019A	13	50%	6.5			50%	6.5		
	E01028511 : Cherwell 019C	11	50%	5.5			50%	5.5		
	TOTAL TRIPS - CHERWELL	**336**		**245**		**1.75**		**87.5**		**1.75**
	% AGE DISTRIBUTION			**72.9%**		**0.5%**		**26.0%**		**0.5%**

Destinations with zero or one employed persons have been excluded from the above Table

Place of Work: Local Auuthority Area		Currently residing in E01028425 Cherwell 011A	Route							
			A41 West		A41 East		Ploughley Road South		B4011 South	
			%age of trips	Distribution	%age of trips	Distribution	%age of trips	Distribution	%age of trips	Distribution
	Wiltshire	2	100%	2						
	Stratford-on-Avon	4	100%	4						
	Harrogate	2	100%	2						
	South Kesteven	2	100%	2						
	South Northamptonshire	27	100%	27						
	Camden	2	100%	2						
	Ealing	2	100%	2						
	Hillingdon	2	100%	2						
	Southwark	2	100%	2						
	Westminster,City of London	4	100%	4						
	Aylesbury Vale	43			100%	43				
	Milton Keynes	5	50%	2.5	50%	2.5				
	Oxford	130	50%	65			50%	65		
	Slough	2	100%	2						
	South Bucks	4	100%	4						
	South Oxfordshire	36					50%	18	50%	18
	Surrey Heath	3	100%	3						
	Vale of White Horse	45	100%	45						
	West Berkshire	3	100%	3						
	West Oxfordshire	16	100%	16						
	Wycombe	9			50%	4.5			50%	4.5
	TOTAL TRIPS - LOCAL AUTHORITY	**345**		**189.5**		**50**		**83**		**22.5**
	%AGE DISTRIBUTION			**54.9%**		**14.5%**		**24.1%**		**6.5%**

Destinations with zero or one employed persons have been excluded from the above Table

SUMMARY

TOTAL TRIPS - CHERWELL	**336**		**245**		**1.75**		**87.5**		**1.75**
TOTAL TRIPS - LOCAL AUTHORITY	**345**		**189.5**		**50**		**83**		**22.5**
TOTAL TRIPS - ALL	**681**		**434.5**		**51.75**		**170.5**		**24.25**
%AGE DISTRIBUTION			**63.8%**		**7.6%**		**25.0%**		**3.6%**

Appendix I Traffic Flow Diagrams

DRAWING TITLE	2022 BASE FLOWS	DRAWING NUMBER	FIGURE 8.1	DRAWN BY	BJC
	AM PEAK	PROJECT NUMBER	B05927	CHECKED BY	CDM
PROJECT	CHURCH LEYS, AMBROSDEN			DATE	

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DRAWING TITLE	2022 BASE FLOWS	DRAWING NUMBER	FIGURE 8.2	DRAWN BY	BJC
	PM PEAK	PROJECT NUMBER	B05927	CHECKED BY	CDM
PROJECT	CHURCH LEYS, AMBROSDEN			DATE	

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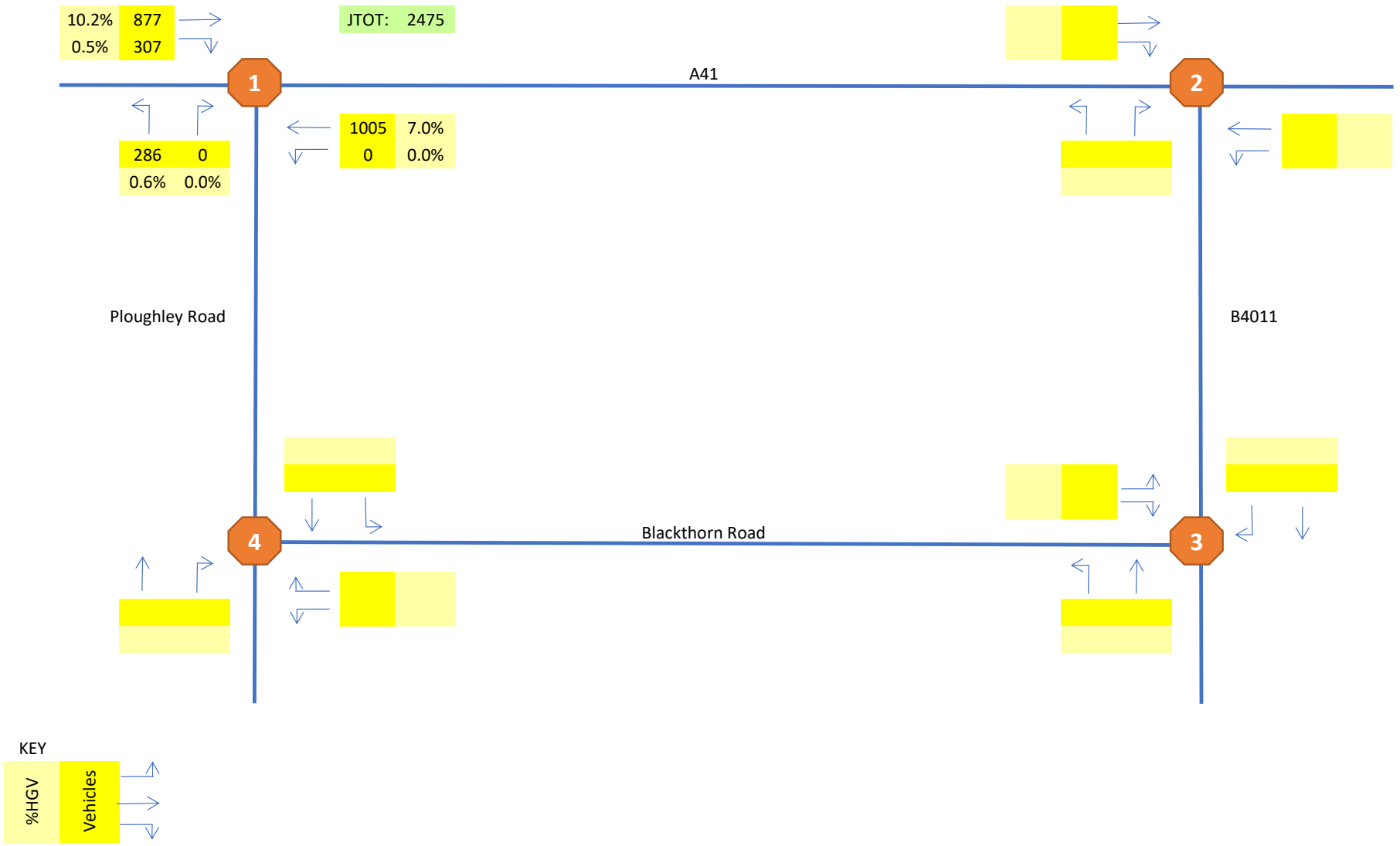

DRAWING TITLE	SATURN FLOWS 2022 BASE	DRAWING NUMBER	FIGURE 8.3	DRAWN BY	BJC
	AM PEAK	PROJECT NUMBER	B05927	CHECKED BY	CDM
PROJECT	CHURCH LEYS, AMBROSDEN			DATE	

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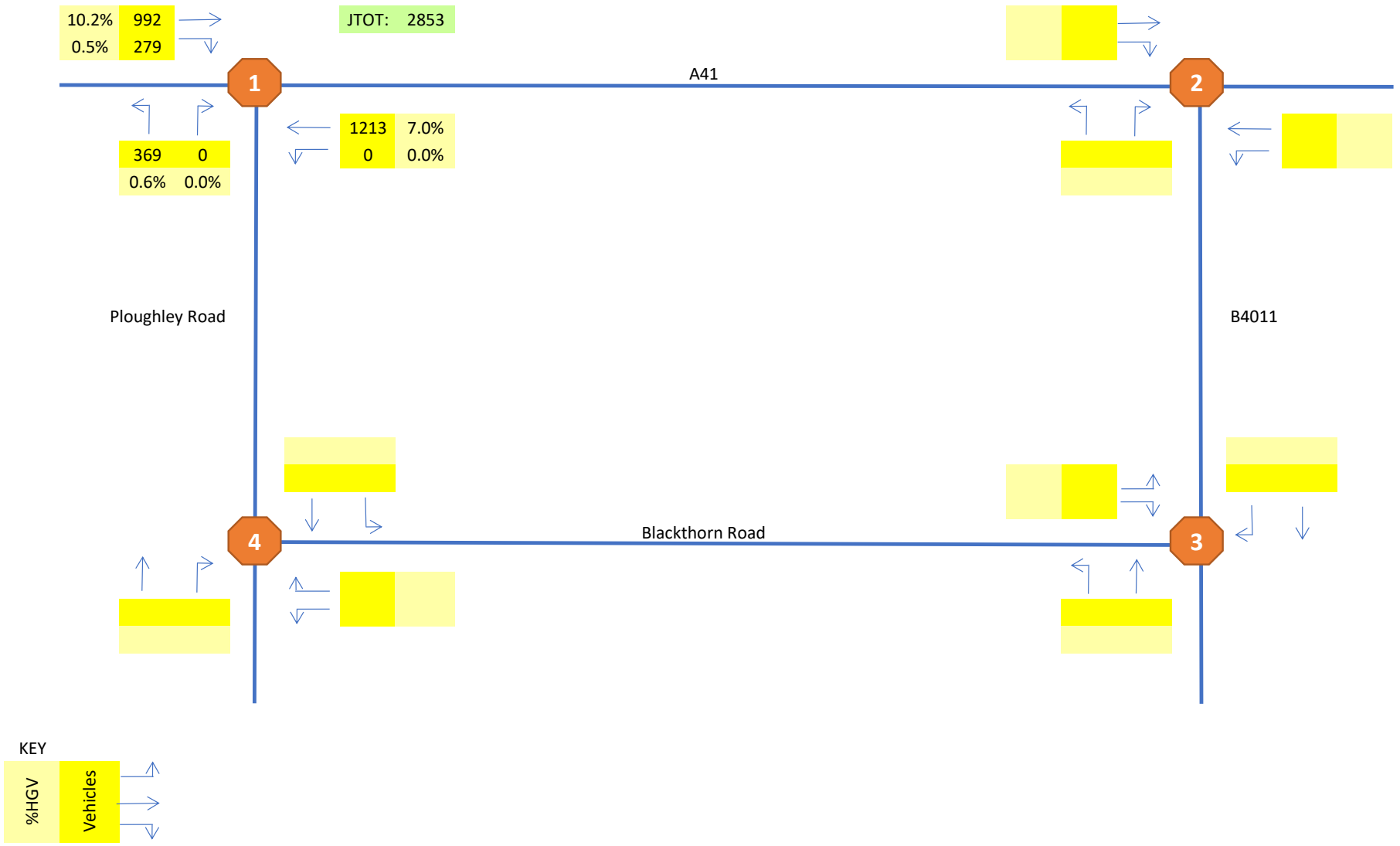
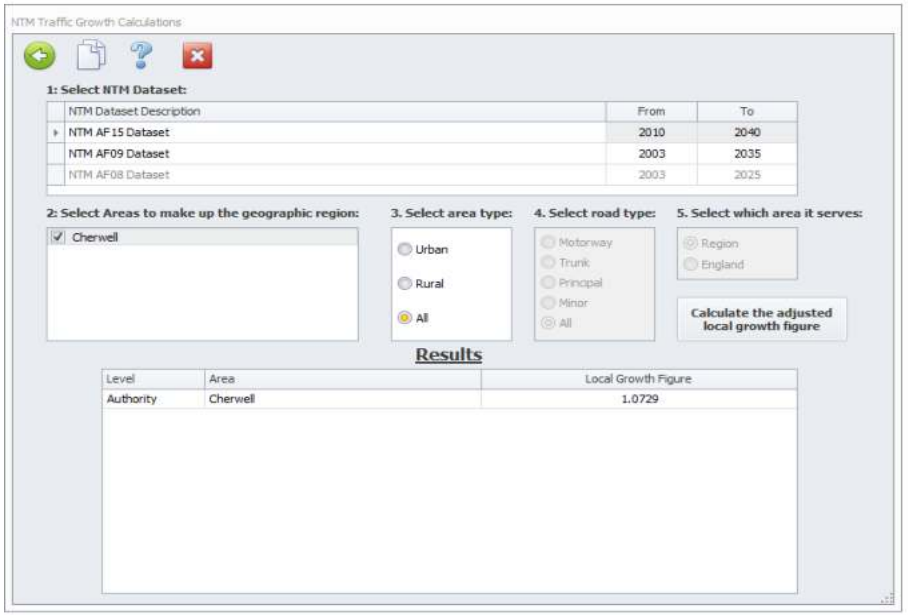


DRAWING TITLE	SATURN FLOWS 2022 BASE PM PEAK	DRAWING NUMBER PROJECT NUMBER	FIGURE 8.4 B05927	DRAWN BY CHECKED BY DATE	BJC CDM	clarkebond MULTIDISCIPLINARY ENGINEERING CONSULTANTS	129 Cumberland Road, Bristol, BS1 6UY Tel: +44 (0) 117 929 2244 Email: bristol@clarkebond.com
PROJECT	CHURCH LEYS, AMBROSDEN						

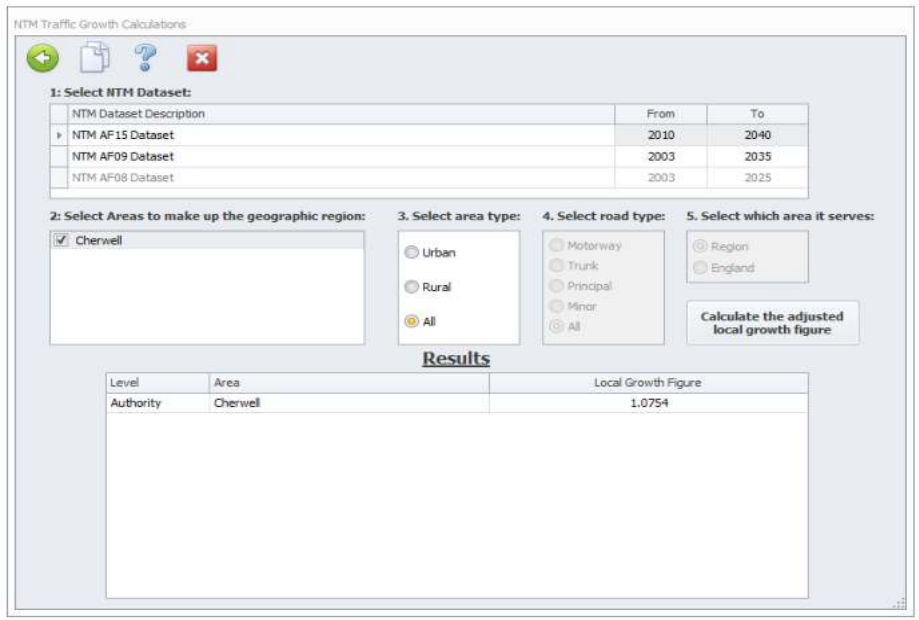
Cherwell: AM Growth Factor - 2022 to 2027

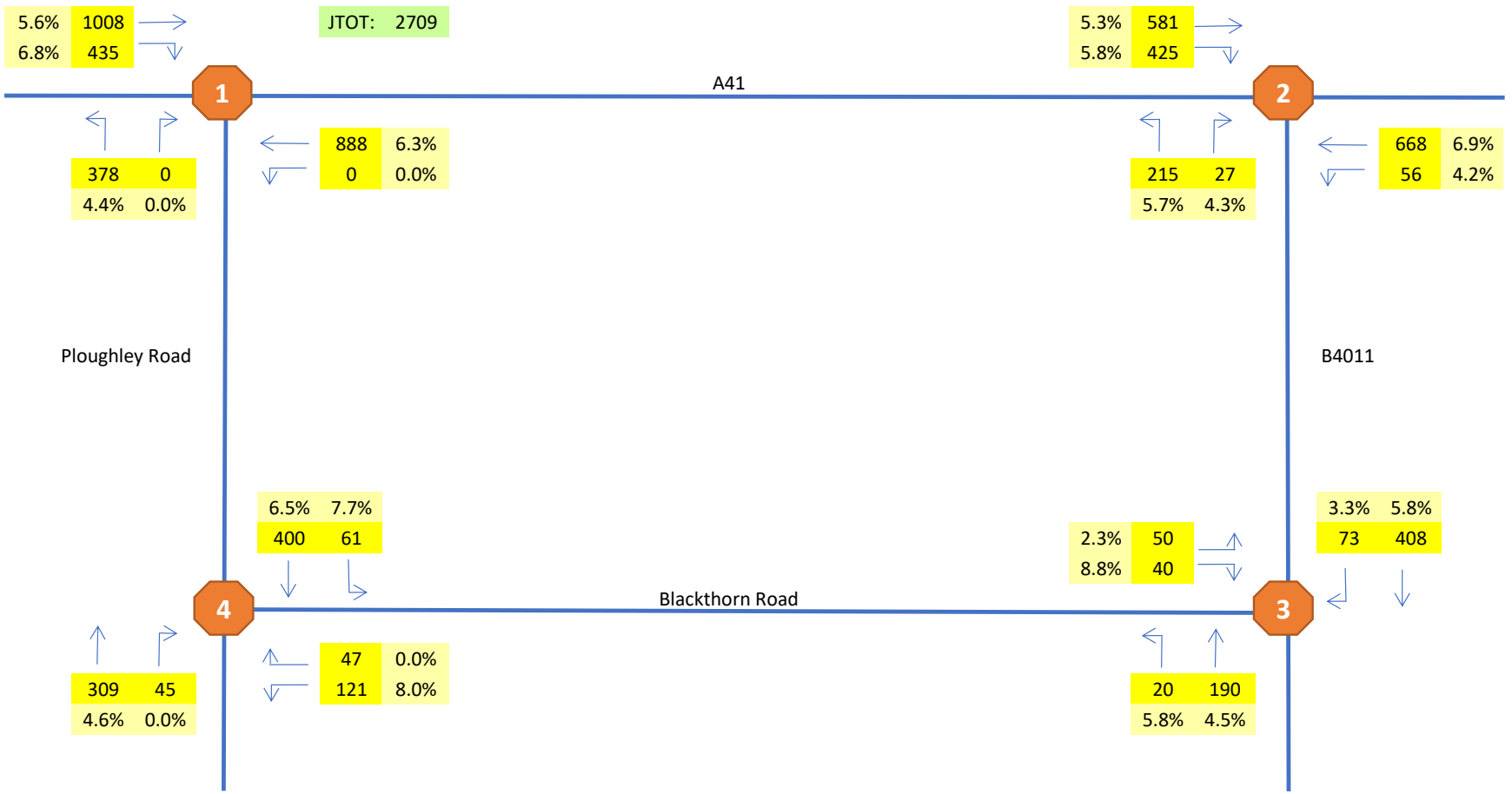
Level	Area	Local Growth Figure
Authority	Cherwell	**1.072867655**



Cherwell: PM Growth Factor - 2022 to 2027

Level	Area	Local Growth Figure
Authority	Cherwell	**1.075372325**





DRAWING TITLE	2027 BASE FLOWS	DRAWING NUMBER	FIGURE 8.5	DRAWN BY	BJC
	AM PEAK	PROJECT NUMBER	B05927	CHECKED BY	CDM
PROJECT	CHURCH LEYS, AMBROSDEN			DATE	

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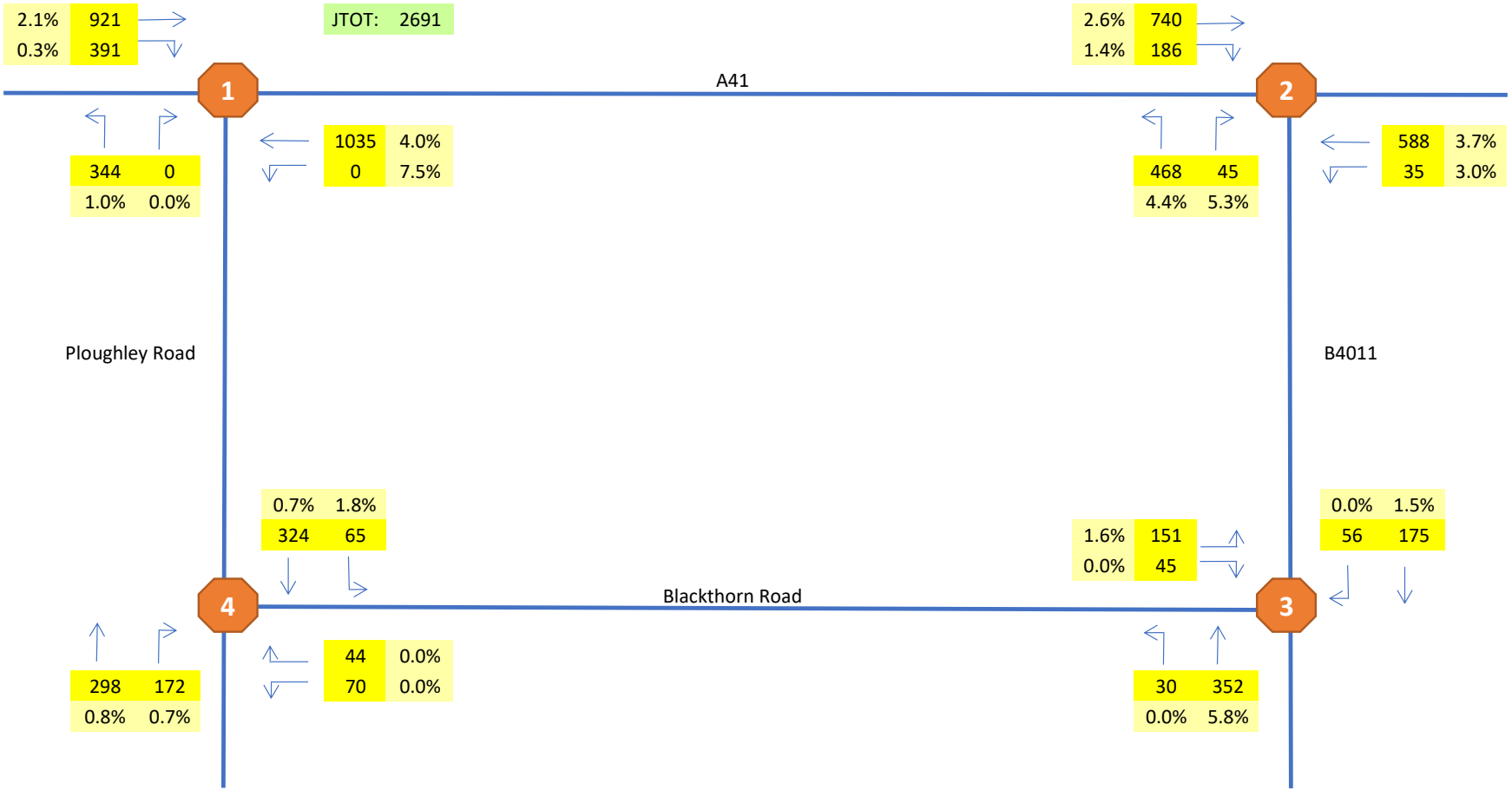

KEY

%HGV | Vehicles

Growth Factors:

PM: 1.0754

DRAWING TITLE	2027 BASE FLOWS	DRAWING NUMBER	FIGURE 8.6	DRAWN BY	BJC
	PM PEAK	PROJECT NUMBER	B05927	CHECKED BY	CDM
PROJECT	CHURCH LEYS, AMBROSDEN			DATE	

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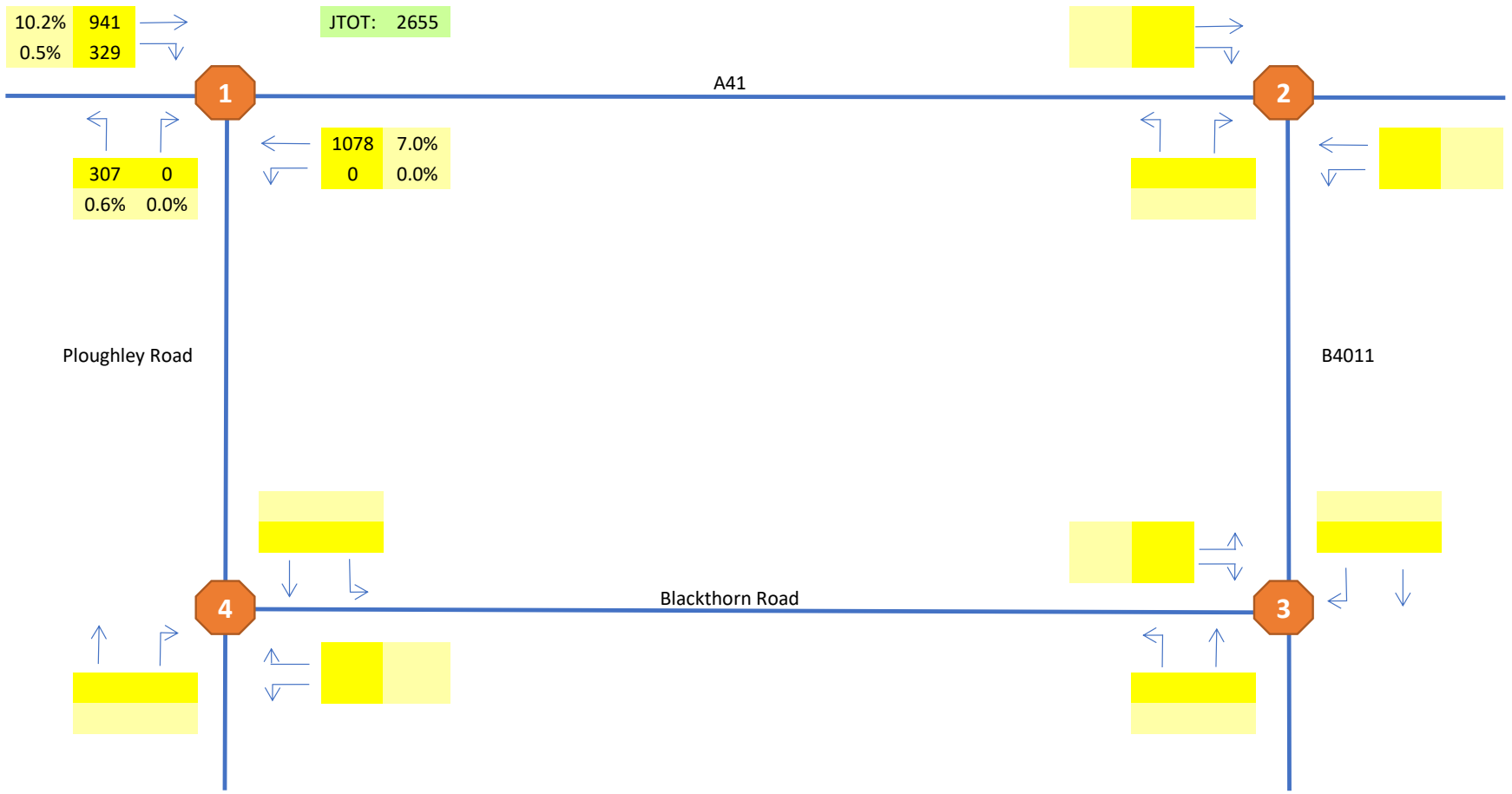

KEY

%HGV | Vehicles

Growth Factors:

AM: 1.0729

DRAWING TITLE	SATURN FLOWS 2027 BASE	DRAWING NUMBER	FIGURE 8.7	DRAWN BY	BJC
	AM PEAK	PROJECT NUMBER	B05927	CHECKED BY	CDM
PROJECT	CHURCH LEYS, AMBROSDEN			DATE	

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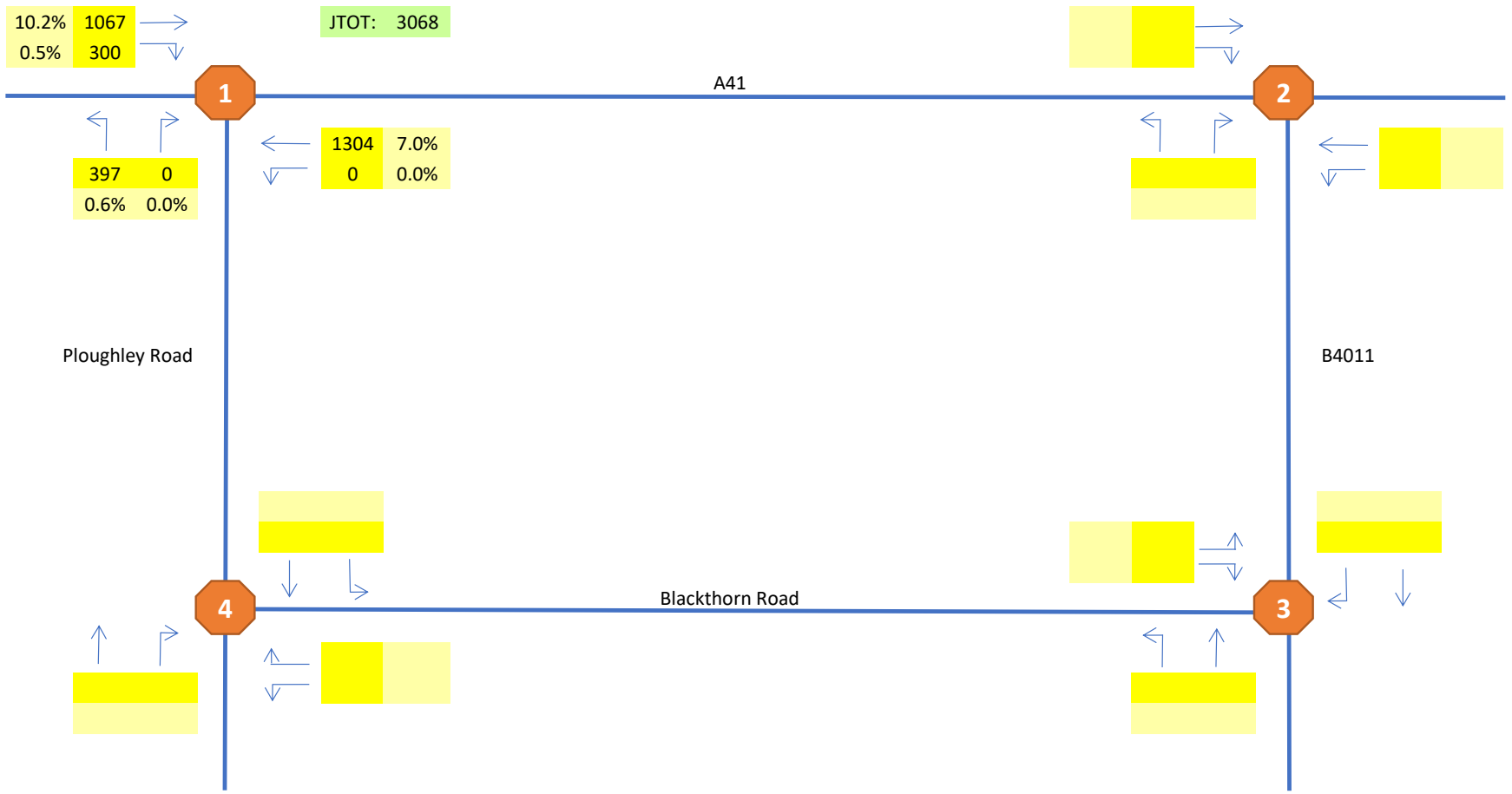

DRAWING TITLE	SATURN FLOWS 2027 BASE	DRAWING NUMBER	FIGURE 8.8	DRAWN BY	BJC
	PM PEAK	PROJECT NUMBER	B05927	CHECKED BY	CDM
PROJECT	CHURCH LEYS, AMBROSDEN			DATE	

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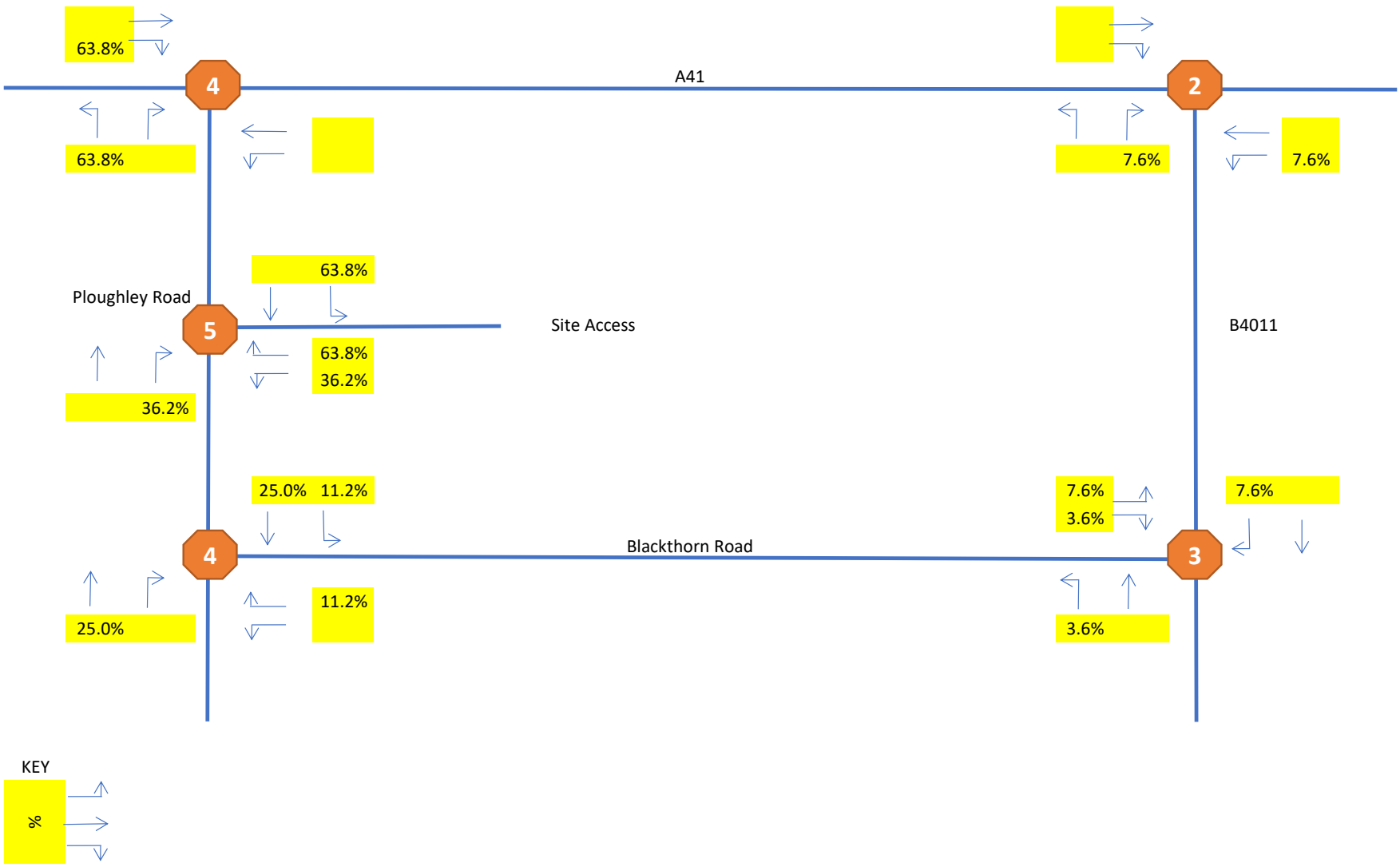

DRAWING TITLE	DEVELOPMENT TRIP DISTRIBUTION	DRAWING NUMBER	FIGURE 8.9	DRAWN BY	BJC
	BOTH PEAKS	PROJECT NUMBER	B05927	CHECKED BY	CDM
PROJECT	CHURCH LEYS, AMBROSDEN			DATE	

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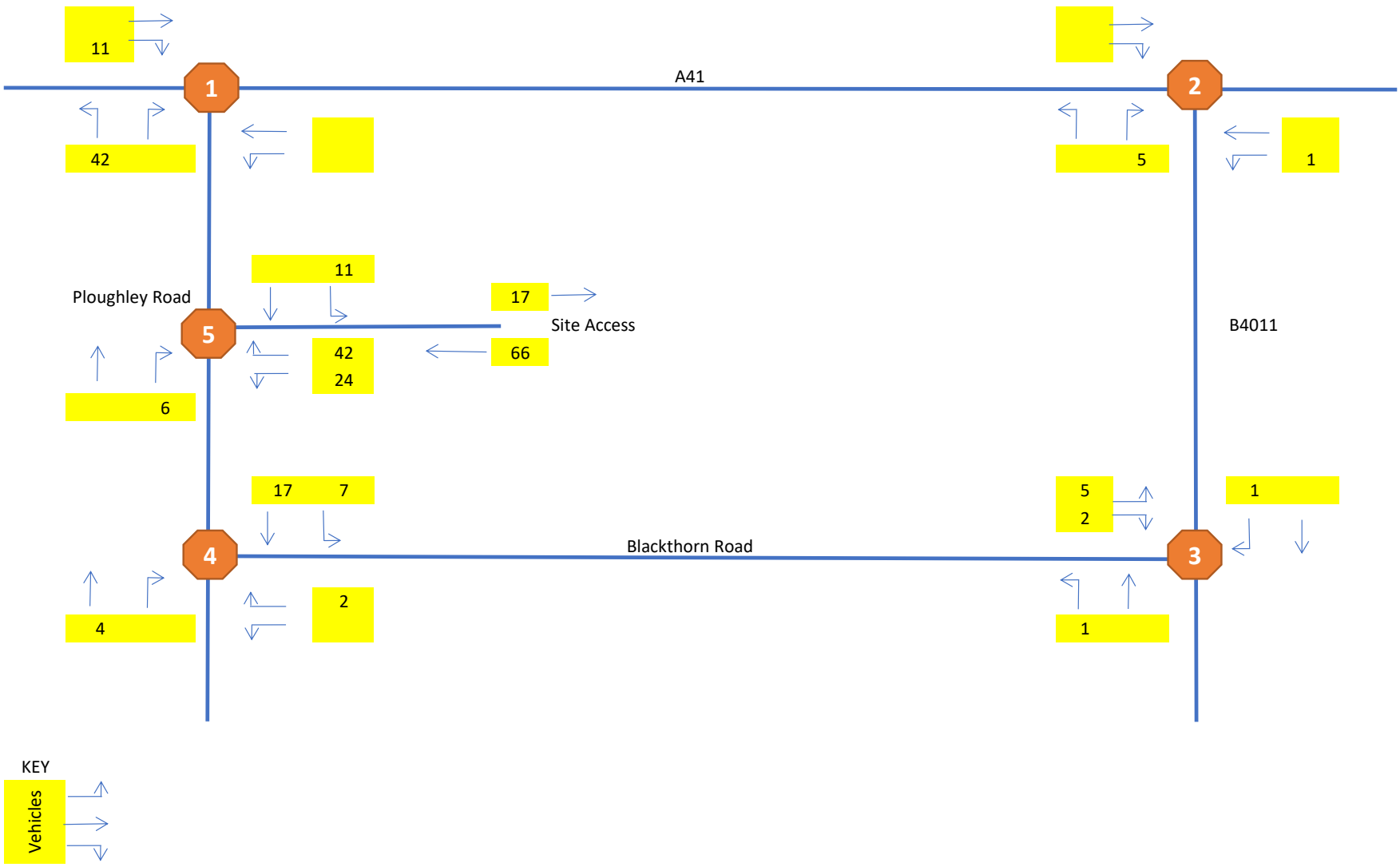

DRAWING TITLE	DEVELOPMENT TRIP ASSIGNMENT	DRAWING NUMBER	FIGURE 8.10	DRAWN BY	BJC
	AM PEAK	PROJECT NUMBER	B05927	CHECKED BY	CDM
PROJECT	CHURCH LEYS, AMBROSDEN			DATE	

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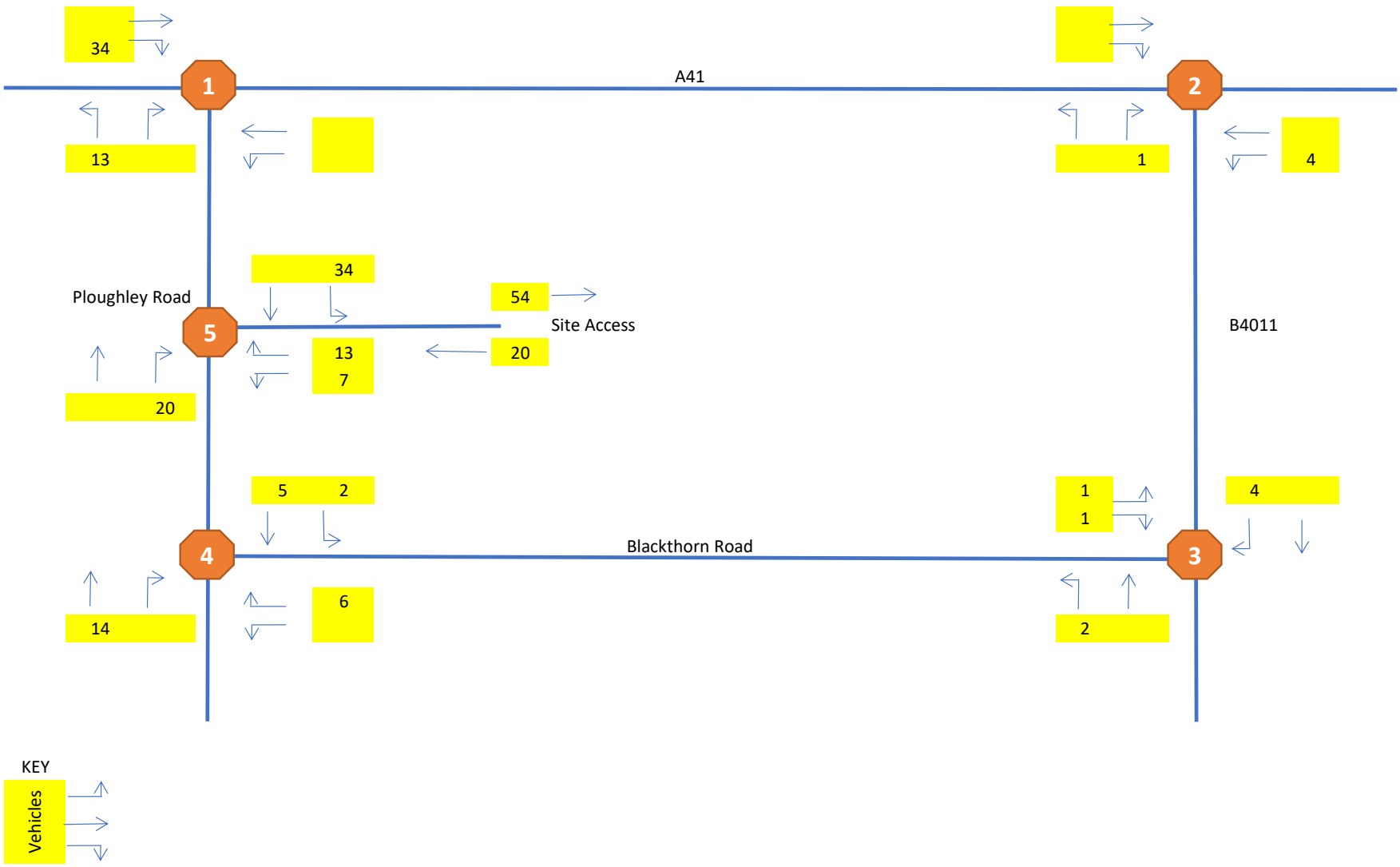

DRAWING TITLE	DEVELOPMENT TRIP ASSIGNMENT	DRAWING NUMBER	FIGURE 8.11	DRAWN BY	BJC
	PM PEAK	PROJECT NUMBER	B05927	CHECKED BY	CDM
PROJECT	CHURCH LEYS, AMBROSDEN			DATE	

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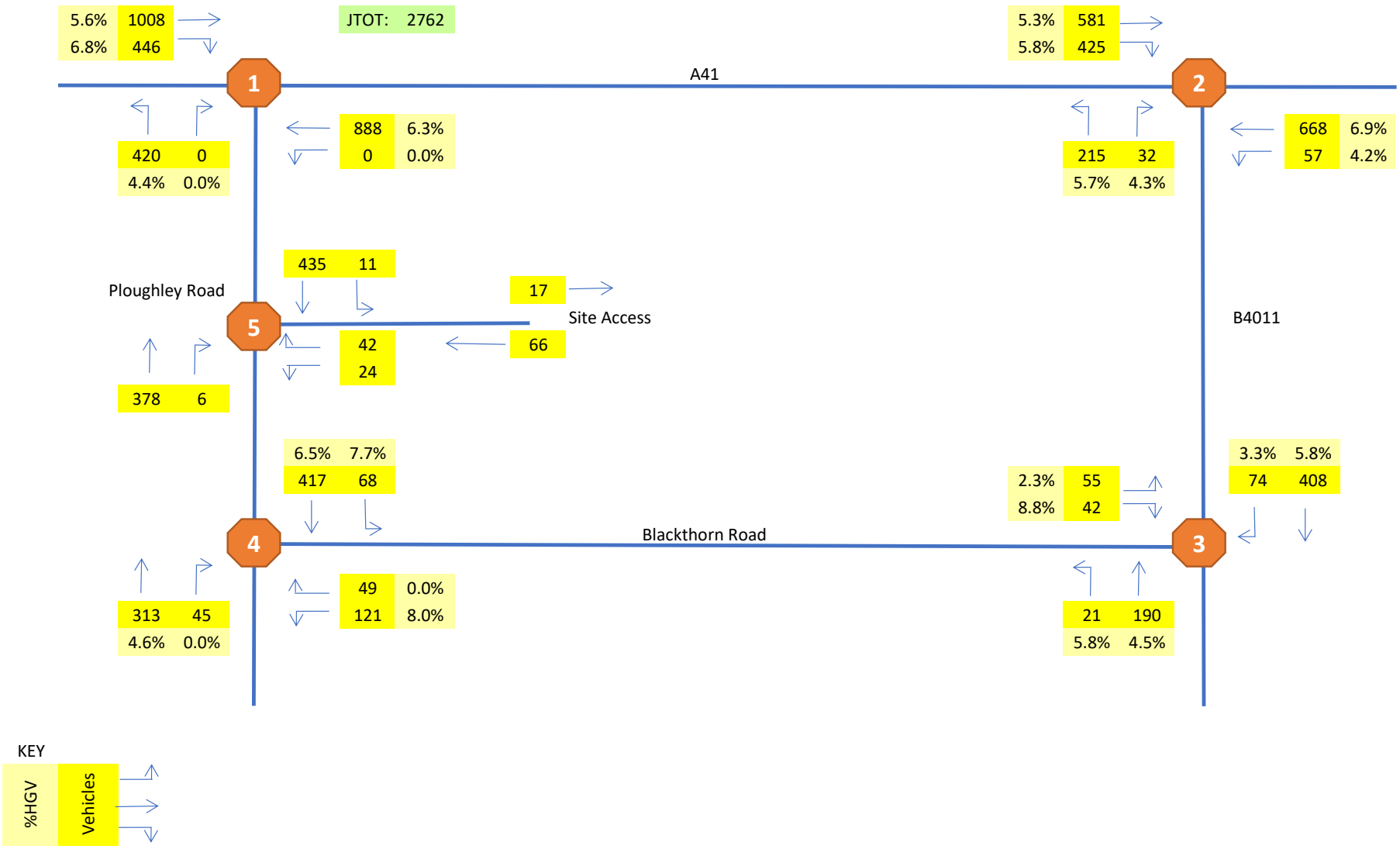

DRAWING TITLE	2027 BASE + DEVELOPMENT FLOWS	DRAWING NUMBER	FIGURE 8.12	DRAWN BY	BJC
	AM PEAK	PROJECT NUMBER	B05927	CHECKED BY	CDM
PROJECT	CHURCH LEYS, AMBROSDEN			DATE	

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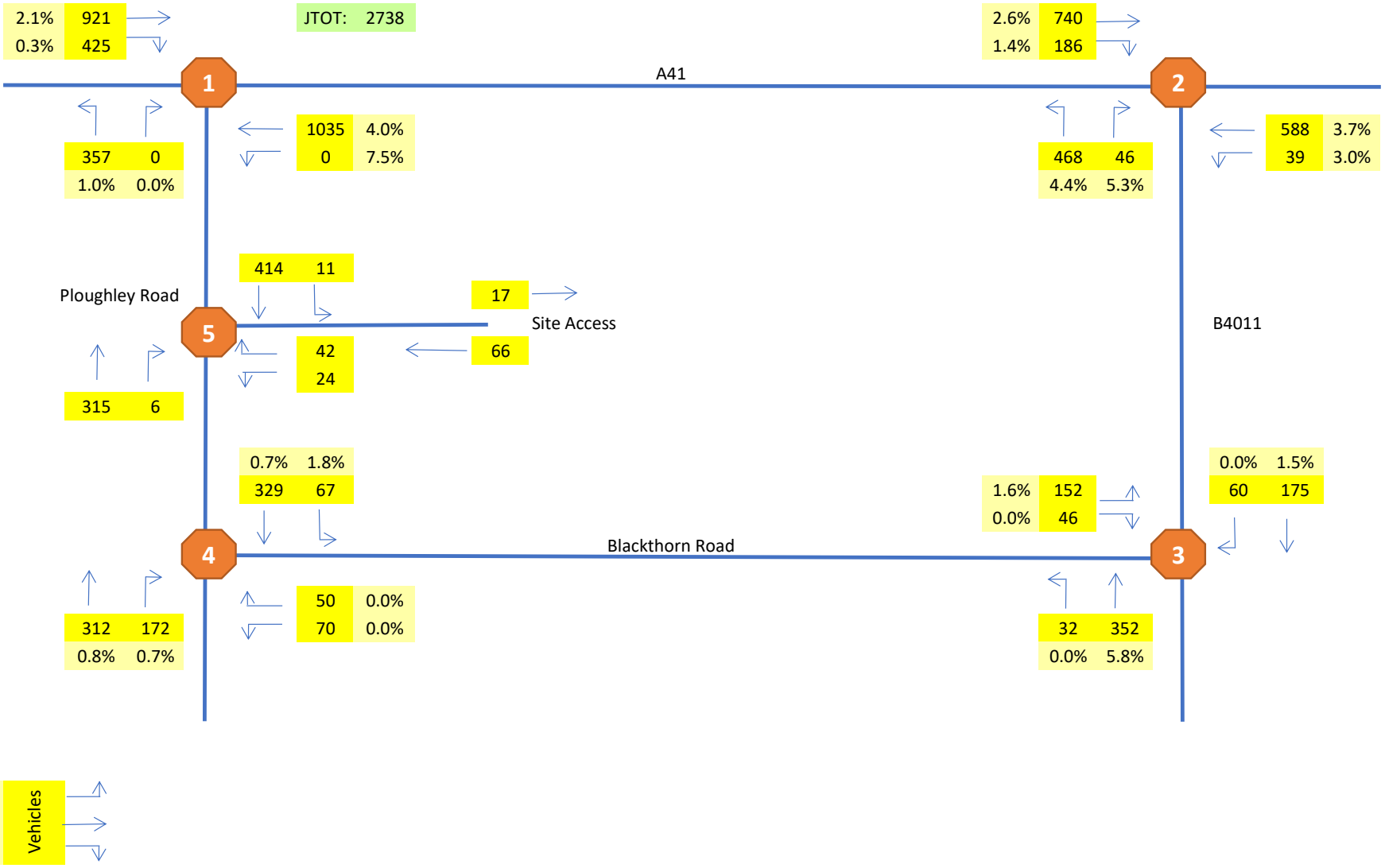

DRAWING TITLE	2027 BASE + DEVELOPMENT FLOWS	DRAWING NUMBER	FIGURE 8.13	DRAWN BY	BJC
	PM PEAK	PROJECT NUMBER	B05927	CHECKED BY	CDM
PROJECT	CHURCH LEYS, AMBROSDEN			DATE	

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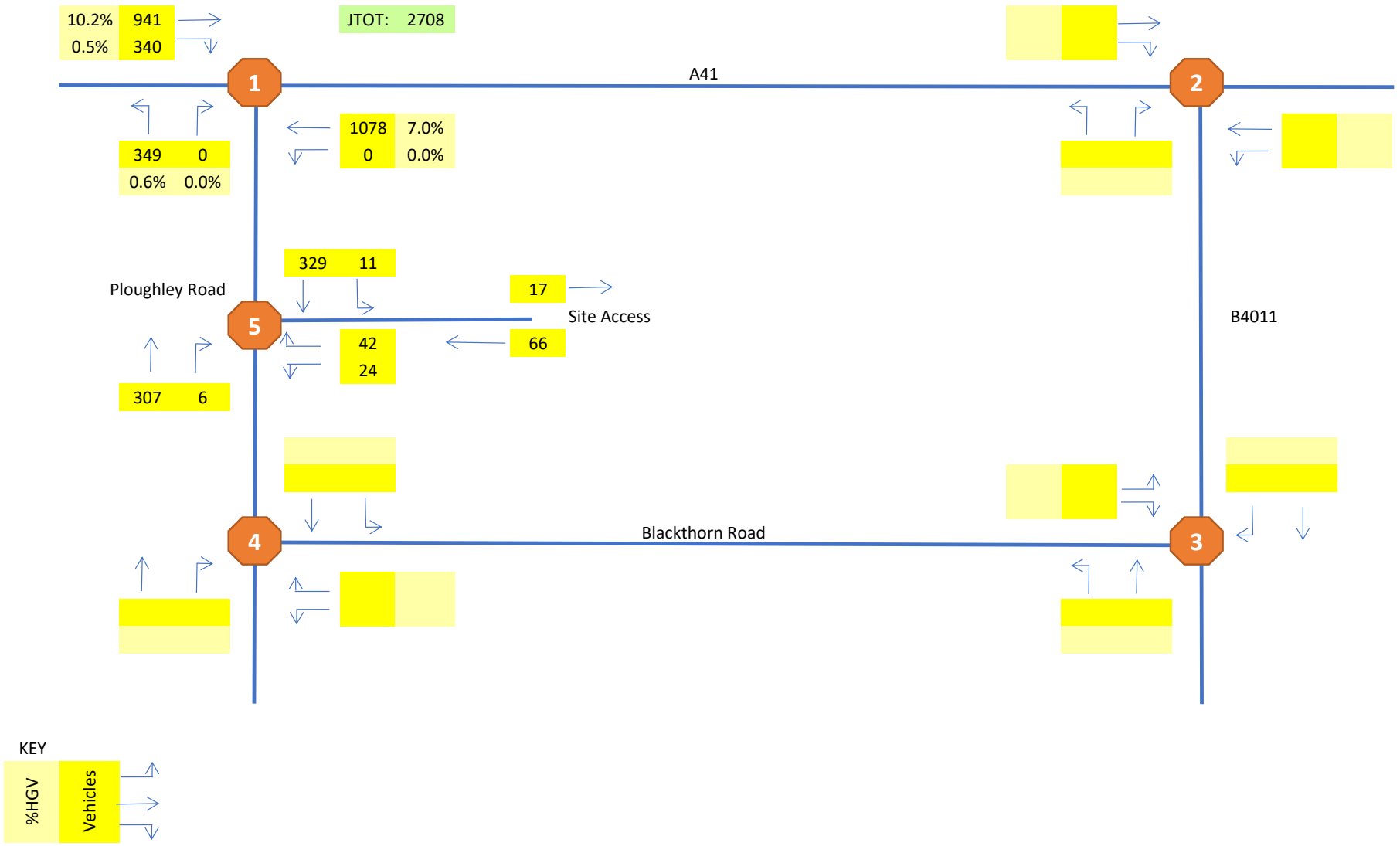

DRAWING TITLE	SATURN FLOWS 2027 BASE + DEVELOPMENT	DRAWING NUMBER	FIGURE 8.14	DRAWN BY	BJC
	AM PEAK	PROJECT NUMBER	B05927	CHECKED BY	CDM
PROJECT	CHURCH LEYS, AMBROSDEN			DATE	

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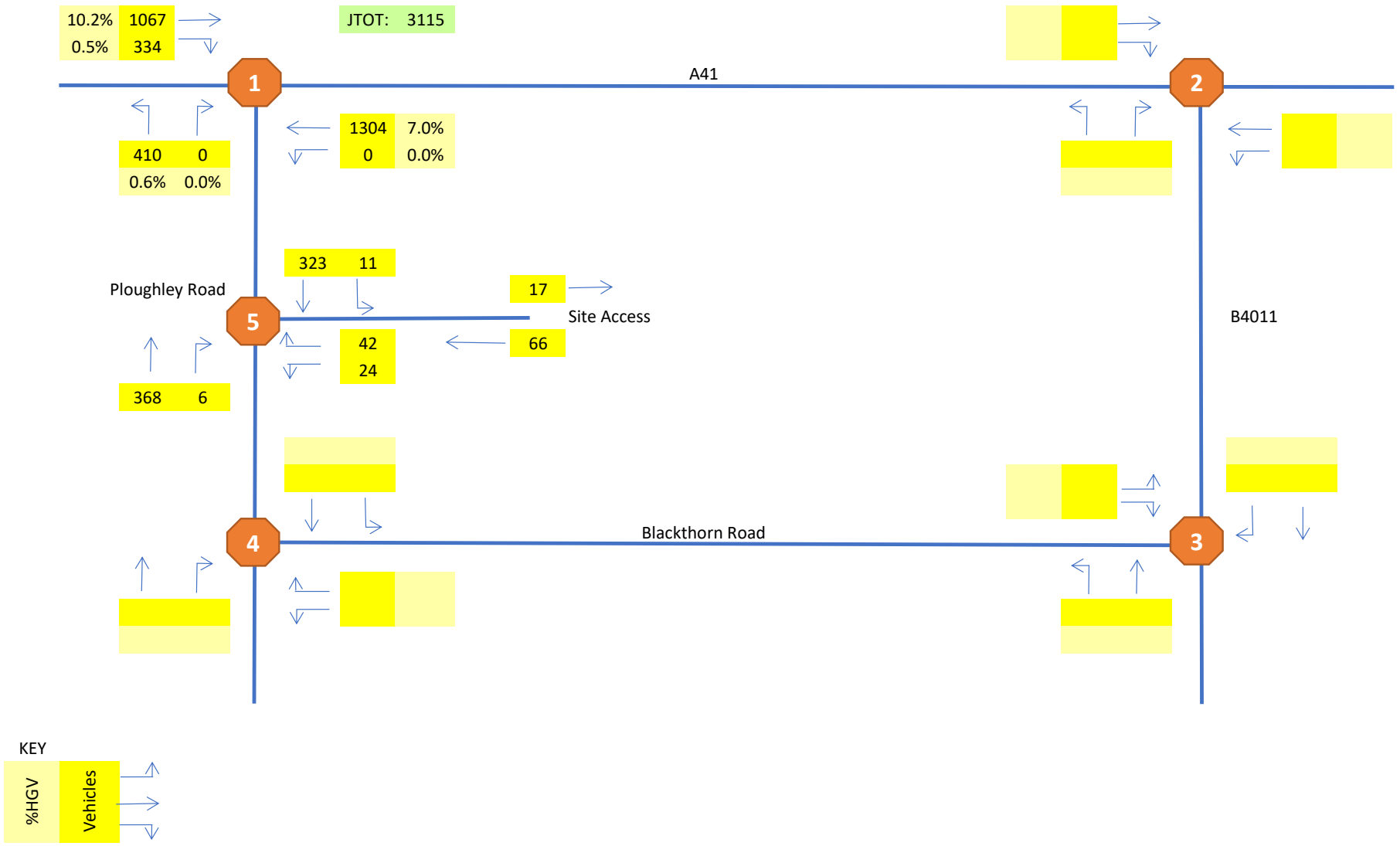

DRAWING TITLE	SATURN FLOWS 2027 BASE	DRAWING NUMBER	FIGURE 8.15	DRAWN BY	BJC
	PM PEAK	PROJECT NUMBER	B05927	CHECKED BY	CDM
PROJECT	CHURCH LEYS, AMBROSDEN			DATE	

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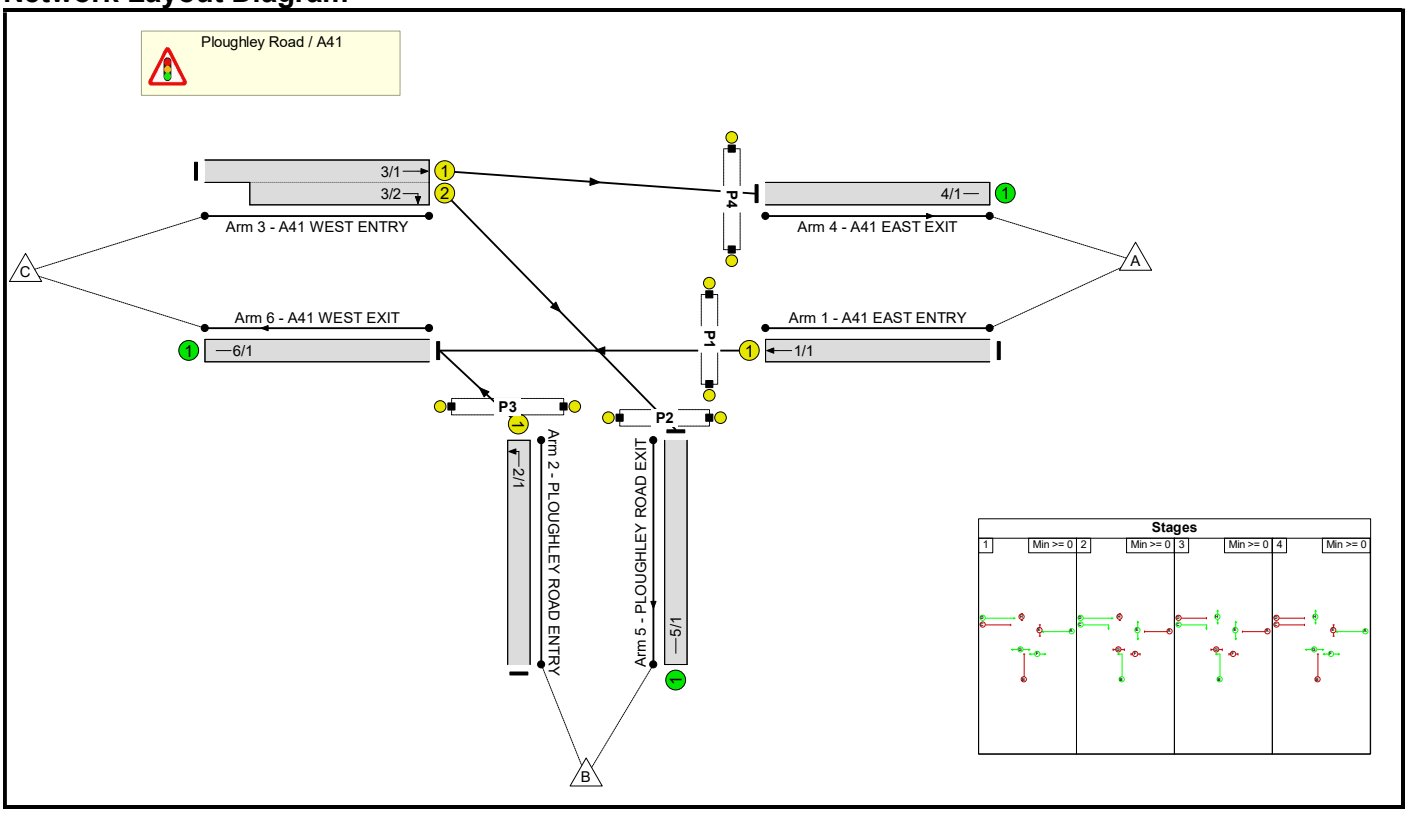
Appendix J LinSig Results for A41 / Ploughley Road Junction (1)

Full Input Data And Results

User and Project Details

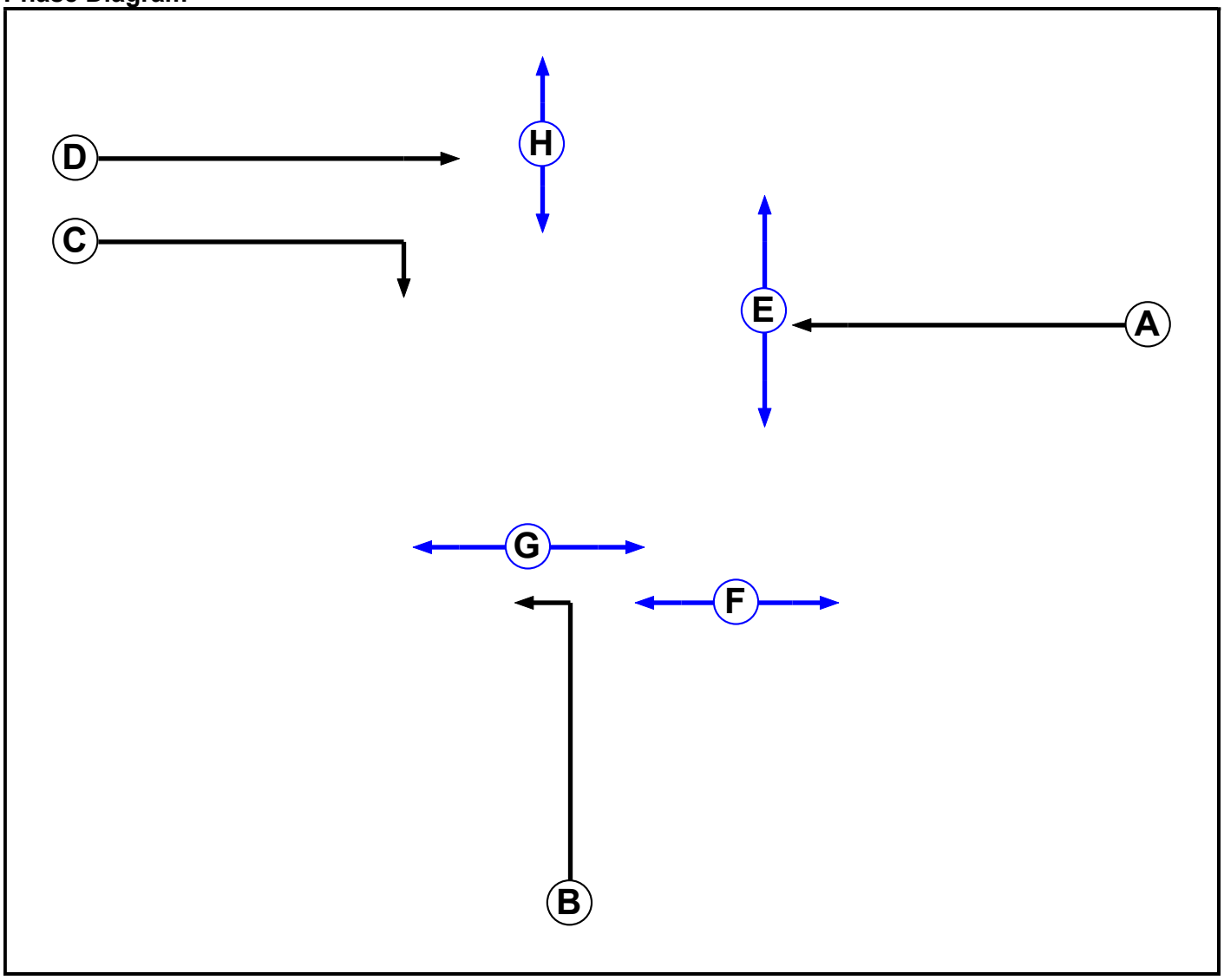
Project:	**B09527 - PLOUGHLEY ROAD / A41**
Title:	
Location:	
Additional detail:	
File name:	B05927 - Ploughley Road LINSIG V1.lsg3x
Author:	MATT JEWELL
Company:	JTPD / MWT / CB
Address:	

Network Layout Diagram



Full Input Data And Results

Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Pedestrian		4	4
F	Pedestrian		4	4
G	Pedestrian		4	4
H	Pedestrian		4	4

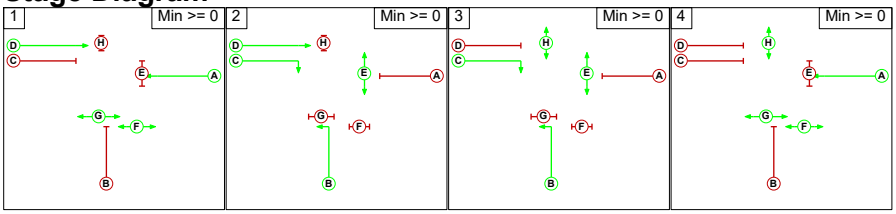
Phase Intergreens Matrix

		Starting Phase							
		A	B	C	D	E	F	G	H
Terminating Phase	A		7	5	-	3	-	-	-
	B	4		-	-	-	-	3	-
	C	5	-		-	-	7	-	-
	D	-	-	-		-	-	-	3
	E	4	-	-	-		-	-	-
	F	-	-	7	-	-		-	-
	G	-	6	-	-	-	-		-
	H	-	-	-	4	-	-	-	

Phases in Stage

Stage No.	Phases in Stage
1	A D F G
2	B C D E
3	B C E H
4	A F G H

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Full Input Data And Results

Prohibited Stage Change

	To Stage				
		1	2	3	4
From Stage	1		7	7	3
	2	7		3	7
	3	7	4		7
	4	4	7	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Ploughley Road / A41
There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: Ploughley Road / A41												
Lane	**Lane Type**	**Phases**	**Start Disp.**	**End Disp.**	**Physical Length (PCU)**	**Sat Flow Type**	**Def User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
1/1 (A41 EAST ENTRY)	U	A	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 6 Ahead	Inf
2/1 (PLOUGHLEY ROAD ENTRY)	U	B	2	3	60.0	Geom	-	4.00	0.00	Y	Arm 6 Left	28.00
3/1 (A41 WEST ENTRY)	U	D	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 4 Ahead	Inf
3/2 (A41 WEST ENTRY)	U	C	2	3	13.9	Geom	-	3.50	0.00	Y	Arm 5 Right	18.00
4/1 (A41 EAST EXIT)	U		2	3	60.0	Geom	-	3.50	0.00	Y		
5/1 (PLOUGHLEY ROAD EXIT)	U		2	3	60.0	Geom	-	4.00	0.00	Y		
6/1 (A41 WEST EXIT)	U		2	3	60.0	Geom	-	4.00	0.00	Y		

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2022 AM SAT BASE'	08:00	09:00	01:00	
2: '2022 PM SAT BASE'	17:00	18:00	01:00	
3: '2027 AM SAT BASE'	08:00	09:00	01:00	
4: '2027 PM SAT BASE'	17:00	18:00	01:00	
5: '2027 AM SAT + DEV'	08:00	09:00	01:00	
6: '2027 PM SAT + DEV'	17:00	18:00	01:00	

Scenario 1: '2022 AM SAT BASE' (FG1: '2022 AM SAT BASE', Plan 1: 'MORE RT PR')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	1005	1005
	B	0	0	286	286
	C	877	307	0	1184
	Tot.	877	307	1291	2475

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2022 AM SAT BASE
Junction: Ploughley Road / A41	
1/1	1005
2/1	286
3/1 (with short)	1184(In) 877(Out)
3/2 (short)	307
4/1	877
5/1	307
6/1	1291

Lane Saturation Flows

Junction: Ploughley Road / A41								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A41 EAST ENTRY)	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
2/1 (PLOUGHLEY ROAD ENTRY)	4.00	0.00	Y	Arm 6 Left	28.00	100.0 %	1913	1913
3/1 (A41 WEST ENTRY)	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
3/2 (A41 WEST ENTRY)	3.50	0.00	Y	Arm 5 Right	18.00	100.0 %	1814	1814
4/1 (A41 EAST EXIT)	3.50	0.00	Y				1965	1965
5/1 (PLOUGHLEY ROAD EXIT)	4.00	0.00	Y				2015	2015
6/1 (A41 WEST EXIT)	4.00	0.00	Y				2015	2015

Scenario 2: '2022 PM SAT BASE' (FG2: '2022 PM SAT BASE', Plan 1: 'MORE RT PR')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	1213	1213
	B	0	0	369	369
	C	992	279	0	1271
	Tot.	992	279	1582	2853

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2022 PM SAT BASE
Junction: Ploughley Road / A41	
1/1	1213
2/1	369
3/1 (with short)	1271(In) 992(Out)
3/2 (short)	279
4/1	992
5/1	279
6/1	1582

Lane Saturation Flows

Junction: Ploughley Road / A41								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A41 EAST ENTRY)	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
2/1 (PLOUGHLEY ROAD ENTRY)	4.00	0.00	Y	Arm 6 Left	28.00	100.0 %	1913	1913
3/1 (A41 WEST ENTRY)	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
3/2 (A41 WEST ENTRY)	3.50	0.00	Y	Arm 5 Right	18.00	100.0 %	1814	1814
4/1 (A41 EAST EXIT)	3.50	0.00	Y				1965	1965
5/1 (PLOUGHLEY ROAD EXIT)	4.00	0.00	Y				2015	2015
6/1 (A41 WEST EXIT)	4.00	0.00	Y				2015	2015

Scenario 3: '2027 AM SAT BASE' (FG3: '2027 AM SAT BASE', Plan 1: 'MORE RT PR')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	1078	1078
	B	0	0	307	307
	C	941	329	0	1270
	Tot.	941	329	1385	2655

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: 2027 AM SAT BASE
Junction: Ploughley Road / A41	
1/1	1078
2/1	307
3/1 (with short)	1270(In) 941(Out)
3/2 (short)	329
4/1	941
5/1	329
6/1	1385

Lane Saturation Flows

Junction: Ploughley Road / A41								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A41 EAST ENTRY)	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
2/1 (PLOUGHLEY ROAD ENTRY)	4.00	0.00	Y	Arm 6 Left	28.00	100.0 %	1913	1913
3/1 (A41 WEST ENTRY)	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
3/2 (A41 WEST ENTRY)	3.50	0.00	Y	Arm 5 Right	18.00	100.0 %	1814	1814
4/1 (A41 EAST EXIT)	3.50	0.00	Y				1965	1965
5/1 (PLOUGHLEY ROAD EXIT)	4.00	0.00	Y				2015	2015
6/1 (A41 WEST EXIT)	4.00	0.00	Y				2015	2015

Scenario 4: '2027 PM SAT BASE' (FG4: '2027 PM SAT BASE', Plan 1: 'MORE RT PR')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	1304	1304
	B	0	0	397	397
	C	1067	300	0	1367
	Tot.	1067	300	1701	3068

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2027 PM SAT BASE
Junction: Ploughley Road / A41	
1/1	1304
2/1	397
3/1 (with short)	1367(In) 1067(Out)
3/2 (short)	300
4/1	1067
5/1	300
6/1	1701

Lane Saturation Flows

Junction: Ploughley Road / A41								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A41 EAST ENTRY)	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
2/1 (PLOUGHLEY ROAD ENTRY)	4.00	0.00	Y	Arm 6 Left	28.00	100.0 %	1913	1913
3/1 (A41 WEST ENTRY)	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
3/2 (A41 WEST ENTRY)	3.50	0.00	Y	Arm 5 Right	18.00	100.0 %	1814	1814
4/1 (A41 EAST EXIT)	3.50	0.00	Y				1965	1965
5/1 (PLOUGHLEY ROAD EXIT)	4.00	0.00	Y				2015	2015
6/1 (A41 WEST EXIT)	4.00	0.00	Y				2015	2015

Scenario 5: '2027 AM SAT +DEV' (FG5: '2027 AM SAT + DEV', Plan 1: 'MORE RT PR')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	1078	1078
	B	0	0	349	349
	C	941	340	0	1281
	Tot.	941	340	1427	2708

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: 2027 AM SAT +DEV
Junction: Ploughley Road / A41	
1/1	1078
2/1	349
3/1 (with short)	1281(In) 941(Out)
3/2 (short)	340
4/1	941
5/1	340
6/1	1427

Lane Saturation Flows

Junction: Ploughley Road / A41								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A41 EAST ENTRY)	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
2/1 (PLOUGHLEY ROAD ENTRY)	4.00	0.00	Y	Arm 6 Left	28.00	100.0 %	1913	1913
3/1 (A41 WEST ENTRY)	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
3/2 (A41 WEST ENTRY)	3.50	0.00	Y	Arm 5 Right	18.00	100.0 %	1814	1814
4/1 (A41 EAST EXIT)	3.50	0.00	Y				1965	1965
5/1 (PLOUGHLEY ROAD EXIT)	4.00	0.00	Y				2015	2015
6/1 (A41 WEST EXIT)	4.00	0.00	Y				2015	2015

Scenario 6: '2027 PM SAT +DEV' (FG6: '2027 PM SAT + DEV', Plan 1: 'MORE RT PR')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	1304	1304
	B	0	0	410	410
	C	1067	334	0	1401
	Tot.	1067	334	1714	3115

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 2027 PM SAT +DEV
Junction: Ploughley Road / A41	
1/1	1304
2/1	410
3/1 (with short)	1401(In) 1067(Out)
3/2 (short)	334
4/1	1067
5/1	334
6/1	1714

Lane Saturation Flows

Junction: Ploughley Road / A41								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A41 EAST ENTRY)	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
2/1 (PLOUGHLEY ROAD ENTRY)	4.00	0.00	Y	Arm 6 Left	28.00	100.0 %	1913	1913
3/1 (A41 WEST ENTRY)	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
3/2 (A41 WEST ENTRY)	3.50	0.00	Y	Arm 5 Right	18.00	100.0 %	1814	1814
4/1 (A41 EAST EXIT)	3.50	0.00	Y				1965	1965
5/1 (PLOUGHLEY ROAD EXIT)	4.00	0.00	Y				2015	2015
6/1 (A41 WEST EXIT)	4.00	0.00	Y				2015	2015

Scenario 7: '2027 PM SAT +DEV V2' (FG6: '2027 PM SAT + DEV', Plan 2: 'MORE A41')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	1304	1304
	B	0	0	410	410
	C	1067	334	0	1401
	Tot.	1067	334	1714	3115

Full Input Data And Results

Traffic Lane Flows

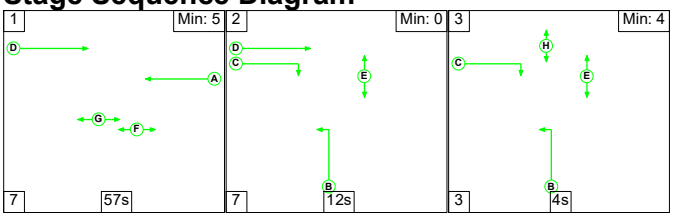
Lane	Scenario 7: 2027 PM SAT +DEV V2
Junction: Ploughley Road / A41	
1/1	1304
2/1	410
3/1 (with short)	1401(In) 1067(Out)
3/2 (short)	334
4/1	1067
5/1	334
6/1	1714

Lane Saturation Flows

Junction: Ploughley Road / A41								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A41 EAST ENTRY)	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
2/1 (PLOUGHLEY ROAD ENTRY)	4.00	0.00	Y	Arm 6 Left	28.00	100.0 %	1913	1913
3/1 (A41 WEST ENTRY)	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
3/2 (A41 WEST ENTRY)	3.50	0.00	Y	Arm 5 Right	18.00	100.0 %	1814	1814
4/1 (A41 EAST EXIT)	3.50	0.00	Y				1965	1965
5/1 (PLOUGHLEY ROAD EXIT)	4.00	0.00	Y				2015	2015
6/1 (A41 WEST EXIT)	4.00	0.00	Y				2015	2015

Scenario 1: '2022 AM SAT BASE' (FG1: '2022 AM SAT BASE', Plan 1: 'MORE RT PR')

Stage Sequence Diagram

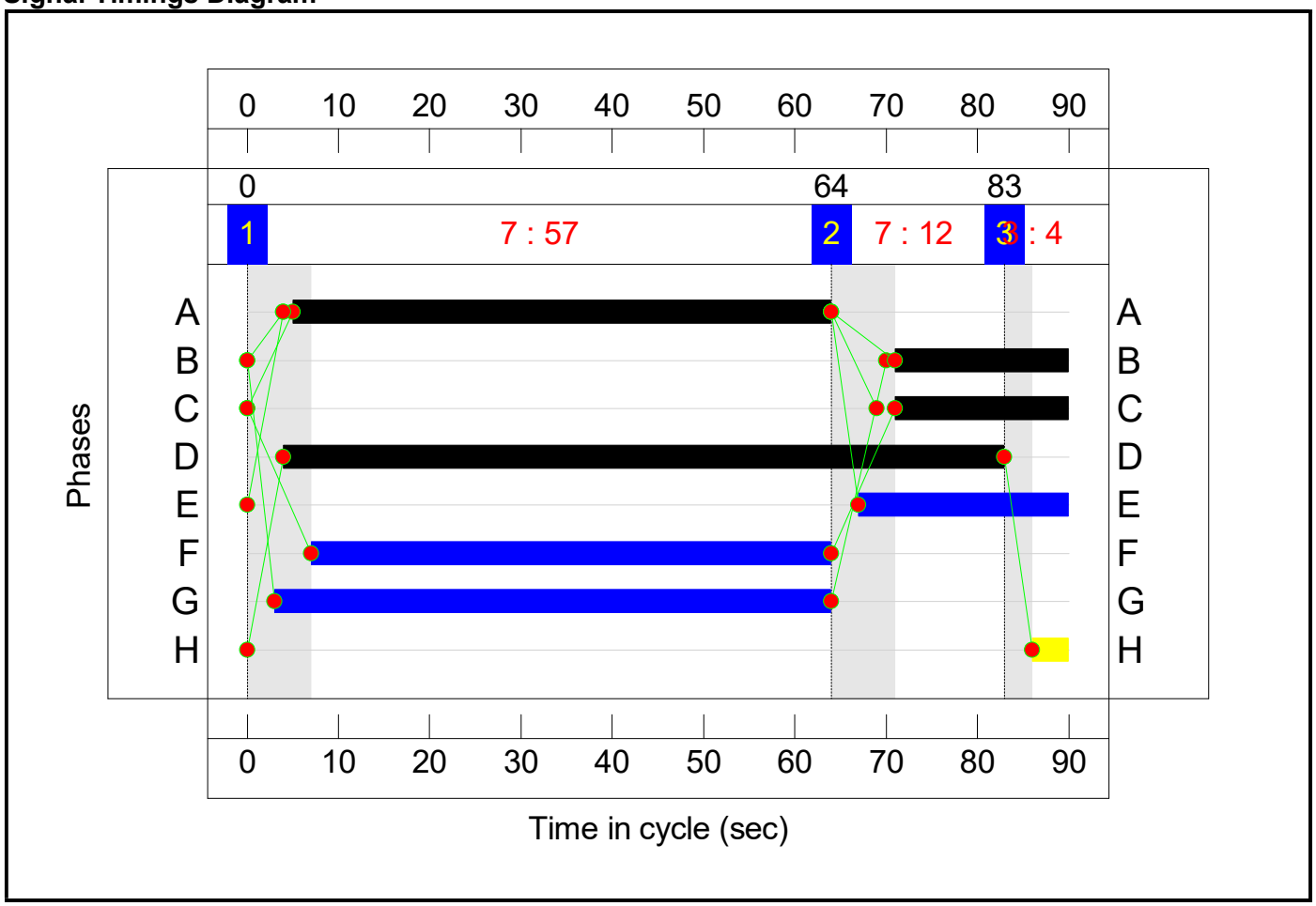


Full Input Data And Results

Stage Timings

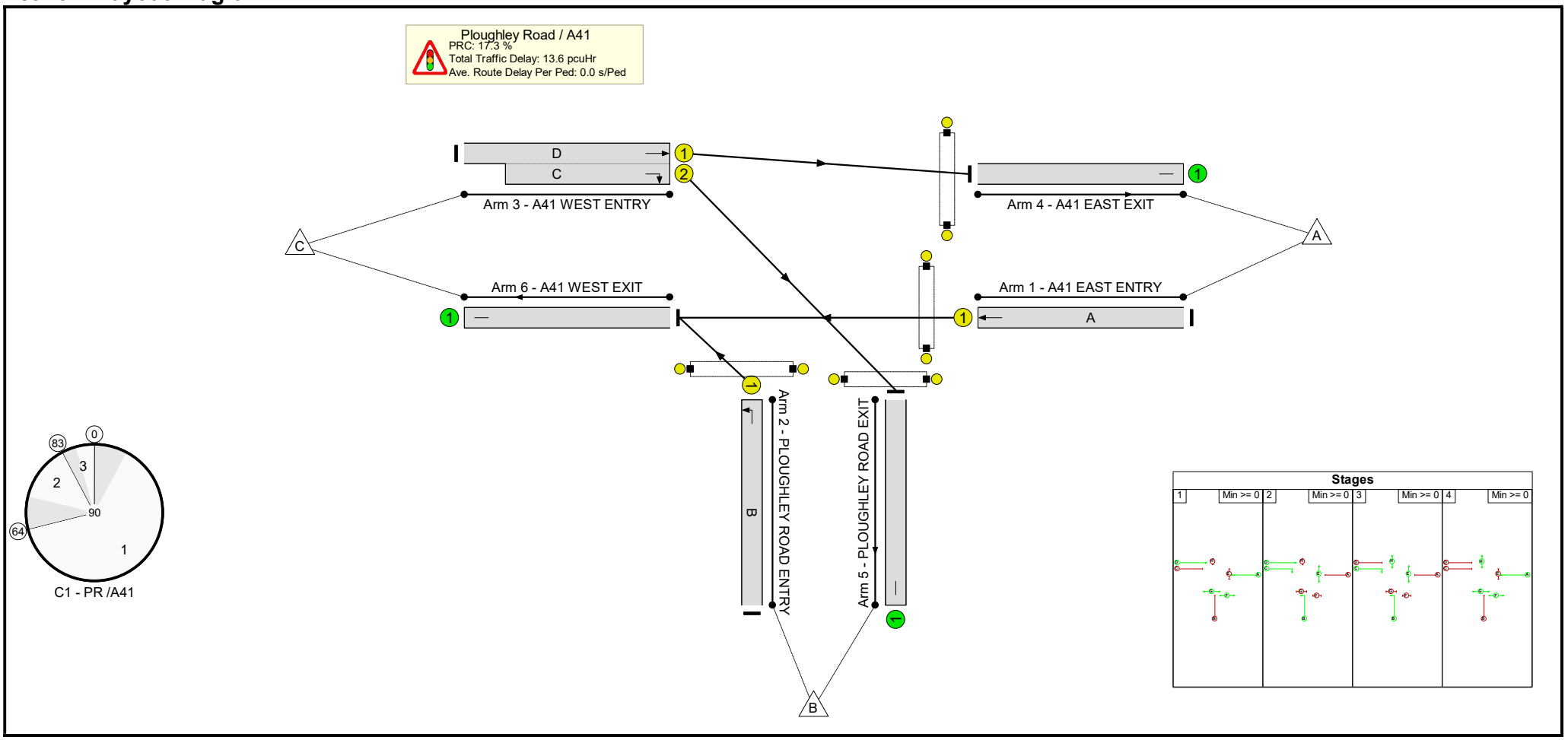
Stage	1	2	3
Duration	57	12	4
Change Point	0	64	83

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**76.7%**
Ploughley Road / A41	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**76.7%**
1/1	A41 EAST ENTRY Ahead	U	N/A	N/A	A		1	59	-	1005	1965	1310	76.7%
2/1	PLOUGHLEY ROAD ENTRY Left	U	N/A	N/A	B		1	19	-	286	1913	425	67.3%
3/1+3/2	A41 WEST ENTRY Ahead Right	U	N/A	N/A	D C		1	79:19	-	1184	1965:1814	1279+403	68.5 : 76.2%
4/1	A41 EAST EXIT	U	N/A	N/A	-		-	-	-	877	1965	1965	44.6%
5/1	PLOUGHLEY ROAD EXIT	U	N/A	N/A	-		-	-	-	307	2015	2015	15.2%
6/1	A41 WEST EXIT	U	N/A	N/A	-		-	-	-	1291	2015	2015	64.1%
Ped Link: P1	A41 EAST ENTRY	-	N/A	-	E		1	23	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	57	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	61	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	H		1	4	-	0	-	0	0.0%

Full Input Data And Results

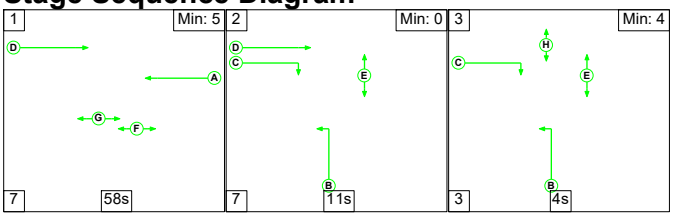
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**8.4**	**5.2**	**0.0**	**13.6**	**-**	**-**	**-**	**-**
Ploughley Road / A41	**-**	**-**	**0**	**0**	**0**	**8.4**	**5.2**	**0.0**	**13.6**	**-**	**-**	**-**	**-**
1/1	1005	1005	-	-	-	2.9	1.6	-	4.5	16.1	17.0	1.6	18.7
2/1	286	286	-	-	-	2.5	1.0	-	3.6	44.8	6.5	1.0	7.5
3/1+3/2	1184	1184	-	-	-	3.0	1.2	-	4.2	12.8	7.2	1.2	8.3
4/1	877	877	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
5/1	307	307	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	1291	1291	-	-	-	0.0	0.9	-	0.9	2.5	0.0	0.9	0.9
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 - PR /A41 PRC for Signalled Lanes (%): 17.3 Total Delay for Signalled Lanes (pcuHr): 12.27 Cycle Time (s): 90
PRC Over All Lanes (%): 17.3 Total Delay Over All Lanes(pcuHr): 13.65

Full Input Data And Results

Scenario 2: '2022 PM SAT BASE' (FG2: '2022 PM SAT BASE', Plan 1: 'MORE RT PR')

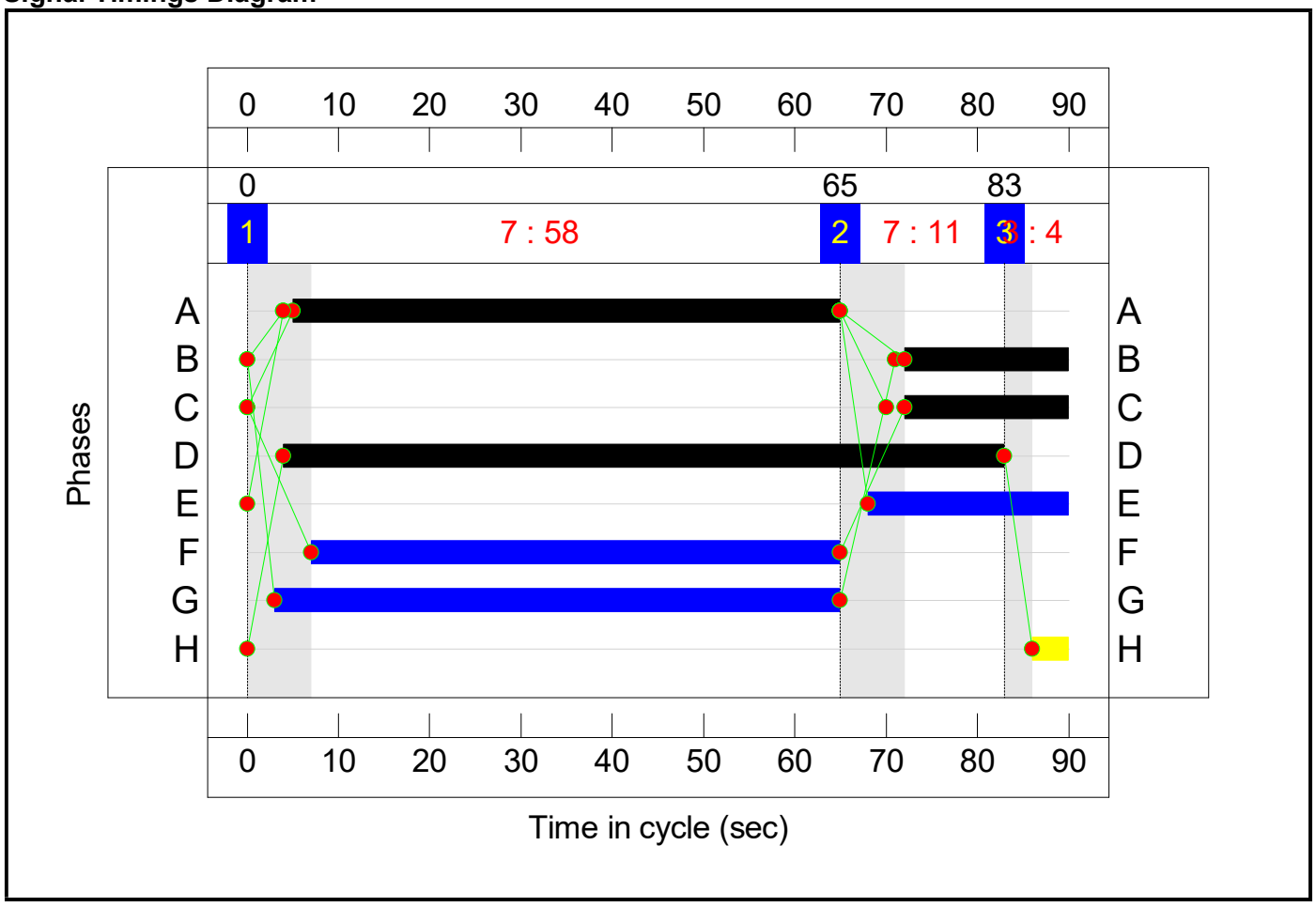
Stage Sequence Diagram



Stage Timings

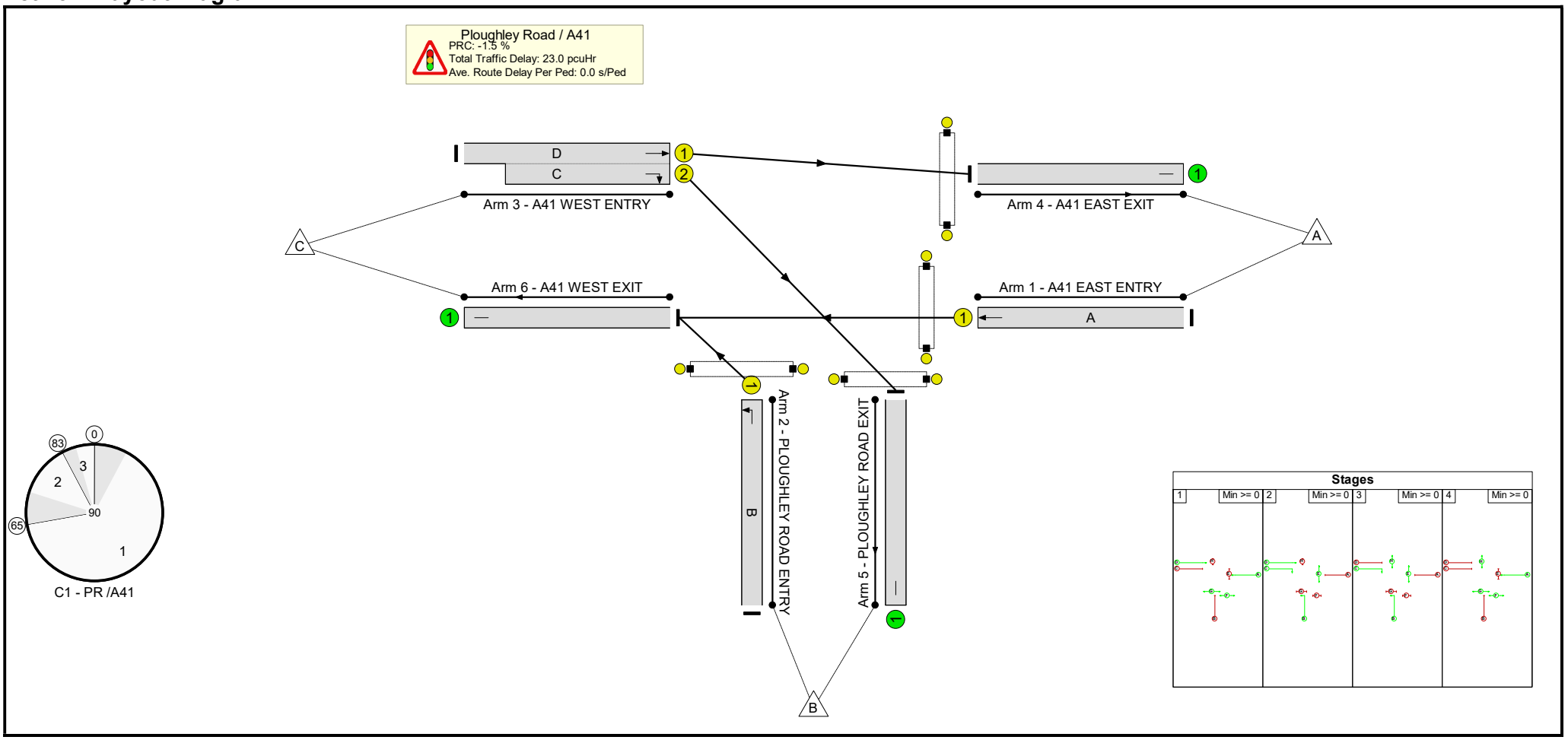
Stage	1	2	3
Duration	58	11	4
Change Point	0	65	83

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**91.4%**
Ploughley Road / A41	-	-	**N/A**	-	-		-	-	-	-	-	-	**91.4%**
1/1	A41 EAST ENTRY Ahead	U	N/A	N/A	A		1	60	-	1213	1965	1332	91.1%
2/1	PLOUGHLEY ROAD ENTRY Left	U	N/A	N/A	B		1	18	-	369	1913	404	91.4%
3/1+3/2	A41 WEST ENTRY Ahead Right	U	N/A	N/A	D C		1	79:18	-	1271	1965:1814	1479+383	67.1 : 72.9%
4/1	A41 EAST EXIT	U	N/A	N/A	-		-	-	-	992	1965	1965	50.5%
5/1	PLOUGHLEY ROAD EXIT	U	N/A	N/A	-		-	-	-	279	2015	2015	13.8%
6/1	A41 WEST EXIT	U	N/A	N/A	-		-	-	-	1582	2015	2015	78.5%
Ped Link: P1	A41 EAST ENTRY	-	N/A	-	E		1	22	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	58	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	62	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	H		1	4	-	0	-	0	0.0%

Full Input Data And Results

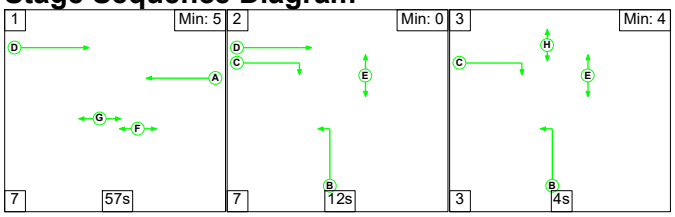
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**10.5**	**12.5**	**0.0**	**23.0**	**-**	**-**	**-**	**-**
Ploughley Road / A41	**-**	**-**	**0**	**0**	**0**	**10.5**	**12.5**	**0.0**	**23.0**	**-**	**-**	**-**	**-**
1/1	1213	1213	-	-	-	4.1	4.7	-	8.8	26.2	25.3	4.7	30.0
2/1	369	369	-	-	-	3.6	4.3	-	7.8	76.2	8.9	4.3	13.2
3/1+3/2	1271	1271	-	-	-	2.9	1.1	-	3.9	11.2	6.4	1.1	7.5
4/1	992	992	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
5/1	279	279	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
6/1	1582	1582	-	-	-	0.0	1.8	-	1.8	4.1	0.0	1.8	1.8
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 - PR /A41 PRC for Signalled Lanes (%): -1.5 Total Delay for Signalled Lanes (pcuHr): 20.60 Cycle Time (s): 90
PRC Over All Lanes (%): -1.5 Total Delay Over All Lanes(pcuHr): 23.00

Full Input Data And Results

Scenario 3: '2027 AM SAT BASE' (FG3: '2027 AM SAT BASE', Plan 1: 'MORE RT PR')

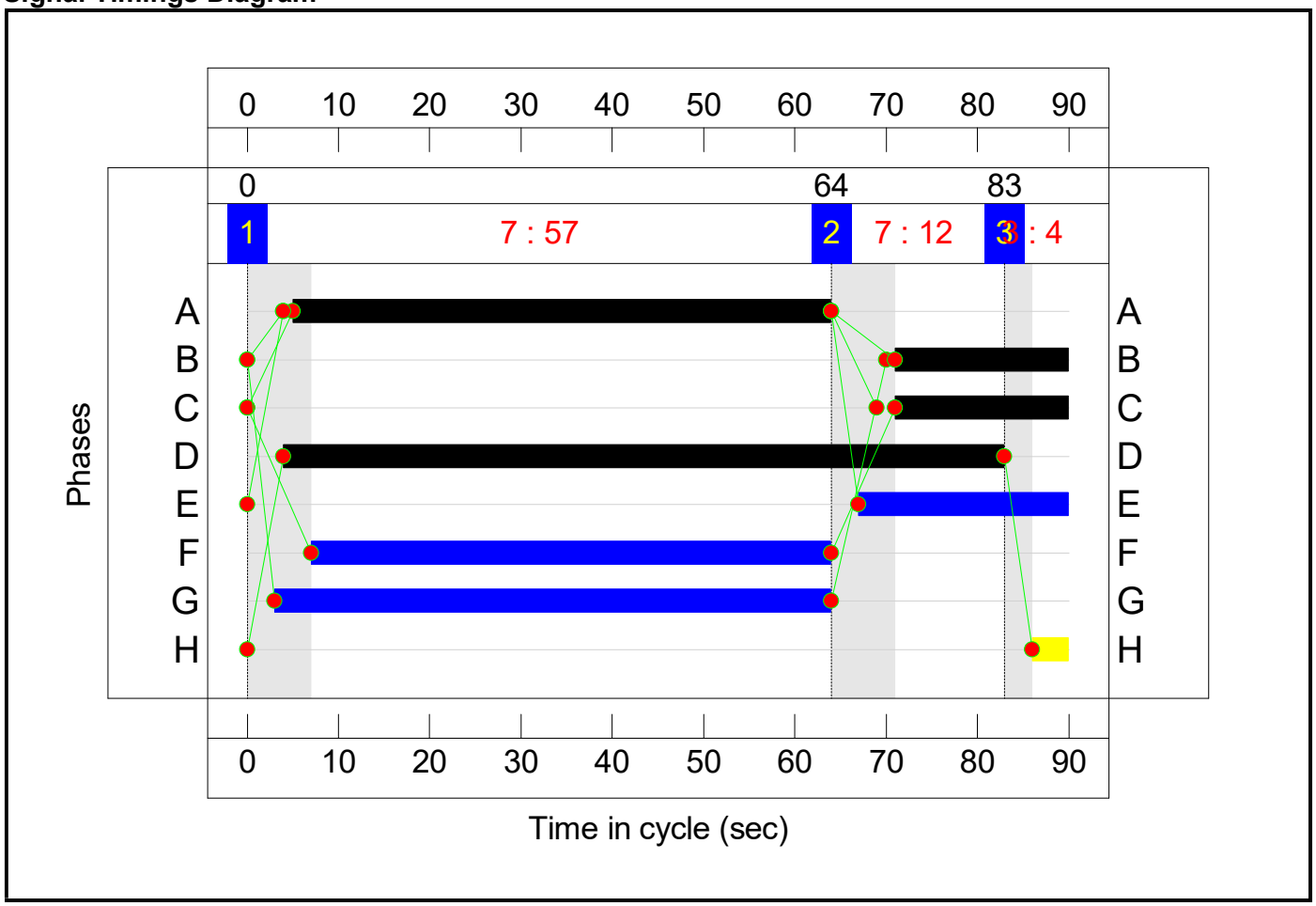
Stage Sequence Diagram



Stage Timings

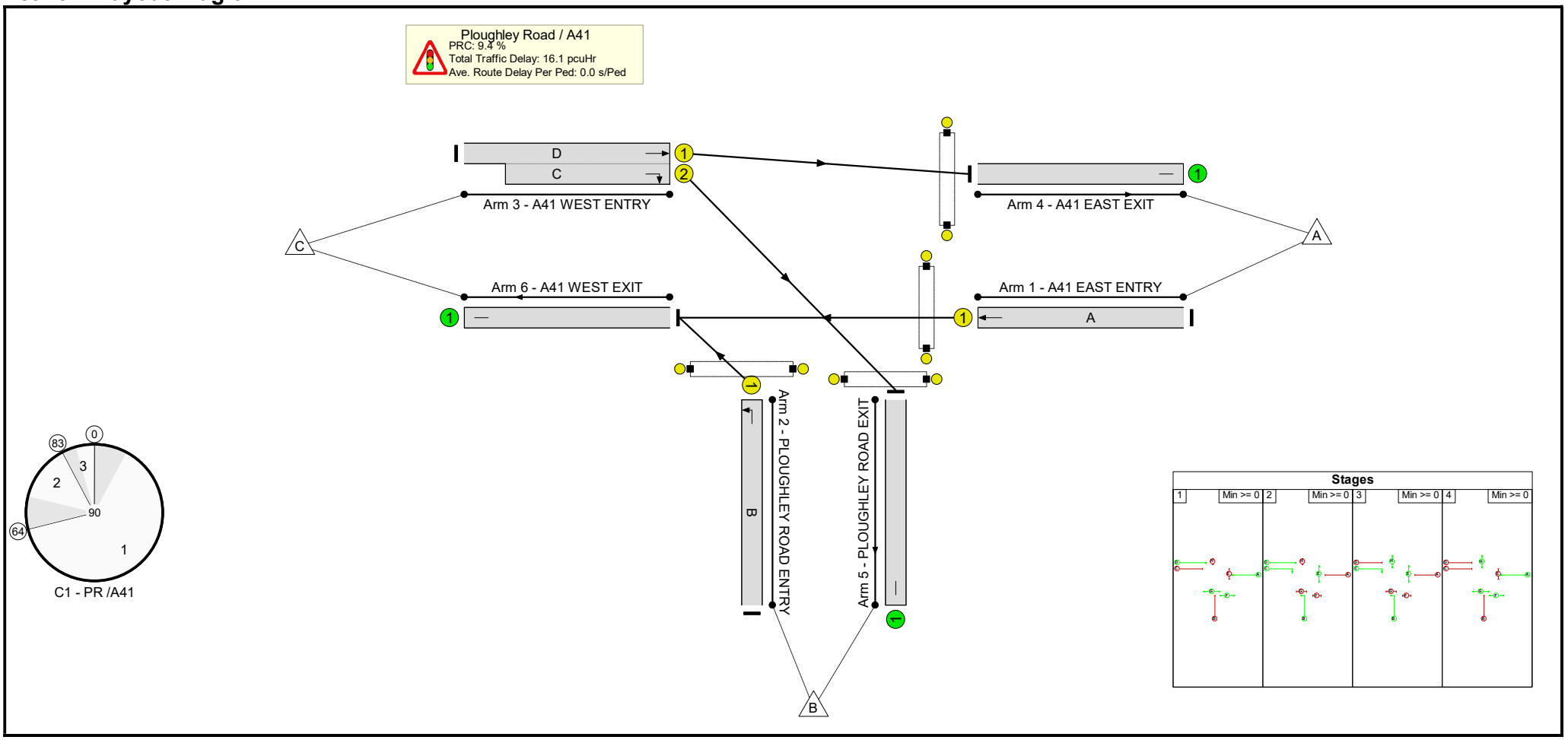
Stage	1	2	3
Duration	57	12	4
Change Point	0	64	83

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**82.3%**
Ploughley Road / A41	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**82.3%**
1/1	A41 EAST ENTRY Ahead	U	N/A	N/A	A		1	59	-	1078	1965	1310	82.3%
2/1	PLOUGHLEY ROAD ENTRY Left	U	N/A	N/A	B		1	19	-	307	1913	425	72.2%
3/1+3/2	A41 WEST ENTRY Ahead Right	U	N/A	N/A	D C		1	79:19	-	1270	1965:1814	1283+403	73.3 : 81.6%
4/1	A41 EAST EXIT	U	N/A	N/A	-		-	-	-	941	1965	1965	47.9%
5/1	PLOUGHLEY ROAD EXIT	U	N/A	N/A	-		-	-	-	329	2015	2015	16.3%
6/1	A41 WEST EXIT	U	N/A	N/A	-		-	-	-	1385	2015	2015	68.7%
Ped Link: P1	A41 EAST ENTRY	-	N/A	-	E		1	23	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	57	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	61	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	H		1	4	-	0	-	0	0.0%

Full Input Data And Results

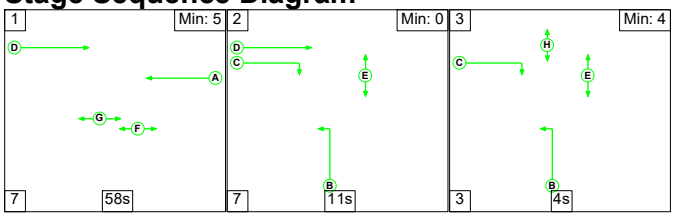
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**9.4**	**6.7**	**0.0**	**16.1**	**-**	**-**	**-**	**-**
Ploughley Road / A41	**-**	**-**	**0**	**0**	**0**	**9.4**	**6.7**	**0.0**	**16.1**	**-**	**-**	**-**	**-**
1/1	1078	1078	-	-	-	3.3	2.3	-	5.6	18.7	19.8	2.3	22.0
2/1	307	307	-	-	-	2.8	1.3	-	4.0	47.4	7.1	1.3	8.4
3/1+3/2	1270	1270	-	-	-	3.3	1.5	-	4.8	13.7	7.8	1.5	9.3
4/1	941	941	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
5/1	329	329	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	1385	1385	-	-	-	0.0	1.1	-	1.1	2.8	0.0	1.1	1.1
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 - PR /A41 PRC for Signalled Lanes (%): 9.4 Total Delay for Signalled Lanes (pcuHr): 14.47 Cycle Time (s): 90
PRC Over All Lanes (%): 9.4 Total Delay Over All Lanes(pcuHr): 16.12

Full Input Data And Results

Scenario 4: '2027 PM SAT BASE' (FG4: '2027 PM SAT BASE', Plan 1: 'MORE RT PR')

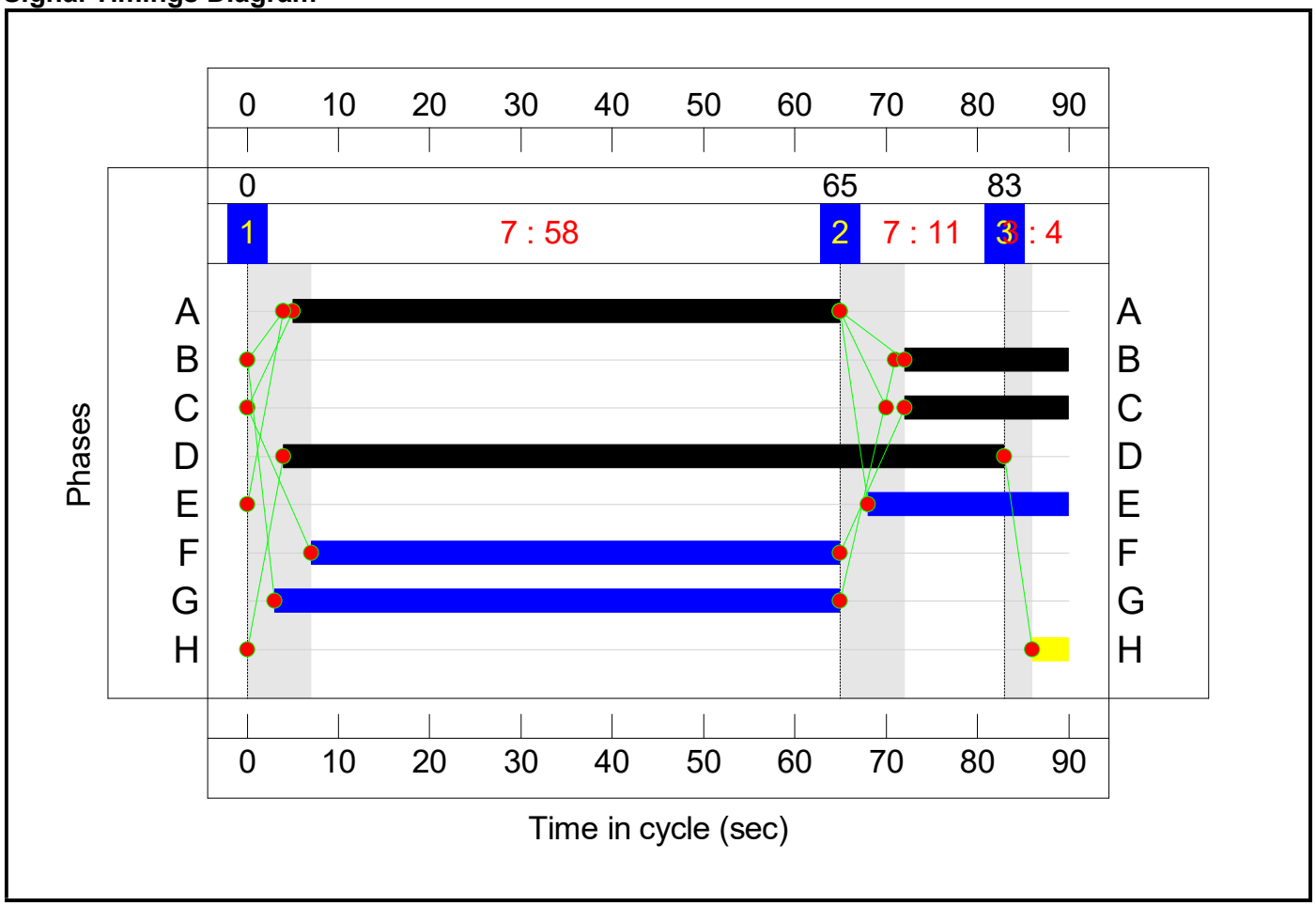
Stage Sequence Diagram



Stage Timings

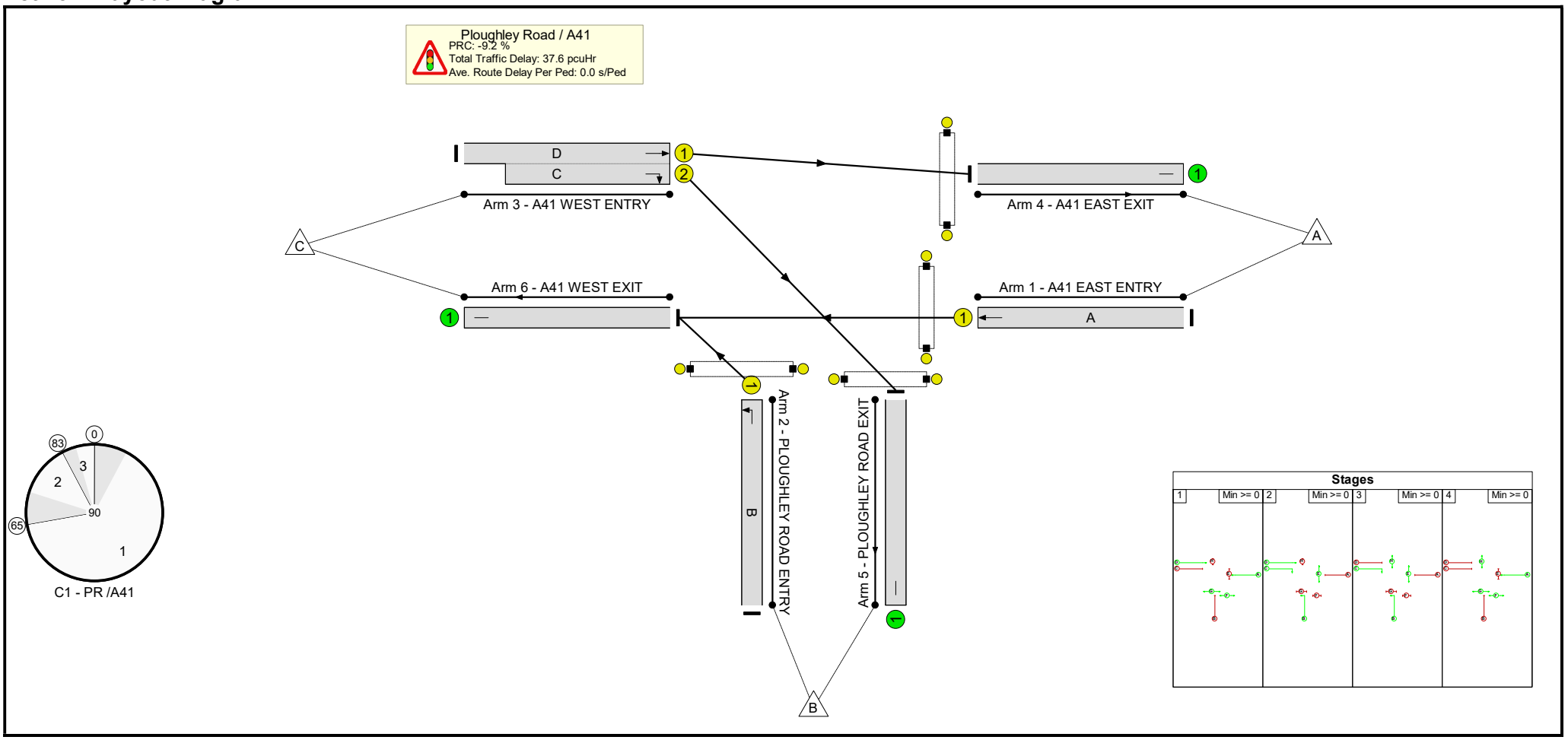
Stage	1	2	3
Duration	58	11	4
Change Point	0	65	83

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**98.3%**
Ploughley Road / A41	-	-	**N/A**	-	-		-	-	-	-	-	-	**98.3%**
1/1	A41 EAST ENTRY Ahead	U	N/A	N/A	A		1	60	-	1304	1965	1332	97.9%
2/1	PLOUGHLEY ROAD ENTRY Left	U	N/A	N/A	B		1	18	-	397	1913	404	98.3%
3/1+3/2	A41 WEST ENTRY Ahead Right	U	N/A	N/A	D C		1	79:18	-	1367	1965:1814	1479+383	72.2 : 78.3%
4/1	A41 EAST EXIT	U	N/A	N/A	-		-	-	-	1067	1965	1965	54.3%
5/1	PLOUGHLEY ROAD EXIT	U	N/A	N/A	-		-	-	-	300	2015	2015	14.9%
6/1	A41 WEST EXIT	U	N/A	N/A	-		-	-	-	1701	2015	2015	84.4%
Ped Link: P1	A41 EAST ENTRY	-	N/A	-	E		1	22	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	58	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	62	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	H		1	4	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**12.1**	**25.5**	**0.0**	**37.6**	**-**	**-**	**-**	**-**
Ploughley Road / A41	**-**	**-**	**0**	**0**	**0**	**12.1**	**25.5**	**0.0**	**37.6**	**-**	**-**	**-**	**-**
1/1	1304	1304	-	-	-	5.0	12.4	-	17.4	48.1	31.2	12.4	43.5
2/1	397	397	-	-	-	3.9	8.4	-	12.3	111.5	9.8	8.4	18.2
3/1+3/2	1367	1367	-	-	-	3.2	1.4	-	4.5	11.9	7.1	1.4	8.5
4/1	1067	1067	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6
5/1	300	300	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
6/1	1701	1701	-	-	-	0.0	2.7	-	2.7	5.6	0.0	2.7	2.7
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 - PR /A41

PRC for Signalled Lanes (%): -9.2

PRC Over All Lanes (%): -9.2

Total Delay for Signalled Lanes (pcuHr): 34.25

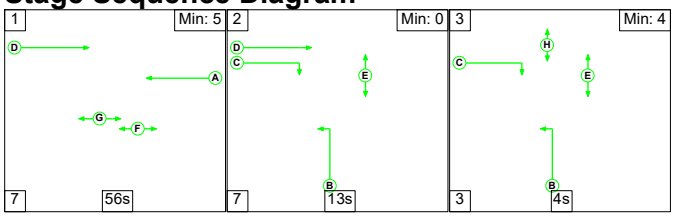
Total Delay Over All Lanes(pcuHr): 37.59

Cycle Time (s): 90

Full Input Data And Results

Scenario 5: '2027 AM SAT +DEV' (FG5: '2027 AM SAT + DEV', Plan 1: 'MORE RT PR')

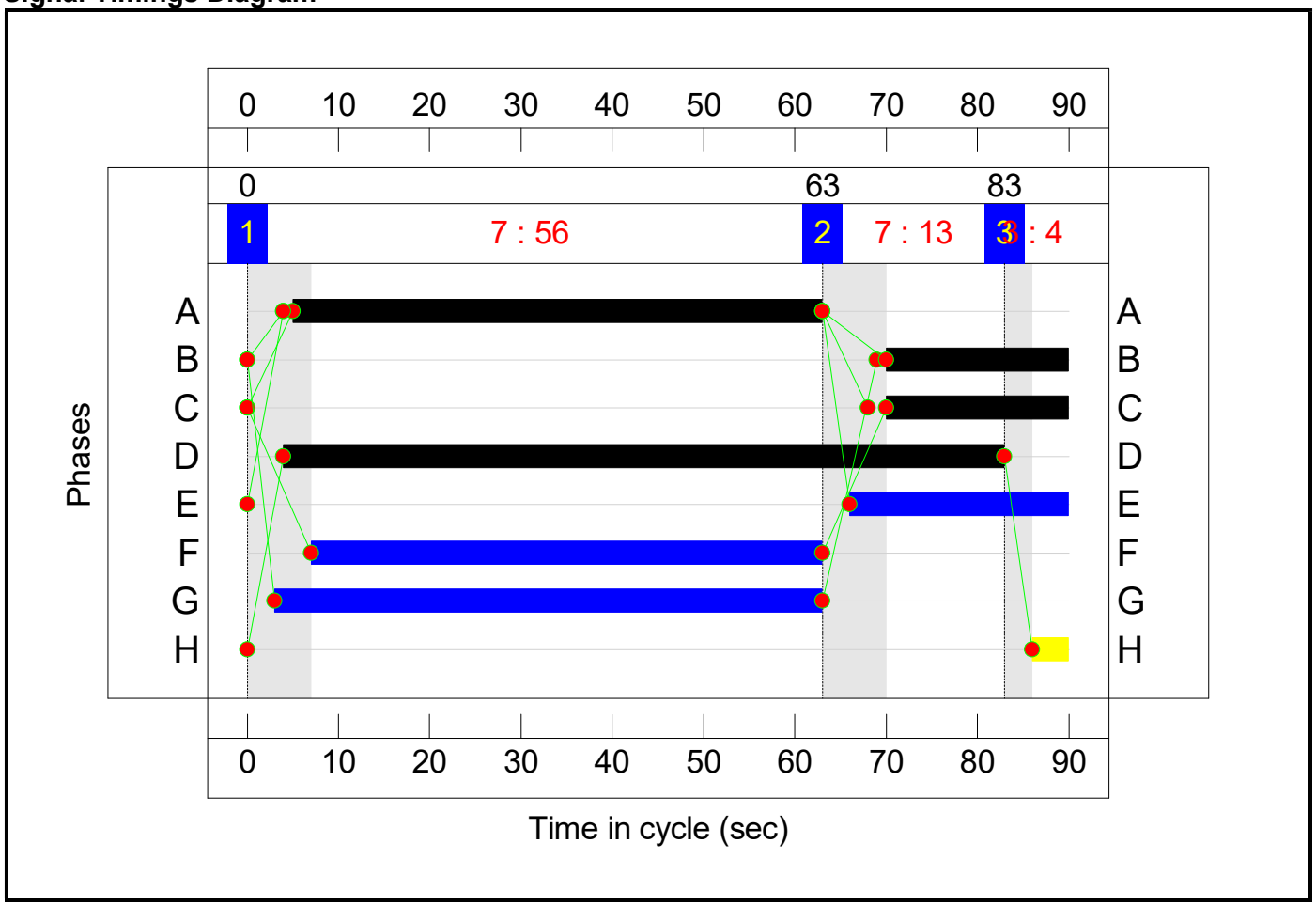
Stage Sequence Diagram



Stage Timings

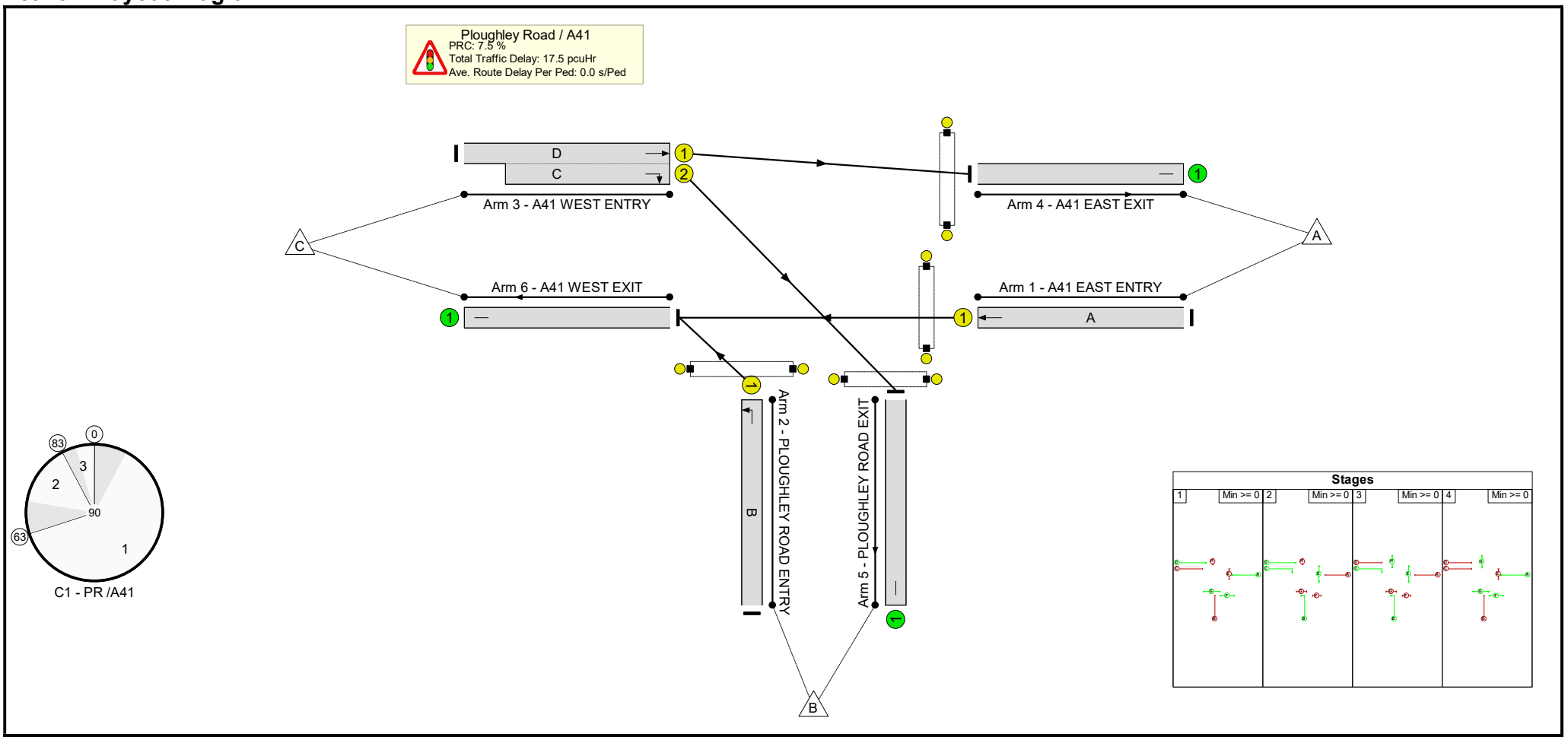
Stage	1	2	3
Duration	56	13	4
Change Point	0	63	83

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.7%**
Ploughley Road / A41	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.7%**
1/1	A41 EAST ENTRY Ahead	U	N/A	N/A	A		1	58	-	1078	1965	1288	83.7%
2/1	PLOUGHLEY ROAD ENTRY Left	U	N/A	N/A	B		1	20	-	349	1913	446	78.2%
3/1+3/2	A41 WEST ENTRY Ahead Right	U	N/A	N/A	D C		1	79:20	-	1281	1965:1814	1293+423	72.8 : 80.3%
4/1	A41 EAST EXIT	U	N/A	N/A	-		-	-	-	941	1965	1965	47.9%
5/1	PLOUGHLEY ROAD EXIT	U	N/A	N/A	-		-	-	-	340	2015	2015	16.9%
6/1	A41 WEST EXIT	U	N/A	N/A	-		-	-	-	1427	2015	2015	70.8%
Ped Link: P1	A41 EAST ENTRY	-	N/A	-	E		1	24	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	56	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	60	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	H		1	4	-	0	-	0	0.0%

Full Input Data And Results

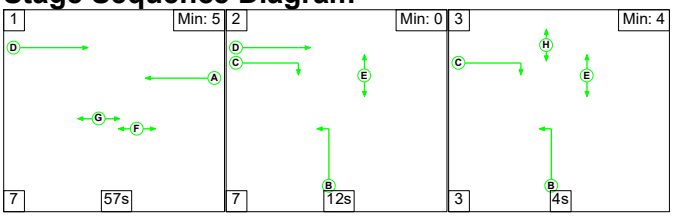
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**10.0**	**7.5**	**0.0**	**17.5**	**-**	**-**	**-**	**-**
Ploughley Road / A41	**-**	**-**	**0**	**0**	**0**	**10.0**	**7.5**	**0.0**	**17.5**	**-**	**-**	**-**	**-**
1/1	1078	1078	-	-	-	3.5	2.5	-	6.0	20.2	20.4	2.5	22.9
2/1	349	349	-	-	-	3.1	1.7	-	4.9	50.2	8.1	1.7	9.9
3/1+3/2	1281	1281	-	-	-	3.4	1.5	-	4.8	13.5	7.9	1.5	9.4
4/1	941	941	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
5/1	340	340	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	1427	1427	-	-	-	0.0	1.2	-	1.2	3.0	0.0	1.2	1.2
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 - PR /A41 PRC for Signalled Lanes (%): 7.5 Total Delay for Signalled Lanes (pcuHr): 15.73 Cycle Time (s): 90
PRC Over All Lanes (%): 7.5 Total Delay Over All Lanes(pcuHr): 17.50

Full Input Data And Results

Scenario 6: '2027 PM SAT +DEV' (FG6: '2027 PM SAT + DEV', Plan 1: 'MORE RT PR')

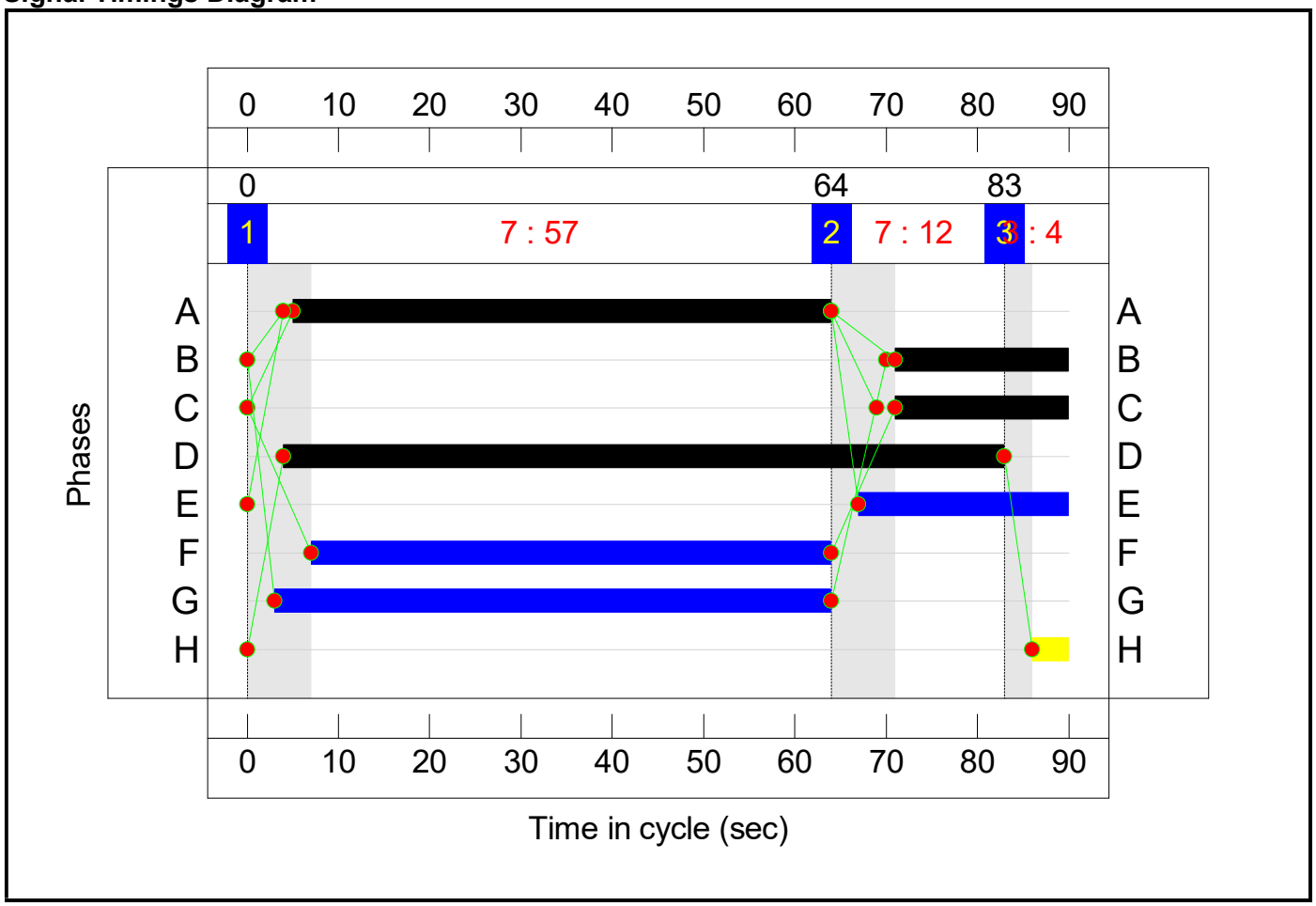
Stage Sequence Diagram



Stage Timings

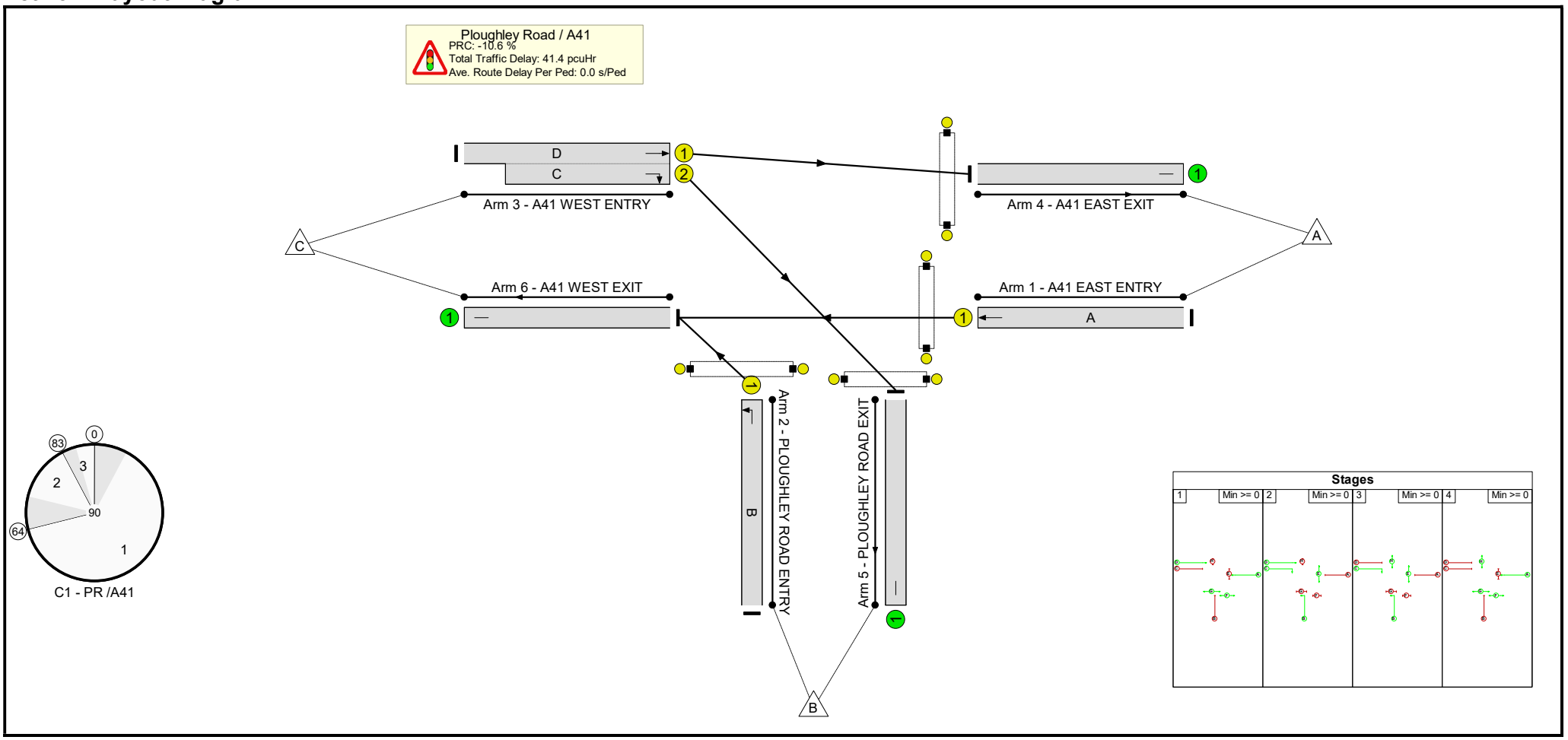
Stage	1	2	3
Duration	57	12	4
Change Point	0	64	83

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**99.5%**
Ploughley Road / A41	-	-	**N/A**	-	-		-	-	-	-	-	-	**99.5%**
1/1	A41 EAST ENTRY Ahead	U	N/A	N/A	A		1	59	-	1304	1965	1310	99.5%
2/1	PLOUGHLEY ROAD ENTRY Left	U	N/A	N/A	B		1	19	-	410	1913	425	96.4%
3/1+3/2	A41 WEST ENTRY Ahead Right	U	N/A	N/A	D C		1	79:19	-	1401	1965:1814	1456+403	73.3 : 82.9%
4/1	A41 EAST EXIT	U	N/A	N/A	-		-	-	-	1067	1965	1965	54.3%
5/1	PLOUGHLEY ROAD EXIT	U	N/A	N/A	-		-	-	-	334	2015	2015	16.6%
6/1	A41 WEST EXIT	U	N/A	N/A	-		-	-	-	1714	2015	2015	85.1%
Ped Link: P1	A41 EAST ENTRY	-	N/A	-	E		1	23	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	57	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	61	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	H		1	4	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**12.8**	**28.7**	**0.0**	**41.4**	**-**	**-**	**-**	**-**
Ploughley Road / A41	**-**	**-**	**0**	**0**	**0**	**12.8**	**28.7**	**0.0**	**41.4**	**-**	**-**	**-**	**-**
1/1	1304	1304	-	-	-	5.4	16.6	-	22.0	60.7	32.2	16.6	48.9
2/1	410	410	-	-	-	3.9	7.0	-	11.0	96.4	10.1	7.0	17.2
3/1+3/2	1401	1401	-	-	-	3.5	1.5	-	5.0	12.8	7.9	1.5	9.4
4/1	1067	1067	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6
5/1	334	334	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	1714	1714	-	-	-	0.0	2.8	-	2.8	5.9	0.0	2.8	2.8
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 - PR /A41

PRC for Signalled Lanes (%): -10.6
PRC Over All Lanes (%): -10.6

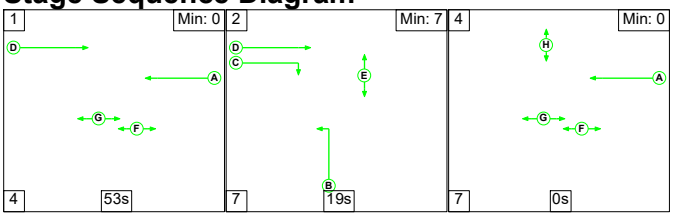
Total Delay for Signalled Lanes (pcuHr): 37.95
Total Delay Over All Lanes(pcuHr): 41.44

Cycle Time (s): 90

Full Input Data And Results

Scenario 7: '2027 PM SAT +DEV V2' (FG6: '2027 PM SAT + DEV', Plan 2: 'MORE A41')

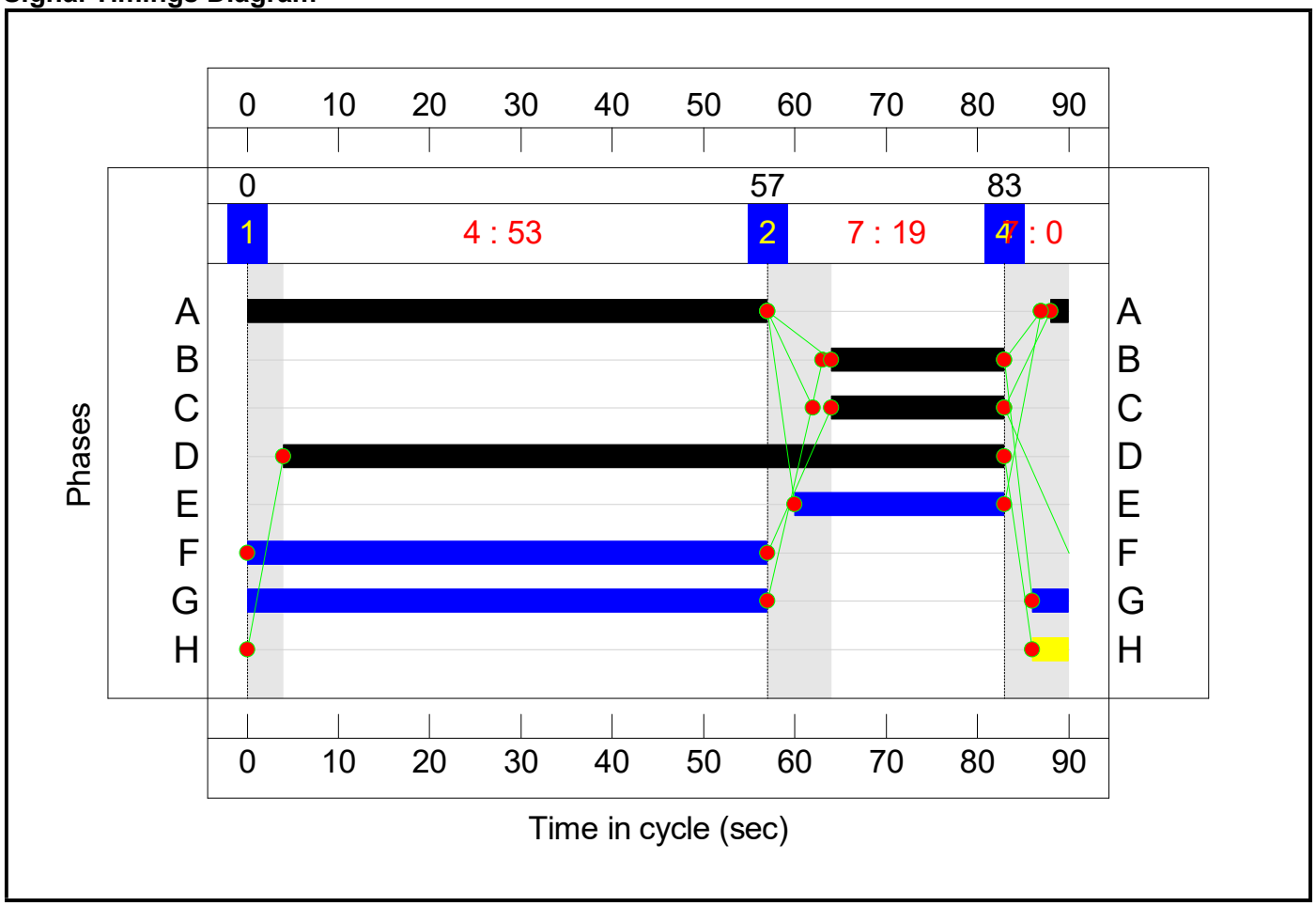
Stage Sequence Diagram



Stage Timings

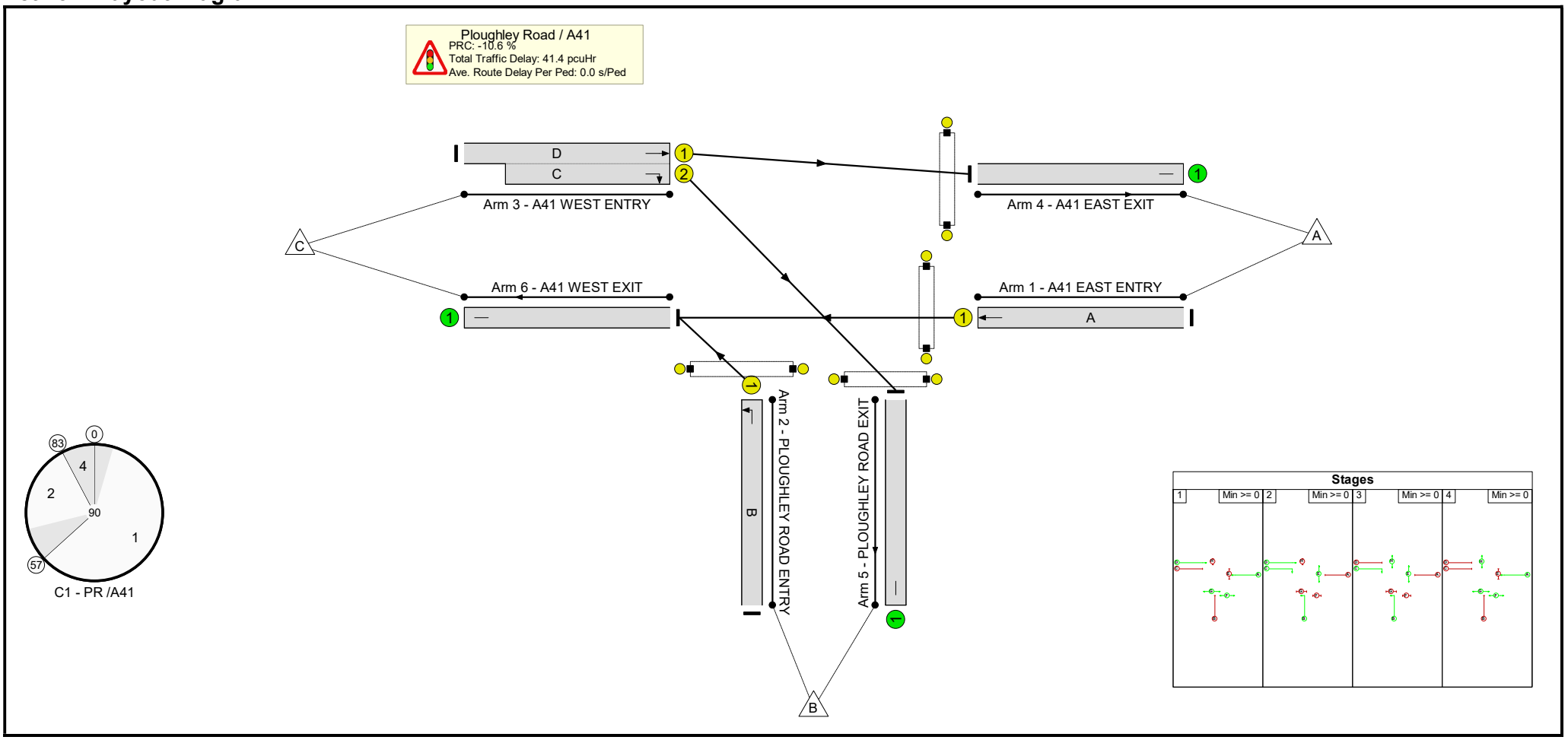
Stage	1	2	4
Duration	53	19	0
Change Point	0	57	83

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**99.5%**
Ploughley Road / A41	-	-	**N/A**	-	-		-	-	-	-	-	-	**99.5%**
1/1	A41 EAST ENTRY Ahead	U	N/A	N/A	A		1	59	-	1304	1965	1310	99.5%
2/1	PLOUGHLEY ROAD ENTRY Left	U	N/A	N/A	B		1	19	-	410	1913	425	96.4%
3/1+3/2	A41 WEST ENTRY Ahead Right	U	N/A	N/A	D C		1	79:19	-	1401	1965:1814	1456+403	73.3 : 82.9%
4/1	A41 EAST EXIT	U	N/A	N/A	-		-	-	-	1067	1965	1965	54.3%
5/1	PLOUGHLEY ROAD EXIT	U	N/A	N/A	-		-	-	-	334	2015	2015	16.6%
6/1	A41 WEST EXIT	U	N/A	N/A	-		-	-	-	1714	2015	2015	85.1%
Ped Link: P1	A41 EAST ENTRY	-	N/A	-	E		1	23	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	57	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	61	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	H		1	4	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**12.8**	**28.7**	**0.0**	**41.4**	**-**	**-**	**-**	**-**
Ploughley Road / A41	**-**	**-**	**0**	**0**	**0**	**12.8**	**28.7**	**0.0**	**41.4**	**-**	**-**	**-**	**-**
1/1	1304	1304	-	-	-	5.4	16.6	-	22.0	60.7	32.2	16.6	48.9
2/1	410	410	-	-	-	3.9	7.0	-	11.0	96.4	10.1	7.0	17.2
3/1+3/2	1401	1401	-	-	-	3.5	1.5	-	5.0	12.8	7.9	1.5	9.4
4/1	1067	1067	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6
5/1	334	334	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	1714	1714	-	-	-	0.0	2.8	-	2.8	5.9	0.0	2.8	2.8
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 - PR /A41

PRC for Signalled Lanes (%): -10.6
PRC Over All Lanes (%): -10.6

Total Delay for Signalled Lanes (pcuHr): 37.95
Total Delay Over All Lanes(pcuHr): 41.44

Cycle Time (s): 90

Appendix K PICADY Results for A41 / B4011 Junction (2)

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: 2022-08-24 J2 TIA v1.2.j9
Path: C:\Users\brian.condon\Condondrew Associates\Condon Drew Associates Ltd. - Documents\CDA Projects\1700-1799\1719-Ploughly Road CB\02-Analysis\Juntions9
Report generation date: 24/08/2022 11:49:32

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2022 Base							
Stream B-C	0.7	11.73	0.40	B	4.7	37.93	0.84	E
Stream B-A	0.3	37.19	0.21	E	0.5	41.02	0.34	E
Stream C-AB	5.4	32.42	0.83	D	0.5	9.93	0.34	A
	2027 Base							
Stream B-C	0.9	13.77	0.46	B	9.7	72.12	0.94	F
Stream B-A	0.5	58.99	0.32	F	2.6	194.40	0.86	F
Stream C-AB	11.0	45.98	0.91	E	0.6	10.73	0.38	B
	2027 Base + Development							
Stream B-C	0.9	14.38	0.47	B	10.0	73.90	0.94	F
Stream B-A	0.6	64.51	0.38	F	3.0	211.19	0.91	F
Stream C-AB	11.1	46.12	0.91	E	0.6	10.77	0.38	B

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

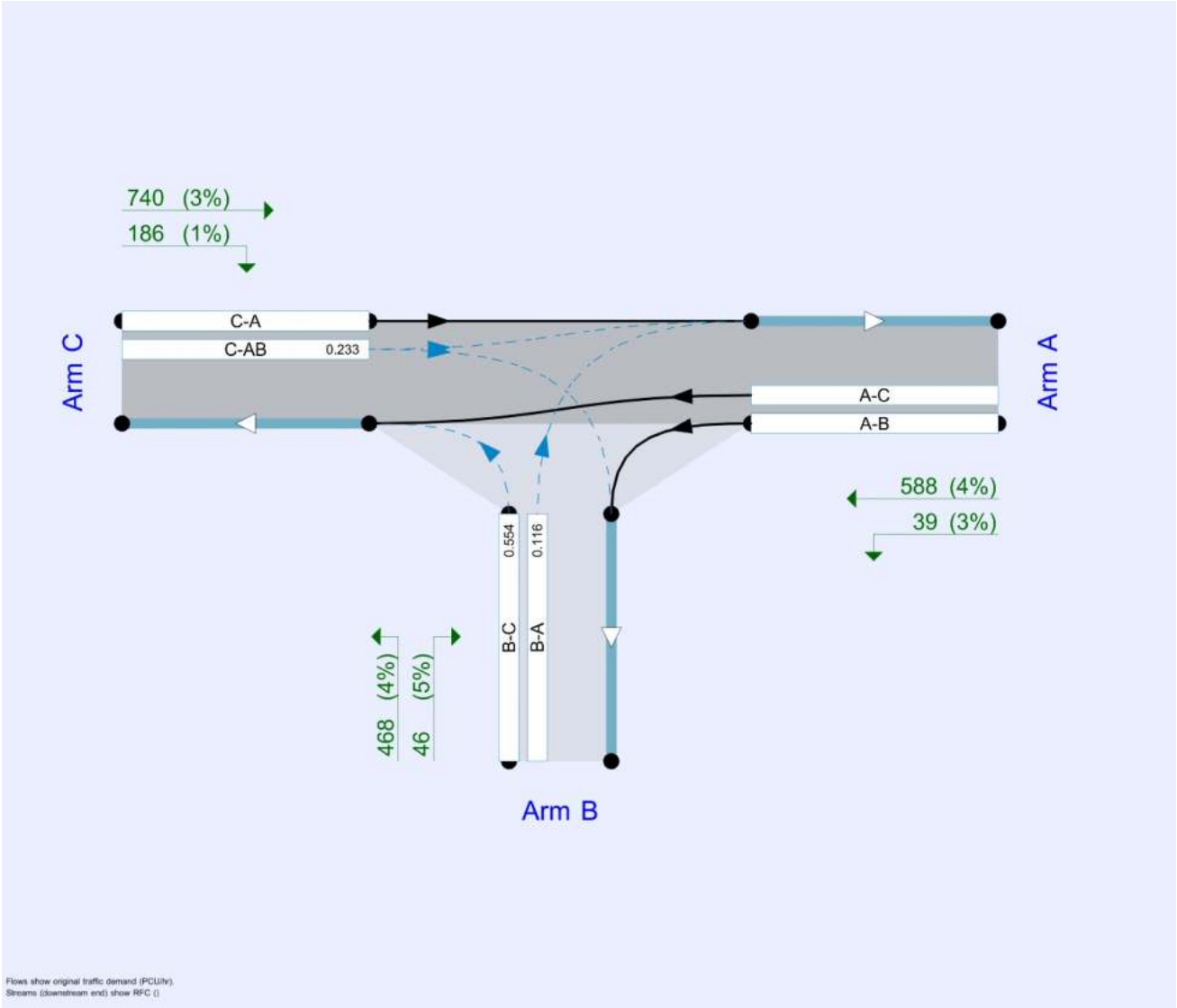
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	24/08/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	briancondon-PC\brian.condon
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

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	2022 Base	AM	ONE HOUR	08:00	09:30	15
D2	2022 Base	PM	ONE HOUR	17:00	18:30	15
D3	2027 Base	AM	ONE HOUR	08:00	09:30	15
D4	2027 Base	PM	ONE HOUR	17:00	18:30	15
D5	2027 Base + Development	AM	ONE HOUR	08:00	09:30	15
D6	2027 Base + Development	PM	ONE HOUR	17:00	18:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2022 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	9.58	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A41 (East)		Major
B	B4011		Minor
C	A41 (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)
C	6.66		✓	3.02	169.9	✓	8.00

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)
B	One lane plus flare	10.00	10.00	10.00	7.07	4.98	✓	3.00	104	62

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	571	0.101	0.255	0.161	0.365
1	B-C	788	0.117	0.297	-	-
1	C-B	732	0.276	0.276	-	-

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)
D1	2022 Base	AM	ONE HOUR	08:00	09:30	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 (%)
A		✓	675	100.000
B		✓	225	100.000
C		✓	938	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	52	623
	B	25	0	200
	C	542	396	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	4	7
	B	4	0	6
	C	5	6	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.40	11.73	0.7	B
B-A	0.21	37.19	0.3	E
C-AB	0.83	32.42	5.4	D
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	151	633	0.238	149	0.3	7.863	A
B-A	19	273	0.069	19	0.1	14.710	B
C-AB	299	595	0.503	295	1.0	12.574	B
C-A	407			407			
A-B	39			39			
A-C	469			469			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	180	600	0.300	179	0.4	9.063	A
B-A	22	213	0.105	22	0.1	19.591	C
C-AB	365	580	0.630	363	1.8	17.333	C
C-A	478			478			
A-B	47			47			
A-C	560			560			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	220	547	0.403	219	0.7	11.603	B
B-A	28	132	0.209	27	0.3	35.569	E
C-AB	553	670	0.826	541	4.8	28.117	D
C-A	480			480			
A-B	57			57			
A-C	686			686			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	220	545	0.404	220	0.7	11.728	B
B-A	28	128	0.215	27	0.3	37.191	E
C-AB	553	669	0.827	551	5.4	32.416	D
C-A	480			480			
A-B	57			57			
A-C	686			686			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	180	599	0.300	181	0.5	9.150	A
B-A	22	208	0.108	23	0.1	20.319	C
C-AB	365	579	0.631	379	2.0	20.186	C
C-A	478			478			
A-B	47			47			
A-C	560			560			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	151	633	0.238	151	0.3	7.931	A
B-A	19	270	0.070	19	0.1	14.927	B
C-AB	299	595	0.503	303	1.1	13.219	B
C-A	407			407			
A-B	39			39			
A-C	469			469			

2022 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	10.40	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2022 Base	PM	ONE HOUR	17:00	18:30	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 (%)
A		✓	580	100.000
B		✓	477	100.000
C		✓	861	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	33	547
	B	42	0	435
	C	688	173	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	4
	B	5	0	4
	C	3	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.84	37.93	4.7	E
B-A	0.34	41.02	0.5	E
C-AB	0.34	9.93	0.5	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	327	648	0.505	323	1.0	11.378	B
B-A	32	322	0.098	31	0.1	12.964	B
C-AB	130	612	0.213	129	0.3	7.513	A
C-A	518			518			
A-B	25			25			
A-C	412			412			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	391	618	0.632	388	1.7	16.076	C
B-A	38	260	0.145	38	0.2	16.979	C
C-AB	156	589	0.264	155	0.4	8.381	A
C-A	618			618			
A-B	30			30			
A-C	492			492			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	479	573	0.835	468	4.3	32.787	D
B-A	46	147	0.315	45	0.5	36.787	E
C-AB	191	557	0.342	190	0.5	9.899	A
C-A	757			757			
A-B	36			36			
A-C	602			602			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	479	572	0.837	477	4.7	37.932	E
B-A	46	138	0.335	46	0.5	41.015	E
C-AB	191	557	0.342	191	0.5	9.934	A
C-A	757			757			
A-B	36			36			
A-C	602			602			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	391	618	0.633	403	1.9	18.245	C
B-A	38	254	0.148	39	0.2	17.655	C
C-AB	156	589	0.264	156	0.4	8.419	A
C-A	618			618			
A-B	30			30			
A-C	492			492			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	327	648	0.505	331	1.1	11.909	B
B-A	32	321	0.099	32	0.1	13.103	B
C-AB	130	612	0.213	131	0.3	7.560	A
C-A	518			518			
A-B	25			25			
A-C	412			412			

2027 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	14.91	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2027 Base	AM	ONE HOUR	08:00	09:30	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 (%)
A		✓	724	100.000
B		✓	242	100.000
C		✓	1006	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	56	668
	B	27	0	215
	C	581	425	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	4	7
	B	4	0	6
	C	5	6	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.46	13.77	0.9	B
B-A	0.32	58.99	0.5	F
C-AB	0.91	45.98	11.0	E
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	162	621	0.261	160	0.4	8.256	A
B-A	20	251	0.081	20	0.1	16.171	C
C-AB	323	587	0.550	318	1.3	13.927	B
C-A	435			435			
A-B	42			42			
A-C	503			503			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	193	584	0.331	193	0.5	9.733	A
B-A	24	187	0.130	24	0.2	22.947	C
C-AB	404	585	0.691	400	2.3	20.224	C
C-A	500			500			
A-B	50			50			
A-C	601			601			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	237	519	0.456	235	0.9	13.400	B
B-A	30	99	0.300	29	0.4	52.552	F
C-AB	761	835	0.912	737	8.4	34.576	D
C-A	347			347			
A-B	62			62			
A-C	735			735			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	237	514	0.461	237	0.9	13.772	B
B-A	30	93	0.321	30	0.5	58.992	F
C-AB	761	834	0.913	750	11.0	45.981	E
C-A	347			347			
A-B	62			62			
A-C	735			735			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	193	581	0.332	195	0.5	9.903	A
B-A	24	176	0.138	25	0.2	25.007	D
C-AB	404	584	0.692	437	2.7	30.790	D
C-A	500			500			
A-B	50			50			
A-C	601			601			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	162	620	0.261	162	0.4	8.346	A
B-A	20	247	0.082	21	0.1	16.541	C
C-AB	323	587	0.550	328	1.4	15.053	C
C-A	435			435			
A-B	42			42			
A-C	503			503			

2027 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	21.58	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2027 Base	PM	ONE HOUR	17:00	18:30	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 (%)
A		✓	623	100.000
B		✓	513	100.000
C		✓	926	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	35	588
	B	45	0	468
	C	740	186	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	4
	B	5	0	4
	C	3	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.94	72.12	9.7	F
B-A	0.86	194.40	2.6	F
C-AB	0.38	10.73	0.6	B
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	352	637	0.553	347	1.2	12.706	B
B-A	34	300	0.113	33	0.1	14.150	B
C-AB	140	603	0.232	139	0.3	7.811	A
C-A	557			557			
A-B	26			26			
A-C	443			443			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	421	604	0.696	417	2.2	19.554	C
B-A	40	226	0.179	40	0.2	20.242	C
C-AB	167	578	0.289	167	0.4	8.833	A
C-A	665			665			
A-B	31			31			
A-C	529			529			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	515	552	0.933	494	7.7	50.944	F
B-A	50	85	0.585	46	1.2	90.252	F
C-AB	205	544	0.377	204	0.6	10.685	B
C-A	815			815			
A-B	39			39			
A-C	647			647			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	515	549	0.939	507	9.7	72.121	F
B-A	50	58	0.859	44	2.6	194.400	F
C-AB	205	544	0.377	205	0.6	10.731	B
C-A	815			815			
A-B	39			39			
A-C	647			647			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	421	597	0.704	449	2.7	28.980	D
B-A	40	208	0.194	50	0.3	25.184	D
C-AB	167	578	0.289	168	0.4	8.884	A
C-A	665			665			
A-B	31			31			
A-C	529			529			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	352	637	0.553	358	1.3	13.666	B
B-A	34	297	0.114	34	0.1	14.410	B
C-AB	140	603	0.232	140	0.3	7.866	A
C-A	557			557			
A-B	26			26			
A-C	443			443			

2027 Base + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	15.22	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2027 Base + Development	AM	ONE HOUR	08:00	09:30	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 (%)
A		✓	725	100.000
B		✓	247	100.000
C		✓	1006	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	57	668
	B	32	0	215
	C	581	425	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	4	7
	B	4	0	6
	C	5	6	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.47	14.38	0.9	B
B-A	0.38	64.51	0.6	F
C-AB	0.91	46.12	11.1	E
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	162	618	0.262	160	0.4	8.317	A
B-A	24	251	0.096	24	0.1	16.401	C
C-AB	323	587	0.550	318	1.3	13.935	B
C-A	435			435			
A-B	43			43			
A-C	503			503			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	193	579	0.334	193	0.5	9.849	A
B-A	29	187	0.154	28	0.2	23.546	C
C-AB	404	585	0.691	400	2.3	20.247	C
C-A	500			500			
A-B	51			51			
A-C	601			601			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	237	509	0.465	235	0.9	13.880	B
B-A	35	99	0.356	34	0.5	56.490	F
C-AB	763	836	0.912	738	8.4	34.634	D
C-A	345			345			
A-B	63			63			
A-C	735			735			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	237	502	0.472	237	0.9	14.383	B
B-A	35	93	0.381	35	0.6	64.509	F
C-AB	763	835	0.913	752	11.1	46.122	E
C-A	345			345			
A-B	63			63			
A-C	735			735			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	193	576	0.336	195	0.5	10.049	B
B-A	29	176	0.163	30	0.2	25.876	D
C-AB	404	584	0.693	438	2.8	30.922	D
C-A	500			500			
A-B	51			51			
A-C	601			601			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	162	617	0.262	163	0.4	8.410	A
B-A	24	248	0.097	24	0.1	16.803	C
C-AB	323	587	0.550	328	1.4	15.064	C
C-A	435			435			
A-B	43			43			
A-C	503			503			

2027 Base + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	22.40	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2027 Base + Development	PM	ONE HOUR	17:00	18:30	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 (%)
A		✓	627	100.000
B		✓	514	100.000
C		✓	926	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	39	588
	B	46	0	468
	C	740	186	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	4
	B	5	0	4
	C	3	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.94	73.90	10.0	F
B-A	0.91	211.19	3.0	F
C-AB	0.38	10.77	0.6	B
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	352	636	0.554	347	1.2	12.742	B
B-A	35	300	0.116	34	0.1	14.201	B
C-AB	140	602	0.233	139	0.3	7.825	A
C-A	557			557			
A-B	29			29			
A-C	443			443			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	421	603	0.698	417	2.2	19.676	C
B-A	41	226	0.183	41	0.2	20.384	C
C-AB	167	577	0.290	167	0.4	8.854	A
C-A	665			665			
A-B	35			35			
A-C	529			529			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	515	551	0.936	493	7.8	51.691	F
B-A	51	84	0.606	46	1.3	94.003	F
C-AB	205	542	0.378	204	0.6	10.714	B
C-A	815			815			
A-B	43			43			
A-C	647			647			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	515	546	0.943	507	10.0	73.903	F
B-A	51	56	0.909	44	3.0	211.187	F
C-AB	205	542	0.378	205	0.6	10.769	B
C-A	815			815			
A-B	43			43			
A-C	647			647			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	421	595	0.707	450	2.7	29.739	D
B-A	41	207	0.200	52	0.3	25.966	D
C-AB	167	577	0.290	168	0.4	8.906	A
C-A	665			665			
A-B	35			35			
A-C	529			529			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	352	636	0.554	358	1.3	13.725	B
B-A	35	297	0.117	35	0.1	14.471	B
C-AB	140	602	0.233	140	0.3	7.882	A
C-A	557			557			
A-B	29			29			
A-C	443			443			

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: 2022-08-24 J2 TIA v1.2-FLAT.j9
Path: C:\Users\brian.condon\Condondrew Associates\Condon Drew Associates Ltd. - Documents\CDA Projects\1700-1799\1719-Ploughly Road CB\02-Analysis\Juntions9
Report generation date: 24/08/2022 11:51:10

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2022 Base							
Stream B-C	0.6	10.19	0.35	B	2.8	23.15	0.73	C
Stream B-A	0.2	25.75	0.15	D	0.3	23.13	0.20	C
Stream C-AB	3.0	23.49	0.72	C	0.4	9.10	0.30	A
	2027 Base							
Stream B-C	0.7	11.26	0.39	B	4.2	33.46	0.81	D
Stream B-A	0.2	33.34	0.19	D	0.4	34.14	0.29	D
Stream C-AB	4.8	30.29	0.80	D	0.5	9.70	0.33	A
	2027 Base + Development							
Stream B-C	0.7	11.48	0.39	B	4.3	33.87	0.81	D
Stream B-A	0.3	34.86	0.23	D	0.4	34.70	0.30	D
Stream C-AB	4.8	30.35	0.80	D	0.5	9.73	0.33	A

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

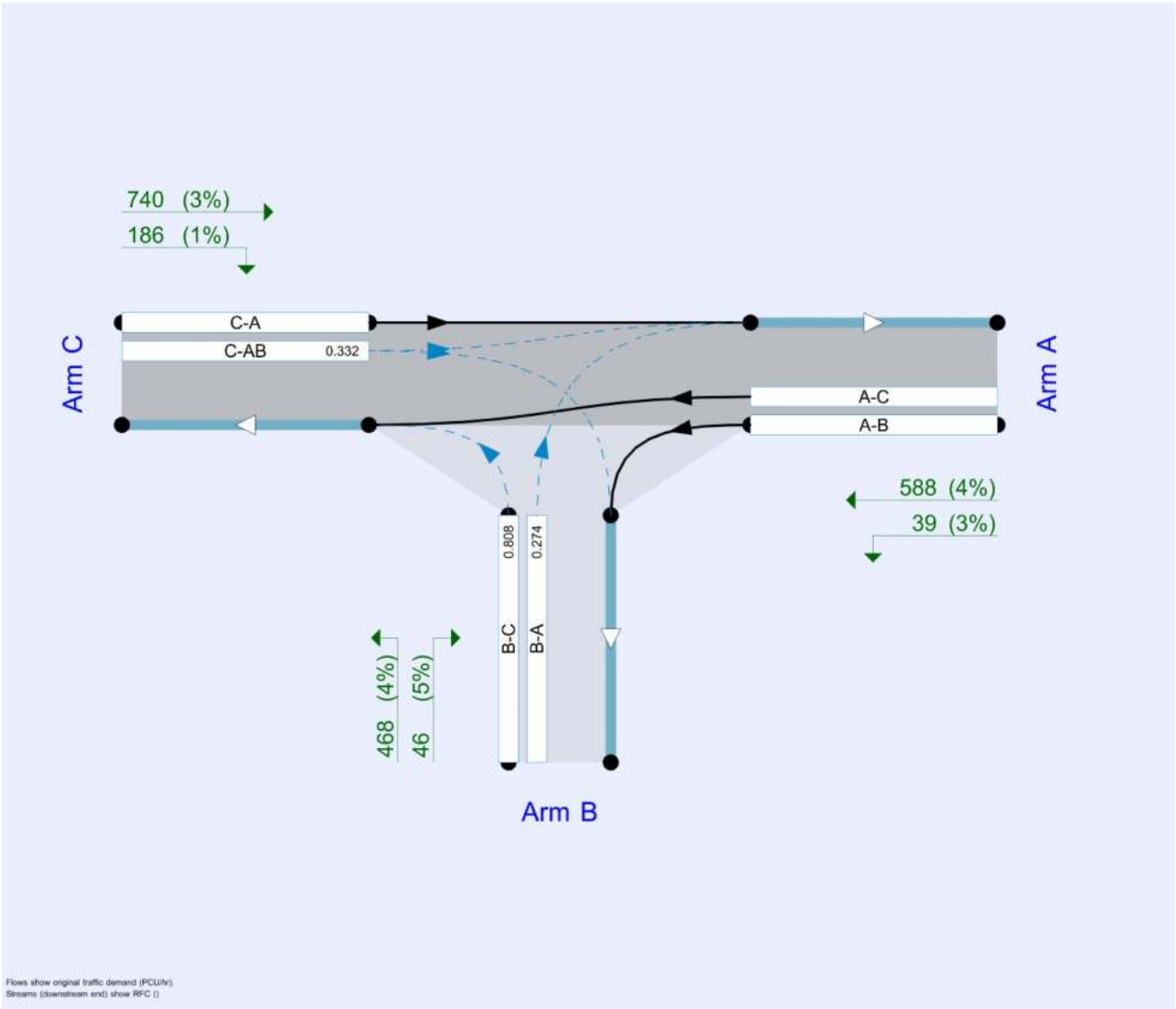
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	24/08/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	briancondon-PC\brian.condon
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

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 period length (min)	Time segment length (min)
D1	2022 Base	AM	FLAT	08:00	09:30	90	15
D2	2022 Base	PM	FLAT	17:00	18:30	90	15
D3	2027 Base	AM	FLAT	08:00	09:30	90	15
D4	2027 Base	PM	FLAT	17:00	18:30	90	15
D5	2027 Base + Development	AM	FLAT	08:00	09:30	90	15
D6	2027 Base + Development	PM	FLAT	17:00	18:30	90	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2022 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	6.96	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A41 (East)		Major
B	B4011		Minor
C	A41 (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)
C	6.66		✓	3.02	169.9	✓	8.00

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)
B	One lane plus flare	10.00	10.00	10.00	7.07	4.98	✓	3.00	104	62

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	571	0.101	0.255	0.161	0.365
1	B-C	788	0.117	0.297	-	-
1	C-B	732	0.276	0.276	-	-

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 period length (min)	Time segment length (min)
D1	2022 Base	AM	FLAT	08:00	09:30	90	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 (%)
A		✓	675	100.000
B		✓	225	100.000
C		✓	938	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	52	623
	B	25	0	200
	C	542	396	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	4	7
	B	4	0	6
	C	5	6	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.35	10.19	0.6	B
B-A	0.15	25.75	0.2	D
C-AB	0.72	23.49	3.0	C
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	200	576	0.347	198	0.6	10.037	B
B-A	25	175	0.143	24	0.2	24.827	C
C-AB	431	594	0.725	420	2.7	20.885	C
C-A	507			507			
A-B	52			52			
A-C	623			623			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	200	575	0.348	200	0.6	10.181	B
B-A	25	171	0.146	25	0.2	25.677	D
C-AB	431	594	0.725	430	2.9	23.247	C
C-A	507			507			
A-B	52			52			
A-C	623			623			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	200	575	0.348	200	0.6	10.184	B
B-A	25	171	0.147	25	0.2	25.719	D
C-AB	431	594	0.725	430	2.9	23.388	C
C-A	507			507			
A-B	52			52			
A-C	623			623			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	200	575	0.348	200	0.6	10.185	B
B-A	25	170	0.147	25	0.2	25.737	D
C-AB	431	594	0.725	431	2.9	23.442	C
C-A	507			507			
A-B	52			52			
A-C	623			623			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	200	575	0.348	200	0.6	10.185	B
B-A	25	170	0.147	25	0.2	25.747	D
C-AB	431	594	0.725	431	3.0	23.470	C
C-A	507			507			
A-B	52			52			
A-C	623			623			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	200	575	0.348	200	0.6	10.185	B
B-A	25	170	0.147	25	0.2	25.751	D
C-AB	431	594	0.725	431	3.0	23.488	C
C-A	507			507			
A-B	52			52			
A-C	623			623			

2022 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	6.58	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2022 Base	PM	FLAT	17:00	18:30	90	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 (%)
A		✓	580	100.000
B		✓	477	100.000
C		✓	861	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	33	547
	B	42	0	435
	C	688	173	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	4
	B	5	0	4
	C	3	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.73	23.15	2.8	C
B-A	0.20	23.13	0.3	C
C-AB	0.30	9.10	0.4	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	435	597	0.729	425	2.6	20.660	C
B-A	42	212	0.198	41	0.3	22.023	C
C-AB	173	573	0.302	171	0.4	9.023	A
C-A	688			688			
A-B	33			33			
A-C	547			547			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	435	596	0.729	435	2.7	22.969	C
B-A	42	206	0.204	42	0.3	23.061	C
C-AB	173	573	0.302	173	0.4	9.100	A
C-A	688			688			
A-B	33			33			
A-C	547			547			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	435	596	0.729	435	2.7	23.082	C
B-A	42	206	0.204	42	0.3	23.100	C
C-AB	173	573	0.302	173	0.4	9.100	A
C-A	688			688			
A-B	33			33			
A-C	547			547			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	435	596	0.729	435	2.7	23.122	C
B-A	42	206	0.204	42	0.3	23.115	C
C-AB	173	573	0.302	173	0.4	9.100	A
C-A	688			688			
A-B	33			33			
A-C	547			547			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	435	596	0.729	435	2.8	23.142	C
B-A	42	205	0.204	42	0.3	23.122	C
C-AB	173	573	0.302	173	0.4	9.100	A
C-A	688			688			
A-B	33			33			
A-C	547			547			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	435	596	0.729	435	2.8	23.154	C
B-A	42	205	0.204	42	0.3	23.128	C
C-AB	173	573	0.302	173	0.4	9.100	A
C-A	688			688			
A-B	33			33			
A-C	547			547			

2027 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	9.50	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D3	2027 Base	AM	FLAT	08:00	09:30	90	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 (%)
A		✓	724	100.000
B		✓	242	100.000
C		✓	1006	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	56	668
	B	27	0	215
	C	581	425	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	4	7
	B	4	0	6
	C	5	6	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.39	11.26	0.7	B
B-A	0.19	33.34	0.2	D
C-AB	0.80	30.29	4.8	D
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	215	556	0.386	212	0.7	11.016	B
B-A	27	146	0.186	26	0.2	31.127	D
C-AB	509	638	0.798	493	4.0	24.507	C
C-A	497			497			
A-B	56			56			
A-C	668			668			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	215	554	0.388	215	0.7	11.243	B
B-A	27	140	0.193	27	0.2	33.016	D
C-AB	509	638	0.798	507	4.4	29.261	D
C-A	497			497			
A-B	56			56			
A-C	668			668			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	215	554	0.388	215	0.7	11.255	B
B-A	27	140	0.193	27	0.2	33.199	D
C-AB	509	638	0.798	508	4.6	29.826	D
C-A	497			497			
A-B	56			56			
A-C	668			668			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	215	554	0.388	215	0.7	11.257	B
B-A	27	139	0.194	27	0.2	33.272	D
C-AB	509	638	0.798	509	4.7	30.068	D
C-A	497			497			
A-B	56			56			
A-C	668			668			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	215	554	0.388	215	0.7	11.258	B
B-A	27	139	0.194	27	0.2	33.312	D
C-AB	509	638	0.798	509	4.7	30.200	D
C-A	497			497			
A-B	56			56			
A-C	668			668			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	215	554	0.388	215	0.7	11.259	B
B-A	27	139	0.194	27	0.2	33.335	D
C-AB	509	638	0.798	509	4.8	30.287	D
C-A	497			497			
A-B	56			56			
A-C	668			668			

2027 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	9.21	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D4	2027 Base	PM	FLAT	17:00	18:30	90	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 (%)
A		✓	623	100.000
B		✓	513	100.000
C		✓	926	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	35	588
	B	45	0	468
	C	740	186	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	4
	B	5	0	4
	C	3	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.81	33.46	4.2	D
B-A	0.29	34.14	0.4	D
C-AB	0.33	9.70	0.5	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	468	580	0.806	453	3.7	26.978	D
B-A	45	169	0.267	44	0.4	29.920	D
C-AB	186	561	0.332	184	0.5	9.603	A
C-A	740			740			
A-B	35			35			
A-C	588			588			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	468	579	0.808	467	4.0	32.546	D
B-A	45	157	0.286	45	0.4	33.544	D
C-AB	186	561	0.332	186	0.5	9.702	A
C-A	740			740			
A-B	35			35			
A-C	588			588			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	468	579	0.808	468	4.1	33.074	D
B-A	45	156	0.288	45	0.4	33.902	D
C-AB	186	561	0.332	186	0.5	9.702	A
C-A	740			740			
A-B	35			35			
A-C	588			588			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	468	579	0.808	468	4.2	33.280	D
B-A	45	156	0.288	45	0.4	34.030	D
C-AB	186	561	0.332	186	0.5	9.702	A
C-A	740			740			
A-B	35			35			
A-C	588			588			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	468	579	0.808	468	4.2	33.390	D
B-A	45	156	0.289	45	0.4	34.097	D
C-AB	186	561	0.332	186	0.5	9.702	A
C-A	740			740			
A-B	35			35			
A-C	588			588			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	468	579	0.808	468	4.2	33.458	D
B-A	45	156	0.289	45	0.4	34.139	D
C-AB	186	561	0.332	186	0.5	9.702	A
C-A	740			740			
A-B	35			35			
A-C	588			588			

2027 Base + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	9.63	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D5	2027 Base + Development	AM	FLAT	08:00	09:30	90	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 (%)
A		✓	725	100.000
B		✓	247	100.000
C		✓	1006	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	57	668
	B	32	0	215
	C	581	425	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	4	7
	B	4	0	6
	C	5	6	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.39	11.48	0.7	B
B-A	0.23	34.86	0.3	D
C-AB	0.80	30.35	4.8	D
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	215	550	0.391	212	0.7	11.208	B
B-A	32	146	0.220	31	0.3	32.326	D
C-AB	509	638	0.798	493	4.0	24.538	C
C-A	497			497			
A-B	57			57			
A-C	668			668			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	215	548	0.393	215	0.7	11.466	B
B-A	32	140	0.228	32	0.3	34.488	D
C-AB	509	638	0.798	508	4.4	29.311	D
C-A	497			497			
A-B	57			57			
A-C	668			668			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	215	547	0.393	215	0.7	11.476	B
B-A	32	140	0.229	32	0.3	34.698	D
C-AB	509	638	0.798	509	4.6	29.880	D
C-A	497			497			
A-B	57			57			
A-C	668			668			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	215	547	0.393	215	0.7	11.481	B
B-A	32	140	0.229	32	0.3	34.782	D
C-AB	509	638	0.798	509	4.7	30.127	D
C-A	497			497			
A-B	57			57			
A-C	668			668			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	215	547	0.393	215	0.7	11.482	B
B-A	32	139	0.229	32	0.3	34.826	D
C-AB	509	638	0.798	509	4.7	30.260	D
C-A	497			497			
A-B	57			57			
A-C	668			668			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	215	547	0.393	215	0.7	11.483	B
B-A	32	139	0.230	32	0.3	34.856	D
C-AB	509	638	0.798	509	4.8	30.348	D
C-A	497			497			
A-B	57			57			
A-C	668			668			

2027 Base + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	9.32	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D6	2027 Base + Development	PM	FLAT	17:00	18:30	90	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 (%)
A		✓	627	100.000
B		✓	514	100.000
C		✓	926	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	39	588
	B	46	0	468
	C	740	186	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	4
	B	5	0	4
	C	3	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.81	33.87	4.3	D
B-A	0.30	34.70	0.4	D
C-AB	0.33	9.73	0.5	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	468	579	0.808	453	3.7	27.194	D
B-A	46	168	0.274	44	0.4	30.273	D
C-AB	186	560	0.332	184	0.5	9.632	A
C-A	740			740			
A-B	39			39			
A-C	588			588			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	468	578	0.810	467	4.0	32.905	D
B-A	46	157	0.294	46	0.4	34.055	D
C-AB	186	560	0.332	186	0.5	9.731	A
C-A	740			740			
A-B	39			39			
A-C	588			588			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	468	578	0.810	468	4.2	33.459	D
B-A	46	156	0.296	46	0.4	34.443	D
C-AB	186	560	0.332	186	0.5	9.731	A
C-A	740			740			
A-B	39			39			
A-C	588			588			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	468	578	0.810	468	4.2	33.675	D
B-A	46	155	0.296	46	0.4	34.577	D
C-AB	186	560	0.332	186	0.5	9.731	A
C-A	740			740			
A-B	39			39			
A-C	588			588			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	468	578	0.810	468	4.3	33.790	D
B-A	46	155	0.297	46	0.4	34.650	D
C-AB	186	560	0.332	186	0.5	9.731	A
C-A	740			740			
A-B	39			39			
A-C	588			588			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	468	578	0.810	468	4.3	33.865	D
B-A	46	155	0.297	46	0.4	34.695	D
C-AB	186	560	0.332	186	0.5	9.731	A
C-A	740			740			
A-B	39			39			
A-C	588			588			

Appendix L PICADY Results for B4011 / Blackthorn Road Junction (3)

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.2.5947

Filename: 2022-08-24 J3 TIA v1.2.j9
Path: C:\Users\brian.condon\Condondrew Associates\Condon Drew Associates Ltd. - Documents\CDA Projects\1700-1799\1719-Ploughly Road CB\02-Analysis\Juntions9
Report generation date: 24/08/2022 12:05:32

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2022 Base							
Stream B-C	0.1	5.88	0.08	A	0.4	8.38	0.26	A
Stream B-A	0.1	10.01	0.09	B	0.1	10.03	0.11	B
Stream C-AB	0.3	5.12	0.16	A	0.2	5.95	0.11	A
	2027 Base							
Stream B-C	0.1	5.98	0.08	A	0.4	8.82	0.29	A
Stream B-A	0.1	10.39	0.10	B	0.1	10.50	0.13	B
Stream C-AB	0.4	5.11	0.18	A	0.2	6.01	0.12	A
	2027 Base + Development							
Stream B-C	0.1	6.03	0.09	A	0.4	8.86	0.29	A
Stream B-A	0.1	10.50	0.11	B	0.1	10.59	0.13	B
Stream C-AB	0.4	5.12	0.18	A	0.2	6.08	0.13	A

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

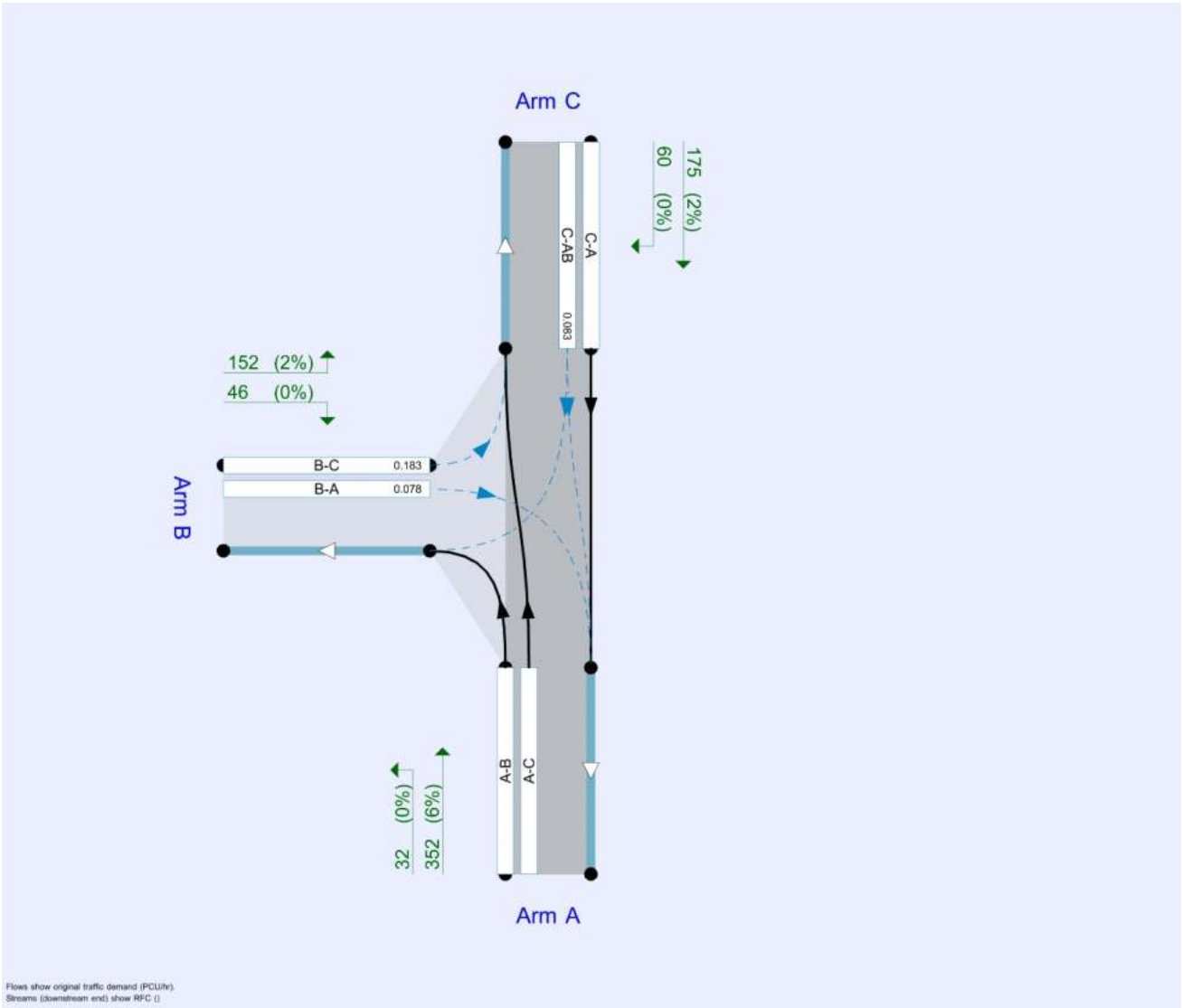
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	24/08/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	briancondon-PC\brian.condon
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

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	2022 Base	AM	ONE HOUR	08:00	09:30	15
D2	2022 Base	PM	ONE HOUR	17:00	18:30	15
D3	2027 Base	AM	ONE HOUR	08:00	09:30	15
D4	2027 Base	PM	ONE HOUR	17:00	18:30	15
D5	2027 Base + Development	AM	ONE HOUR	08:00	09:30	15
D6	2027 Base + Development	PM	ONE HOUR	17:00	18:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2022 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.72	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	B4011 (South)		Major
B	Blackthorn Road		Minor
C	B4011 (North)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.15			153.0	✓	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)
B	One lane plus flare	10.00	5.28	3.19	2.46	2.40	✓	1.00	75	97

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	587	0.106	0.269	0.169	0.384
1	B-C	752	0.115	0.289	-	-
1	C-B	663	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)
D1	2022 Base	AM	ONE HOUR	08:00	09:30	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 (%)
A		✓	196	100.000
B		✓	84	100.000
C		✓	448	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	19	177
	B	37	0	47
	C	380	68	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	6	5
	B	9	0	2
	C	6	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.08	5.88	0.1	A
B-A	0.09	10.01	0.1	B
C-AB	0.16	5.12	0.3	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	35	701	0.050	35	0.1	5.510	A
B-A	28	482	0.058	28	0.1	8.637	A
C-AB	79	812	0.097	78	0.2	5.105	A
C-A	258			258			
A-B	14			14			
A-C	133			133			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	42	691	0.061	42	0.1	5.661	A
B-A	33	461	0.072	33	0.1	9.169	A
C-AB	103	842	0.123	103	0.2	5.073	A
C-A	300			300			
A-B	17			17			
A-C	159			159			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	52	676	0.077	52	0.1	5.881	A
B-A	41	433	0.094	41	0.1	10.005	B
C-AB	143	885	0.161	142	0.3	5.059	A
C-A	351			351			
A-B	21			21			
A-C	195			195			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	52	676	0.077	52	0.1	5.882	A
B-A	41	433	0.094	41	0.1	10.012	B
C-AB	143	885	0.161	143	0.3	5.071	A
C-A	351			351			
A-B	21			21			
A-C	195			195			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	42	691	0.061	42	0.1	5.666	A
B-A	33	461	0.072	33	0.1	9.179	A
C-AB	103	842	0.123	104	0.2	5.094	A
C-A	299			299			
A-B	17			17			
A-C	159			159			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	35	701	0.050	35	0.1	5.518	A
B-A	28	482	0.058	28	0.1	8.650	A
C-AB	79	812	0.098	80	0.2	5.124	A
C-A	258			258			
A-B	14			14			
A-C	133			133			

2022 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.65	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2022 Base	PM	ONE HOUR	17:00	18:30	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 (%)
A		✓	355	100.000
B		✓	182	100.000
C		✓	215	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	28	327
	B	42	0	140
	C	163	52	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.26	8.38	0.4	A
B-A	0.11	10.03	0.1	B
C-AB	0.11	5.95	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	105	632	0.167	105	0.2	6.947	A
B-A	32	456	0.069	31	0.1	8.472	A
C-AB	48	677	0.071	47	0.1	5.740	A
C-A	114			114			
A-B	21			21			
A-C	246			246			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	126	616	0.204	126	0.3	7.487	A
B-A	38	435	0.087	38	0.1	9.055	A
C-AB	60	680	0.088	60	0.1	5.823	A
C-A	134			134			
A-B	25			25			
A-C	294			294			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	154	592	0.260	154	0.4	8.361	A
B-A	46	405	0.114	46	0.1	10.018	B
C-AB	78	686	0.113	77	0.2	5.942	A
C-A	159			159			
A-B	31			31			
A-C	360			360			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	154	592	0.260	154	0.4	8.377	A
B-A	46	405	0.114	46	0.1	10.026	B
C-AB	78	686	0.113	78	0.2	5.950	A
C-A	159			159			
A-B	31			31			
A-C	360			360			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	126	616	0.204	126	0.3	7.508	A
B-A	38	435	0.087	38	0.1	9.067	A
C-AB	60	681	0.088	60	0.1	5.834	A
C-A	134			134			
A-B	25			25			
A-C	294			294			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	105	632	0.167	106	0.2	6.975	A
B-A	32	456	0.069	32	0.1	8.490	A
C-AB	48	677	0.071	48	0.1	5.753	A
C-A	114			114			
A-B	21			21			
A-C	246			246			

2027 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.78	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2027 Base	AM	ONE HOUR	08:00	09:30	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 (%)
A		✓	210	100.000
B		✓	90	100.000
C		✓	481	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	20	190
	B	40	0	50
	C	408	73	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	6	5
	B	9	0	2
	C	6	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.08	5.98	0.1	A
B-A	0.10	10.39	0.1	B
C-AB	0.18	5.11	0.4	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	38	697	0.054	37	0.1	5.568	A
B-A	30	474	0.063	30	0.1	8.819	A
C-AB	88	823	0.107	87	0.2	5.088	A
C-A	274			274			
A-B	15			15			
A-C	143			143			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	45	685	0.066	45	0.1	5.733	A
B-A	36	452	0.080	36	0.1	9.419	A
C-AB	115	856	0.135	115	0.3	5.065	A
C-A	317			317			
A-B	18			18			
A-C	171			171			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	55	669	0.082	55	0.1	5.978	A
B-A	44	422	0.104	44	0.1	10.382	B
C-AB	161	902	0.178	160	0.4	5.069	A
C-A	369			369			
A-B	22			22			
A-C	209			209			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	55	669	0.082	55	0.1	5.979	A
B-A	44	422	0.104	44	0.1	10.391	B
C-AB	161	903	0.178	161	0.4	5.081	A
C-A	369			369			
A-B	22			22			
A-C	209			209			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	45	685	0.066	45	0.1	5.736	A
B-A	36	452	0.080	36	0.1	9.432	A
C-AB	115	857	0.135	116	0.3	5.084	A
C-A	317			317			
A-B	18			18			
A-C	171			171			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	38	696	0.054	38	0.1	5.576	A
B-A	30	474	0.063	30	0.1	8.838	A
C-AB	88	824	0.107	88	0.2	5.110	A
C-A	274			274			
A-B	15			15			
A-C	143			143			

2027 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.78	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2027 Base	PM	ONE HOUR	17:00	18:30	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 (%)
A		✓	382	100.000
B		✓	196	100.000
C		✓	231	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	30	352
	B	45	0	151
	C	175	56	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.29	8.82	0.4	A
B-A	0.13	10.50	0.1	B
C-AB	0.12	6.01	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	114	626	0.182	113	0.2	7.142	A
B-A	34	448	0.076	34	0.1	8.691	A
C-AB	52	678	0.077	52	0.1	5.772	A
C-A	122			122			
A-B	23			23			
A-C	265			265			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	136	608	0.223	135	0.3	7.765	A
B-A	40	425	0.095	40	0.1	9.355	A
C-AB	66	682	0.096	65	0.1	5.865	A
C-A	142			142			
A-B	27			27			
A-C	316			316			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	166	583	0.285	166	0.4	8.798	A
B-A	50	392	0.126	49	0.1	10.491	B
C-AB	86	689	0.125	86	0.2	6.001	A
C-A	169			169			
A-B	33			33			
A-C	388			388			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	166	583	0.285	166	0.4	8.819	A
B-A	50	392	0.126	50	0.1	10.503	B
C-AB	86	689	0.125	86	0.2	6.010	A
C-A	168			168			
A-B	33			33			
A-C	388			388			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	136	608	0.223	136	0.3	7.789	A
B-A	40	425	0.095	41	0.1	9.371	A
C-AB	66	682	0.096	66	0.1	5.875	A
C-A	142			142			
A-B	27			27			
A-C	316			316			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	114	626	0.182	114	0.2	7.175	A
B-A	34	448	0.076	34	0.1	8.707	A
C-AB	52	678	0.077	53	0.1	5.786	A
C-A	121			121			
A-B	23			23			
A-C	265			265			

2027 Base + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.85	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2027 Base + Development	AM	ONE HOUR	08:00	09:30	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 (%)
A		✓	211	100.000
B		✓	97	100.000
C		✓	482	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	21	190
	B	42	0	55
	C	408	74	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	6	5
	B	9	0	2
	C	6	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.09	6.03	0.1	A
B-A	0.11	10.50	0.1	B
C-AB	0.18	5.12	0.4	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	41	698	0.059	41	0.1	5.591	A
B-A	32	473	0.067	31	0.1	8.882	A
C-AB	89	823	0.108	88	0.2	5.097	A
C-A	274			274			
A-B	16			16			
A-C	143			143			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	49	686	0.072	49	0.1	5.765	A
B-A	38	451	0.084	38	0.1	9.502	A
C-AB	117	856	0.136	117	0.3	5.077	A
C-A	317			317			
A-B	19			19			
A-C	171			171			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	61	670	0.090	60	0.1	6.026	A
B-A	46	420	0.110	46	0.1	10.495	B
C-AB	163	902	0.181	162	0.4	5.086	A
C-A	368			368			
A-B	23			23			
A-C	209			209			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	61	670	0.090	61	0.1	6.027	A
B-A	46	420	0.110	46	0.1	10.503	B
C-AB	163	903	0.181	163	0.4	5.096	A
C-A	368			368			
A-B	23			23			
A-C	209			209			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	49	686	0.072	50	0.1	5.771	A
B-A	38	450	0.084	38	0.1	9.516	A
C-AB	117	856	0.137	118	0.3	5.098	A
C-A	316			316			
A-B	19			19			
A-C	171			171			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	41	698	0.059	41	0.1	5.598	A
B-A	32	473	0.067	32	0.1	8.902	A
C-AB	89	823	0.108	90	0.2	5.120	A
C-A	274			274			
A-B	16			16			
A-C	143			143			

2027 Base + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.84	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2027 Base + Development	PM	ONE HOUR	17:00	18:30	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 (%)
A		✓	384	100.000
B		✓	198	100.000
C		✓	235	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	32	352
	B	46	0	152
	C	175	60	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.29	8.86	0.4	A
B-A	0.13	10.59	0.1	B
C-AB	0.13	6.08	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	114	625	0.183	114	0.2	7.161	A
B-A	35	447	0.078	34	0.1	8.720	A
C-AB	56	677	0.083	56	0.1	5.810	A
C-A	121			121			
A-B	24			24			
A-C	265			265			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	137	607	0.225	136	0.3	7.793	A
B-A	41	424	0.098	41	0.1	9.408	A
C-AB	70	682	0.103	70	0.2	5.911	A
C-A	141			141			
A-B	29			29			
A-C	316			316			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	167	582	0.288	167	0.4	8.844	A
B-A	51	391	0.130	50	0.1	10.579	B
C-AB	92	688	0.134	92	0.2	6.068	A
C-A	167			167			
A-B	35			35			
A-C	388			388			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	167	582	0.288	167	0.4	8.865	A
B-A	51	391	0.130	51	0.1	10.591	B
C-AB	92	688	0.134	92	0.2	6.075	A
C-A	167			167			
A-B	35			35			
A-C	388			388			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	137	607	0.225	137	0.3	7.819	A
B-A	41	424	0.098	42	0.1	9.424	A
C-AB	70	682	0.103	71	0.2	5.927	A
C-A	141			141			
A-B	29			29			
A-C	316			316			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	114	625	0.183	115	0.2	7.198	A
B-A	35	447	0.078	35	0.1	8.742	A
C-AB	56	678	0.083	56	0.1	5.822	A
C-A	121			121			
A-B	24			24			
A-C	265			265			

Appendix M PICADY Results for Ploughley Road / Blackthorn Road Junction (4)

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: 2022-08-24 J4 TIA v1.2.j9
Path: C:\Users\brian.condon\Condondrew Associates\Condon Drew Associates Ltd. - Documents\CDA Projects\1700-1799\1719-Ploughly Road CB\02-Analysis\Juntions9
Report generation date: 24/08/2022 12:19:50

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2022 Base							
Stream B-C	0.3	8.26	0.21	A	0.1	6.59	0.12	A
Stream B-A	0.1	8.96	0.11	A	0.1	9.56	0.11	A
Stream C-AB	0.2	5.68	0.11	A	1.0	8.35	0.41	A
	2027 Base							
Stream B-C	0.3	8.62	0.23	A	0.1	6.79	0.13	A
Stream B-A	0.1	9.44	0.12	A	0.1	10.17	0.12	B
Stream C-AB	0.3	5.68	0.12	A	1.2	8.91	0.45	A
	2027 Base + Development							
Stream B-C	0.3	8.76	0.23	A	0.1	6.85	0.13	A
Stream B-A	0.1	9.69	0.13	A	0.2	10.51	0.14	B
Stream C-AB	0.3	5.70	0.13	A	1.2	8.91	0.46	A

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

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

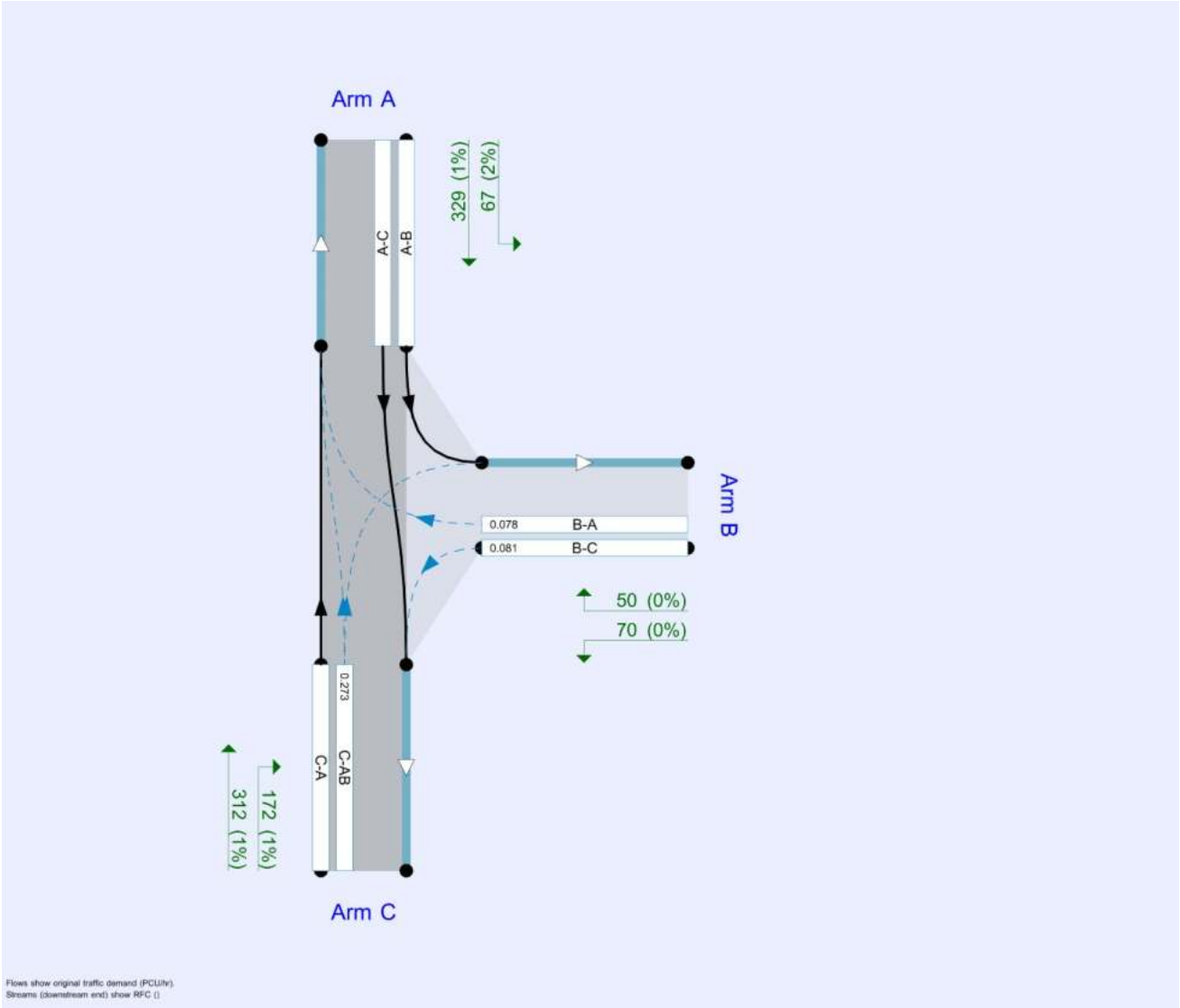
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	24/08/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	briancondon-PC\brian.condon
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

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	2022 Base	AM	ONE HOUR	08:00	09:30	15
D2	2022 Base	PM	ONE HOUR	17:00	18:30	15
D3	2027 Base	AM	ONE HOUR	08:00	09:30	15
D4	2027 Base	PM	ONE HOUR	17:00	18:30	15
D5	2027 Base + Development	AM	ONE HOUR	08:00	09:30	15
D6	2027 Base + Development	PM	ONE HOUR	17:00	18:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2022 Base, 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.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.87	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Ploughley Road (North)		Major
B	Blackthorn Road		Minor
C	Ploughley Road (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)
C	6.00			73.4	✓	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)
B	One lane plus flare	10.00	4.38	3.30	2.50	2.42	✓	1.00	63	123

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	671	0.122	0.309	0.194	0.442
1	B-C	738	0.113	0.286	-	-
1	C-B	616	0.239	0.239	-	-

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)
D1	2022 Base	AM	ONE HOUR	08:00	09:30	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 (%)
A		✓	430	100.000
B		✓	157	100.000
C		✓	330	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	57	373
	B	44	0	113
	C	288	42	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	8	7
	B	0	0	8
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.21	8.26	0.3	A
B-A	0.11	8.96	0.1	A
C-AB	0.11	5.68	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	85	642	0.133	84	0.2	6.966	A
B-A	33	522	0.063	33	0.1	7.357	A
C-AB	46	691	0.067	46	0.1	5.661	A
C-A	202			202			
A-B	43			43			
A-C	281			281			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	102	623	0.163	101	0.2	7.457	A
B-A	40	492	0.080	39	0.1	7.953	A
C-AB	60	708	0.084	60	0.2	5.650	A
C-A	237			237			
A-B	51			51			
A-C	335			335			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	124	595	0.209	124	0.3	8.246	A
B-A	48	450	0.108	48	0.1	8.956	A
C-AB	82	732	0.112	82	0.2	5.647	A
C-A	281			281			
A-B	63			63			
A-C	411			411			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	124	595	0.209	124	0.3	8.257	A
B-A	48	450	0.108	48	0.1	8.964	A
C-AB	82	732	0.112	82	0.2	5.661	A
C-A	281			281			
A-B	63			63			
A-C	411			411			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	102	623	0.163	102	0.2	7.472	A
B-A	40	492	0.080	40	0.1	7.963	A
C-AB	60	708	0.085	60	0.2	5.676	A
C-A	237			237			
A-B	51			51			
A-C	335			335			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	85	642	0.133	85	0.2	6.986	A
B-A	33	522	0.063	33	0.1	7.369	A
C-AB	46	691	0.067	46	0.1	5.681	A
C-A	202			202			
A-B	43			43			
A-C	281			281			

2022 Base, PM

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.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	3.24	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2022 Base	PM	ONE HOUR	17:00	18:30	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 (%)
A		✓	361	100.000
B		✓	106	100.000
C		✓	437	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	60	301
	B	41	0	65
	C	277	160	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.12	6.59	0.1	A
B-A	0.11	9.56	0.1	A
C-AB	0.41	8.35	1.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	49	658	0.074	49	0.1	5.909	A
B-A	31	502	0.061	31	0.1	7.635	A
C-AB	172	696	0.247	170	0.4	6.902	A
C-A	157			157			
A-B	45			45			
A-C	227			227			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	58	641	0.091	58	0.1	6.178	A
B-A	37	468	0.079	37	0.1	8.343	A
C-AB	222	714	0.311	221	0.6	7.387	A
C-A	171			171			
A-B	54			54			
A-C	271			271			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	72	618	0.116	71	0.1	6.588	A
B-A	45	422	0.107	45	0.1	9.540	A
C-AB	301	739	0.408	300	1.0	8.301	A
C-A	180			180			
A-B	66			66			
A-C	331			331			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	72	618	0.116	72	0.1	6.592	A
B-A	45	422	0.107	45	0.1	9.557	A
C-AB	302	739	0.408	302	1.0	8.354	A
C-A	179			179			
A-B	66			66			
A-C	331			331			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	58	641	0.091	59	0.1	6.184	A
B-A	37	468	0.079	37	0.1	8.364	A
C-AB	222	715	0.311	224	0.6	7.450	A
C-A	171			171			
A-B	54			54			
A-C	271			271			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	49	657	0.074	49	0.1	5.919	A
B-A	31	501	0.062	31	0.1	7.658	A
C-AB	173	697	0.248	173	0.5	6.968	A
C-A	156			156			
A-B	45			45			
A-C	227			227			

2027 Base, 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.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.95	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2027 Base	AM	ONE HOUR	08:00	09:30	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 (%)
A		✓	461	100.000
B		✓	168	100.000
C		✓	354	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	61	400
	B	47	0	121
	C	309	45	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	8	7
	B	0	0	8
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.23	8.62	0.3	A
B-A	0.12	9.44	0.1	A
C-AB	0.12	5.68	0.3	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	91	635	0.143	90	0.2	7.131	A
B-A	35	511	0.069	35	0.1	7.559	A
C-AB	51	697	0.073	50	0.1	5.654	A
C-A	216			216			
A-B	46			46			
A-C	301			301			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	109	614	0.177	109	0.2	7.688	A
B-A	42	479	0.088	42	0.1	8.245	A
C-AB	66	716	0.093	66	0.2	5.644	A
C-A	252			252			
A-B	55			55			
A-C	360			360			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	133	584	0.228	133	0.3	8.606	A
B-A	52	433	0.119	52	0.1	9.426	A
C-AB	92	742	0.124	92	0.3	5.653	A
C-A	298			298			
A-B	67			67			
A-C	440			440			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	133	584	0.228	133	0.3	8.619	A
B-A	52	433	0.119	52	0.1	9.436	A
C-AB	92	742	0.124	92	0.3	5.670	A
C-A	298			298			
A-B	67			67			
A-C	440			440			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	109	614	0.177	109	0.2	7.707	A
B-A	42	478	0.088	42	0.1	8.259	A
C-AB	67	716	0.093	67	0.2	5.672	A
C-A	252			252			
A-B	55			55			
A-C	360			360			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	91	635	0.144	91	0.2	7.158	A
B-A	35	511	0.069	35	0.1	7.576	A
C-AB	51	697	0.073	51	0.1	5.675	A
C-A	215			215			
A-B	46			46			
A-C	301			301			

2027 Base, PM

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.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	3.53	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2027 Base	PM	ONE HOUR	17:00	18:30	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 (%)
A		✓	389	100.000
B		✓	114	100.000
C		✓	470	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	65	324
	B	44	0	70
	C	298	172	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.13	6.79	0.1	A
B-A	0.12	10.17	0.1	B
C-AB	0.45	8.91	1.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	53	651	0.081	52	0.1	6.010	A
B-A	33	489	0.068	33	0.1	7.887	A
C-AB	190	703	0.271	188	0.5	7.054	A
C-A	164			164			
A-B	49			49			
A-C	244			244			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	63	633	0.099	63	0.1	6.311	A
B-A	40	453	0.087	39	0.1	8.709	A
C-AB	247	722	0.342	246	0.7	7.647	A
C-A	176			176			
A-B	58			58			
A-C	291			291			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	77	608	0.127	77	0.1	6.782	A
B-A	48	403	0.120	48	0.1	10.142	B
C-AB	339	749	0.452	337	1.2	8.834	A
C-A	179			179			
A-B	72			72			
A-C	357			357			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	77	607	0.127	77	0.1	6.786	A
B-A	48	403	0.120	48	0.1	10.166	B
C-AB	339	750	0.453	339	1.2	8.914	A
C-A	178			178			
A-B	72			72			
A-C	357			357			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	63	633	0.099	63	0.1	6.316	A
B-A	40	452	0.088	40	0.1	8.738	A
C-AB	248	723	0.343	249	0.7	7.735	A
C-A	175			175			
A-B	58			58			
A-C	291			291			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	53	651	0.081	53	0.1	6.018	A
B-A	33	488	0.068	33	0.1	7.919	A
C-AB	191	704	0.272	192	0.5	7.135	A
C-A	163			163			
A-B	49			49			
A-C	244			244			

2027 Base + Development, 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.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.95	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2027 Base + Development	AM	ONE HOUR	08:00	09:30	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 (%)
A		✓	485	100.000
B		✓	170	100.000
C		✓	358	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	68	417
	B	49	0	121
	C	313	45	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	8	7
	B	0	0	8
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.23	8.76	0.3	A
B-A	0.13	9.69	0.1	A
C-AB	0.13	5.70	0.3	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	91	630	0.145	90	0.2	7.195	A
B-A	37	506	0.073	37	0.1	7.668	A
C-AB	51	696	0.074	51	0.1	5.673	A
C-A	218			218			
A-B	51			51			
A-C	314			314			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	109	608	0.179	109	0.2	7.779	A
B-A	44	472	0.093	44	0.1	8.400	A
C-AB	67	714	0.094	67	0.2	5.667	A
C-A	255			255			
A-B	61			61			
A-C	375			375			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	133	577	0.231	133	0.3	8.747	A
B-A	54	426	0.127	54	0.1	9.678	A
C-AB	93	740	0.126	93	0.3	5.685	A
C-A	301			301			
A-B	75			75			
A-C	459			459			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	133	577	0.231	133	0.3	8.763	A
B-A	54	425	0.127	54	0.1	9.689	A
C-AB	93	740	0.126	93	0.3	5.698	A
C-A	301			301			
A-B	75			75			
A-C	459			459			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	109	608	0.179	109	0.2	7.797	A
B-A	44	472	0.093	44	0.1	8.414	A
C-AB	67	714	0.094	68	0.2	5.698	A
C-A	255			255			
A-B	61			61			
A-C	375			375			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	91	630	0.145	91	0.2	7.220	A
B-A	37	505	0.073	37	0.1	7.687	A
C-AB	51	696	0.074	52	0.1	5.697	A
C-A	218			218			
A-B	51			51			
A-C	314			314			

2027 Base + Development, PM

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.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	3.58	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2027 Base + Development	PM	ONE HOUR	17:00	18:30	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 (%)
A		✓	396	100.000
B		✓	120	100.000
C		✓	484	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	67	329
	B	50	0	70
	C	312	172	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.13	6.85	0.1	A
B-A	0.14	10.51	0.2	B
C-AB	0.46	8.91	1.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	53	648	0.081	52	0.1	6.039	A
B-A	38	486	0.078	37	0.1	8.025	A
C-AB	194	709	0.273	192	0.5	7.015	A
C-A	171			171			
A-B	50			50			
A-C	248			248			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	63	629	0.100	63	0.1	6.353	A
B-A	45	449	0.100	45	0.1	8.914	A
C-AB	252	730	0.346	251	0.7	7.615	A
C-A	183			183			
A-B	60			60			
A-C	296			296			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	77	602	0.128	77	0.1	6.848	A
B-A	55	398	0.138	55	0.2	10.485	B
C-AB	348	759	0.458	346	1.2	8.828	A
C-A	185			185			
A-B	74			74			
A-C	362			362			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	77	602	0.128	77	0.1	6.853	A
B-A	55	397	0.139	55	0.2	10.513	B
C-AB	349	760	0.459	349	1.2	8.910	A
C-A	184			184			
A-B	74			74			
A-C	362			362			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	63	629	0.100	63	0.1	6.360	A
B-A	45	448	0.100	45	0.1	8.948	A
C-AB	253	731	0.346	255	0.8	7.704	A
C-A	182			182			
A-B	60			60			
A-C	296			296			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	53	648	0.081	53	0.1	6.048	A
B-A	38	485	0.078	38	0.1	8.059	A
C-AB	195	710	0.274	196	0.5	7.101	A
C-A	170			170			
A-B	50			50			
A-C	248			248			

Appendix N PICADY Results for Proposed Site Access Junction

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: 2022-08-24 J5 TIA v1.2.j9
Path: C:\Users\brian.condon\Condondrew Associates\Condon Drew Associates Ltd. - Documents\CDA Projects\1700-1799\1719-Ploughly Road CB\02-Analysis\Juntions9
Report generation date: 24/08/2022 13:29:09

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2027 Base + Development							
Stream B-AC	0.2	11.33	0.19	B	0.2	10.83	0.18	B
Stream C-AB	0.0	4.89	0.02	A	0.0	5.08	0.02	A

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

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

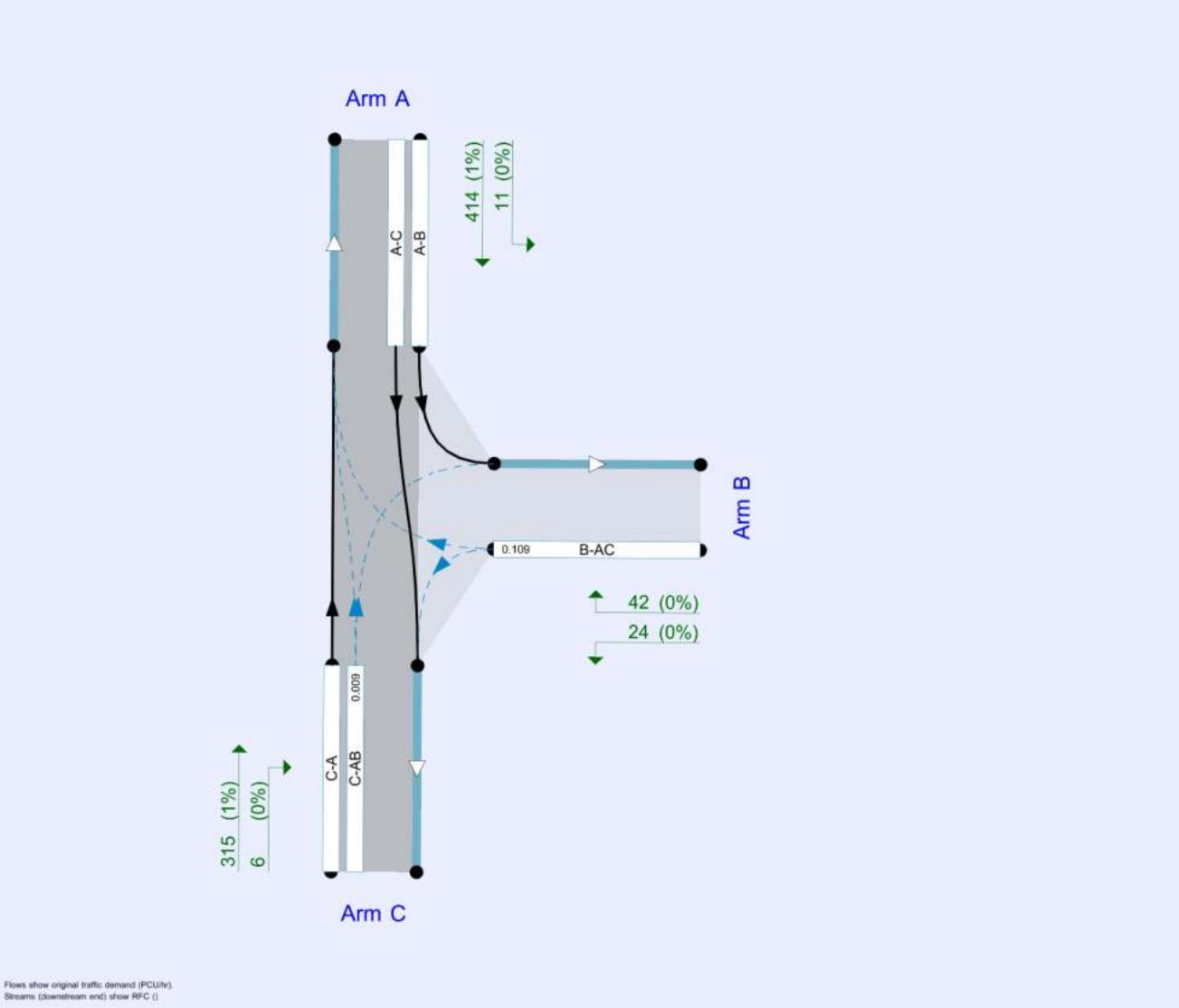
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	24/08/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	briancondon-PC\brian.condon
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

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	2027 Base + Development	AM	ONE HOUR	08:00	09:30	15
D2	2027 Base + Development	PM	ONE HOUR	17:00	18:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2027 Base + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.90	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Ploughley Road (North)		Major
B	Site Access		Minor
C	Ploughley Road (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)
C	5.90			100.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	2.75	70	70

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	522	0.095	0.241	0.152	0.345
1	B-C	651	0.100	0.253	-	-
1	C-B	632	0.246	0.246	-	-

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)
D1	2027 Base + Development	AM	ONE HOUR	08:00	09:30	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 (%)
A		✓	446	100.000
B		✓	66	100.000
C		✓	384	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	11	435
	B	42	0	24
	C	378	6	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.19	11.33	0.2	B
C-AB	0.02	4.89	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	50	446	0.111	49	0.1	9.064	A
C-AB	7	747	0.010	7	0.0	4.884	A
C-A	282			282			
A-B	8			8			
A-C	327			327			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	59	423	0.140	59	0.2	9.897	A
C-AB	10	772	0.012	10	0.0	4.738	A
C-A	336			336			
A-B	10			10			
A-C	391			391			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	73	390	0.186	72	0.2	11.311	B
C-AB	14	809	0.017	14	0.0	4.546	A
C-A	409			409			
A-B	12			12			
A-C	479			479			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	73	390	0.186	73	0.2	11.329	B
C-AB	14	809	0.017	14	0.0	4.548	A
C-A	409			409			
A-B	12			12			
A-C	479			479			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	59	423	0.140	60	0.2	9.919	A
C-AB	10	772	0.013	10	0.0	4.744	A
C-A	336			336			
A-B	10			10			
A-C	391			391			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	50	446	0.111	50	0.1	9.095	A
C-AB	7	747	0.010	7	0.0	4.888	A
C-A	282			282			
A-B	8			8			
A-C	327			327			

2027 Base + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.94	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2027 Base + Development	PM	ONE HOUR	17:00	18:30	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 (%)
A		✓	425	100.000
B		✓	66	100.000
C		✓	321	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	11	414
	B	42	0	24
	C	315	6	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.18	10.83	0.2	B
C-AB	0.02	5.08	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	50	456	0.109	49	0.1	8.845	A
C-AB	7	717	0.009	7	0.0	5.081	A
C-A	235			235			
A-B	8			8			
A-C	312			312			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	59	434	0.137	59	0.2	9.593	A
C-AB	9	736	0.012	9	0.0	4.964	A
C-A	280			280			
A-B	10			10			
A-C	372			372			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	73	405	0.179	72	0.2	10.816	B
C-AB	12	764	0.016	12	0.0	4.807	A
C-A	341			341			
A-B	12			12			
A-C	456			456			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	73	405	0.179	73	0.2	10.831	B
C-AB	12	764	0.016	12	0.0	4.810	A
C-A	341			341			
A-B	12			12			
A-C	456			456			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	59	434	0.137	60	0.2	9.608	A
C-AB	9	737	0.012	9	0.0	4.969	A
C-A	280			280			
A-B	10			10			
A-C	372			372			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	50	456	0.109	50	0.1	8.875	A
C-AB	7	717	0.009	7	0.0	5.083	A
C-A	235			235			
A-B	8			8			
A-C	312			312			

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