

GLADMAN DEVELOPMENTS LTD

**PROPOSED RESIDENTIAL DEVELOPMENT
LAND OFF ARUNDEL ROAD
ANGMERING**

Transport Assessment

July 2018

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1 INTRODUCTION

1.1 Introduction

1.1.1 Croft have been instructed by Gladman Developments Ltd (Gladman) to advise on the traffic and transportation issues relating to a proposed residential development on land off Arundel Road, Angmering.

1.1.2 The report will form supplementary information to assist in the determination of a planning application on the site for up to 200 residential dwellings.

1.1.3 A Travel Plan has also been prepared to ensure that travel to and from the site by sustainable modes is maximised.

1.2 Scope of Report

1.2.1 This Transport Assessment (TA) has been prepared to consider the development in transport and highways terms in order to provide the necessary reassurance that the proposals can be accommodated by the local transport network.

1.2.2 The scope of this Transport Assessment conforms to the guidance provided in the Ministry of Housing, Communities and Local Government (MHCLG) Planning Practice Guidance 'Transport Evidence Bases in Plan Making'.

1.2.3 The guidance covers the following issues;

- Reducing the need to travel, especially by car – ensure at the outset, that thought is given to reducing the need to travel; consider the types of uses (or mix of uses) and the scale of development in order to promote multipurpose or linked trips;
- Sustainable accessibility – promote accessibility by all modes of travel, in particular public transport, cycling and walking; assess the likely travel behaviour or travel pattern to and from the proposed site; and develop appropriate measures to influence travel behaviour;

- Dealing with residual trips – provide accurate quantitative and qualitative analyses of the predicted impacts of residual trips from the proposed development and ensure that suitable measures are proposed to manage these impacts; and
- Mitigation measures – ensure as much as possible that the proposed mitigation measures avoid unnecessary physical improvements to highways and promote innovative and sustainable transport solutions.

1.2.4 As a Travel Plan has been prepared, reference has also been made to guidance presented in the DfT document entitled ‘Good Practice Guidelines: Delivering Travel Plans through the Planning Process’ which was published in August 2009.

1.3 Structure of Report

1.3.1 Following this introduction, Section 2 of the Report details the existing site conditions and describes the adjacent highway, while Section 3 details the development proposals including access.

1.3.2 Section 4 considers relevant local and national policy and Section 5 considers the accessibility of the site by non-car modes, including walking, cycling and public transport.

1.3.3 Section 6 considers the trip generation and traffic impact assessment of the local highway network, while Section 7 considers the impact of the proposals on the strategic highway network and addresses the issues raised by Highways England (HE).

1.3.4 The review of road safety and personal injury accidents in the vicinity of the site over the last 3 years is detailed in Section 8.

1.3.5 Section 9 contains details of the Travel Plan, although the actual document will be submitted as a separate document, within the application package. Section 10 provides an overview of the Road Safety Audit and summarises the findings.

1.3.6 Section 11 draws together the Report’s findings and conclusions.

2 DEVELOPMENT SITE

2.1 Existing Site Information

2.1.1 The application site extends to approximately 9.07 hectares (22 acres) and is located on the northern edge of the village of Angmering, approximately 28 kilometres to the east of Chichester and around 10 kilometres to the west of Worthing.

2.1.2 The location of the site in relation to the surrounding area is presented in **Plan 1**, while the approximate red line boundary is shown in **Figure 2.1** below.



Figure 2.1 – Approximate Red Line Boundary

2.1.3 Angmering is a large village and civil parish between Littlehampton and Worthing in West Sussex just to the south of the south Downs National Park. The site comprises the former Angmering Auto Services and a Volkswagen and Audi recycled parts centre and undeveloped land. The site is irregular in shape with two short frontages with Arundel Road on its eastern side and undeveloped land bounding the site on all other sides.

2.1.4 The nearest local shop is The Co-operative foodstore, which lies within easy walking distance of the site, along with a Lloyds Pharmacy outlet, which are approximately 1,220 metres and 1,330 metres away respectively. The nearest school to the site is St Margaret's Church of England Primary School, which is only 350 metres away, located to the south of the site.

2.1.5 The accessibility of the site in relation to local services will be detailed further in Section 5.

2.2 Existing Highway Network

2.2.1 In the vicinity of the site, the B2225 Arundel Road is approximately 7.3 metres wide with a footway along its western side. It benefits from street lighting and is subject to a 30mph speed limit.

2.2.2 To the north Arundel Road provides direct access onto the A27, which is a two-lane dual carriageway. It runs in a broadly east-west alignment and links the site to Worthing, Shoreham and Lancing to the east and Chichester and Portsmouth to the west.

2.2.3 To the south of the site, Arundel Road extends for approximately 1 kilometre before forming a priority-controlled junction with Water Lane/station Road.

2.2.4 From the junction, Water Lane extends in a north-easterly direction and forms a priority-controlled junction with the A280, although movements from Water Lane and are restricted to left turns only.

2.2.5 To the south of the junction, Station Road continues in a south-westerly direction for approximately 3 kilometres before joining the A259 New Road/Roundstone By-Pass Road at a roundabout junction, with the A2140 forming the southern arm.

2.2.6 Approximately 1.5 kilometres to the east, Roundstone By-Pass Road forms another roundabout junction with the A280, the A259 and the B2140 Old Worthing Road.

2.2.7 The A529 provides another key route in the area, running in a broadly east-west alignment between Worthing to the east and Flansham and Shripney to the west.

2.3 Baseline Transport Data

2.3.1 The site has previously operated as Angmering Auto Services and a Volkswagen and Audi recycled parts centre and so clearly has generated traffic movements onto the local highway network.

2.3.2 This TA however does not take account of any previously generated traffic to and from the site and so can be considered to provide a particularly robust assessment of impact.

3 DEVELOPMENT SITE AND PROPOSALS

3.1 Proposed Development

- 3.1.1 The applicant is seeking outline planning consent to develop the site for up to 200 residential dwellings with associated car parking, landscaping and public open space. An indicative site layout is included within other documents submitted as part of the planning application.
- 3.1.2 Following discussions with the local planning authority, the proposals also include the provision of a full size football pitch that will form a focal point to the development and assist in promoting a healthy and active lifestyle for new and existing residents.

3.2 Vehicular Access

- 3.2.1 Vehicular access to the site will be taken directly from Arundel Road via a new priority controlled junction.
- 3.2.2 The site access provides a 5.5 metre carriageway with 2 metre footways on both sides continuing through the site and corner radii of 6 metres. While not a requirement in capacity terms, the junction layout will incorporate a right turn harbourage of 3 metres in width for right turning traffic, with through lanes of around 3 metres. The proposed site access is shown in **Plan 2**.
- 3.2.3 The access plan shows visibility splays of 2.4 metres by 59 metres can be achieved in both directions, which are commensurate with traffic speeds of 37mph, as set out in Manual for Streets.
- 3.2.4 The design and criteria of the proposed site access conforms with current guidance for priority-controlled junctions (TD42/95 - Geometric Design of Major/Minor Priority Junctions) and so on that basis, it is considered that the proposed vehicular access would be deemed acceptable by the local highway authority.
- 3.2.5 A further access could also be provided off Arundel Road, at a point approximately 150 metres to the south of the main access, currently the existing access serving the site.

- 3.2.6 The potential secondary access off Arundel Road is shown in **Plan 3**. This access would also cater for pedestrians, providing 2 metre footways on both sides, that would simply tie into existing footway provision located on the western side of Arundel Road.
- 3.2.7 For the purpose of the Road Safety Audit a series of swept paths have been undertaken and are presented in **Plan 4**. This will be discussed further in Section 10 of this report.

3.3 Servicing

- 3.3.1 The internal layout will be designed to facilitate waste collections and allow refuse vehicles to enter the site, turn around and exit in a forward gear.
- 3.3.2 This will ensure there is no detrimental impact to the public highway and confirm that the site can be serviced without giving rise to any road safety issues.

3.4 Pedestrian and Cycle Access

- 3.4.1 The main point of pedestrian and cycle access will be from the site access on Arundel Road and the potential secondary access, located to the south.
- 3.4.2 However, to assist permeability, potential exists to provide further links around the periphery of the site including in the north and south west corners of the site, with a further link along the southern boundary connecting to the Angmering Sports and Recreation Ground and the wider community of Angmering.

4 TRANSPORT POLICY AND GUIDANCE

4.1 Preamble

- 4.1.1 The objectives for the development have been defined taking into account national and local policies that seek to safeguard the environment and resources and to put into practice the principles of sustainable development.
- 4.1.2 The national policy presented in this document focuses on the National Planning Policy Framework (NPPF) formerly known as ‘The Framework’ which was published in March 2012 and sets out the Government’s planning policies for achieving sustainable development. Reference has also been made to the Planning Practice Guidance that was produced to supplement the NPPF.
- 4.1.3 Consideration has also been given to the on-line Planning Practice Guidance, as well local planning policy, including the West Sussex Transport Plan 2011-2026 (LTP3) and the Arun District Council’s Emerging Local Plan 2011 to 2031.
- 4.1.4 This section will outline the pertinent policies relating to the proposed development.

4.2 National Policy

Nation Planning Policy Framework

- 4.2.1 The presumption in favour of sustainable development is a central theme running through the Framework and transport planning policies are seen as a key element of delivering sustainable development as well as contributing to wider sustainability and health objectives.
- 4.2.2 To achieve these objectives paragraph 30 states that; *“When making decisions, local authorities should:-*
- Support a pattern of development which, where reasonable to do so, facilitates the use of sustainable modes of transport.”*

4.2.3 As will be demonstrated within this Transport Assessment, the proposed development is situated in a highly accessible location meaning residents will have a real choice about how they travel, which will allow the use of the private car to be minimised.

4.2.4 This Transport Assessment will show that the proposed development accords with the policy test contained within paragraph 32 of the Framework which states that:-

“All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment and that any plans or decisions should take into account the following;

- *the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;*
- *safe and suitable access to the site can be achieved for all people; and*
- *improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.'*

4.2.5 In addition, the proposals comply with paragraph 35 which states that *“To further enhance the opportunities for sustainable development any future developments should be located and designed where practical to:-*

- *To accommodate the efficient delivery of goods and supplies;*
- *Give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;*
- *Create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones;*

- *Incorporate facilities for charging plug-in and other ultra-low emission vehicles; and*
- *Consider the needs of people with disabilities by all modes of transport.*

4.2.6 Paragraph 36 states that *“A key tool to facilitate this will be a Travel Plan. All developments which generate significant amounts of movement should be required to provide a Travel Plan”*.

4.2.7 In that regard, a Travel Plan has been prepared to accompany the application and so conforms to the national guidance set out above.

4.2.8 In paragraph 38 the document states that *“Key facilities such as primary schools and local shops should be located within walking distance of most properties”*

4.2.9 The location of the site is therefore compliant with the above, being located within walking distance of several local facilities and amenities, as well as being accessible by local public transport services and so accords with the aims and objectives of the Framework.

4.3 Planning Practice Guidance

4.3.1 The Government has produced the Planning Practice Guidance to supplement the NPPF. Within the guidance, there is specific section clarifying the over-arching principles on Travel Plans, Transport Assessments and Transport Statements. There are also sections advising further on each of the three documents discussed.

4.3.2 The guidance on Transport Assessments and Statements reiterates the circumstances in which either document would usually be required. It is clear that a development of the size and nature of this development requires a full Transport Assessment (TA).

4.3.3 It also clarifies the process for establishing a scope for the assessment, and what the document should contain. The guidance has been considered in the preparation of this TA.

4.3.4 The guidance on Travel Plans reinforces the requirement for a Travel Plan, the scope of the document, and need for monitoring to continue the strategy into the future. The guidance has been considered in the production of the accompanying Travel Plan.

4.3.5 The theme of sustainable development runs throughout Planning Practice Guidance, with the detailed elements regarding transport being focussed in the following sections:

- Transport evidence bases in plan making and decision taking; and
- Travel plans, transport assessments and statements in decision-taking.

4.3.6 Both sections of the Guidance provide significant amounts of detail on the information types and sources that are appropriate for helping Local Planning Authorities to take forward their Local Plan with an appropriate evidence base. The Guidance is also a useful reference for assessing schemes such as the development which this report accompanies.

4.3.7 The core components of the requirements for assessment, as set out in the Guidance, can be summarised as:

“The key issues, which should be considered in developing a transport evidence base, include the need to:

- *assess the existing situation and likely generation of trips over time by all modes and the impact on the locality in economic, social and environmental terms*
- *assess the opportunities to support a pattern of development that, where reasonable to do so, facilitates the use of sustainable modes of transport*
- *highlight and promote opportunities to reduce the need for travel where appropriate*
- *identify opportunities to prioritise the use of alternative modes in both existing and new development locations if appropriate*
- *consider the cumulative impacts of existing and proposed development on transport networks*

- *assess the quality and capacity of transport infrastructure and its ability to meet forecast demands*
- *identify the short, medium and long-term transport proposals across all modes."*

4.3.8 The principles set out in Planning Practice Guidance are consistent with the approach undertaken in the production of this Transport Assessment.

4.4 Local Planning Policy

West Sussex Transport Plan 2011-2026 (LTP3)

4.4.1 The LTP3 sets out the aspirations of the Highway Authority. The priorities and main objectives are stated as follows: *'Our highest priorities will tackle the key issues we face and bring about radical improvements to quality of life for the people and businesses in the County. Our highest priorities are:*

- 1. Improvements to the A27 trunk road and complementary public transport improvements to the current bottlenecks at Chichester, Arundel and Worthing (not currently programmed) to increase capacity, improve reliability and safety and increase the competitiveness of local businesses and attract investment.*
- 2. Programmed improvements to the A23 trunk road at the current bottleneck between Handcross and Warninglid to increase capacity and improve the safety record.*
- 3. Maintaining the highway network.*
- 4. Whilst major schemes are a high priority for us, they are likely to take many years to deliver. It remains important that alongside these priorities we continue to work with our community to improve the safety record on our local roads, increase usage of healthy and sustainable modes of transport, and provide access to services.'*

'Our main objective is to improve quality of life for the people of West Sussex by helping to provide:

- *a high-quality transport network that promotes a competitive and prosperous economy in all parts of the County??a resilient transport network that complements the built and natural environment whilst reducing carbon emissions over time*
- *access to services, employment and housing*
- *a transport network that feels, and is, safer and healthier to use'*

4.4.2 There is no specific policy or proposal for Angmering or the key roads in the vicinity of the site. The A259 (from A29 Bognor Regis to Angmering bypass) and A280 Angmering Bypass are identified as part of the County's Strategic Road Network.

4.4.3 The implementation plan for Arun District includes the following aspirations:

- *'All new development should be designed to promote 'local living', for example shops, jobs and homes all being within easy reach of each other.'*
- *'All new development should provide enough secure cycle parking to meet the needs of the development and be within close proximity to public transport.'*
- *'Parking provision at new residential development should provide enough spaces to accommodate the expected number of vehicles at the site or provide measures such as car clubs which reduce the number of vehicles to match the space available.'*
- *'Developing opportunities through new development to improve the access along the A259 including improvements that will achieve better bus journey times.'*

West Sussex Walking and Cycling Strategy (2016 to 2026)

4.4.4 WSCC has developed a Walking and Cycling Strategy to outline the design and safety principle for walking and cycling, recognising the different needs of users, and identifies and prioritises potential infrastructure improvements for the County.

- 4.4.5 In relation to Angmering, the strategy identifies potential improvements to village roads including Arundel Road (39), Station Road (40) and Honey Lane/Rowan Road (178) to deliver improved north-south connections. The strategy provides no detail on what is expected on these routes but potential exists for the proposed development to assist (at least in part) to delivering the link along Arundel Road, or potentially through the site. This will be discussed with WSCC's highways department further along the planning process.

Arun District Council Emerging Local Plan 2011 – 20231

- 4.4.6 Arun DC has prepared a draft local plan which identifies the vision for Arun district to 2031. The Local Plan is subject to examination with adoption expected in 2018.
- 4.4.7 The draft Local Plan identifies a series of draft policies relating to transport including

Policy TSP1 – Transport and Development

- 4.4.8 This policy identifies that development sites will be supported where they;
- Are designed to reduce the need to travel by car, but make provision of safe access to the site for all travel modes;
 - Give priority to pedestrian and cycle movements;
 - Incorporate appropriate levels of parking in line with WSCC Guidance;
 - Are supported by effective and deliverable Transport Assessments and Travel Plans; and;
 - Explain how development can:
 - Accommodate deliveries and servicing;
 - Give priority to pedestrian and cycle movements and have access to high-quality public transport;
 - Create safe and secure layouts for all users;
 - Incorporate electric charging infrastructure; and
 - Consider the needs of people with disabilities.

Policy T DM1

- 4.4.9 This policy identifies that proposals for new development must;
- Be located where they are close to sustainable travel opportunities which link to key destinations;
 - Contribute to the extension of public transport services;
 - Make provision for pedestrian and cycling facilities; and
 - Contributes to provision of a joined-up cycle and PROW network.

Arun District Council Local Plan Saved Policies

- 4.4.10 The Arun District Council Local Plan 2003 saved policies will remain effective until replaced by the new Arun Local Plan.
- 4.4.11 The site is not identified on the Local Plan Proposals Map for any specific development.
- 4.4.12 The general policies relevant to transport are highlighted as follows:
- 4.4.13 **Policy GEN7** The Form of New Development confirms that *‘development will be permitted provided it:*
- (iii) promotes sustainable development, including the effective use and conservation of energy and reducing the need to travel, particularly by private car;*
- (vii) allows for the safe movement of pedestrians and vehicles, giving priority to pedestrians.’*
- 4.4.14 **Policy GEN12** Parking in New Development confirms that provision of parking in excess of the District Council’s Parking Standards will not be allowed. The Parking Standards are included in the Local Plan.

4.4.15 **Policy GEN14** Public Transport confirms that *‘Where appropriate, new development will be required to make provision for public transport facilities. Where new development can only take place with improvements to public transport services, or such improvements would be likely to influence desirable travel patterns, the Local Planning Authority will seek contributions towards the cost of improvements.’*

4.4.16 **Policy GEN15** Cycling and Walking confirms that *‘where appropriate, new development will be required to provide safe and attractive facilities for cyclists and pedestrians, both within the site and in the form of links to the surrounding area.’*

Parking Standards

4.4.17 Arun District Council’s Supplementary Planning Guidance – Parking Standards dated October 2000 is included as Appendix 2 of the former Local Plan and for residential developments of over 16 units based upon maximum parking standards are summarised in **Table 4.1** below.

Dwelling Type	Maximum Car Parking	Minimum Cycle Parking Standard
Dwellings – House 1,2 or 3 bedrooms	2 spaces per house plus 0.2 per house for visitors	1 space per 8 car parking spaces
Dwellings – House 1,2 or 3 bedrooms	3 spaces per house plus 0.2 per house for visitors	1 space per 8 car parking spaces

Table 4.1 – Arun Car and Cycle Parking Standards

4.4.18 The West Sussex County Council [WSCC] Standards are set out in the Supplementary Planning Guidance adopted by West Sussex County Council in November 2003 entitled ‘Revised County Parking Standards and Transport Contributions Methodology’.

4.4.19 The WSCC Guidance for Car Parking in New Residential Developments dated September 2010 and Parking Demand Calculator is used for residential development which together with the WSCC Supplementary Planning Guidance - Revised County Parking Standards and Transport Contributions Methodology 2003 forms the adopted county parking standards. These parking standards are referred to by the Emerging Arun District Council Local Plan.

4.4.20 The relevant WSCC parking standards are summarised in **Table 4.2** as follows:

Dwelling Type	Car Parking	Minimum Cycle Parking Standard
Residential Dwellings	Within 5% of parking demand	1 space per dwelling

Table 4.2 – West Sussex Parking Standards

4.4.21 The West Sussex County Council demand based parking standards have been used to assess the proposed development.

4.5 Policy and Guidance Summary

4.5.1 Reference to national guidance contained within NPPF has helped to establish that the site is well related to the surrounding area and will contribute towards the creation of a sustainable development.

4.5.2 The review of both national and local transport planning policy has shown that the proposals conform to the aims and aspirations of the Council and will assist in delivering the policies contained within.

4.5.3 The NPPF seeks to ensure access to all road users including pedestrians and cyclists, as well as delivering a scheme, which allows the promotion of travel by public transport to result in an encompassing strategy to provide a high quality development whilst not compromising a high level of sustainability.

- 4.5.4 One of the key aims of local policy is to focus on the accessibility of a site by modes other than the private car to ensure that new development is located where a range of transport modes can access it. Locations which offer alternatives to the use of the private car should be encouraged.
- 4.5.5 The site is ideally located to assist in delivering these aims and aspirations and has potential, through the implementation of the site Travel Plan to deliver a highly sustainable development in transport terms.
- 4.5.6 It can therefore be concluded that the development proposals fully conform to the main aims and aspirations of the wider and economic objectives of national and local policy.

5 ACCESSIBILITY BY NON CAR MODES

5.1 Introduction

- 5.1.1 In order to accord with the aspirations of the NPPF, any new proposals should extend the choice in transport and secure mobility in a way that supports sustainable development.
- 5.1.2 New proposals should attempt to influence the mode of travel to the development in terms of gaining a shift in modal split towards non-car modes, thus assisting in meeting the aspirations of current national and local planning policy.
- 5.1.3 The accessibility of the proposed site has been considered by the following modes of transport:
- Accessibility on foot.
 - Accessibility by cycle.
 - Accessibility by bus.
 - Accessibility by rail.

5.2 Accessibility on Foot

- 5.2.1 It is important to create a choice of direct, safe and attractive routes between where people live and where they need to travel in their day-to-day life.
- 5.2.2 This philosophy clearly encourages the opportunity to walk whatever the journey purpose and also helps to create more active streets and a more vibrant neighbourhood.
- 5.2.3 An existing pedestrian footway of around 2 metres in width is located to the east of the site on the western side of Arundel Road, this footway provides pedestrian links throughout Angmering and provides direct linkages to the nearby day to day amenities within the village.

- 5.2.4 The CIHT document ‘Planning for Walking’ from 2015 states, in paragraph 2.1, that in 2015 that 78% of all journeys made in the UK of less than a mile (1.6 kilometres) are carried out on foot.
- 5.2.5 Within the Institution of Highways and Transportation (IHT) document, entitled “Guidelines for Providing for Journeys on Foot”, Table 2.2 suggests distances for desirable, acceptable and preferred maximum walks to ‘town centres’, ‘commuting/schools’ and ‘elsewhere’. The ‘preferred maximum’ distances are shown below in **Table 5.1**.

Suggested Preferred Maximum Walk		
Town Centre	Commuting/School	Elsewhere
800m	2,000m	1,200m

Table 5.1 – IHT ‘Providing for Journeys on Foot’ Walk Distances

- 5.2.6 Reference to the 2,000 metre walk distance is also made in the now superseded Planning Policy Guidance (PPG) Note 13 which advised that ‘walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2km’.
- 5.2.7 Manual for Streets (MfS) continues the theme of the acceptability of the 2,000 metre distance in paragraph 4.4.1. This states that *‘walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes’ (up to about 800m) walking distance of residential areas which residents may access comfortably on foot. However, this is not an upper limit and PPS13 states that walking offers the greatest potential to replace short car trips, particularly those under 2 km’.*

5.2.8 **Table 5.2** below summarises this guidance in tabular form.

'Comfortable' Walk	'Preferred Maximum' Walk
800m	2,000m

Table 5.2 – Manual for Streets Walk Distances

5.2.9 More specific guidance on the distances that children will walk to school is found in the July 2014 document published by the Department for Education (DfE) entitled 'Home to School Travel and Transport' statutory guidance document. This suggests that the maximum walking distance to schools is 2 miles (3.2 kilometres) for children under 8 and 3 miles (4.8 kilometres) for children over the age of 8. This is summarised below in **Table 5.3**.

Children under 8 Walk Distance	Children over 8 Walk Distance
3,200m	4,800m

Table 5.3 – DfE Walk Distances to Schools

5.2.10 Further evidence that people will walk further than the suggested 'preferred maximum' distances in the IHT 'Providing for Journeys on Foot' is contained in a WYG Report entitled 'Accessibility – How Far do People Walk and Cycle'. This report refers to National Travel Survey (NTS) data for the UK as a whole, excluding London, that the 85th percentile walk distance for:

- All journey purposes – 1,930 metres.
- Commuting – 2, 400 metres.
- Shopping – 1,600 metres.
- Education – 3,200 or 4,800 metres.

- Personal business – 1,600 metres.

5.2.11 Overall, in Table 5.1, the document states that 1,950 square metres is the 85th percentile distance for walking as the main mode of travel. **Table 5.4** below summarises the various 85th percentile walk distances suggested as guidelines in the WYG Study.

85 th Percentile Walk Distances					Overall Recommended Preferred Max
All Journeys	Commuting	Shopping	Education	Personal	
1,950m	2,100m	1,600m	3,200/4,800m	1,600m	1,950m

Table 5.4 – WYG Report/NTS Data Walk Distances

5.2.12 In summary, the distance of 1,950 metres, or around 2 kilometres, represents an acceptable maximum walking distance for the majority of land uses although clearly the DfE guidance for walking to school is up to 3.2 kilometres.

5.2.13 Section 3.1 of the CIHT guidance ‘Planning for Walking’ mentioned earlier in this report provides a useful reminder of the health benefits of walking. This states that:

‘A brisk 20 minute walk each day could be enough to reduce an individual’s risk of an early death’.

5.2.14 A 20 minute walk equates to a walking distance of around 1,600 metres.

5.2.15 In light of the above review, a pedestrian catchment of 2 kilometres from the centre of the site, using all usable pedestrian routes, has been provided in **Plan 5** and provides an illustrative indication of the areas that can be reached based on a leisurely walk from the site.

5.2.16 In addition, to the pedestrian catchment plan, a review of the proximity of local facilities such as pharmacies/doctor’s surgeries, schools (both primary and secondary) local

shops/retail outlets and leisure facilities has been undertaken and the location of these is also shown in Plan 5.

5.2.17 The 2,000 metre pedestrian catchment illustrates that the majority of Angmering can be accessed along various amenities such as St Margaret's Church of England Primary School, The Woodman Arms, A local play area, Angmering Library, St Margaret's Church, Big Fry Fish and chip shop, The Cooperative, The Lamb at Angering Public House, Lloyds Pharmacy and Ham Manor Golf Club.

5.2.18 **Table 5.5** below, shows the walking distance from the centre of the site to the local amenities in the vicinity of the site. The table also confirms whether or not the particular amenity is within the 'preferred maximum' walk distances using the above guideline criteria:

Local Amenity	Distance	Guidance Criteria	Meets with Guidance?
St Margaret's Church of England Primary School	350m	1,600m	YES
The Woodman Arms	610m	1,600m	YES
Local Play Area	1,040m	1,600m	YES
Angmering Library	1,110m	1,600m	YES
St Margaret's Church	1,120m	1,600m	YES
Big Fry Fish and Chip Shop	1,180m	1,600m	YES
The Cooperative	1,220m	1,600m	YES
The Lamb at Angering Public House	1,230m	1,600m	YES
Lloyds Pharmacy	1,330m	1,600m	YES
Ham Manor Golf Club	1,700m	2,000m	YES

Table 5.5 - Distance from Site to Local Facilities

- 5.2.19 As can be seen in the above table, the site is located within close proximity to a number of local amenities including primary services as well as leisure facilities.
- 5.2.20 All of the day to day amenities are well within the 'preferred maximum' walk distances described earlier in this section and indeed many, including the nearest convenience store, pharmacy and nearest primary school, are around the 800 metres 'comfortable walk' from the site as contained within MfS guidance.
- 5.2.21 It is therefore considered that the existing pedestrian infrastructure will facilitate safe and direct pedestrian linkages between the site and local destinations.

5.3 Access by Cycle

- 5.3.1 An alternative mode of travel to the site could be achieved by bicycle.
- 5.3.2 A distance of 5 kilometres is generally accepted as a distance where cycling has the potential to replace short car journeys. This distance equates to a journey of around 25 minutes based on a leisurely cycle speed of 12 kilometres per hour and would encompass Little Hampton, East Preston, Ferring and Rustington.
- 5.3.3 National cycle route 2 is located approximately 5km from the centre of the site, this cycle route which, when complete, will link Dover in Kent with St. Austell in Cornwall via the south coast of England.
- 5.3.4 The site can therefore be considered as being accessible by cycle.
- 5.3.5 During discussions, the highways officer has also made reference to the WSCC Walking and Cycling Strategy 2016 to 2026. The purpose of this document is:
- To clearly state West Sussex County Council's aims and objectives for cycling and walking between 2016 and 2026;
 - To determine the Council's priorities for funding reflecting the overall walking and cycling aspirations of the Council;

- To provide guidance in support of prioritising cycling and walking infrastructure in new development;
- To provide a framework through which local interest and community groups can make suggestions for the development of cycling and walking improvements; and
- To support interested parties in securing additional funding where available;

5.3.6 The potential new cycle routes in the area are identified in **Figure 5.1** below.

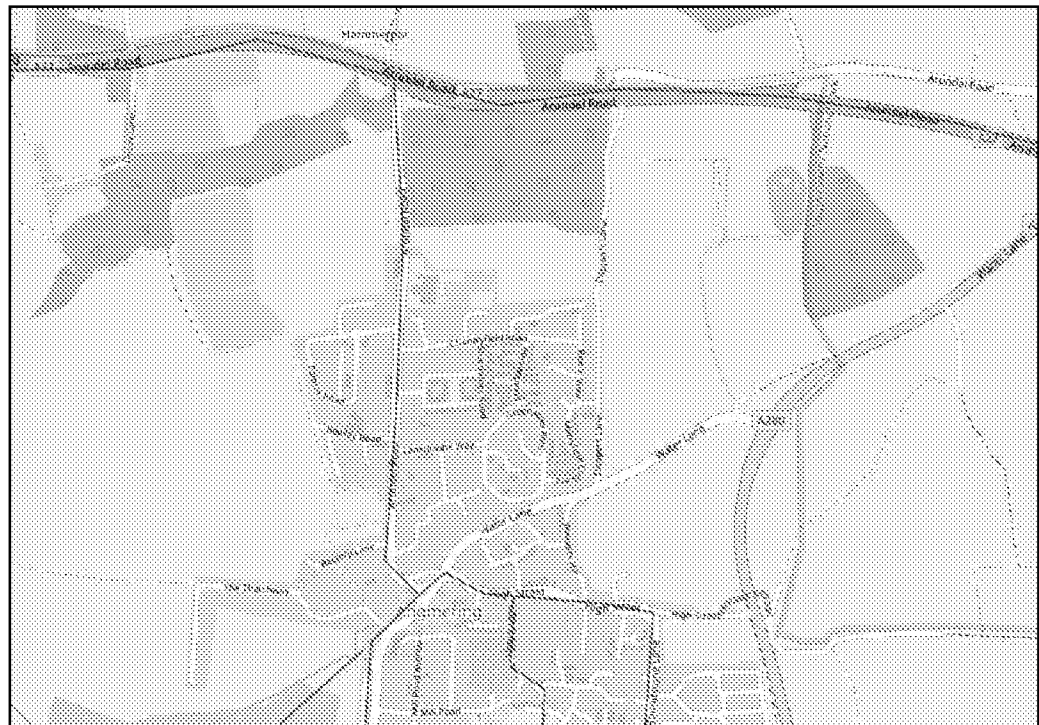


Figure 5.1 – Potential new Cycle Routes in the Area

5.3.7 As can be seen above, one of the potential routes passes directly past the site on Arundel Road.

5.3.8 This strategy outlines the design and safety principles for walking and cycling that the County Council will follow, and developers will be expected to follow, when implementing infrastructure schemes. The strategy also provides a mechanism by which schemes can be identified and prioritised, thereby enabling the County Council to direct future

investment (such as contributions from future development) and support future funding bids (such as the Department for Transport's Access Fund).

5.4 Access by Bus

- 5.4.1 The nearest bus stops to the site are located to the south of the site with an approximate walking distance of 600 metres from the centre of the site consisting of a shelter, a bus stop pole with passing services shown and a bus service timetable.
- 5.4.2 There are also further bus stops located further along Arundel Road and Chantyfield Road. All the nearest bus stops to the site are shown on Plan 5.
- 5.4.3 A summary of the services available from the nearest bus stops from the development site is provided in **Table 5.6** below.

Service No	Route	Monday – Friday Frequency per hour				Sat	Sun
		AM Peak	Midday	PM Peak	Eve		
9	Arundel - Shoreham-by-Sea - East Preston - Worthing- Lancing	1	1	1	0	1	1

Table 5.6 - Existing Bus Services Operating Past the Site

- 5.4.4 As can be seen from Table 5.6, the nearest bus stops to the site provides 1 service in the peak periods to East Preston, Worthing and Lancing.
- 5.4.5 It is noted that the above services provide a choice of how people travel with the bus services operating from around 8.00am to around 6.00pm, making travel by public transport a real alternative to travelling by car for commuting trips.
- 5.4.6 In order to demonstrate the level of accessibility some example journey times by bus are presented below **Table 5.7** below.

Destination	Duration
East Preston	10 Minutes
Worthing	32 Minutes
Lancing	52 Minutes

Table 5.7 - Example Bus Journey Times from the Site

5.4.7 The above table demonstrates that East Preston is just a 10-minute bus journey from the site and Worthing is just a 32-minute bus journey.

5.4.8 It is therefore concluded that the proposed development site is accessible by bus.

5.5 Accessibility by Rail

5.5.1 The nearest train station to the site is Angmering. Although this is situated outside of the 2 kilometres, it is accessible via a 9-minute bus journey. This train station is managed by Southern and has 2 platforms, offering 8 services per hour to destinations such as London Victoria and Southampton Central.

5.5.2 This provides opportunities for commuting/leisure opportunities from the site via rail.

5.6 Accessibility Summary

5.6.1 The proposals have been considered in terms of accessibility by non-car modes for the proposed residential development.

5.6.2 The following conclusions can be drawn from this section of the Report:

- The site is accessible on foot and these provisions will be improved as part of the works on the development site.

- Cycling is also an alternative to the private car, with the site being located approximately 5 kilometres from National cycle route 2.
- It should also be noted that potential exists for the proposed development to assist in delivering (at least in part) the off-carriageway cycle connection from Angmering village to the existing facility on the A27 (scheme ID = 39), which is being pursued as part of West Sussex's Walking & Cycling Strategy. This will be discussed further with the highway authority.
- The services from the bus stops on Arundel Road, travelling to East Preston, Worthing and Lancing, shows that the proposed development can be accessed by bus.
- The site is accessible via rail with Angmering train station located just a bus journey from the site.

5.6.3 In light of the above, it is considered the site is highly accessible by non-car modes and will cater for needs of the development's residents and assist in promoting a choice of travel modes other than the private car.

6 TRAFFIC IMPACT ANALYSIS

6.1 Introduction

6.1.1 Having established that the development site is accessible by modes of transport other than the private car and is in general accordance with local and national policy, this section considers the traffic impact of the development proposals on the local highway network.

6.1.2 While the proposals also include the provision of a full size football pitch on site, this section of the TA will only consider the traffic impact associated with the proposed residential element. Further information regarding the use of the football pitch is provided in the following section.

6.2 Assessment Criteria

6.2.1 Given the proposed residential land use, it is deemed appropriate to consider the AM and PM weekday peak hours, as being those with the greatest impact on the local highway network.

6.3 Traffic Survey Data

6.3.1 In order to establish current levels of traffic, full turning count surveys were undertaken at the following junctions on Wednesday 15th November 2017.

- A27/Arundel Road (Left in/left out);
- Arundel Road/Water Lane;
- A529 New Road/Station Road/Roundstone Bypass Road/B2140; and
- Roundstone Bypass Road/A280/Chips Away/A529/B2140 Old Worthing Road.

6.3.2 The surveys were undertaken between 0730 and 0930 hours in the morning and between 1630 and 1830 hours in the evening.

6.3.3 The full traffic survey data is contained within **Appendix 1**.

- 6.3.4 The peak hours were identified as 0745 to 0845 hours and 1645 to 1745 hours, for the AM and PM peaks respectively.
- 6.3.5 The above survey data has been supplemented with additional data taken from the Transport Assessment associated with the proposed development on the north side of Water Lane (App ref no. A/40/18/OUT) for the following junctions;
- A280/Titnore Lane/A27 Slips (southern A27 Dumbell Roundabout);
 - A280 Long Furlong/A27 Slips/Arundel Road (northern A27 Dumbell Roundabout);
 - Water Lane/High Street; and
 - Roundstone Bypass Road/Roundstone Lane.
- 6.3.6 The above surveyed flows have been included in the network diagram which has been extended to take account of the A27 dumb-bell roundabouts and A27 'U' turn movements at Poling Corner, as requested by Highways England.
- 6.3.7 The 2017 surveyed flows for the peak hours converted into Passenger Car Units (PCU's) are shown in **Figures 1 and 2**.

6.4 Growthed Traffic Flows

- 6.4.1 For the purpose of this Report, assessments have been undertaken for a design horizon of 2022, representing five years after the application registration.
- 6.4.2 In addition to the above, a further set of assessments have been undertaken assuming a future completion year of 2027, based on the anticipated build out rate.
- 6.4.3 This can be considered to be a robust approach.
- 6.4.4 To derive the baseline 2022 flows, the 2017 surveyed flows have been growthed to 2022 using National Traffic Model (NTM) factors adjusted by using the Trip End Model Program (TEMPro) local growth factors.
- 6.4.5 The resultant 2022 growthed traffic flows are shown in **Figures 3 and 4** for the AM and PM peak periods.

- 6.4.6 To derive the baseline 2027 flows, the 2017 surveyed flows have been growthed to 2027 using National Traffic Model (NTM) factors adjusted by using the Trip End Model Program (TEMPro) local growth factors.
- 6.4.7 The resultant 2027 surveyed traffic flows are shown in **Figures 5 and 6** for the AM and PM peak periods.
- 6.4.8 These 2022 and 2027 assessments will be undertaken for the junctions on the A27 that are maintained by HE, as requested.
- 6.4.9 At the request of the highways officer at WSCC, the assessments on the local network will be undertaken for 2031 only, which coincides with the end of the Local Plan period. For completeness the A27 (HE) junctions will also be considered for a 2031 scenario.
- 6.4.10 This can be considered to be a robust approach.
- 6.4.11 To derive the baseline 2031 flows, the 2017 surveyed flows have been growthed to 2031 using National Traffic Model (NTM) factors adjusted by using the Trip End Model Program (TEMPro) local growth factors.
- 6.4.12 The resultant 2031 growthed traffic flows are shown in **Figures 7 and 8** for the AM and PM peak periods.
- 6.4.13 The resultant growth factors are shown below:
- 2017 to 2022 AM Peak - 1.0682
 - 2017 to 2022 PM Peak - 1.0667
 - 2017 to 2027 AM Peak - 1.1278
 - 2017 to 2027 PM Peak - 1.1274
 - 2017 to 2031 AM Peak - 1.2520
 - 2017 to 2031 PM Peak - 1.2750

6.5 Committed Development

- 6.5.1 During the preparation of this TA, consideration has been given to any committed developments in the area that would need to be included.
- 6.5.2 It is considered that the following committed development should be included in this TA;
- App ref no. A/82/12 – 138 residential units;
 - App ref no A/144/15/PL – 246 residential units;
 - App ref no A/27/16/PL) – 53 bed care home;
- 6.5.3 The first committed development to be considered refers to the construction of 138 residential units on a site located off Roundstone Lane.
- 6.5.4 The resultant associated development flows are shown in **Figures 9a** and **10a** for the AM and PM peak periods.
- 6.5.5 The second committed development relates to the provision of 246 residential dwellings, also located off Roundstone Lane.
- 6.5.6 The resultant associated development flows are shown in **Figures 9b** and **10b** for the AM and PM peak periods.
- 6.5.7 The third committed development to be considered within this TA is for a 53 bedroom care home, located on land off Water Lane.
- 6.5.8 The resultant associated development flows are shown in **Figures 9c** and **10c** for the AM and PM peak periods.
- 6.5.9 Croft are aware of other developments that have been consented in the area, but consider them to be so small in scale that they need not be considered as part of this TA.
- 6.5.10 Notwithstanding the above, following a review of the submitted Transport Assessment, the highways officer has also requested that the following developments are taken into account;

- App ref no. A/40/18/OUT - residential & commercial; and
- App ref no. A/99/17/OUT - residential.

- 6.5.11 The first application (App ref no. A/40/18/OUT) is located on land to the north of Water Lane and refers to the construction of 525 dwellings and 3 hectares (6,000 square metres) of commercial development.
- 6.5.12 The resultant associated development flows are shown in **Figures 9d** and **10d** for the AM and PM peak periods.
- 6.5.13 The second application (App ref no. A/99/17/OUT) is located on land to the south of Water Lane and refers to the provision of up to 175 residential dwellings.
- 6.5.14 The resultant associated development flows are shown in **Figures 9e** and **10e** for the AM and PM peak periods.
- 6.5.15 Both the above developments are being brought forward in accordance with the draft allocation Policy SD9 of the draft Arun district Local Plan, but do not yet have planning consent.
- 6.5.16 The total committed development flows are shown in **Figures 9f** and **10f** for the AM and PM peak periods.

6.6 Base Flows

- 6.6.1 To establish the 2022 'Without Development' flows, the total committed development flows shown in Figures 9f and 10f for the AM and PM peak respectively have been added to the factored 2022 flows shown in Figures 3 and 4.
- 6.6.2 The resulting 2022 'Without Development' traffic flows are presented in **Figures 11** and **12**.
- 6.6.3 To establish the 2027 'Without Development' flows, the total committed development flows shown in Figures 9f and 10f for the AM and PM peak respectively have been added to the factored 2027 flows shown in Figures 5 and 6.

- 6.6.4 The resulting 2027 'Without Development' traffic flows are presented in **Figures 13 and 14**.
- 6.6.5 To establish the 2031 'Without Development' flows, the total committed development flows shown in Figures 9f and 10f for the AM and PM peak respectively have been added to the factored 2031 flows shown in Figures 7 and 8.
- 6.6.6 The resulting 2031 'Without Development' traffic flows are presented in **Figures 15 and 16**.

6.7 Trip Distribution

- 6.7.1 The directional distribution of the traffic associated with the proposals has been assigned to the local highway network in line with Travel to Work Census Data, as utilised in the TA associated with App ref no. A/82/12 which refers to the construction of 138 residential dwellings on land to the east of Roundstone Lane. This is considered to present a reasonable approach. (The above application number was incorrectly referred to in the previous TA).
- 6.7.2 Following discussions with the highways officer a WSCC, the previously assumed 'U' turn movements at the A27/Arundel Road 'U' turn facility (at Poling Corner) have been transferred to utilise the A280/Water Lane junction. This is considered to be reasonable given the announcement of a preferred route for the Road Investment Strategy (RIS) scheme at Arundel.
- 6.7.3 With reference to the GoogleMaps routing facility, the highways officer agreed that the journey times are considered to be comparable and so this is considered to be acceptable.
- 6.7.4 The resulting traffic assignment for the AM peak period is shown in **Figure 17** whilst the assigned PM peak traffic is shown in **Figure 18**.

6.8 Proposed Development

- 6.8.1 As previously stated it is proposed to develop the site for up to 200 residential units.

- 6.8.2 To establish the level of traffic generation that the proposed residential development is likely to generate, reference has been made to the latest TRICS database for all 'Private Housing' sites with any Ireland or London sites excluded.
- 6.8.3 The TRICS output in full is contained within **Appendix 2** whilst **Table 6.1** summarises the trip generation for the proposed development using these trip rates.

Peak Hour	Trip Rates		Trip Generation	
	Arr	Dep	Arr	Dep
AM Peak	0.15	0.41	29	82
PM Peak	0.35	0.22	70	44

Table 6.1 - Forecast Trip Generation of Proposed Residential Development

- 6.8.4 The assessment shows that the proposed residential development could potentially generate in the region of 111 two-way trips during the AM peak hour period and 114 two way trips during the traditional Weekday PM peak hour periods.
- 6.8.5 The trips rates used are higher than those utilised for the two developments to the north and south of Water Lane which are presented in **Table 6.2** below.

Peak Hour	Trip Rates		Trip Generation	
	Arr	Dep	Arr	Dep
AM Peak	0.135	0.325	27	65
PM Peak	0.283	0.167	57	33

Table 6.2 - Forecast Trip Generation of Proposed Residential Development

- 6.8.6 The assessment based on the trip rates from the Land North of Water Lane TA show that the proposed residential development would generate 19 fewer trips in the AM peak and around 24 fewer trips in the PM peak.
- 6.8.7 On that basis, it is considered that the proposed trip rates used in Table 6.1 provide a particularly robust, if not worst-case scenario.
- 6.8.8 It should also be noted that no allowance has been made for the previous use on the site, which itself would have generated significant volumes of traffic when operational.
- 6.8.9 The traffic forecast to be generated by the proposed development (as shown in Table 6.1) has been assigned to the highway network in accordance with the trip distribution shown in the Figures 19 and 20.
- 6.8.10 The resultant proposed residential development flows for the AM Peak are shown in **Figure 19** whilst the development flows for the PM Peak are shown in **Figure 20**.

6.9 With Development Flows

- 6.9.1 In order to calculate the 2022 'With Development' flows, the development flows contained within Figures 19 and 20 have been added to the 2022 base flows contained within Figures 11 and 12.
- 6.9.2 The resulting 2022 'With Development' Flows are presented in **Figures 21** and **22** respectively for the AM and PM peak hours.
- 6.9.3 In order to calculate the 2027 'With Development' flows, the development flows contained within Figures 19 and 20 have been added to the 2027 base flows contained within Figures 13 and 14.
- 6.9.4 The resulting 2027 'With Development' Flows are presented in **Figures 23** and **24** respectively for the AM and PM peak hours.
- 6.9.5 In order to calculate the 2031 'With Development' flows, the development flows contained within Figures 19 and 20 have been added to the 2031 base flows contained within Figures 15 and 16.

- 6.9.6 The resulting 2031 'With Development' Flows are presented in **Figures 25** and **26** respectively for the AM and PM peak hours.

6.10 Capacity Assessments

- 6.10.1 As already stated, vehicular access into the site is proposed directly from Arundel Road.
- 6.10.2 It has been agreed with the highways officer at WSCC that only assessments for the 2031 flow scenario are required, in line with the end of the Local Plan period.
- 6.10.3 The following section (Section 7) will consider the operation of the A27 junctions (maintained by Highways England for the years 2022 and 2027).
- 6.10.4 In addition to the proposed site access, the following junctions have been assessed as agreed with the highways officer at WSCC;
- Arundel Road/Water Lane/Station Road/High Street;
 - A280/Water Lane (Existing & Proposed Layouts);
 - A529 New Road/Station Road/Roundstone Bypass Road/B2140; and
 - Roundstone Bypass Road/A280/Chips Away/A529/B2140 Old Worthing Road.
- 6.10.5 Following feedback from the highways officer at WSCC it has also been requested that the following junctions be included within the assessments;
- Water Lane/High Street (to be modelled with the Arundel Rd/Station Rd junction);
 - A280/Titnore Lane/A27 Slips (southern A27 Dumbell Roundabout) (Existing & Proposed Layouts); and
 - A280 Long Furlong/A27 Slips/Arundel Road (southern A27 Dumbell Roundabout) (Existing & Proposed Layouts).

Site Access/Arundel Road

- 6.10.6 The proposed site access off Arundel Road will be a priority-controlled junction and so has been assessed using PICADY.

- 6.10.7 The results for the 'With Development' flow scenario for 2031 are summarised within **Table 6.3** with the full results contained within **Appendix 3**.

Arm Name	2031 With Development			
	AM		PM	
	RFC	Q	RFC	Q
Site Access	0.19	0	0.10	0
Arundel Road	0.03	0	0.06	0

Table 6.3- Summary of PICADY Results for Site Access/Arundel Road

- 6.10.8 As can be seen above, the results show the new site access junction will operate efficiently in both the AM and PM peak hours in the 'With Development' 2031 flow scenarios.
- 6.10.9 The above demonstrates that the proposed site access is suitable in terms of its geometric layout and design and will provide a safe point of access into the site.

6.11 Wider Road Network

A259 Corridor

- 6.11.1 In regard to the wider highway network, following discussions with the highway officer, it is understood that proposals have been developed by WSCC to improve the A259 to the south of Angmering.
- 6.11.2 The identified survey area included the A259 within the Arun District from the River Arun (west of Littlehampton) up to and including the Goring Crossways junction within the Borough of Worthing.

6.11.3 The study area is shown in **Figure 6.1** below.

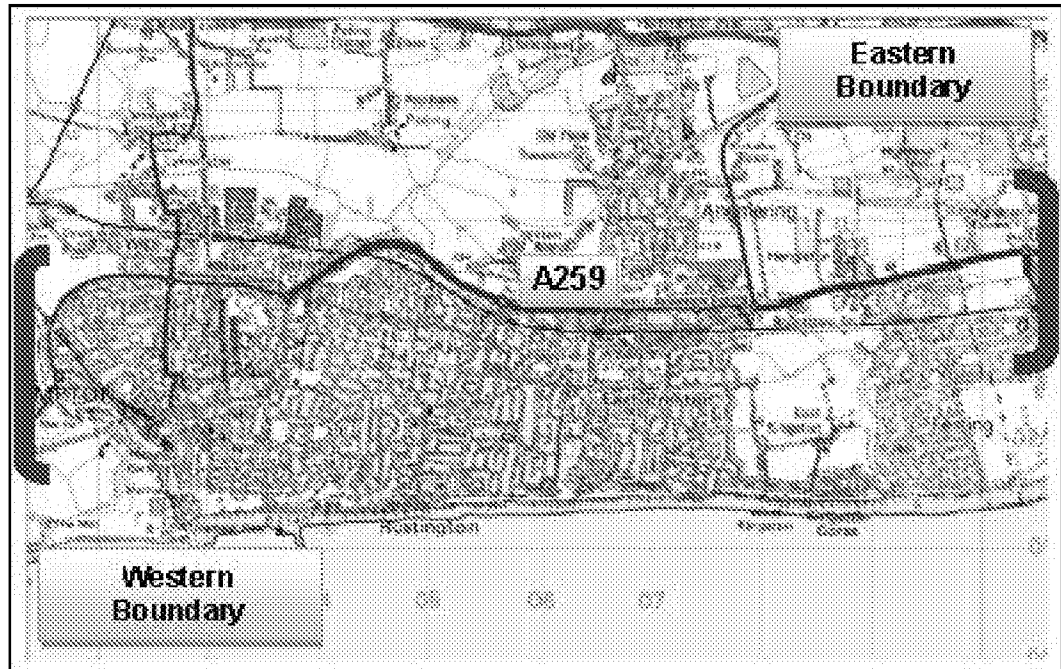


Figure 6.1 – A259 Improvements Study Area

6.11.4 The proposals have been the subject of a formal public consultation and are expected to be funded from developer contributions and funding from WSCC and Government grants, secured through the Coast to Capital Local Enterprise Partnership.

6.11.5 The proposals are expected to be delivered in several phases as local development comes forward. The Phase 1 works are within the study area (to the south of Angmering) and it is understood that the works are expected to start on site in late 2018 and last between 12 to 18 months.

A280/Water Lane

6.11.6 It is also understood that a nearby application (Land to the north of Water Lane) is proposing to re-configure the A280/Water Lane junction from a limited movement priority junction (no right turns out of Water Lane currently permitted) to a roundabout which will allow all movements.

6.11.7 The submitted TA for the application confirms the changes in traffic and for ease, this is replicated in in **Table 6.4** below.

Junction	Movement	AM Peak	PM Peak
Water Lane/A280	Water Lane (Right)	+180	+120
	Water Lane (Left)	+0	+0
	Net Change	+180	+120
A280/A259 Roundabout	A280 Left	+82	+71
	A280 Right	+98	+49
	A259 (et)	-82	-71
	Net change	+98	+49
Roundstone Lane/Roundstone Bypass	Roundstone Lane Left	-82	-49
	A259 (w)	+83	+56
	A259 (e)	0	0
	Net change	+1	+7
Station Road/Roundstone Bypass Road	Station Road Right	-63	-42
	Station Road Left	0	0
	Station Road (s)	-20	-14
	A259 (w)	+63	+42
	A259 Left	+20	+14
	Net Change	+0	+0

Table 6.4 – Summary of Changes in Traffic

6.11.8 As can be seen above, the implementation of a right turn at the Water Lane/A280 junction would provide a reduction in traffic travelling towards/through Angmering village centre, which would improve conditions on roads in the village, as follows;

- Roundstone Lane – 96 fewer vehicles in the AM peak/65 fewer in the PM peak;
- Weavers Hill – 60 fewer vehicles in the AM peak/32 fewer vehicles in the PM peak;
- High Street – 37 fewer vehicles in the AM peak/32 fewer vehicles in the PM peak;
and
- Station Road – 83 fewer vehicles in the AM peak/54 fewer vehicles in the PM peak.

6.11.9 The above application however, whilst allocated for residential development, does not yet benefit from planning consent.

6.11.10 In light of the above, an additional assessment has been undertaken for the Water Lane/A280 junction based on the potential new all movement roundabout and re-distributed traffic. To establish this the 2021 traffic flows in the TA (which include committed development) have been growthed up to 2031. This can be considered to be robust given that committed development would be included within the applied growth. The results can therefore be considered to be robust. The corresponding traffic flows for this assessment showing the reassigned traffic are presented in **Figures A to L**.

A280/Titnore Lane/A27 Slips (southern A27 Dumbell Roundabout)

6.11.11 From a review of the Land North of Water Lane TA, it is understood that mitigation measures are proposed by way of widening the A280 south-western approach to two lanes. The assessment results for the existing and improved layouts are presented in this section for 3031 and the following Section for 2022 and 2027.

A280 Long Furlong/A27 Slips/Arundel Road (northern A27 Dumbell Roundabout)

6.11.12 It is also understood that improvements are proposed to the northern dumbell roundabout as part of the Arun District Transport Study (Phase 3) and while the scheme is committed, it does yet have funding and so it is likely that developer funding will be sought. The assessment results for the existing and improved layouts are presented in this section for 2031 and the following Section for 2022 and 2027.

Arundel Road/Water Lane/Station Road/High Street

6.11.13 The Arundel Road/Water Lane/Station Road junction is a priority junction and so is the Water Lane/High Street junction. The junctions therefore form a staggered crossroads with a pedestrian crossing in between.

6.11.14 It has been requested by the highways officer that the two junctions be modelled together, using the slope and intercept values from the PICADY models to calibrate to the local conditions.

- 6.11.15 For the purpose of the model, the same assumptions have been used as included in the Land North of Water Lane TA i.e. 100 pedestrians each way, equating to 60 calls an hour, with a 60 second cycle time.
- 6.11.16 The results for the 'Without Development' and 'With Development' flow scenarios for 2031 are summarised within **Table 6.5** with the full results contained within **Appendix 4**.

Arm Name	2031 Without Development				2031 With Development			
	AM		PM		AM		PM	
	DOS	MMQ	DOS	MMQ	DOS	MMQ	DOS	MMQ
High Street (R&L)	71.5	2	37.7	0	72.2	2	37.8	0
Station Rd (nb) exit (Ahd&Rht)	54.1	4	36.6	2	49.7	4	37.9	2
Station Rd at Arundel Rd (exit)	25.1	0	51.2	5	27.2	1	52.6	5
Station Rd (sb) at Arundel Rd	11.7	1	35.1	3	11.7	1	35.1	3
Station Rd (nb) at Arundel Road	29.1	3	21.3	2	29.1	3	21.3	2
Arundel Road (Lft&Rht)	22.4	0	21.9	1	27.7	1	25.0	1
Station Rd (sb)	21.3	0	33.6	2	21.3	0	34.7	2
Station Rd (nb)	17.4	0	33.6	0	19.4	0	34.7	0
Pedestrian Link	21.3	0	15.6	0	21.3	0	15.6	0

Table 6.5 – Summary of PICADY Results for Arundel Road/Water Lane/Station Road/High Street

- 6.11.17 The 2031 'Without Development' results for the AM and PM peak hour show the junction will operate with reserve capacity.
- 6.11.18 The results for the 2031 'With Development' assessments show that the junction will continue to operate efficiently in both peak hours, in a similar manner to the base situation.

A280/Water Lane (Existing Layout)

- 6.11.19 The A280/Water Lane junction is priority controlled but only permits left turns out of Water Lane. It has been assessed using PICADY.
- 6.11.20 The results for the 'Without Development' and 'With Development' flow scenarios for 2031 are summarised within **Table 6.6** with the full results contained within **Appendix 5**.

Arm Name	2031 Without Development				2031 With Development			
	AM		PM		AM		PM	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
Water Lane	1.28	122	0.67	2	1.33	150	0.70	2
A280	0.77	3	1.44	201	0.77	3	1.44	201

Table 6.6 – Summary of PICADY Results for A280/Water Lane

- 6.11.21 The 2031 'Without Development' results for the AM and PM peak hour show the junction will operate above its theoretical capacity, although it should be noted that the model is over predicting the levels of queuing in both peaks. A review of the observed levels shows very little queuing out of Water Lane in either peak hour and so the results can be considered to be very robust.
- 6.11.22 The results for the 2031 'With Development' assessment show that the junction will continue to operate in a similar manner to the base situation, but it should be noted that the impact at the junction is only 30 vehicles onto the left turn from Water Lane in the AM peak and 16 vehicles in the PM peak. It is therefore considered that the proposals will not have a material impact on overall operation.

A280/Water Lane (Potential Roundabout Layout)

- 6.11.23 As already mentioned, it is understood that a scheme has been proposed as part of the Land North of Water Lane development that would convert the existing priority junction into a standard roundabout.

6.11.24 As such, the junction has also been tested based on this new layout, to demonstrate that it is proposed to convert the junction into a roundabout.

6.11.25 The results for the 'Without Development' and 'With Development' flow scenarios for 2031 are summarised within **Table 6.7** with the full results contained within **Appendix 5**.

Arm Name	2031 Without Development				2031 With Development			
	AM		PM		AM		PM	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A280 (s)	0.25	0	0.28	0	0.24	0	0.28	0
Water Lane	0.71	2	0.42	1	0.68	2	0.40	1
A280 (n)	0.50	1	0.72	3	0.50	1	0.72	3

Table 6.7 – Summary of PICADY Results for A280/Water Lane - Improved

6.11.26 The 2031 'Without Development' results for the AM and PM peak hour show the junction will operate with reserve capacity in both flow scenarios.

6.11.27 The results for the 2031 'With Development' assessment show that the junction will continue to operate in a similar manner to the base situation and the proposed development traffic can be accommodated.

A529 New Road/Station Road/Roundstone Bypass Road/B2140

6.11.28 The A529 New Road/Station Road/Roundstone Bypass Road/B2140 junction is a roundabout and so has been assessed using ARCADY.

6.11.29 The results for the 'Without Development' and 'With Development' flow scenarios for 2031 are summarised within **Table 6.8** with the full results contained within **Appendix 6**.

Arm Name	2031 Without Development				2031 With Development			
	AM		PM		AM		PM	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
Station Road	1.61	153	0.29	75	1.69	183	1.34	87
Roundstone Bypass Rd	1.30	247	1.41	381	1.30	250	1.42	398
B2140	0.89	6	0.84	5	0.89	6	0.85	5
A529 New Road	0.99	32	0.87	7	1.00	35	0.88	7

Table 6.8 – Summary of ARCADY Results for A529 New Road/Station Road/Roundstone Bypass Road/B2140

- 6.11.30 The 2031 ‘Without Development’ results for the AM and PM peak hour show that overall, the junction will be operating over its theoretical capacity with extensive queuing.
- 6.11.31 The results for the 2031 ‘With Development’ assessment show that the junction will continue to operate above capacity but it is understood that contribution could be sought as part of the A259 improvement scheme to mitigate any impact at this junction.
- 6.11.32 In respect to the results, reference should be made to the queue survey data at Appendix 1, which shows while queuing does occur, it is not to extent shown in the model and so should be seen as a worst-case scenario. It is understood that WSCC may seek a contribution from the applicant to mitigate the impact along the A259 corridor.

Roundstone Bypass Road/A280/Chips Away/A52 (e)/B2140 Old Worthing Road

- 6.11.33 The A529 New Road/Station Road/Roundstone Bypass Road/B2140 junction is a roundabout and so has been assessed using ARCADY.
- 6.11.34 The results for the ‘Without Development’ and ‘With Development’ flow scenarios for 2031 are summarised within **Table 6.9** with the full results contained within **Appendix 7**.

Arm Name	2031 Without Development				2031 With Development			
	AM		PM		AM		PM	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A280	0.70	2	0.72	2	0.70	2	0.72	2
Chips Away	0.60	1	0.17	0	0.63	1	0.17	0
A529 (e)	0.59	1	0.78	4	0.59	1	0.79	4
B2140 Old Worthing Road	0.78	3	0.41	1	0.78	3	0.42	1
Roundstone Bypass Road	1.28	222	1.18	153	1.29	237	1.18	158

Table 6.9 – Summary of ARCADY Results for Roundstone Bypass Road/A280/Chips Away/A529 /B2140 Old Worthing Road

- 6.11.35 The 2031 'Without Development' results for the AM and PM peak hours show the junction will be operating above its theoretical capacity.
- 6.11.36 The results for the 2031 'With Development' assessment show that the junction will operate in a similar manner, but again, it is understood that a contribution to the proposed A259 improvement scheme could be sought to mitigate the impact at this junction.
- 6.11.37 In respect to the results, reference should again be made to the queue survey data at Appendix 1, which shows queuing does occur but not to extent being predicted by the model.
- 6.11.38 It is understood that a developer contribution could also be sought by the local highway authority as part of the mitigation measures along the A259 corridor.

A280/A27/Titnore Lane (South)

- 6.11.39 The A280/A27/Titnore Lane (A2700) junction is a roundabout and so has been assessed using ARCADY.
- 6.11.40 The results for the 'Without Development' and 'With Development' flow scenarios for 2031 are summarised within **Table 6.10** with the full results contained within **Appendix 8**.

Arm Name	2031 Without Development				2031 With Development			
	AM		PM		AM		PM	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A27 wb Off Slip	0.69	2	0.35	1	0.69	2	0.81	4
Titnore Lane	0.63	2	0.57	1	0.63	2	0.83	4
Water Lane	1.26	151	0.66	2	1.30	171	0.80	4
A280 (n)	0.82	5	0.24	0	0.82	5	0.94	13

Table 6.10 – Summary of ARCADY Results for A280/A27/Titnore Lane (South) - Existing

- 6.11.41 The 2031 'Without Development' results for the AM and PM peak hour show that overall, the junction will be operating over its theoretical capacity in the AM peak but within capacity in the PM peak.
- 6.11.42 The results for the 2031 'With Development' assessment show that the junction will continue to operate in a similar manner to the 'Without Development' situation with some increased queueing.
- 6.11.43 However, it is understood that some minor improvements are proposed as part of the Land north of Water Lane application and so the junction has been re-run assuming these improvements are in place.

- 6.11.44 The results for the 'Without Development' and 'With Development' flow scenarios for 2031 based on the improved layout are summarised within **Table 6.11** with the full results contained within **Appendix 8**.

Arm Name	2031 Without Development				2031 With Development			
	AM		PM		AM		PM	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A27 wb Off Slip	0.72	3	0.35	1	0.72	3	0.81	4
Titnore Lane	0.63	2	0.57	1	0.63	2	0.83	4
Water Lane	0.98	21	0.52	1	1.01	29	0.62	2
A280 (n)	0.84	5	0.24	0	0.84	5	0.94	13

Table 6.11 – Summary of ARCADY Results for A280/A27/Titnore Lane (South) - Improved

- 6.11.45 The 2031 'Without Development' results for the AM and PM peak hour show that overall, the junction will be operating with reserve capacity based on the improved layout.
- 6.11.46 The 2031 'With Development' results show the junction will be operating at a similar level and shows the development traffic can be accommodated.

A280/A27/Arundel Road/Long Furlong (North)

- 6.11.47 The A280/A27/Arundel Road/Long Furlong junction is a roundabout and so has been assessed using ARCADY.
- 6.11.48 The results for the 'Without Development' and 'With Development' flow scenarios for 2031 are summarised within **Table 6.12** with the full results contained within **Appendix 9**.

Arm Name	2031 Without Development				2031 With Development			
	AM		PM		AM		PM	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A280 Long Furlong	0.81	4	0.98	21	0.82	4	0.99	25
A280 (s)	0.69	1	0.51	1	0.70	2	0.52	1
A27 Off Slip	0.96	14	0.49	1	0.98	18	0.51	1
Arundel Road	0.22	0	0.11	0	0.23	0	0.11	0

Table 6.12 – Summary of ARCADY Results for A280/A27/Arundel Rd/Long Furlong (North) - Existing

- 6.11.49 The 2031 ‘Without Development’ results for the AM and PM peak hour show that overall, the junction will be operating with reserve capacity.
- 6.11.50 The results for the 2031 ‘With Development’ assessment show that the junction will continue to operate efficiently albeit with some increase in queuing.
- 6.11.51 It is understood however, that an improvement scheme has been identified as part of the Arun Transport Study (Stage 3) and so the junction has also been tested based on the improvement layout.
- 6.11.52 The results for the ‘Without Development’ and ‘With Development’ flow scenarios for 2031 based on the improved layout are summarised within **Table 6.13** with the full results contained within **Appendix 9**.

Arm Name	2031 Without Development				2031 With Development			
	AM		PM		AM		PM	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A280 Long Furlong	0.81	4	0.98	21	0.82	4	0.99	25
A280 (s)	0.69	1	0.51	1	0.70	2	0.52	1
A27 Off Slip	0.96	14	0.49	1	0.98	18	0.51	1
Arundel Road	0.22	0	0.11	0	0.23	0	0.11	0

Table 6.13 – Summary of ARCADY Results for A280/A27/Arundel Rd/Long Furlong (North) - Improved

- 6.11.53 The 2031 'Without Development' results for the AM and PM peak hour show that overall, the junction will be operating with reserve capacity.
- 6.11.54 The results for the 2031 'With Development' assessment show that the junction will continue to operate efficiently, albeit with some minor increases in queuing.

6.12 Traffic Impact Summary

- 6.12.1 This section of the report has considered the impact of the proposal in transport terms.
- 6.12.2 The capacity assessments undertaken demonstrate that overall, the local highway network would remain operating in a similar manner to the base situation.
- 6.12.3 It is understood that the A259 corridor currently experiences congestion during the peak hours and that an improvement scheme has been identified. It is likely that developer contributions will be sought to assist in mitigating the impact of the proposals along this section of the road network.
- 6.12.4 The assessments have also shown that the development traffic can be accommodated onto the wider highway network at the A27 dumbell roundabout junctions. The impact at these junction is just 34 vehicles in the AM peak and 25 in the PM peak and so the development traffic is not considered to have a material impact.

- 6.12.5 It is concluded therefore, that the development can be accommodated and where deemed necessary, contributions can be made to the identified improvements schemes.
- 6.12.6 On that basis, it is considered that the proposed development will have a minimal impact on the local network and will not give rise to any highways or transportation issues.

7 CAPACITY ASSESSMENTS – HIGHWAYS ENGLAND

7.1 Introduction

7.1.1 This section of the report will set out the information requested by Highways England for 2022, 2027 and 2031 based on the junctions that they maintain which are as follows;

- Arundel Road/A27 (left in/left out);
- A27 'U' turn junction at Poling Corner;
- A280/Titnore Lane/A27 Slips (southern A27 Dumbell Roundabout); and
- A280 Long Furlong/A27 Slips/Arundel Road (northern A27 Dumbell Roundabout).

7.1.2 The impact at the above junctions will be detailed in the following paragraphs with assessments being provided where considered necessary.

7.1.3 Firstly however, this section will address the other comments raised by HE which can be summarised as follows;

- No survey or queue data for the A27 'U' turn junction at Poling Corner;
- No accident analysis of the A27 'U' turn junction at Poling Corner;
- No information regarding the use of the proposed football pitch;
- Further details required of how the distribution has been established;
- No capacity or review of road safety at the A27/Arundel Road junction;
- No consideration of non-motorised users (NMU's); and
- No information is given regarding construction traffic.

No survey or queue data for the A27 'U' turn junction at Poling Corner

- 7.1.4 One of the comments from Highways England related to there being no survey of the 'U' turn movement and queues at Poling Corner in the originally submitted TA. The junction was included and shown on the traffic figures but it had been incorrectly labelled by the survey company. This has now been rectified and included in the Traffic Survey appendix along with the results of the queue surveys.
- 7.1.5 In relation to the gap in the central reserve that allows vehicles to perform a 'U' turn, the traffic survey results show that no queueing occurred either in the AM or morning peak hours.
- 7.1.6 As already stated, following discussions with the highways officer at WSCC, it is considered unlikely that any of the development traffic would choose this route as it is considered the preferred route would be via Water Lane. The highways officer at WSCC agreed that the development traffic was more likely to use the A280/Water Lane junction, rather than perform a 'U' turn.
- 7.1.7 In addition to the above, a queue survey was undertaken at the junction during the morning and evening peak periods and is summarised in **Table 7.1** below.

Time	Queues (Right Turn Lane)	Time	Queues (Right Turn Lane)
0735	0	1635	0
0740	0	1640	0
0745	0	1645	0
0750	0	1650	0
0755	0	1655	0
0800	0	1700	0
0805	0	1705	0
0810	0	1710	0
0815	0	1715	0
0820	0	1720	0
0825	0	1725	0
0830	0	1730	0
0835	0	1735	0
0840	0	1740	0
0845	0	1745	0
0850	0	1750	0
0855	0	1755	0
0900	0	1800	0
0905	0	1805	0
0910	0	1810	0
0915	0	1815	0
0920	0	1820	0
0925	0	1825	0
0930	0	1830	0

Table 7.1 – Summary of ‘U’ Turn Queue Survey

- 7.1.8 As can be seen above, no queueing in the right turn lane at the ‘U’ turn facility was recorded during the both the AM and PM peak surveys.
- 7.1.9 As already stated, it is unlikely that any of the development traffic would use this route and so it is considered that the development will not have a material impact on its operation or safety.

No accident analysis of the A27 'U' turn junction at Poling Corner

- 7.1.10 As requested by HE, reference has been made to the CrashMap website at this location for the last 5 years. The records show that there has only been one accident during this time, as identified in **Figure 7.1** below.

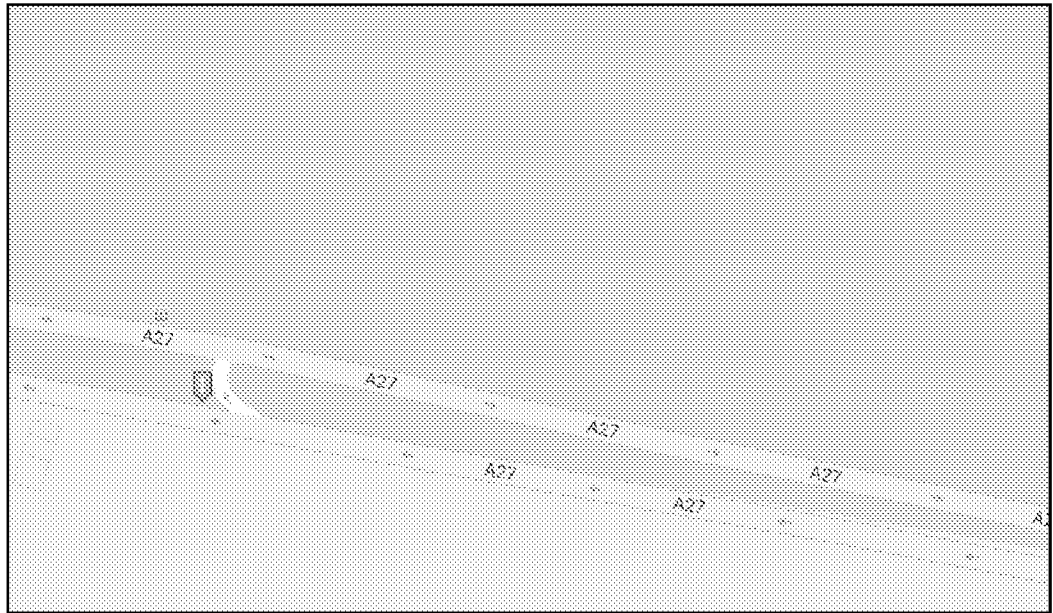


Figure 7.1 – Accidents at A27/U Turn Junction

- 7.1.11 The records show that the incident took place in 2017 in daylight conditions when the weather and road surface was dry and involved two vehicles. The accident details however are limited and show that one of the cars was performing a 'U' turn and the other vehicle was proceeding normally along the carriageway. The accident resulted in the 'U' turning vehicle colliding with the central crash barrier. The accident resulted in slight injuries being sustained to one of the drivers.
- 7.1.12 This suggests that the accident was due to one or both of the drivers not paying adequate attention to other road users or travelling in excess of the speed limit, rather than there being any particular geometric or engineering issues with the junction form or layout.

No information regarding the use of the proposed football pitch

- 7.1.13 It is understood that the football pitch will most likely be operated by the Parish Council, as part of the existing Angmering Sports and Recreation Ground facility.
- 7.1.14 It is therefore likely that the majority of users will park at the existing car park, which is currently underutilised and so is unlikely to generate any additional traffic to or from the site.
- 7.1.15 It should also be noted that it's use will be mainly at weekends and only week nights during the summer months (when background traffic flows are lower) and so in any event would not generate traffic during the traditional morning and evening peaks.
- 7.1.16 On that basis, it can be assumed that the pitch will be used mainly by local people living in the village and many will simply walk or cycle to the site or travel within a multiple occupancy vehicle or mini-bus, which will park at the existing facility.
- 7.1.17 As such, it is not considered necessary to consider the football pitch in traffic terms within the TA.

Further details required of how the distribution has been established

- 7.1.18 At para. 6.7, the submitted TA stated that *"The directional distribution of the traffic associated with the proposals has been assigned to the local highway network in line with Travel to Work Census Data, as utilised in the TA associated with App ref no. A/22/12, which is considered to present a reasonable approach"*.
- 7.1.19 The above application reference number was incorrect. The correct ref. no. is A/82/12 which is a consented development for 138 residential dwellings on 'Land to the east of Roundstone Lane'. Given the location of the site in relation to Angmering, it is considered that the distribution approved a part of this application is appropriate for use at the development site.

No capacity or review at the A27/Arundel Road junction

- 7.1.20 In order to demonstrate that the A27/Arundel Road left in/left out junction will operate satisfactorily, a capacity assessment has been undertaken using PICADY.
- 7.1.21 The results for the 'With Development' flow scenario for 2022 are summarised within **Table 7.2** with the full results contained within **Appendix 11**.

Arm Name	2022 Without Development				2022 With Development			
	AM		PM		AM		PM	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
Arundel Road	0.66	2	0.28	0	0.71	2	0.31	0
A27 (w)	0.00	0	0.00	0	0.00	0	0.00	0

Table 7.2- Summary of PICADY Results for A27/Arundel Road

- 7.1.22 The results for the 2022 'Without Development' show that the junction will operate with reserve capacity in the AM and PM peak hours.
- 7.1.23 The results for the 2022 'With Development' flow scenario show the impact will be minimal and the junction will continue to operate with reserve capacity and no queueing issues.
- 7.1.24 The results for the 'With Development' flow scenario for 2027 are summarised within **Table 7.3** with the full results contained within **Appendix 11**.

Arm Name	2027 Without Development				2027 With Development			
	AM		PM		AM		PM	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
Arundel Road	0.76	3	0.32	1	0.82	4	0.36	1
A27 (w)	0.00	0	0.00	0	0.00	0	0.00	0

Table 7.3- Summary of PICADY Results for A27/Arundel Road

- 7.1.25 The results for the 2027 'Without Development' show that the junction will operate with reserve capacity in the AM and PM peak hours.
- 7.1.26 The results for the 2027 'With Development' flow scenario show the impact will be minimal and the junction will continue to operate with reserve capacity and no queueing issues.
- 7.1.27 The results for the 'With Development' flow scenario for 2031 are summarised within **Table 7.4** with the full results contained within **Appendix 11**.

Arm Name	2031 Without Development				2031 With Development			
	AM		PM		AM		PM	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
Arundel Road	1.04	13	0.47	1	1.12	19	0.526	1
A27 (w)	0.00	0	0.00	0	0.00	0	0.00	0

Table 7.4- Summary of PICADY Results for A27/Arundel Road

- 7.1.28 The results for the 2031 'Without Development' show that the junction will operate be operating above it theoretical capacity in the AM peak but with reserve capacity in the PM peak.

- 7.1.29 The results for the 2031 'With Development' flow scenario show the impact will be minimal and the junction will continue to operate in a similar manner to the base situation. A queue increase of 6 vehicles in the AM peak is not considered to be material and so it can be concluded that the development traffic can be accommodated.

No review of accidents at the Arundel Road/A27 (left in/left out) junction

- 7.1.30 As requested by HE, consideration has also been given to the accident record at this location. The CrashMap data shows there have been 4 personal injury accidents at the junction over the last 5 years, as identified in **Figure 7.2** below.

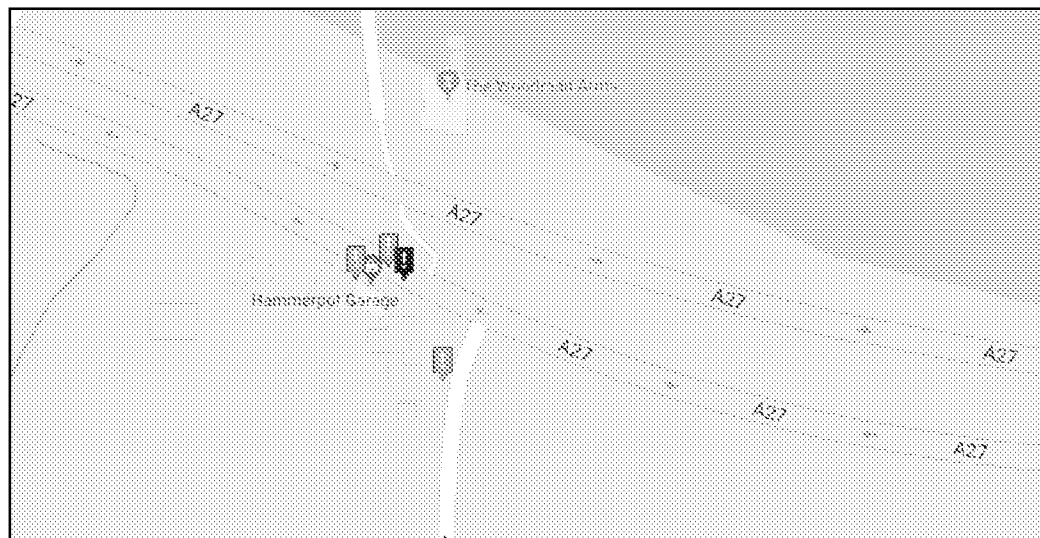


Figure 7.2 – Accidents at A27/Arundel Road (Left in/Left out) Junction

- 7.1.31 As can be seen above, one of the accidents took place on Arundel Road just prior to the junction with the A27 in 2014. The records show it was raining at the time and the road surface was wet/damp. It only involved one vehicle which collided with a wall or fence and resulted in slight injuries being sustained. This suggests that the driver was not paying adequate attention to the road conditions or was travelling in excess of the speed limit and failed to react in time.
- 7.1.32 The second recorded incident took place in 2016 when the weather was dry and unfortunately resulted in a fatality.

- 7.1.33 The details show it involved a car which struck a pedestrian who was in the centre of the carriageway, not on the refuge or central reserve and was crossing from the drivers nearside. The cause of the accident is not clear, but the information suggests that the pedestrian or car driver were not paying sufficient attention to other road users, rather than there being any problems with the road or junction layout.
- 7.1.34 The third accident took place on 2015 when the weather and road surface was dry. The details show that it involved a light goods vehicle and a car which shunted into the rear of the van whilst it was in the act of turning left, most likely into Hammerpot Garage. It resulted in slight injuries being sustained. It can be assumed from the information provided that the car driver was not paying adequate attention to other road users or was travelling in excess of the speed limit and failed to react in time.
- 7.1.35 The fourth recorded accident took place in 2016 when the road and weather conditions were dry. The details show that it involved a car and a light goods vehicle and resulted in slight injuries being sustained. The details show that the car was parked in carriageway when it was struck on the offside by the van. It is not clear why the vehicle was parked in the carriageway, but it would appear that the van driver was not paying sufficient attention to other road users, rather than there being any engineering problems with the road or junction layout.

No consideration of non-motorised users (NMU's)

- 7.1.36 Consideration has been given to the existing pedestrian facilities at the A27/Arundel Road junction and in particular, as there has been a fatal accident over recent years.
- 7.1.37 It is noted that there is no signage on the A27 at present to warn approaching vehicles that pedestrians may be crossing at the junction. It is likely that the pedestrian may have been walking to or returning from The Woodman Public House which is located on the northern side of the A27.
- 7.1.38 If deemed necessary by HE, some new warning signage could be provided at this location to alert drivers to the potential for pedestrians to be walking in the vicinity to improve safety, along with the provision of dropped kerbs and tactile paving at the crossing points.

No information is given regarding construction traffic.

- 7.1.39 It is anticipated that the access to the site during the construction period will be via Angmering Road and is likely to be located in same position as the existing access.
- 7.1.40 The details of the construction access will need to be agreed during the planning process to ensure that the access can operate safely and efficiently at all times.
- 7.1.41 It is understood that HE may request a condition for a Construction Management Plan.
- 7.1.42 This would seek to include demolition traffic and would restrict routes to and from the site, and hours that construction traffic can travel to minimise impact on the Strategic Road Network.
- 7.1.43 If required, a formal Construction Management Plan will be prepared and will include the following elements:
- Size of HGV to be used in the construction period.
 - Timing of deliveries during construction, to avoid peak periods for example.
 - Control noise to specified levels and duration.
 - Procedures related to dust suppression measures.
 - Routing of HGVs to and from the site, to avoid the village centre.
- 7.1.43.1 The applicant is willing to accept this as a formal planning condition, if deemed necessary.

7.2 Capacity Assessments for the Strategic Highway Network

- 7.2.1 This section of the TA will present the capacity assessments for the strategic highway network, which in this instance relates to the following two junctions;
- A280/Titnore Lane/A27 Slips (southern A27 Dumbell Roundabout); and
 - A280 Long Furlong/A27 Slips/Arundel Road (northern A27 Dumbell Roundabout).

- 7.2.2 As requested by the HE the assessments in this section will be undertaken for the 2022, 2027 (the 2031 assessments were set out in the previous section). It is considered that these will provide a particularly robust set of assessments.

A27 (Southern Roundabout)

- 7.2.3 The results for the 'Without Development' and 'With Development' flow scenarios for 2022 are summarised within **Table 7.5** with the full results contained within **Appendix 8**.

Arm Name	2022 Without Development				2022 With Development			
	AM		PM		AM		PM	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A27 wb Off Slip	0.51	1	0.54	2	0.50	1	0.54	1
Titnore Lane	0.50	1	0.61	2	0.50	1	0.61	2
Water Lane	1.03	33	0.62	2	1.06	46	0.64	2
A280 (n)	0.71	3	0.78	5	0.71	2	0.79	4

Table 7.5 – Summary of ARCADY Results for A27 (Southern Roundabout) - Existing

- 7.2.4 The 2022 'Without Development' results for the AM and PM peak hour show the junction will operate with reserve capacity in the PM peak but over capacity in the AM peak.
- 7.2.5 The results for the 2022 'With Development' assessments show that the junction will continue to operate in a similar manner to the base situation, with a moderate increase in queuing on the Water Lane approach.
- 7.2.6 The results for the 'Without Development' and 'With Development' flow scenarios for 2027 are summarised within **Table 7.6** with the full results contained within **Appendix 8**.

Arm Name	2027 Without Development				2027 With Development			
	AM		PM		AM		PM	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A27 wb Off Slip	0.57	1	0.60	2	0.56	1	0.61	4
Titnore Lane	0.54	1	0.67	2	0.54	1	0.67	4
Water Lane	1.10	67	0.66	2	1.13	83	0.68	4
A280 (n)	0.75	3	0.83	5	0.75	3	0.83	13

Table 7.6 – Summary of ARCADY Results for A27 (Southern Roundabout) - Existing

- 7.2.7 The 2027 ‘Without Development’ results for the AM and PM peak hour show the junction will continue to operate above capacity in the AM peak but with reserve capacity in the PM peak.
- 7.2.8 The results for the 2027 ‘With Development’ assessments show that the junction will continue to operate in a similar manner to the base situation, with some increase in queueing.
- 7.2.9 As already stated, it is understood that improvements to the junction are proposed as part of the Land North of Water Lane application and so the junction has been re-tested assuming the improvements are in place.
- 7.2.10 The results for the ‘Without Development’ and ‘With Development’ flow scenarios for 2022 based on the improved layout are summarised within **Table 7.7** with the full results contained within **Appendix 8**.

Arm Name	2022 Without Development				2022 With Development			
	AM		PM		AM		PM	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A27 wb Off Slip	0.52	1	0.54	1	0.50	1	0.54	1
Titnore Lane	0.50	1	0.61	2	0.50	1	0.61	2
Water Lane	0.81	4	0.49	1	0.83	5	0.50	1
A280 (n)	0.71	3	0.78	4	0.72	3	0.79	4

Table 7.7 – Summary of ARCADY Results for A27 (Southern Roundabout) - Improved

- 7.2.11 The 2022 ‘Without Development’ results for the AM and PM peak hour show the junction will operate with reserve capacity.
- 7.2.12 The results for the 2022 ‘With Development’ assessments show that the junction will continue to operate efficiently in both peak hours and that the development traffic can be adequately accommodated.
- 7.2.13 The results for the ‘Without Development’ and ‘With Development’ flow scenarios for 2027 based on the improved layout are summarised within **Table 7.8** with the full results contained within **Appendix 8**.

Arm Name	2027 Without Development				2027 With Development			
	AM		PM		AM		PM	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A27 wb Off Slip	0.58	1	0.604	2	0.58	1	0.61	2
Titnore Lane	0.54	1	0.67	2	0.54	1	0.67	2
Water Lane	0.86	6	0.52	1	0.89	7	0.54	1
A280 (n)	0.75	3	0.83	5	0.76	3	0.83	5

Table 7.8 – Summary of ARCADY Results for A27 (Southern Roundabout) - Improved

- 7.2.14 The 2027 ‘Without Development’ results for the AM and PM peak hour show the junction will operate with reserve capacity.
- 7.2.15 The results for the 2027 ‘With Development’ assessments show that the junction will continue to operate efficiently in both peak hours, in a similar manner to the base situation.

A27 (Northern Roundabout)

- 7.2.16 The results for the ‘Without Development’ and ‘With Development’ flow scenarios for 2022 are summarised within **Table 7.9** with the full results contained within **Appendix 9**.

Arm Name	2022 Without Development				2022 With Development			
	AM		PM		AM		PM	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A280 Long Furlong	0.65	2	0.80	4	0.66	2	0.81	4
A280 (s)	0.60	2	0.44	1	0.61	2	0.45	1
A27 Off Slip	0.75	3	0.39	1	0.77	3	0.40	1
Arundel Road	0.12	0	0.08	0	0.13	0	0.08	0

Table 7.9 – Summary of ARCADY Results for A27 (Northern Roundabout) - Existing

- 7.2.17 The 2022 ‘Without Development’ results for the AM and PM peak hour show the junction will operate with reserve capacity.
- 7.2.18 The results for the 2022 ‘With Development’ assessments show that the junction will continue to operate efficiently in both peak hours, in a similar manner to the base situation.
- 7.2.19 The results for the ‘Without Development’ and ‘With Development’ flow scenarios for 2027 are summarised within **Table 7.9** with the full results contained within **Appendix 9**

Arm Name	2027 Without Development				2027 With Development			
	AM		PM		AM		PM	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A280 Long Furlong	0.70	2	0.85	6	0.71	2	0.86	6
A280 (s)	0.63	2	0.46	1	0.64	2	0.47	1
A27 Off Slip	0.81	4	0.42	1	0.83	5	0.43	1
Arundel Road	0.15	0	0.09	0	0.13	0	0.09	0

Table 7.9 – Summary of ARCADY Results for A27 (Northern Roundabout) Existing

- 7.2.20 The 2027 ‘Without Development’ results for the AM and PM peak hour show the junction will operate with reserve capacity.
- 7.2.21 The results for the 2027 ‘With Development’ assessments show that the junction will continue to operate efficiently in both peak hours, in a similar manner to the base situation.
- 7.2.22 As already stated, it is understood that improvements to the junction are proposed as part of the Arun Transport Study (Stage 3) and so the junction has been re-tested assuming the improvements are in place.
- 7.2.23 The results for the ‘Without Development’ and ‘With Development’ flow scenarios for 2022 based on the improved layout are summarised within **Table 7.10** with the full results contained within **Appendix 9**.

Arm Name	2022 Without Development				2022 With Development			
	AM		PM		AM		PM	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A280 Long Furlong	0.50	1	0.62	2	0.51	1	0.63	2
A280 (s)	0.60	2	0.44	1	0.61	2	0.45	1
A27 Off Slip	0.75	3	0.39	1	0.77	3	0.40	1
Arundel Road	0.12	0	0.08	0	0.13	0	0.08	0

Table 7.10 – Summary of ARCADY Results for A27 (Northern Roundabout) - Improved

- 7.2.24 The 2022 ‘Without Development’ results for the AM and PM peak hour show the junction will operate with reserve capacity.
- 7.2.25 The results for the 2022 ‘With Development’ assessments show that the junction will continue to operate efficiently in both peak hours, in a similar manner to the base situation.
- 7.2.26 The results for the ‘Without Development’ and ‘With Development’ flow scenarios for 2027 based on the improved layout are summarised within **Table 7.11** with the full results contained within **Appendix 9**

Arm Name	2027 Without Development				2027 With Development			
	AM		PM		AM		PM	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A280 Long Furlong	0.54	1	0.66	2	0.55	1	0.67	2
A280 (s)	0.63	2	0.46	1	0.64	2	0.47	1
A27 Off Slip	0.81	4	0.42	1	0.83	5	0.43	1
Arundel Road	0.15	0	0.09	0	0.13	0	0.09	0

Table 7.11 – Summary of ARCADY Results for A27 (Northern Roundabout) - Improved

- 7.2.27 The 2027 ‘Without Development’ results for the AM and PM peak hour show the junction will operate with reserve capacity.
- 7.2.28 The results for the 2027 ‘With Development’ assessments show that the junction will continue to operate efficiently in both peak hours, in a similar manner to the base situation.

7.3 Highways England Summary

- 7.3.1 This section of the report has addressed the points raised by Highways England.
- 7.3.2 It has provided the additional information requested including additional junction assessments of the strategic road network.
- 7.3.3 It has demonstrated that the proposals will not result in an increase of ‘U’ turning traffic as they will simply utilise the A280/Water Lane junction to access the A27 eastbound. This will mean, the number of ‘U’ turners will remain as it is as present and safety will not be compromised.

- 7.3.4 There have been four recorded accident at the A27/Arundel Road junction over the last 5 years and there is no evidence to suggest that the proposals will have a detrimental impact on road safety. Indeed, if considered necessary, the applicant would consider the introduction of some suitable warning signage, so drivers are aware that there could be pedestrians crossing at this location.
- 7.3.5 This TA has confirmed that It is understood that the football pitch will most likely be operated by the Parish Council, as part of the existing Angmering Sports and Recreation Ground facility.
- 7.3.6 In addition, it has shown that the A27/Arundel Road junction will continue to operate satisfactorily, one the development traffic is added.
- 7.3.7 The applicant is willing to accept a planning condition with regard to the provision of a Construction Management Plan.
- 7.3.8 The assessments have demonstrated that the development traffic can be accommodated onto the strategic highway network and will not have a material impact on overall operation.

8 ACCIDENT DATA

8.1 Introduction

8.1.1 In order to consider the potential impact of the development on road safety, a review of the Crashmap website (www.crashmap.co.uk) has been undertaken. The information provided on the website covered the three-year period 2015 to 2017, the latest data available in the vicinity of the development site. The accident data is contained within **Appendix 10**.

8.2 Accident Review

8.2.1 According to the data provided, there have been no accidents in the immediate vicinity of the site on Arundel Road. The records show however, that there have been 4 recorded incidents on the A27, located approximately 350 metres away to the north of the site, as identified in **Figure 7.1** below.

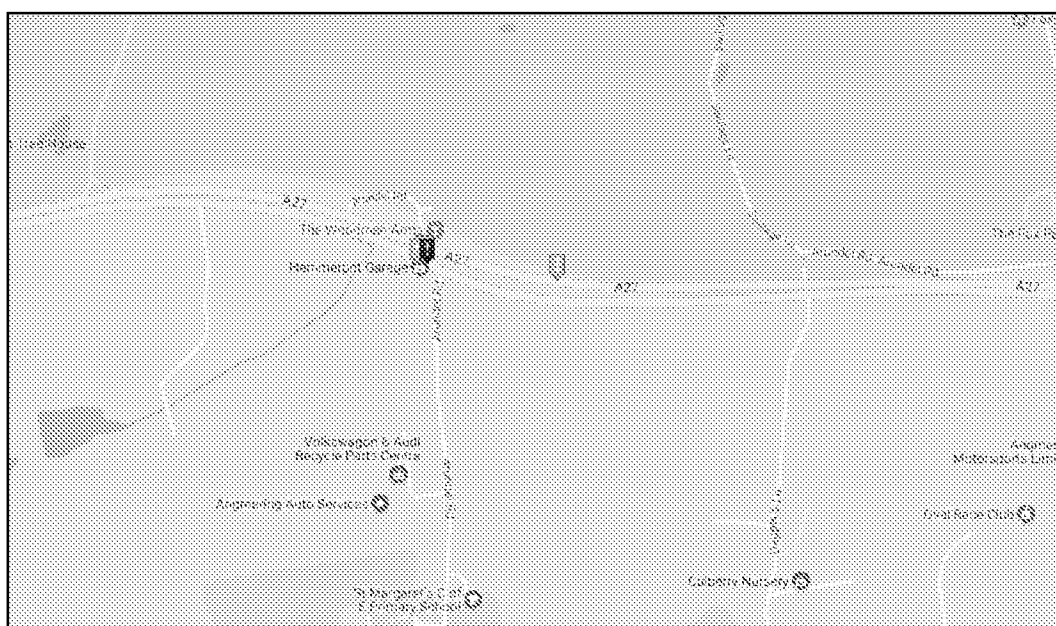


Figure 7.1 – Accident Location

8.2.2 The data shows that the incident to the east of Arundel Road took place in 2015 and the road surface was wet/damp and resulted in a slight injury being sustained.

- 8.2.3 The details show that the accident involved only one vehicle, which collided with a tree. This suggests that the accident was due to driver error, rather than there being any particular issues with the road layout. It is likely that the vehicle was travelling in excess of the speed limit or the driver was not paying sufficient attention to the road conditions.
- 8.2.4 The second accident took place to the west of Arundel Road and involved a car and a light goods vehicle. The weather conditions were fine and the road surface was dry. The data shows that the light goods vehicle was in the act of turning left when it was struck by the car, with both drivers sustaining slight injuries. It is likely that the car driver was not paying sufficient attention to other road users or failed to see that the vehicle in front was slowing down to make the left turn.
- 8.2.5 The records show that the accident involved two vehicles, a car and a light goods vehicle in 2016. It was daylight, the weather conditions were fine and the road surface was dry. The details indicate that the car was parked in the carriageway, when it was struck by the light goods vehicle, resulting in a slight injury to the van driver. This suggests that the driver of the van was not paying sufficient attention to the surroundings and failed to notice the stationary vehicle, or was travelling in excess of the speed limit and failed to react in time.
- 8.2.6 The fourth incident related to an accident involving a pedestrian who was crossing the dual carriageway and was struck by a car. The records show it was dark when the accident took place, although the weather was fine and road surface dry. The details indicate that the elderly pedestrian was walking in the carriageway and so it is likely that the car driver simply did not see the pedestrian. The incident unfortunately resulted in a fatal injury to the pedestrian.

8.3 Accident Summary

- 8.3.1 The data reviewed has not identified any untypical accidents.
- 8.3.2 The data reviewed has therefore demonstrated that there are no particular road safety issues in the vicinity of the site.

- 8.3.3 It is considered that the proposals for a residential development will not unduly change the characteristics or nature of the surrounding highway network and as such will not have a detrimental impact on overall road safety.
- 8.3.4 Furthermore, the proposed site access junction accords with relevant design criteria and is deemed to be a safe and appropriate form of junction to serve the development.
- 8.3.5 As such, there is no evidence to suggest that the proposed residential development will have an adverse effect on road safety or the number of accidents in the vicinity.

9 SMARTER TRAVEL CHOICES VIA TRAVEL PLANS

9.1 Introduction

- 9.1.1 In order to manage the travel by residents at the new development, the applicant wishes to offer a Travel Plan to encourage travel to the site by non-car modes.

9.2 Travel Planning Guidance

- 9.2.1 The preparation and adoption of a Travel Plan is an important element of managing the demand for travel to all modern developments. The Department for Transport (DfT) have produced guidance on the preparation of Travel Plans. The document, entitled '*Good Practice Guidelines: Delivering Travel Plans through the Planning Process*' was published in August 2009.
- 9.2.2 The guidance explains how *"we often need to meet the demands of population and economic growth whilst simultaneously reducing our impact on the environment"* and identifies that *"The benefits of increases in sustainable travel, in particular cycling and walking, can extend beyond reduction in CO₂ emissions and climate impacts, and include tackling congestion, tackling obesity and health issues, reducing social exclusion and improving quality of life"*.
- 9.2.3 The document sets out an overview of the process and delivery of Travel Plans and states that *"A Travel Plan is a long-term management strategy for an occupier or site that seeks to deliver sustainable transport objectives through positive action and is articulated in a document that is regularly reviewed."*
- 9.2.4 The Guidance states that *"Travel Plans should involve the development of agreed explicit outcomes linked to an appropriate package of measures aimed at encouraging more sustainable travel, with an emphasis on reducing single occupancy car use..."* and;

"A Travel Plan should seek to establish clear outcomes to be achieved in relation to access and set out all the measures to be implemented in detail, including an action plan, timescales, targets and responsibilities for implementation, monitoring and review".

- 9.2.5 It is made clear in the document that Travel Plans should focus on achieving the lowest practical level of single occupancy vehicle trips to or from a site and widening the use of other travel modes and assist in the wider aims of encouraging sustainable travel, improving health, reducing congestion, energy consumption and pollution. The Travel Plan, it advises *“needs to address all the journeys that may be made to and from a site”*.
- 9.2.6 The guidance also specifies that *“It is important to note that Travel Planning should be developed as one of the means of delivering an area’s sustainable transport strategy. Travel Planning should feature in the policy framework and implementation programmes of Regional Spatial Strategies and Local Development Frameworks”*.
- 9.2.7 Further guidance relating specifically to residential Travel Plans is presented in the DfT document entitled *“Making Residential Travel Plans Work”* published in June 2007.
- 9.2.8 The document states that:
- “Travel Planning is one of a range of measures known as smarter choices which have been found to be effective on reducing traffic and improving accessibility in residential areas”*.
- 9.2.9 A Residential Travel Plan is a package of measures designed to reduce car use originating from new housing by supporting alternative forms of transport and reducing the need to travel in the first place.
- 9.2.10 They are an important tool to help deliver accessible, sustainable communities and offer clear benefits to all the parties involved – public, private and the community. They involve meeting the access needs of residents in a new way and require partnerships between developers, local authorities, local communities and new residents.
- 9.2.11 The value of Travel Plans in reducing car use to workplaces and schools is widely recognised and many local authorities and developers have experience in their design and implementation.

- 9.2.12 However, until recently, little attention has been given to tackling the origins of journeys from people's homes. Now, forward-thinking developers and local authorities are developing packages of smarter choices to both reduce the traffic generated by new housing developments and increasing the travel choices available to residents. These smarter choices are being set out in Residential Travel Plans.

9.3 Residential Travel Plan

- 9.3.1 The objective of a Residential Travel Plan is the delivery of the objectives of the NPPF, i.e. to encourage residents to travel to work by bus, on foot and by bicycle.
- 9.3.2 The Residential Travel Plan outlines physical and management measures that are designed to achieve this objective.
- 9.3.3 However, the principle measure will consist of a Residents Travel Information Pack containing relevant material to promote non-car modes of travel and the provision of certain physical measures.
- 9.3.4 The Travel Pack will contain information to inform residents of the existing long-term strategy for reducing the dependence of residents and visitors on travel by private car.
- 9.3.5 The site has been demonstrated to benefit from excellent non-car accessibility and it should, therefore, be expected that the adoption of a Travel Plan would be particularly effective.
- 9.3.6 A Residential Travel Plan has been prepared and is submitted as a separate document within the application package.

10 ROAD SAFETY AUDIT

10.1 Introduction

10.1.1 As requested by the local highway authority, a Stage 1 Road Safety Audit has been undertaken for the site access.

10.2 Road Safety Audit

10.2.1 The site visit was undertaken on Saturday 9th December 2017 between 13:15-13:40 and comprised a walk and drive through of the area in the vicinity of the scheme. During the site visit both the weather and road surface were dry. Traffic in the vicinity of the scheme was light/moderate.

10.2.2 Arundel Road in the vicinity of the proposed access is subject to a 60 mph speed limit.

10.2.3 The Stage 1 Road Safety Audit and Designers Response for the main site access is contained within **Appendix 11**, while the one for the secondary access is contained within **Appendix 12**.

10.3 Road Safety Audit

10.3.1 The terms of reference of the audit are as that described in DMRB HD19/15 Guidelines on Road Safety Audits. This standard has been used for guidance only. The team has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the designs to any other criteria.

10.3.2 The scope of the RSA is limited to the proposed access arrangements to the site that will include:

- The introduction of a priority controlled 'ghost island' right turn lane with lane widths of 3.0 metres;
- Visibility splays of 2.4 metres by 59 metres from the site access (which it is noted accords with MfS guidance on vehicle speeds of 37mph); and

- Access road with a 5.5 metre width, 6.0 metre kerb radii and 2.0 metre wide footways on either side of the access road.

- 10.3.3 Junction capacity assessments provided for review as part of the RSA has forecast that the proposed junction would operate within capacity with no forecast queuing during the 2027 assessment year.
- 10.3.4 A review of the Personal Injury Collisions (PIC) data between 01/01/2012 and 31/12/2016 in the immediate vicinity of the proposed site access junction has indicated that during this period there have been no PIC's recorded.
- 10.3.5 The RSA identified two issues with the proposed site access which related to the vertical alignment of Arundel Road and the swept path analyses undertaken for a refuse vehicle in terms of its manoeuvring in and out of the site access.
- 10.3.6 In order to address the points raised above, the site access plan has been revised and is also contained within Appendix 9. In addition, the results of the Automatic Traffic Counts (ATC's) and visibility calculations based on Manual for Streets are also contained within Appendix 9.
- 10.3.7 The traffic speed data shows that the 85th percentile wet weather traffic speeds in the vicinity of the site are as follows;
- Northbound - 37.6mph; and
 - Southbound - 35.7mph
- 10.3.8 Based on the Manual for streets guidance, the above traffic speeds would require visibility splays of 59.61 metres (northbound) and 55.19 metres (southbound).
- 10.3.9 As indicated above, and within the RSA report, the site access can achieve visibility splays of 59 metres in both directions and as such, it is considered that design meets the required standards.

10.4 Summary

- 10.4.1 In light of the above, the vehicular access proposals should be deemed acceptable to the local highway authority.

11 CONCLUSIONS

- 11.1.1 Croft have been commissioned by Gladman to produce a Transport Assessment and Travel Plan to assist the Local Planning Authority's determination of a planning application for a proposed residential development off Arundel Road in Angmering.
- 11.1.2 The existing pedestrian infrastructure in the vicinity of the site is of good standard, providing safe linkages to the surrounding area and local facilities.
- 11.1.3 The site benefits from being located in close proximity to the bus stops located within a short walk of the site, which provide services to local destinations and are ideally placed to cater for the needs of the residents and visitors.
- 11.1.4 The proposals comply with the aims and aspirations of both of local and national policy.
- 11.1.5 The proposed development will be accessed by a safe and efficient priority controlled vehicular access arrangement that will not compromise highway safety.
- 11.1.6 The impact of the proposals has been assessed using the TRICS database and the assessments undertaken have shown that the proposals will not have a material impact or give rise to any highways related issues.
- 11.1.7 There is no evidence to suggest that the proposals would have an adverse effect on road safety or the number of accidents in the vicinity.
- 11.1.8 A Travel Plan will be implemented to encourage the use of non-car modes to meet the aims and aspirations of national and local policy and assist in delivering as sustainable development.
- 11.1.9 The Road Safety Audits have confirmed that the proposals will provide safe points of access into the site.
- 11.1.10 Based on the above, it is the conclusion of this report that there are no material reasons why the proposed development should not be granted planning consent on highways or transportation grounds.

FIGURES

FIGURE	DESCRIPTION	SCENARIO	CALC
FIGURE 1	2017 SURVEYED FLOWS	AM PEAK	See TA
FIGURE 2	2017 SURVEYED FLOWS	PM PEAK	See TA
FIGURE 3	2022 FACTORED FLOWS	AM PEAK	FIG1xNTM
FIGURE 4	2022 FACTORED FLOWS	PM PEAK	FIG2xNTM
FIGURE 5	2027 FACTORED FLOWS	AM PEAK	FIG1xNTM
FIGURE 6	2027 FACTORED FLOWS	PM PEAK	FIG2xNTM
FIGURE 7	2031 FACTORED FLOWS	AM PEAK	FIG1xNTM
FIGURE 8	2031 FACTORED FLOWS	PM PEAK	FIG2xNTM
FIGURE 9a	COMMITTED DEVELOPMENT (A/82/12) - 138 Units	AM PEAK	See TA
FIGURE 10a	COMMITTED DEVELOPMENT (A/82/12) - 138 Units	PM PEAK	See TA
FIGURE 9b	COMMITTED DEVELOPMENT (A/144/15/PL) - 246 Units	AM PEAK	See TA
FIGURE 10b	COMMITTED DEVELOPMENT (A/144/15/PL) - 246 Units	PM PEAK	See TA
FIGURE 9c	COMMITTED DEVELOPMENT (A/27/16/PL) - 53 Bed Care Home	AM PEAK	See TA
FIGURE 10c	COMMITTED DEVELOPMENT (A/27/16/PL) - 53 Bed Care Home	PM PEAK	See TA
FIGURE 9d	ANGMERING NORTH SITE COMMITTED DEVELOPMENT	AM PEAK	See TA
FIGURE 10d	ANGMERING SOUTH SITE COMMITTED DEVELOPMENT	PM PEAK	See TA
FIGURE 9e	ANGMERING NORTH SITE COMMITTED DEVELOPMENT	AM PEAK	See TA
FIGURE 10e	ANGMERING SOUTH SITE COMMITTED DEVELOPMENT	PM PEAK	See TA
FIGURE 9f	TOTAL COMMITTED DEVELOPMENT	AM PEAK	F9a+F9b+F9c+F9d+F9e+F9f
FIGURE 10f	TOTAL COMMITTED DEVELOPMENT	PM PEAK	F10b+F10b+F10c+F10d+F10e+F10f
FIGURE 11	2022 BASE FLOWS	AM PEAK	F3+F9f
FIGURE 12	2022 BASE FLOWS	PM PEAK	F4+F10f
FIGURE 13	2027 BASE FLOWS	AM PEAK	F5+F9f
FIGURE 14	2027 BASE FLOWS	PM PEAK	F6+F10f
FIGURE 15	2031 BASE FLOWS	AM PEAK	F7+F9f
FIGURE 16	2031 BASE FLOWS	PM PEAK	F8+F10f
FIGURE 17	TRIP DISTRIBUTION	AM PEAK	See TA
FIGURE 18	TRIP DISTRIBUTION	PM PEAK	See TA
FIGURE 19	DEVELOPMENT FLOWS	AM PEAK	See TA
FIGURE 20	DEVELOPMENT FLOWS	PM PEAK	See TA
FIGURE 21	2022 ASSESSMENT FLOWS	AM PEAK	F11+F19
FIGURE 22	2022 ASSESSMENT FLOWS	PM PEAK	F12+F20
FIGURE 23	2027 ASSESSMENT FLOWS	AM PEAK	F13+F19
FIGURE 24	2027 ASSESSMENT FLOWS	PM PEAK	F14+F20
FIGURE 25	2031 ASSESSMENT FLOWS	AM PEAK	F15+F19
FIGURE 26	2031 ASSESSMENT FLOWS	PM PEAK	F16+F20

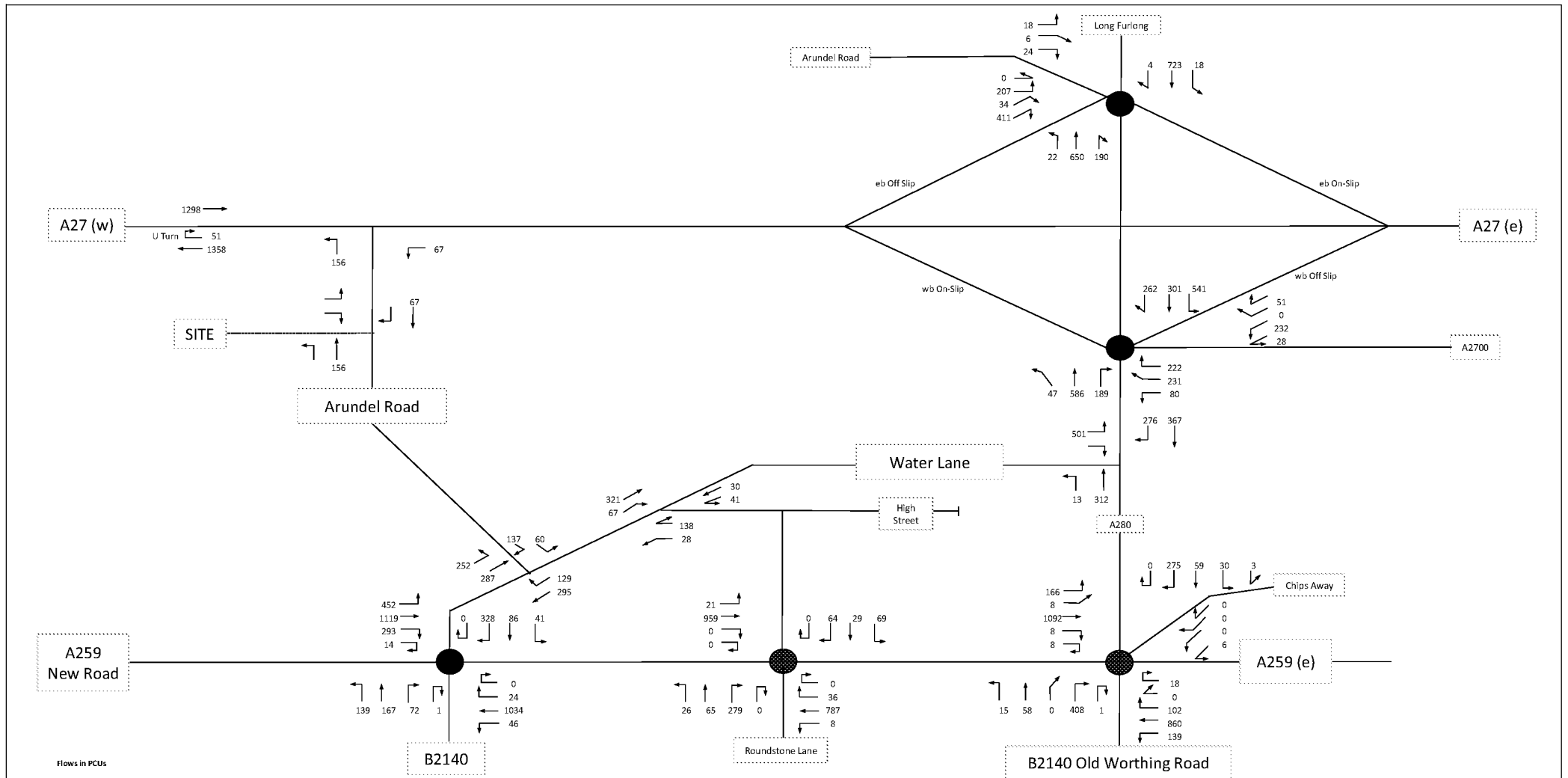
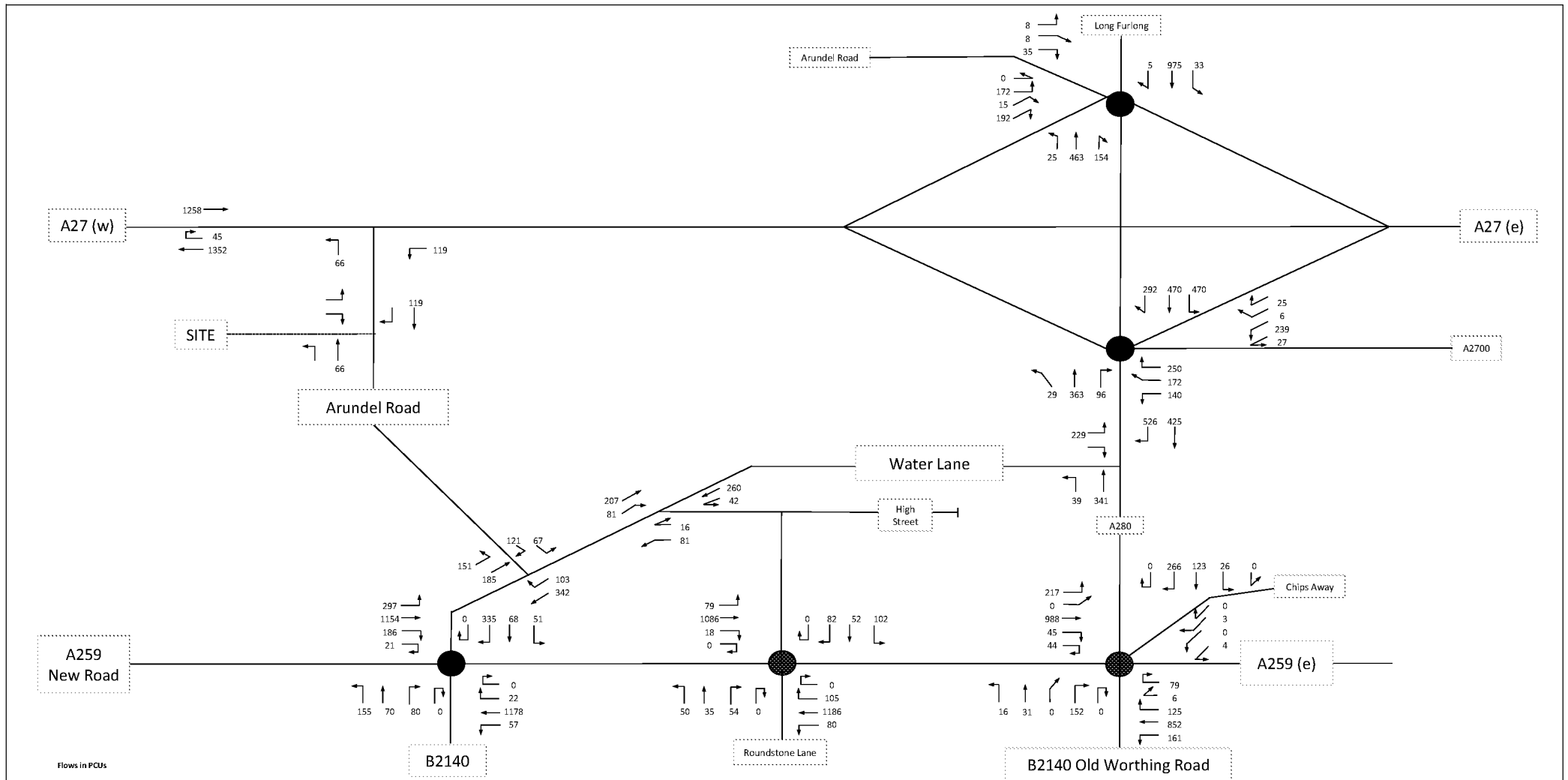


Figure 1 - 2017 Surveyed Flows
AM Peak Period (0745 - 0845)

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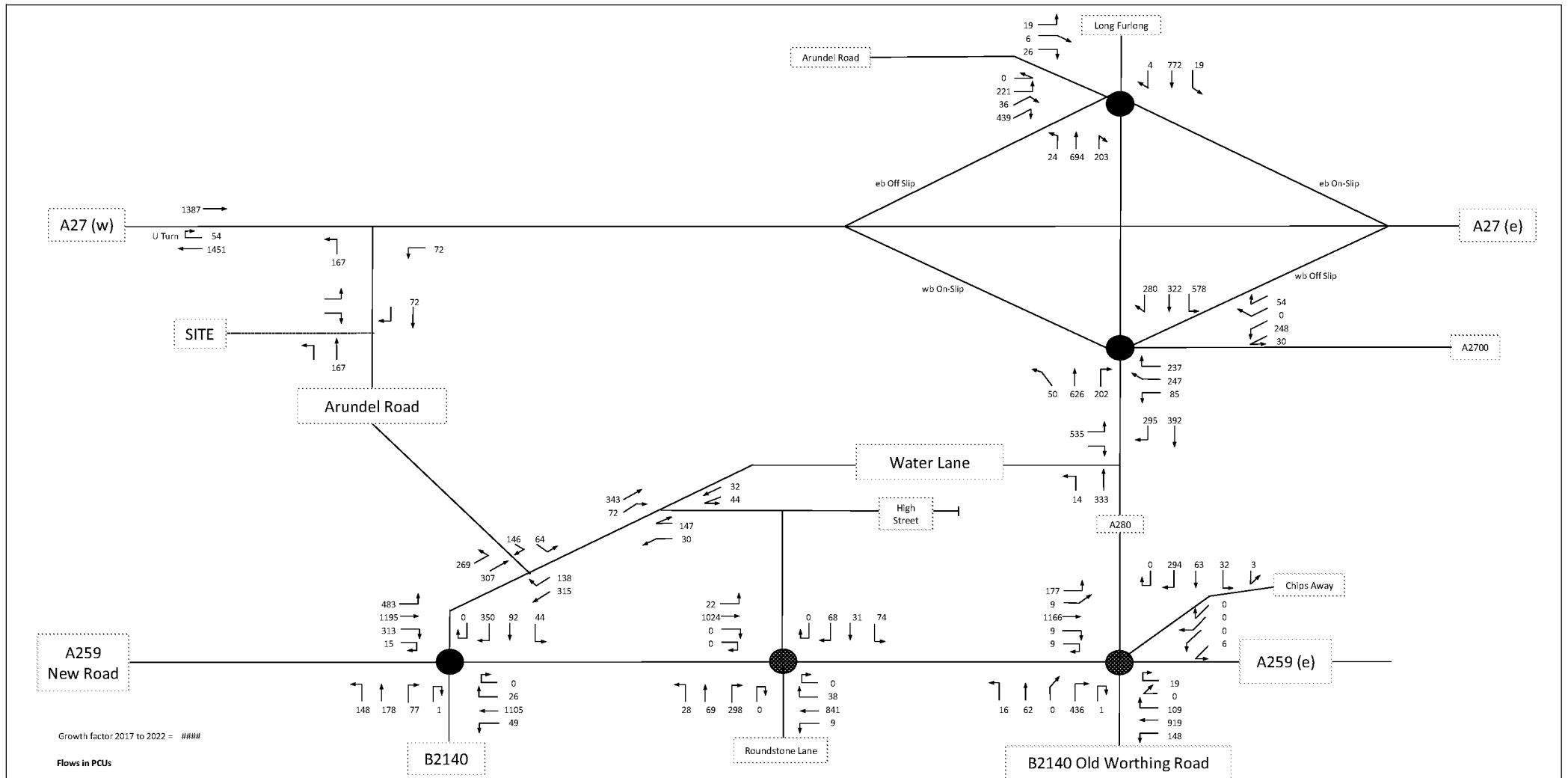


Figure 3 - 2022 Factored Flows
AM Peak Period (0745 - 0845)

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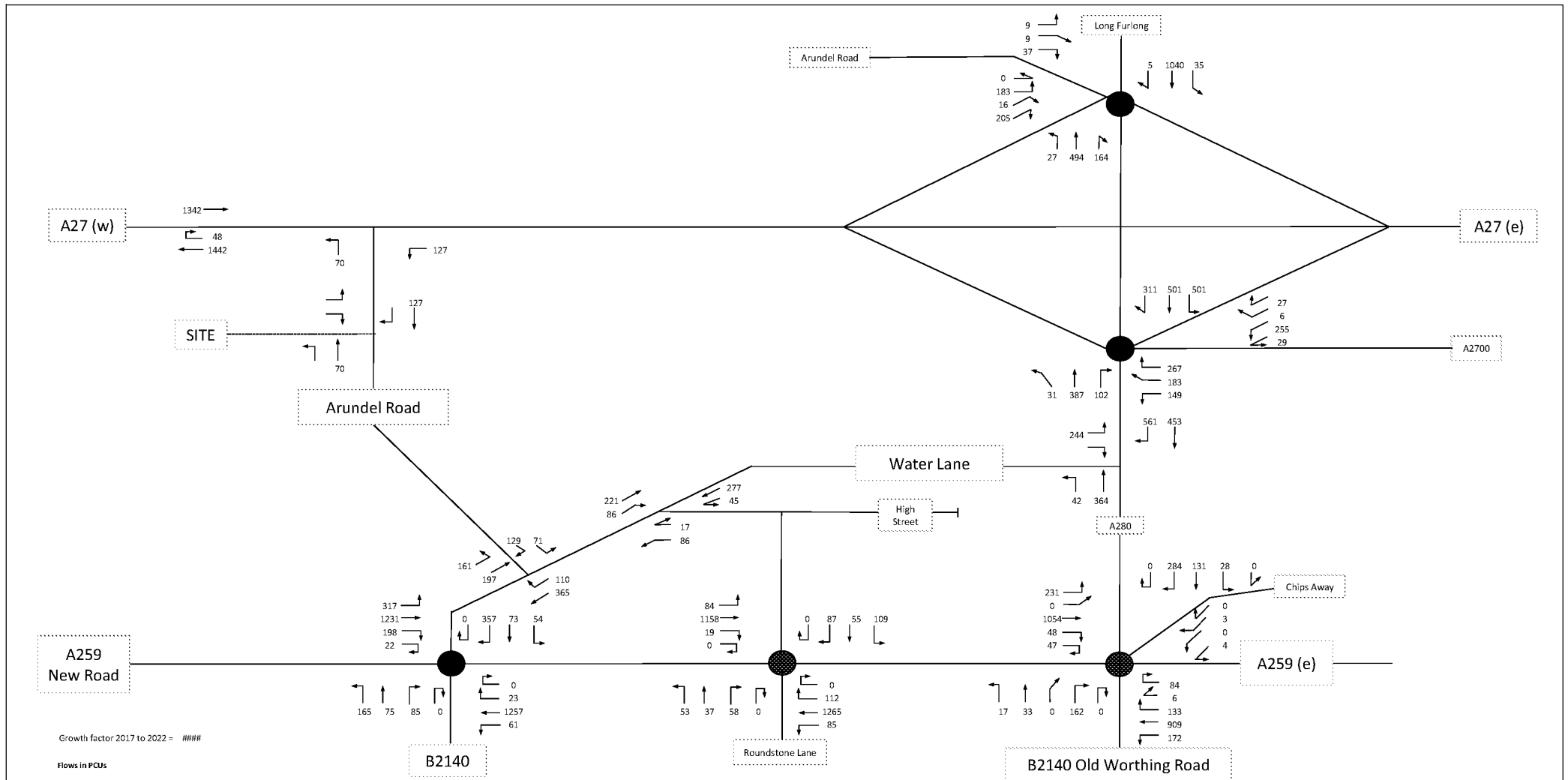


Figure 4 - 2022 Factored Flows
PM Peak Period (1645 - 1745)

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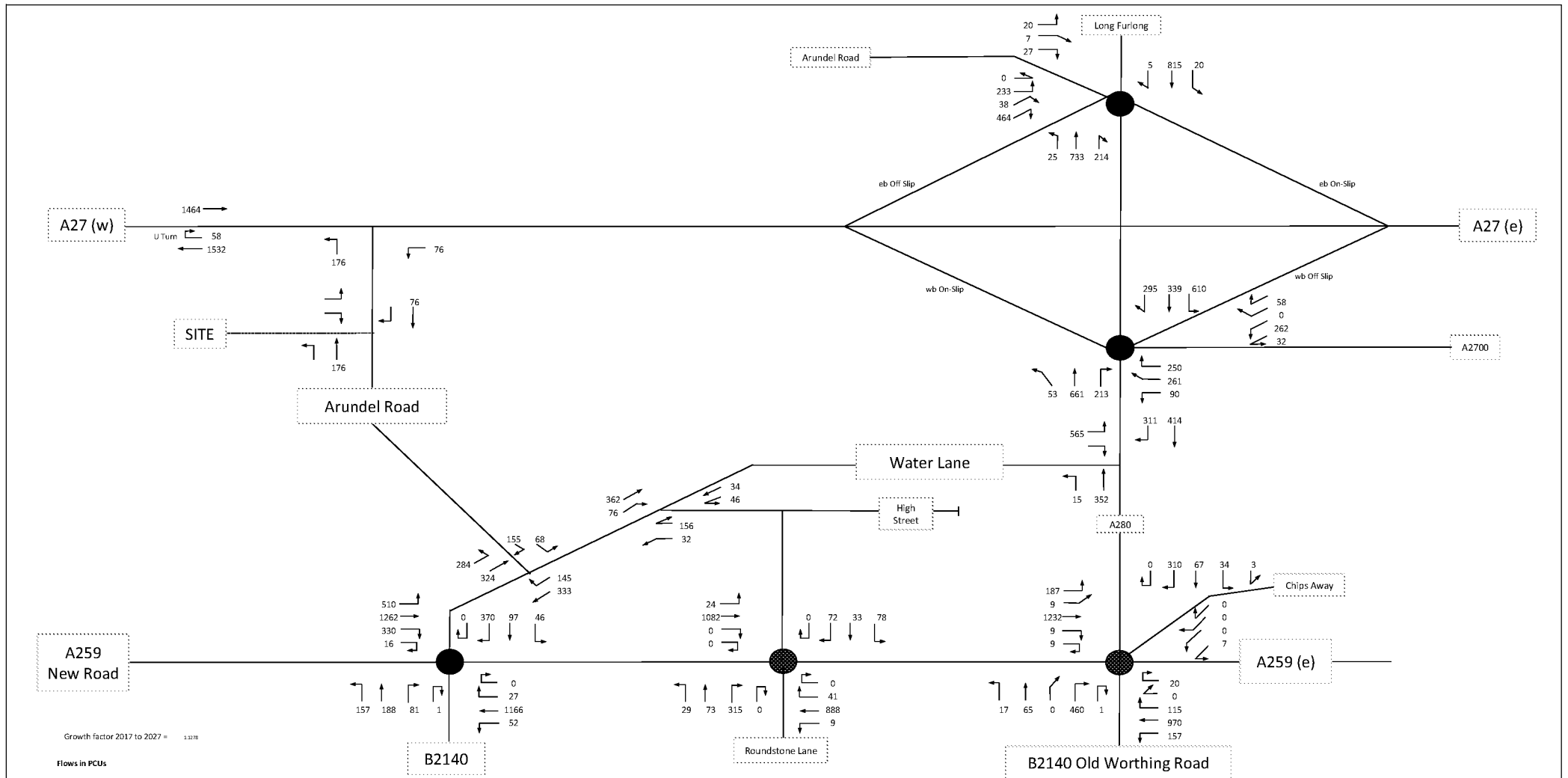


Figure 5 - 2027 Factored Flows
AM Peak Period (0745 - 0845)

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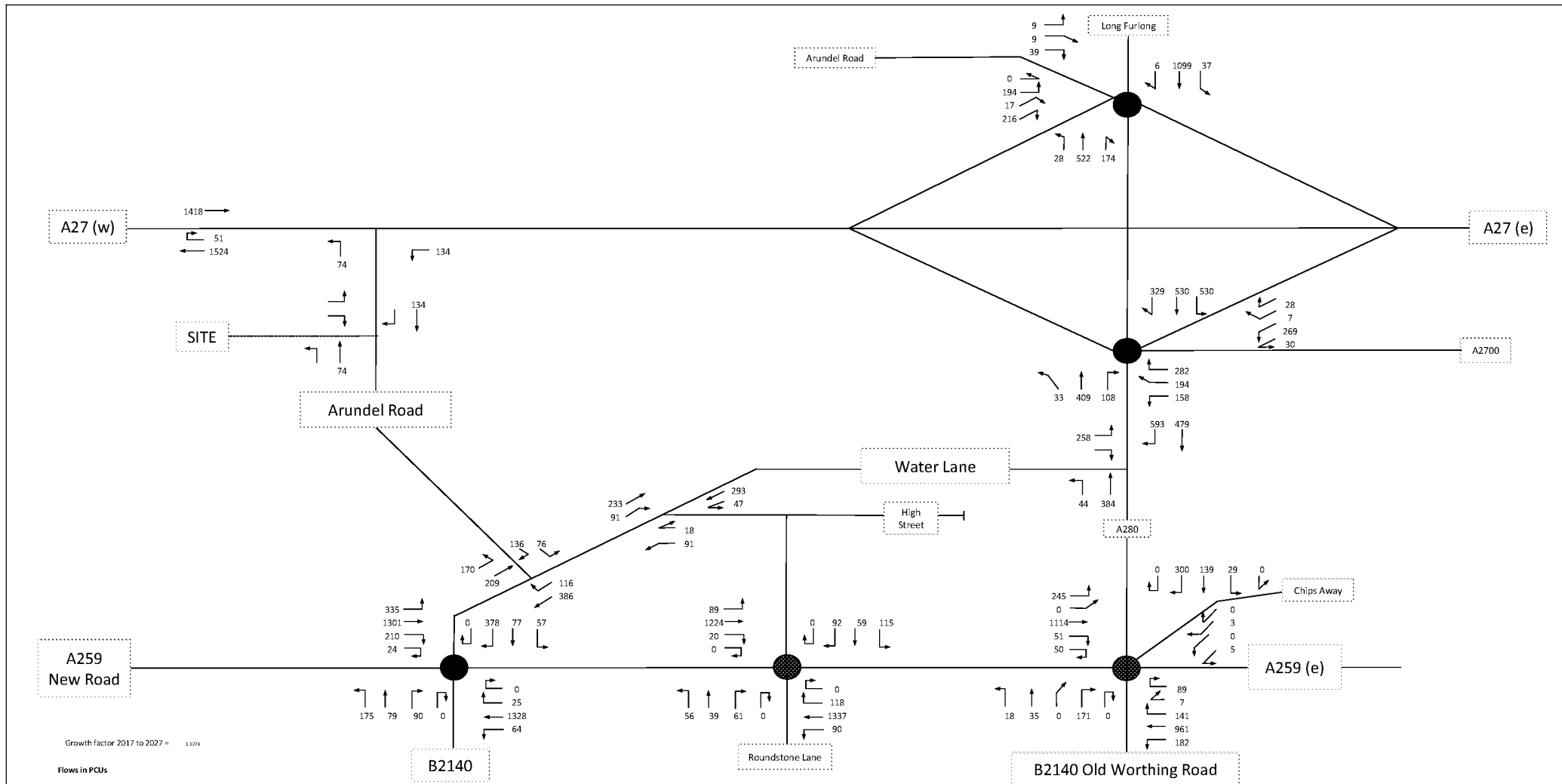


Figure 6 - 2027 Factored Flows
PM Peak Period (1645 - 1745)

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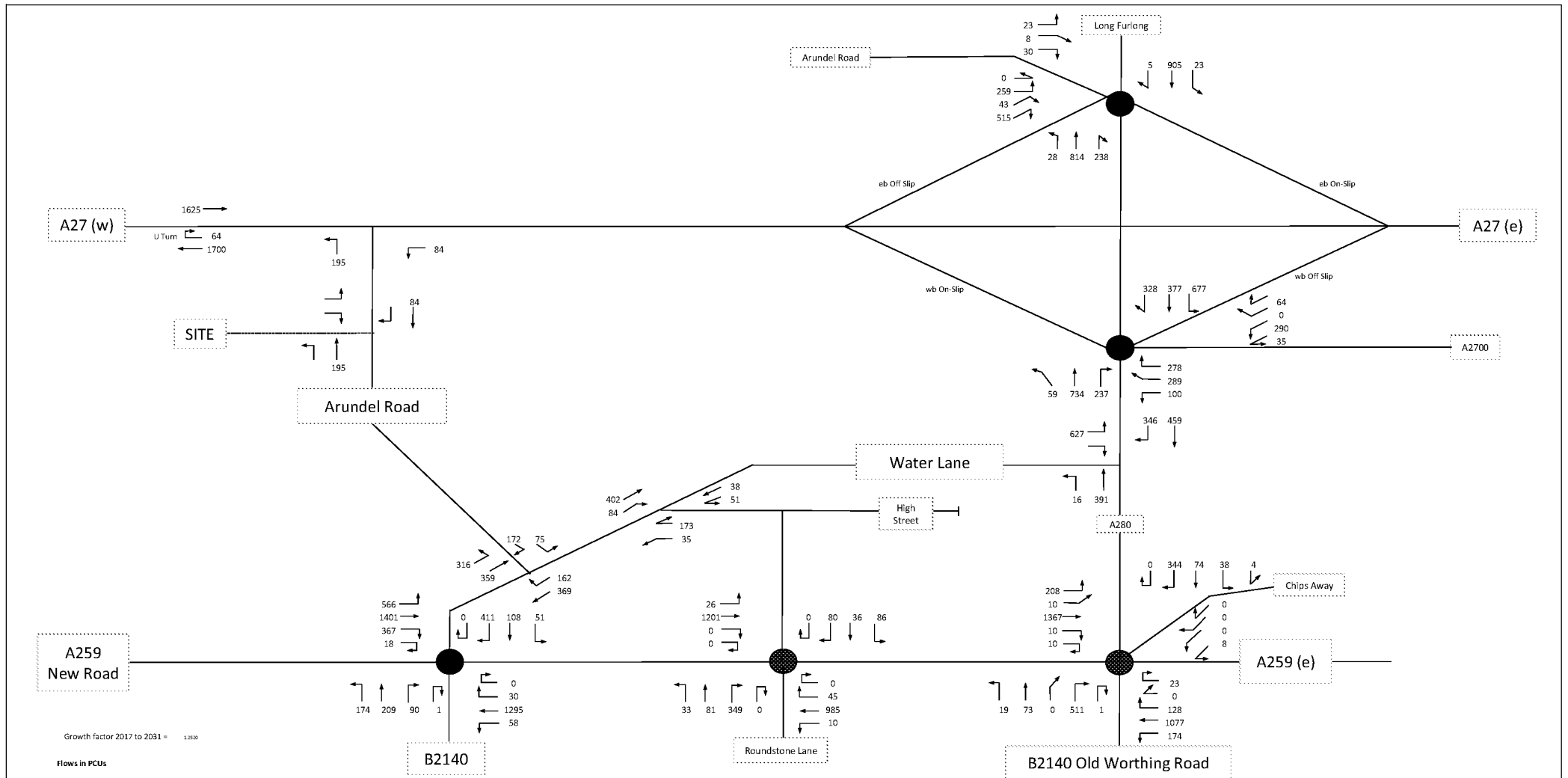


Figure 7 - 2031 Factored Flows
AM Peak Period (0745 - 0845)

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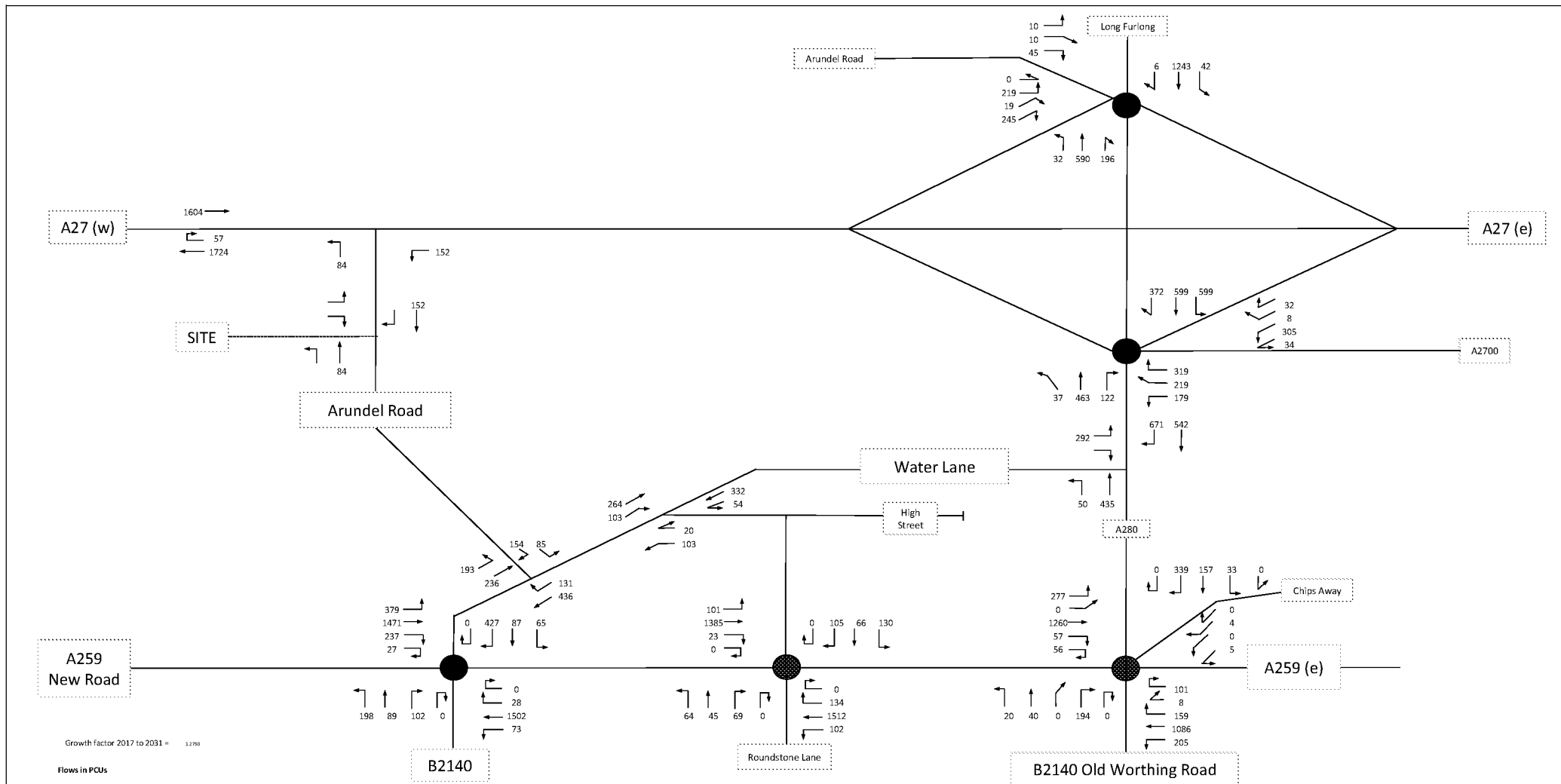
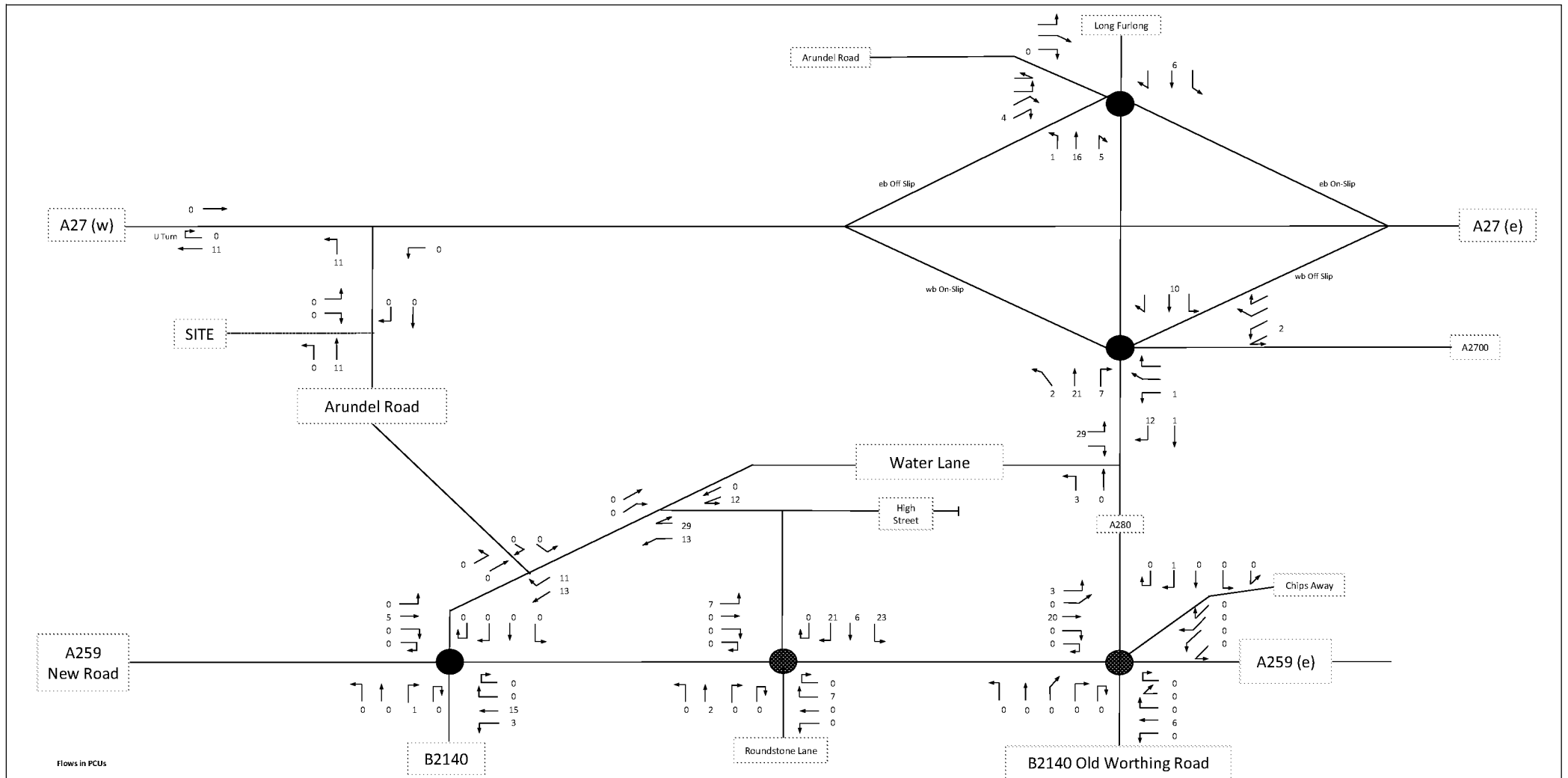


Figure 8 - 2031 Factored Flows
PM Peak Period (1645 - 1745)

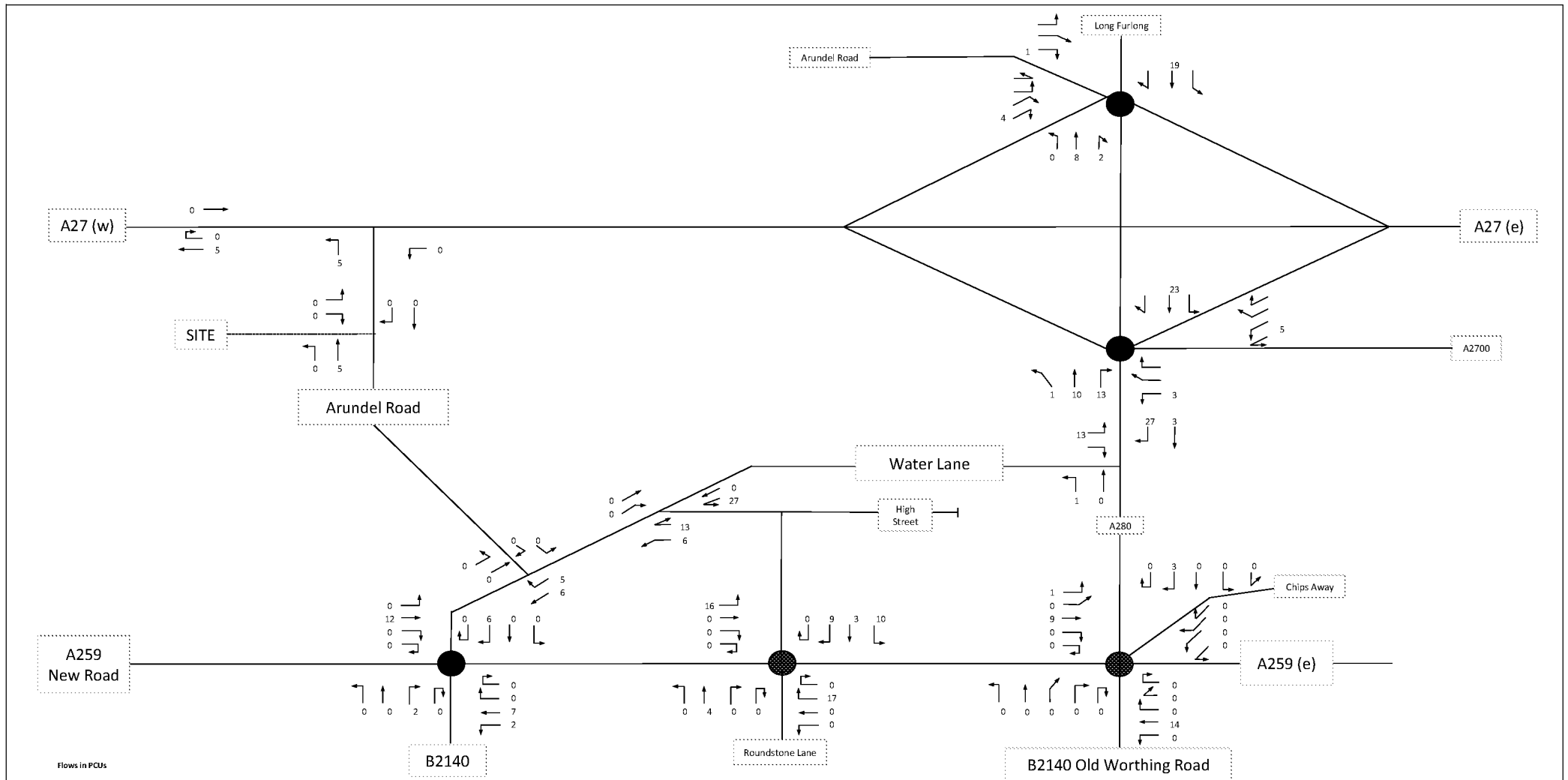
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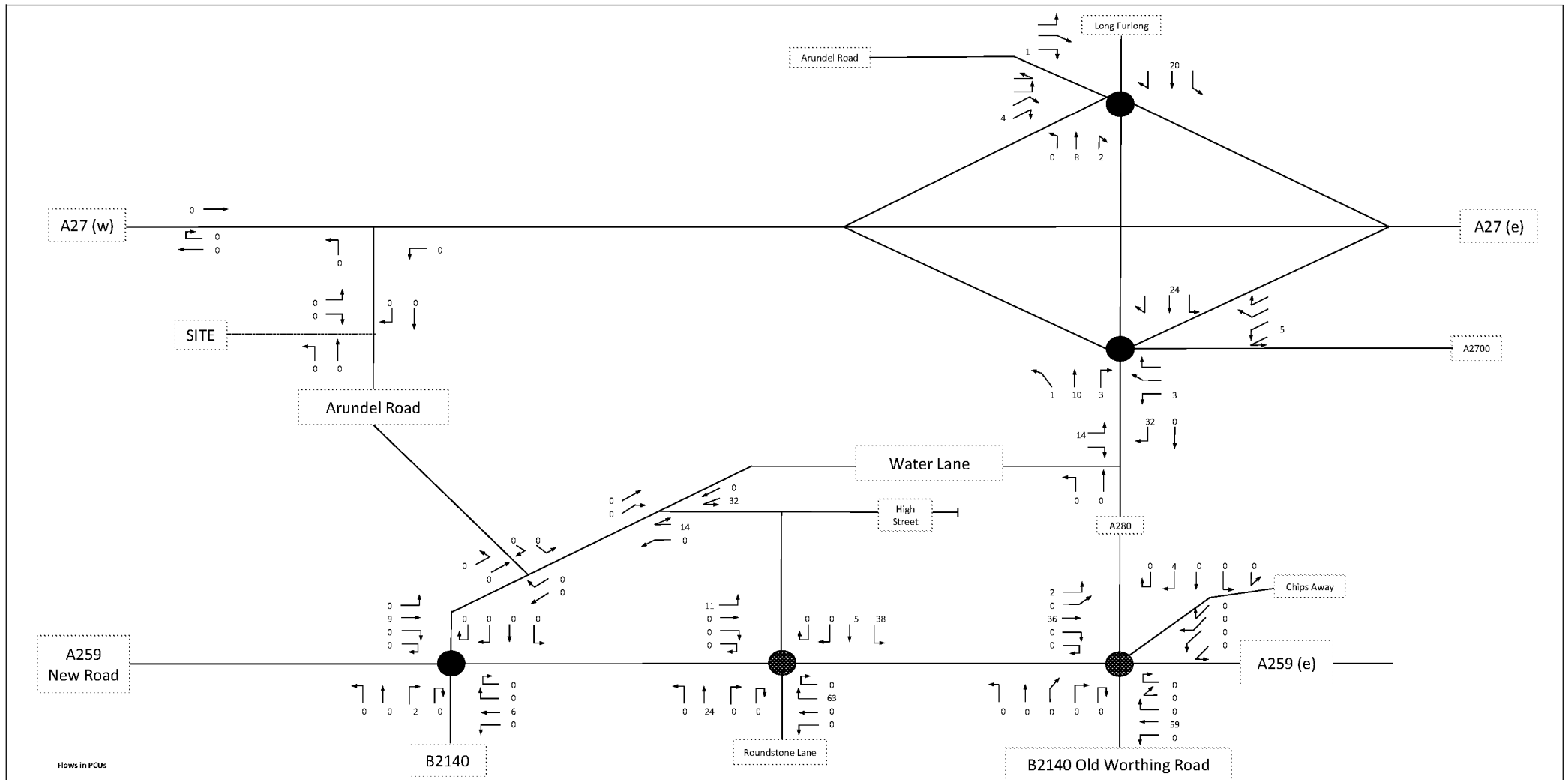


Figure 10b - Committed Development (A/144/15/PL) - 246 Units
PM Peak Period (1645 - 17845)

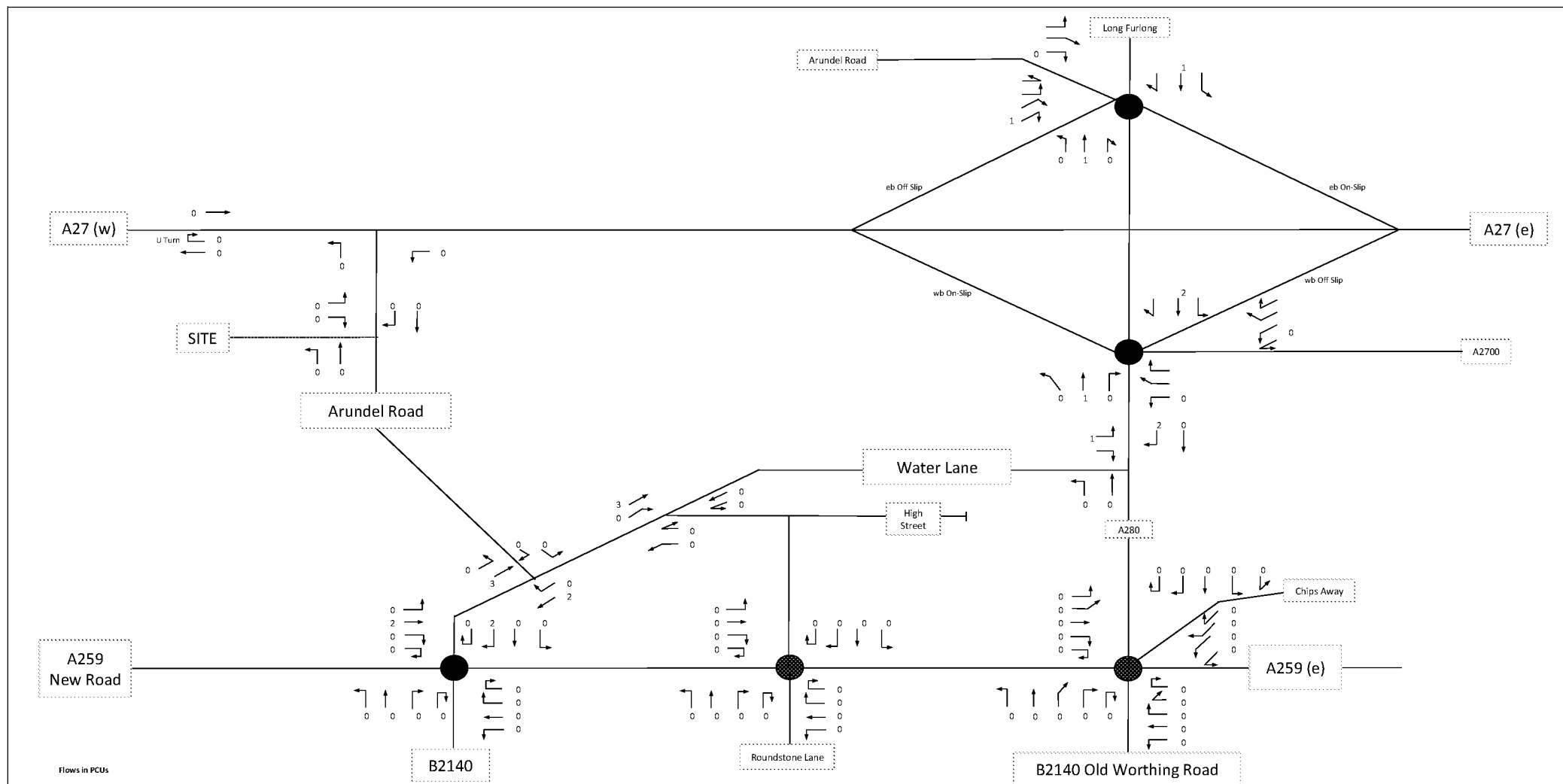


Figure 9c - Committed Development (A/27/16/PL) - 53 Bed Care Unit
AM Peak Period (0745 - 0845)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk

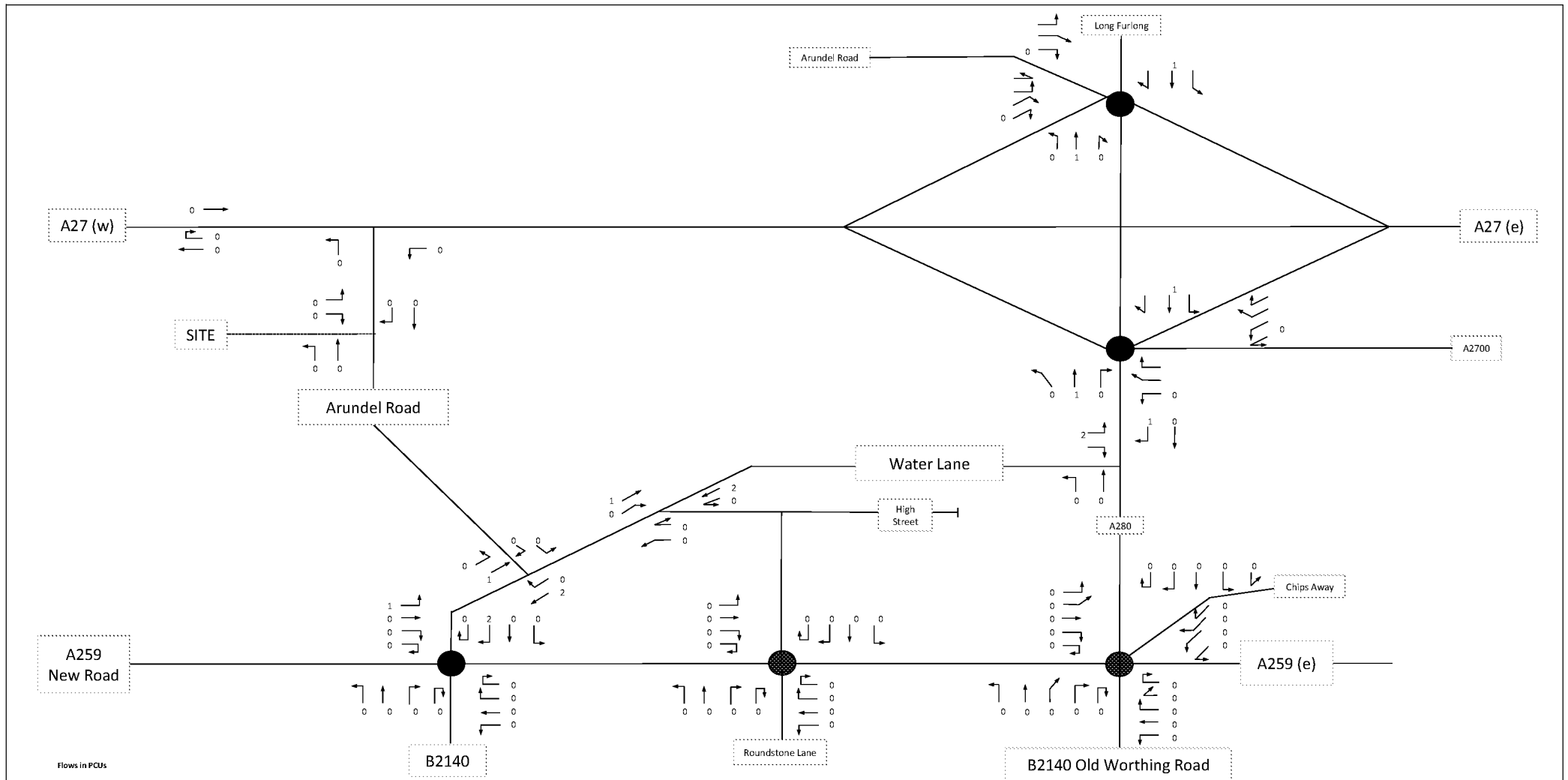


Figure 10c - Committed Development (A/27/16/PL) - 53 Bed Care Unit
PM Peak Period (1645 - 17845)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk

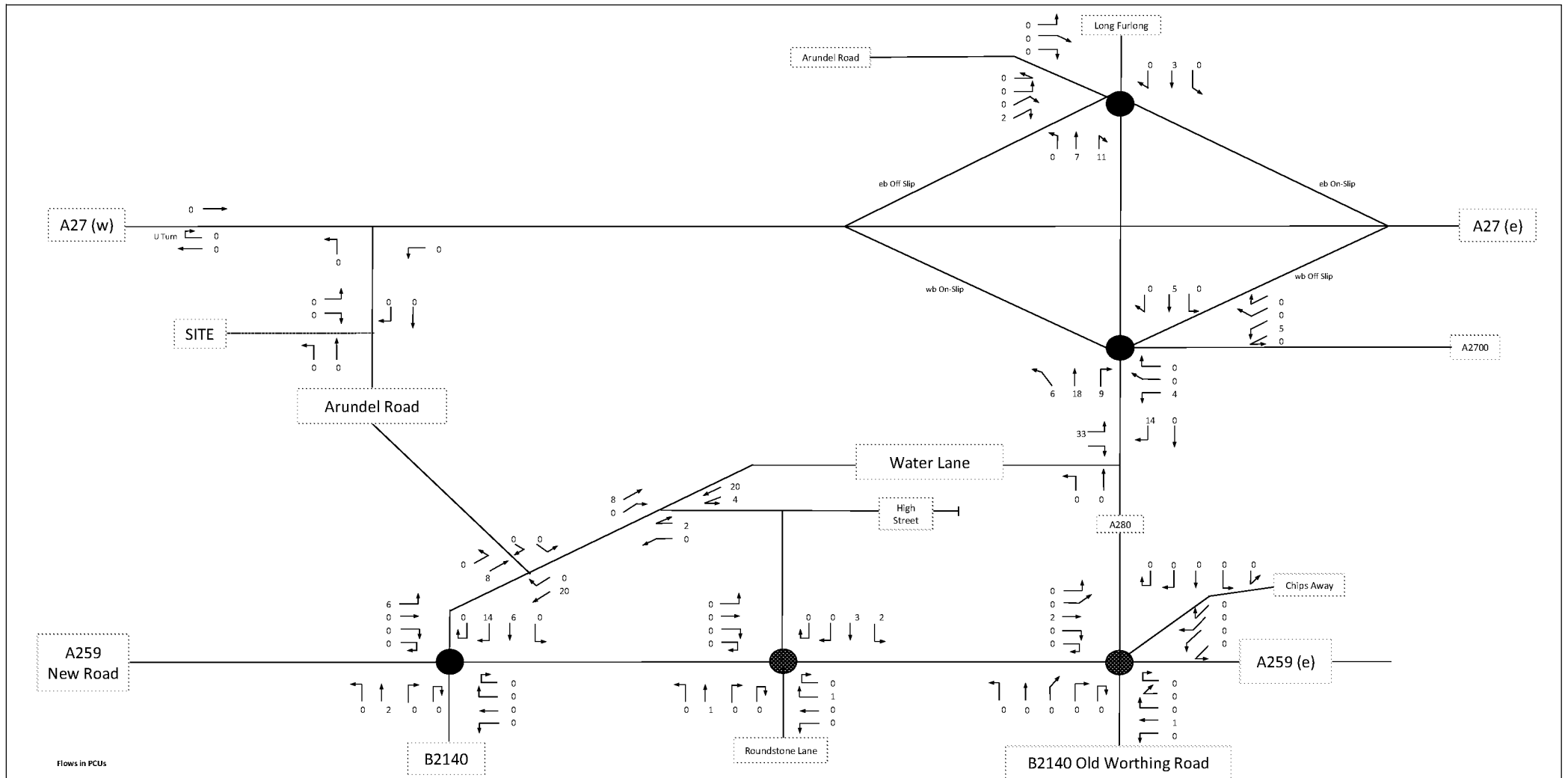


Figure 9d - Land South of Water Lane Development
AM Peak Period (0745 - 0845)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk

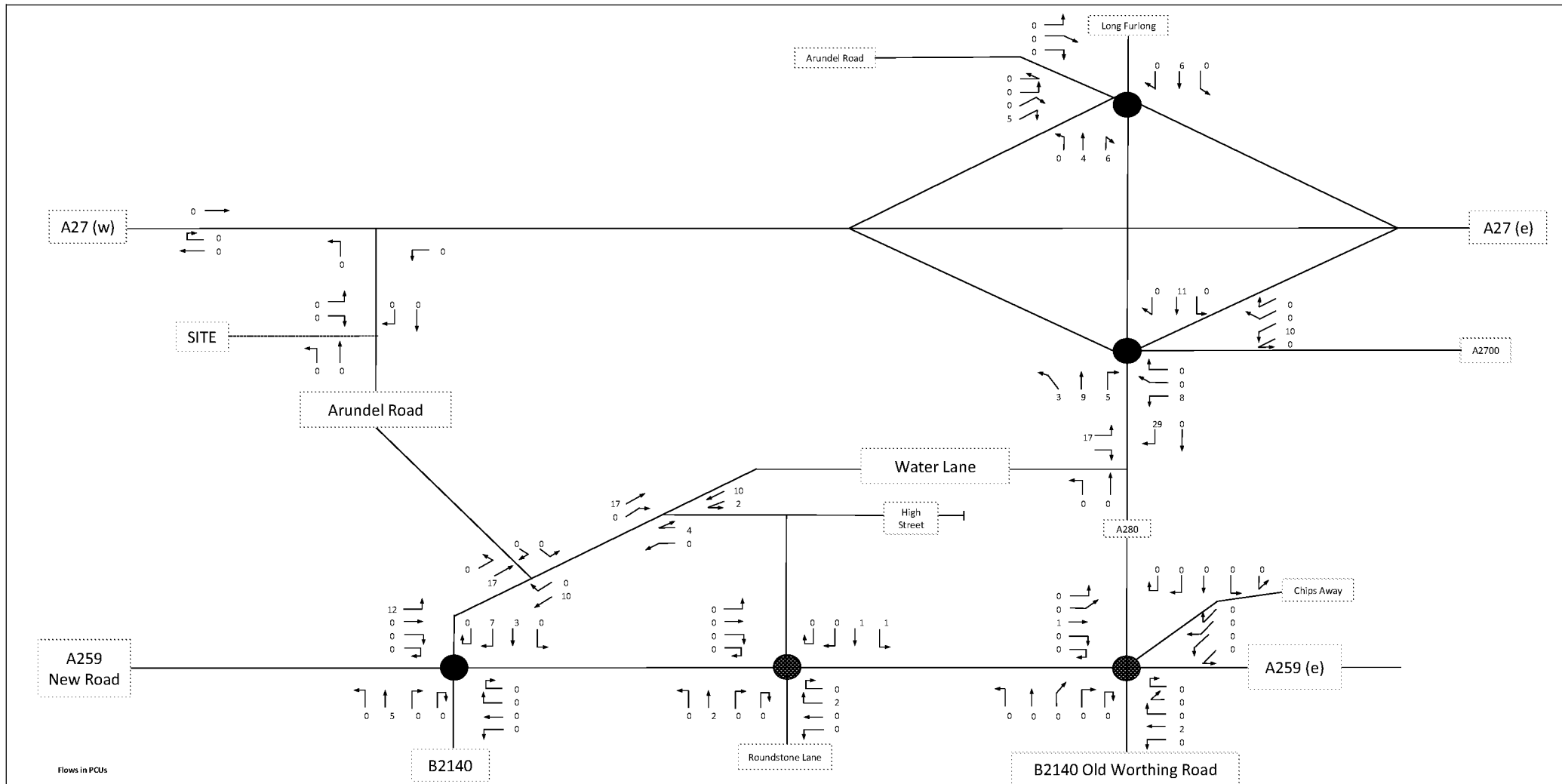
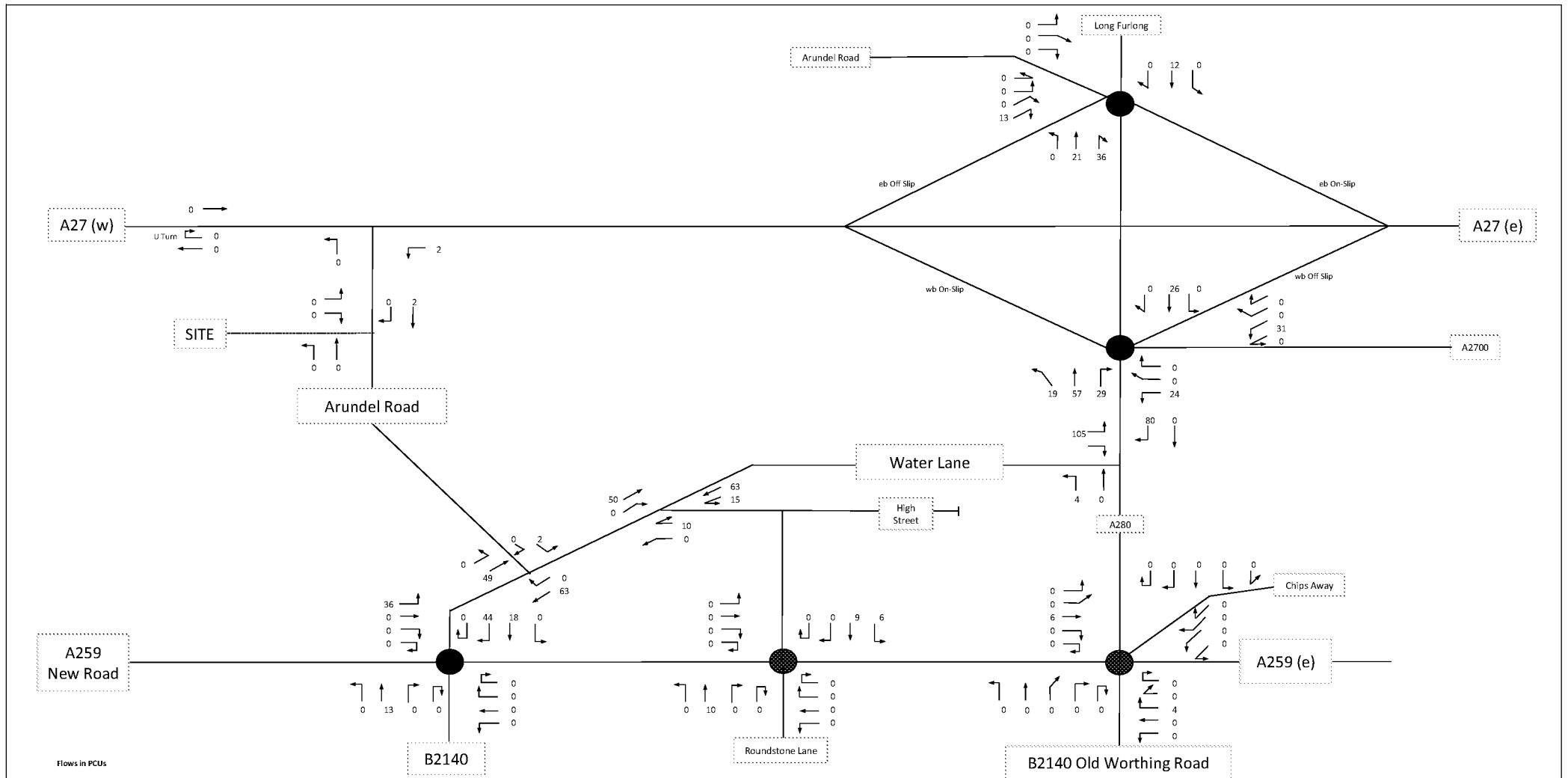


Figure 10d - Land South of Water Lane Development
PM Peak Period (1645 - 1745)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk



croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk

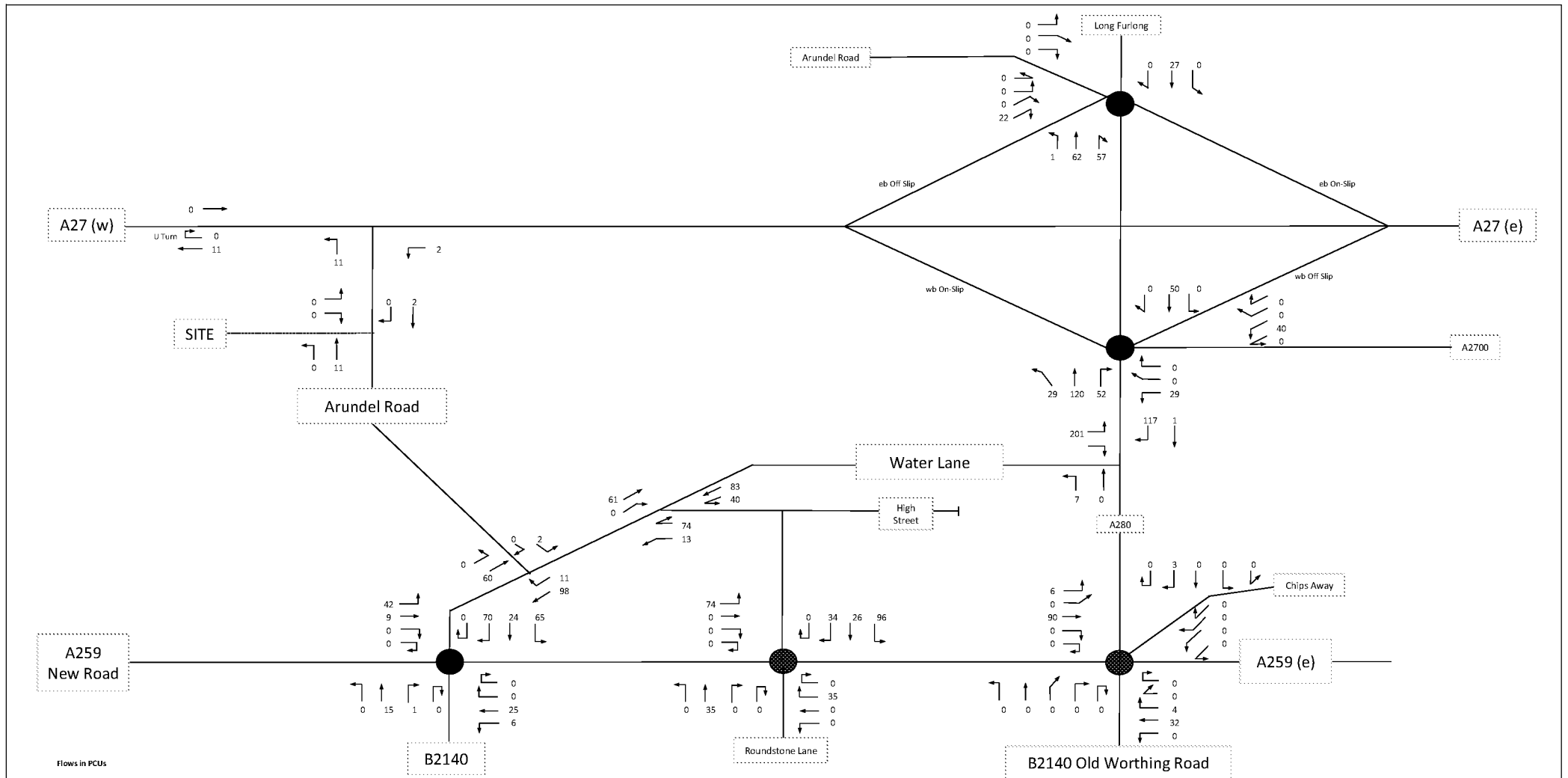


Figure 9f - Total Committed Development
AM Peak Period (0745 - 0845)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk

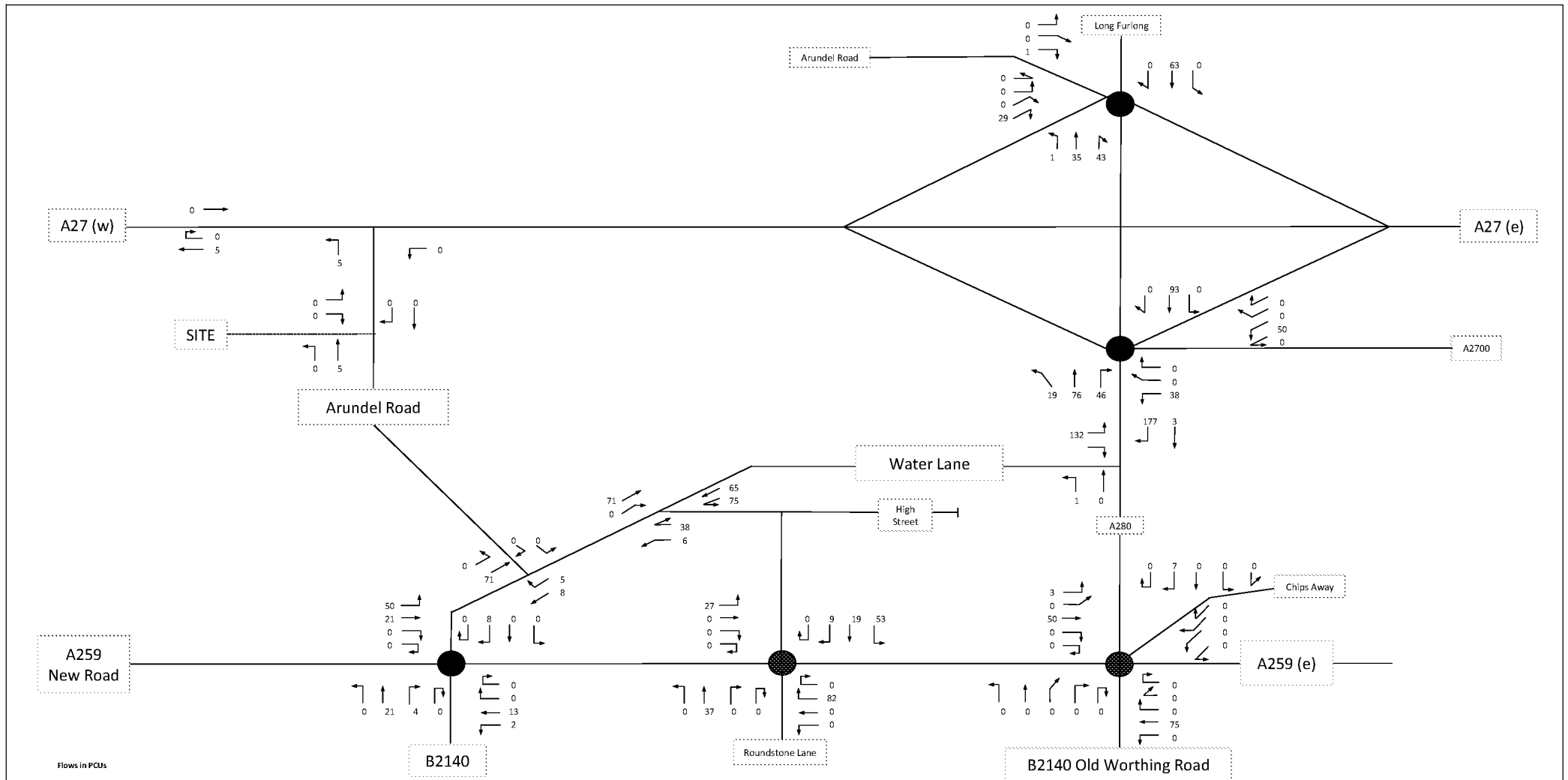


Figure 10f - Total Committed Development
PM Peak Period (1645 - 1745)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk

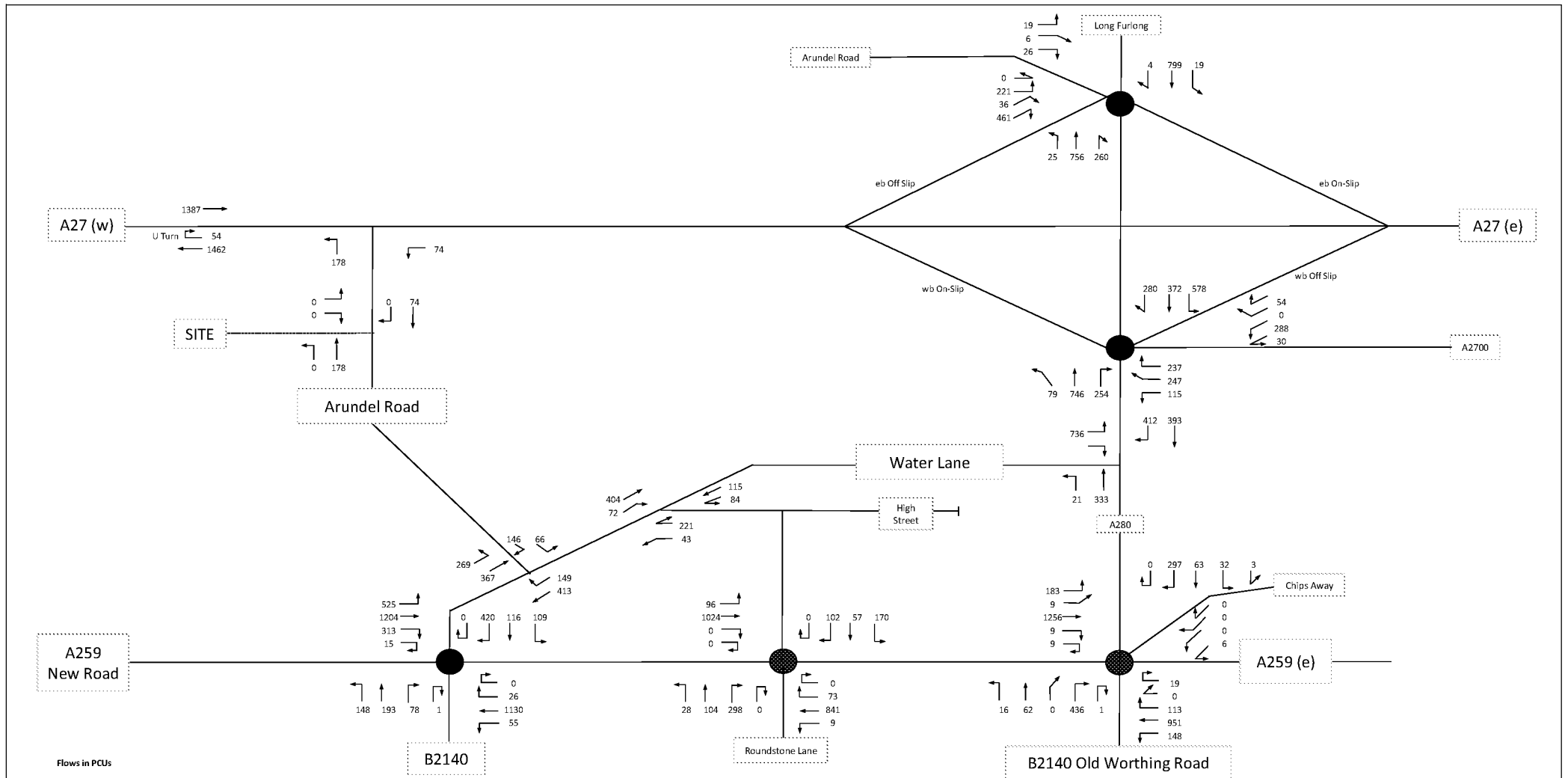


Figure 11 - 2022 Base Flows
AM Peak Period (0745 - 0845)

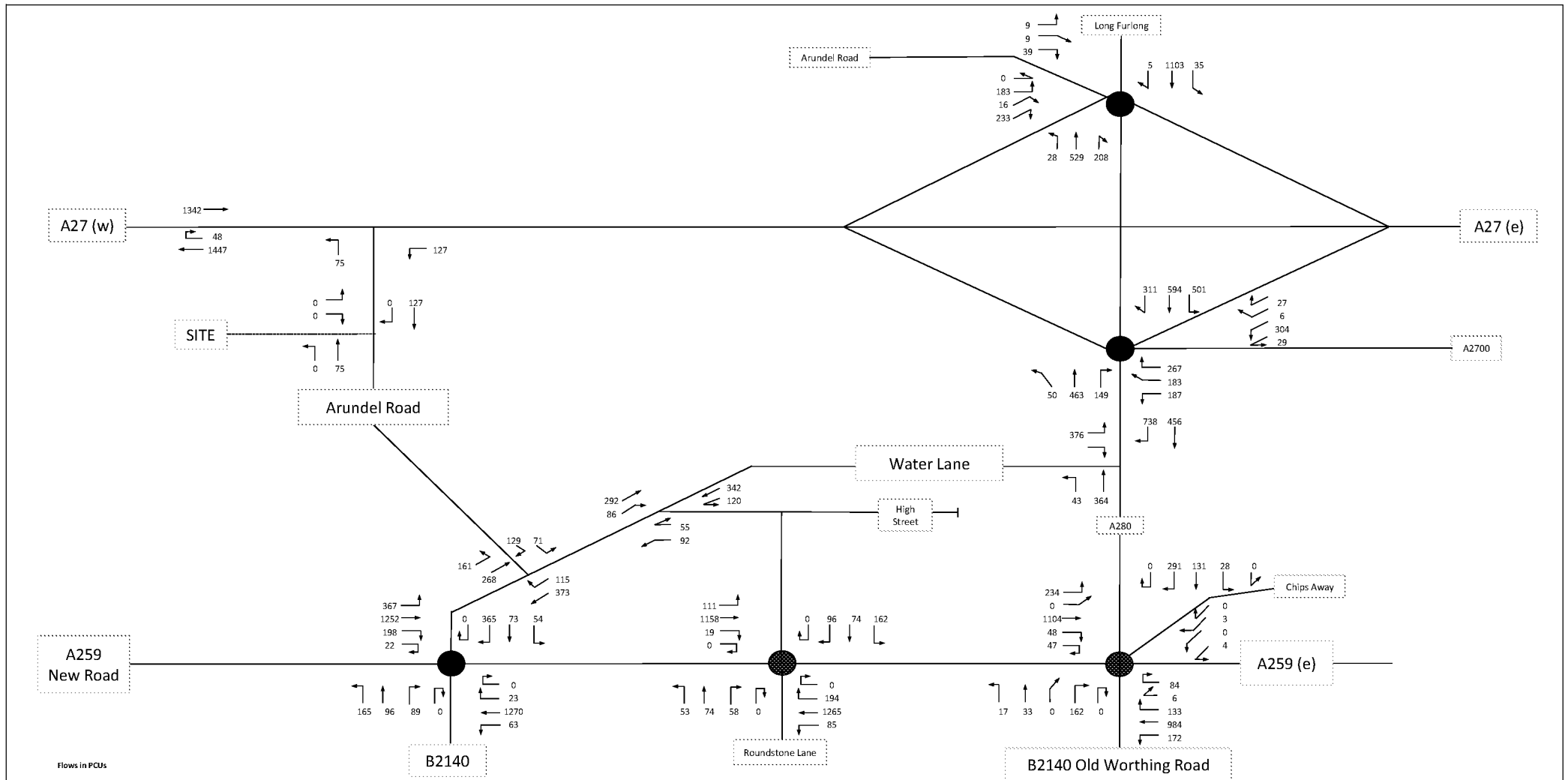


Figure 12 - 2022 Base Flows
PM Peak Period (1645 - 1745)

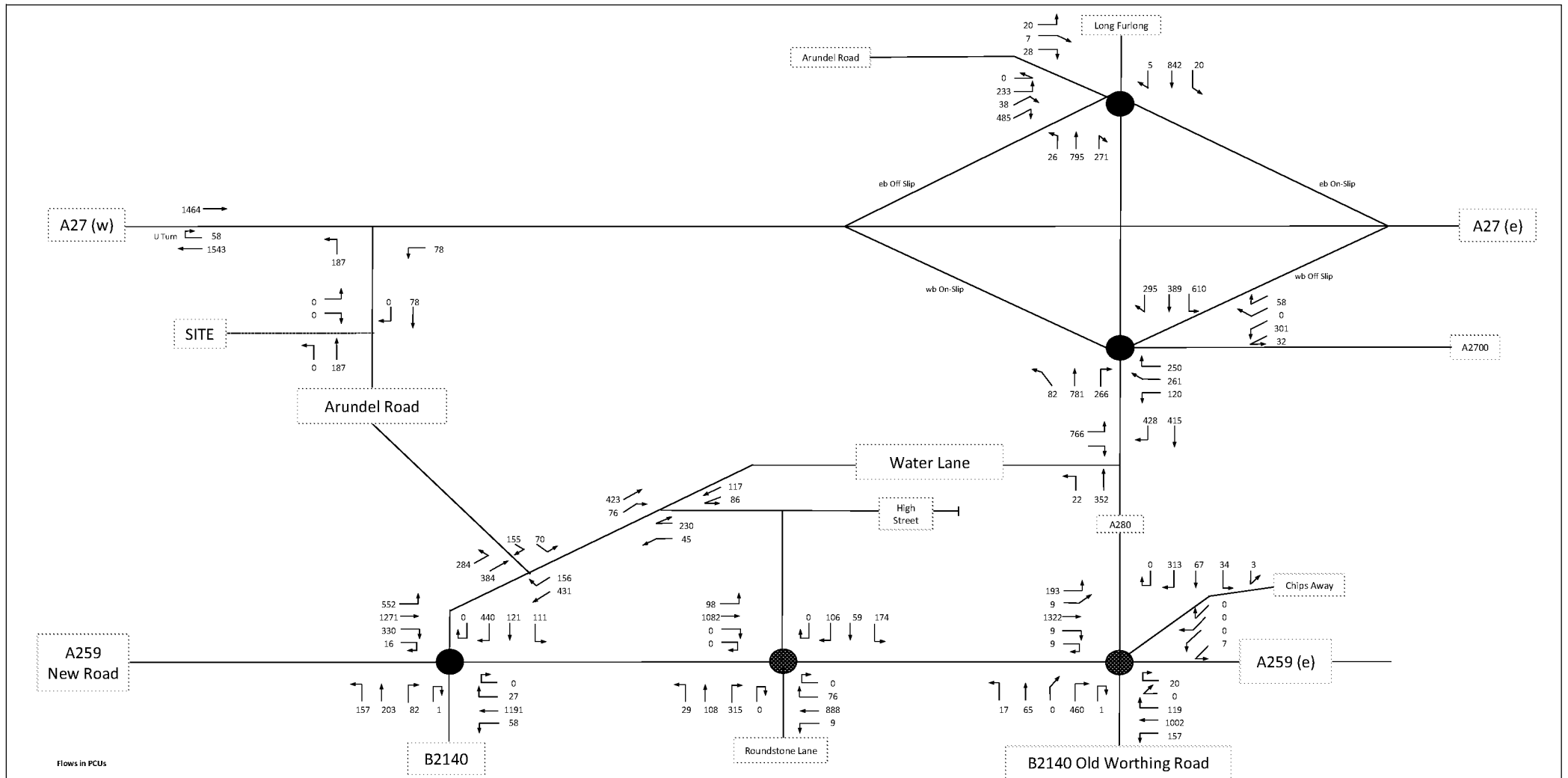


Figure 13 - 2027 Base Flows
AM Peak Period (0745 - 0845)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk

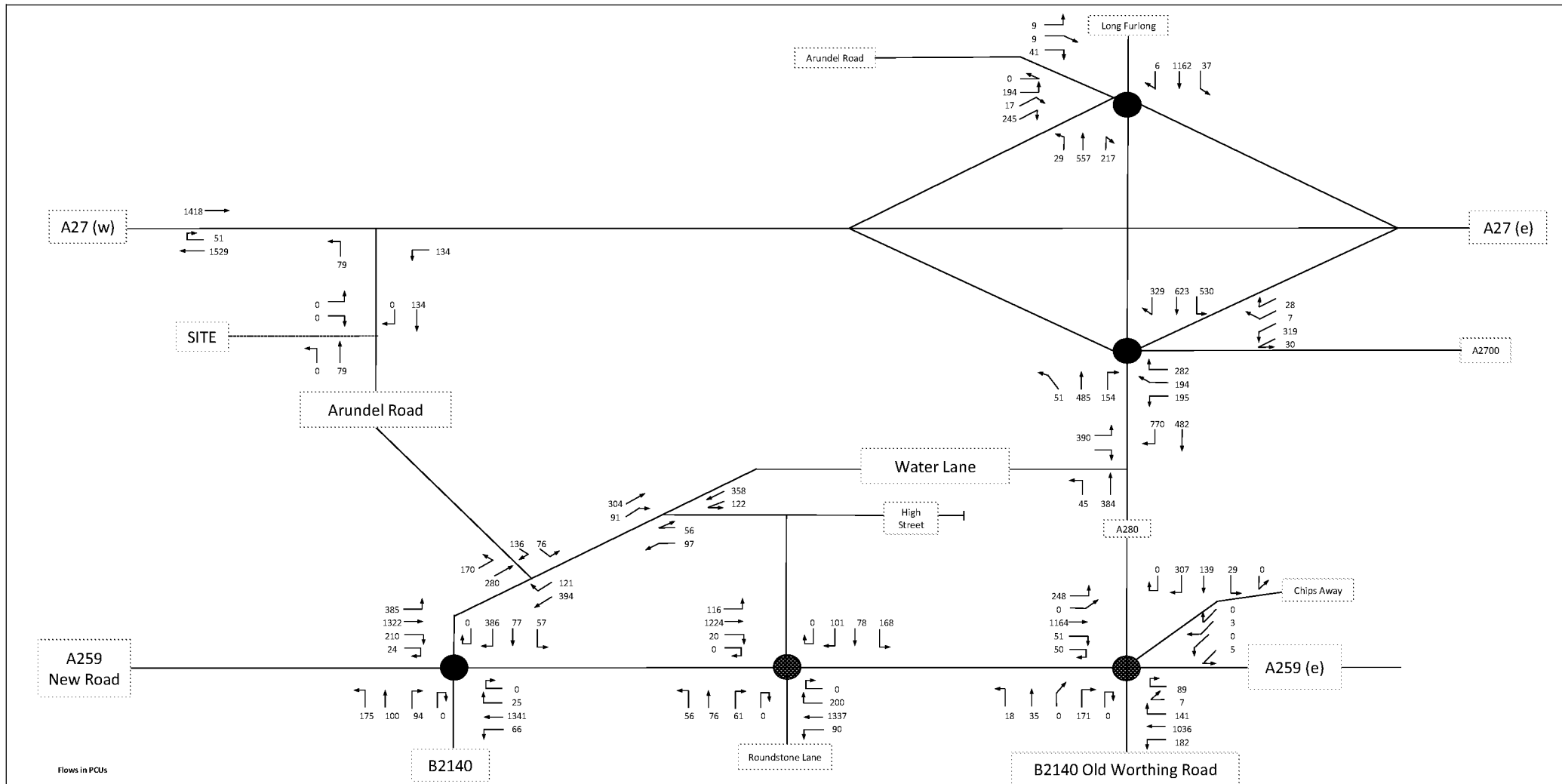


Figure 14 - 2027 Base Flows
PM Peak Period (1645 - 1745)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk

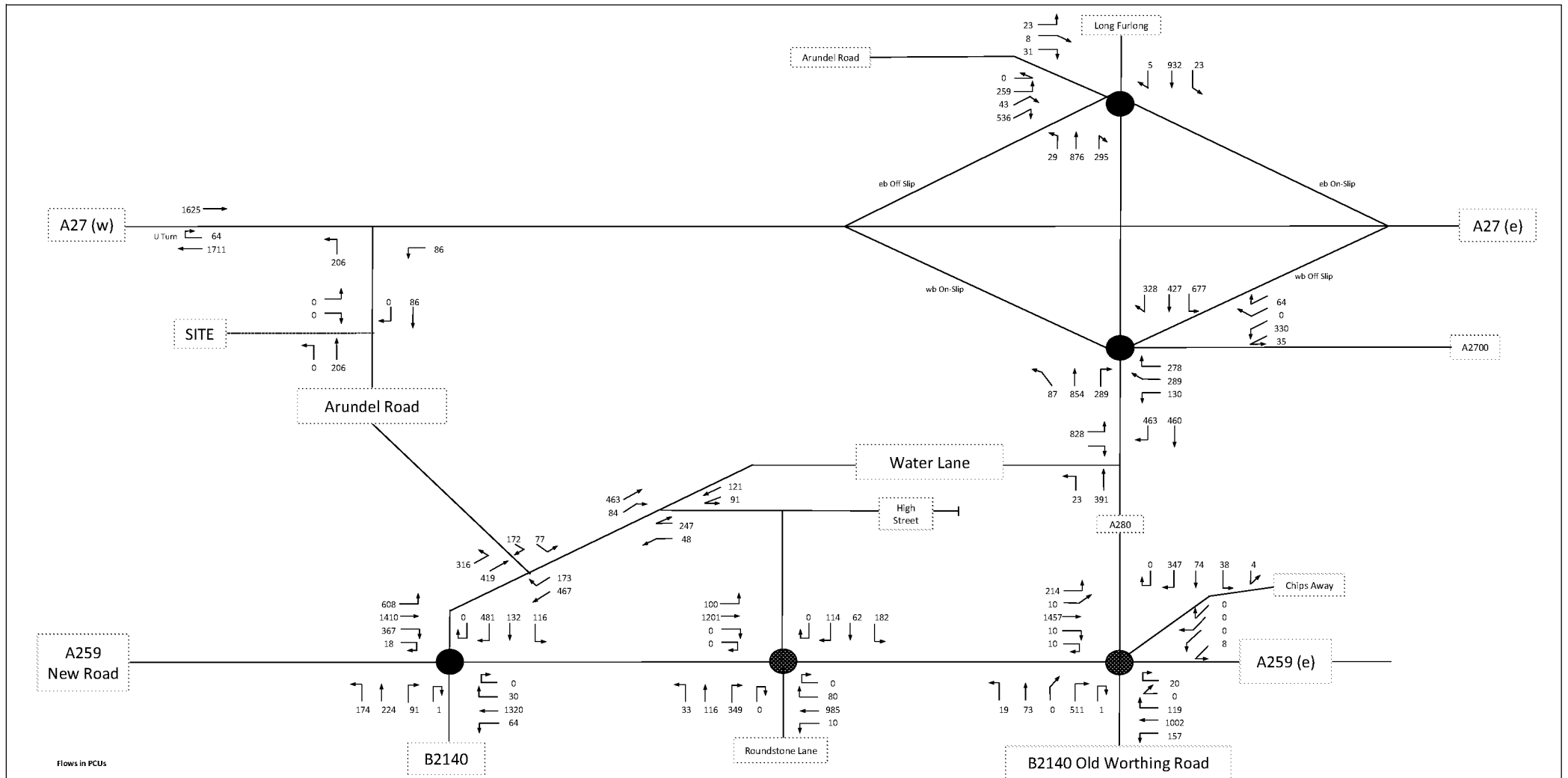


Figure 15 - 2031 Base Flows
AM Peak Period (0745 - 0845)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk

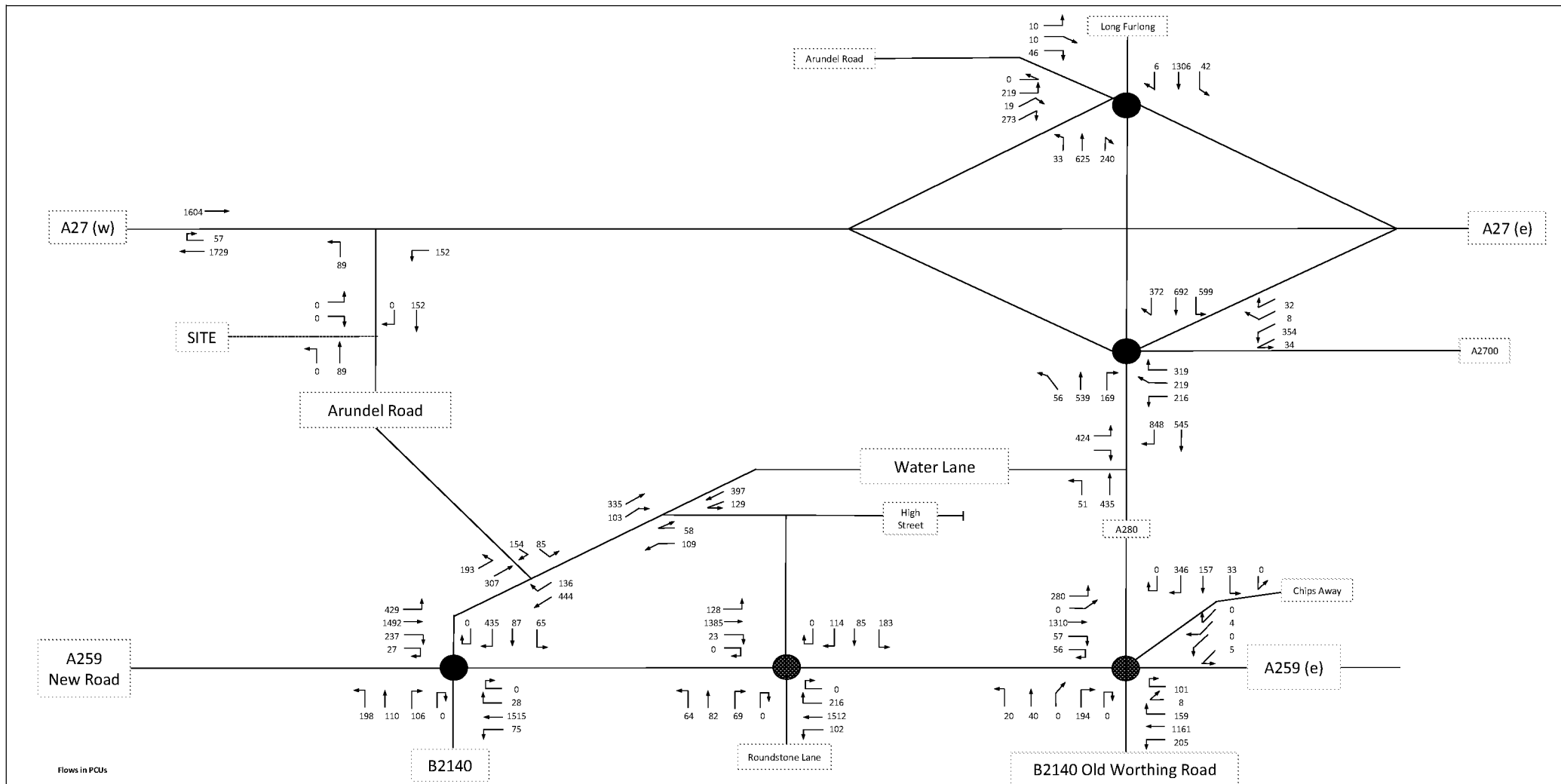


Figure 16 - 2031 Base Flows
PM Peak Period (1645 - 1745)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.croftts.co.uk info@croftts.co.uk

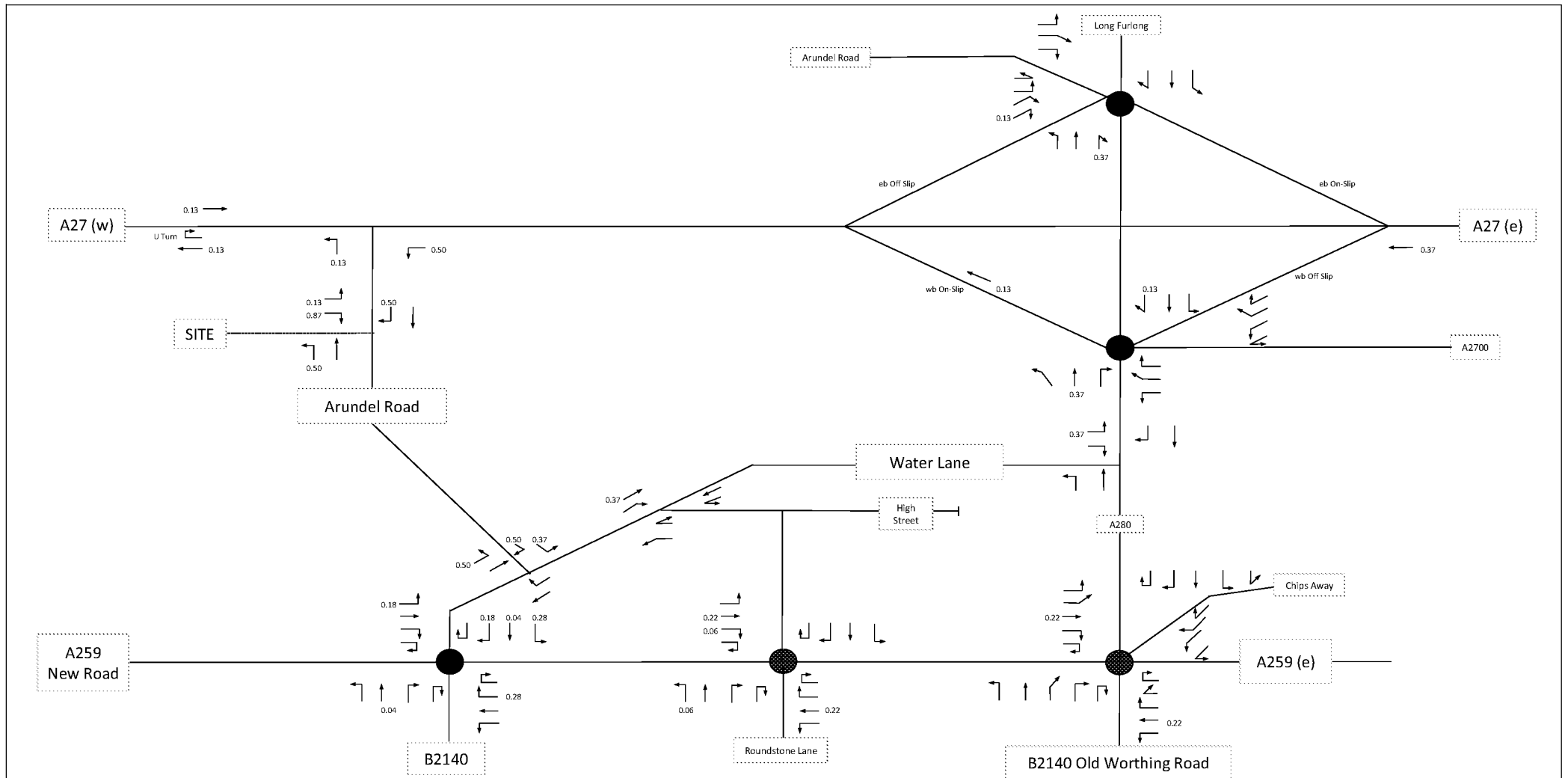


Figure 17 - Trip Distribution
AM Peak Period (0745 - 0845)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk

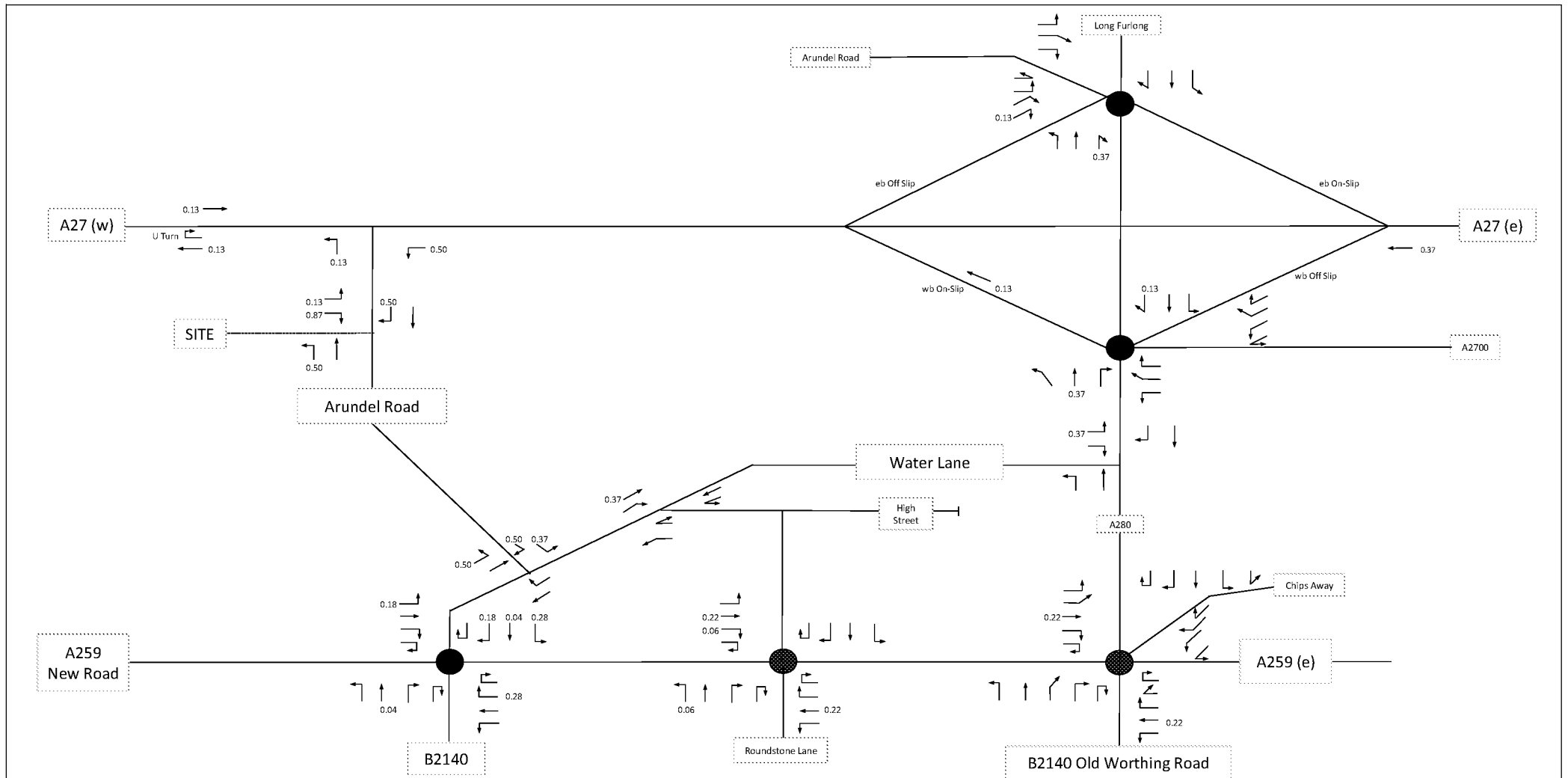


Figure 18 - Trip Distribution
PM Peak Period (1645 - 1745)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk

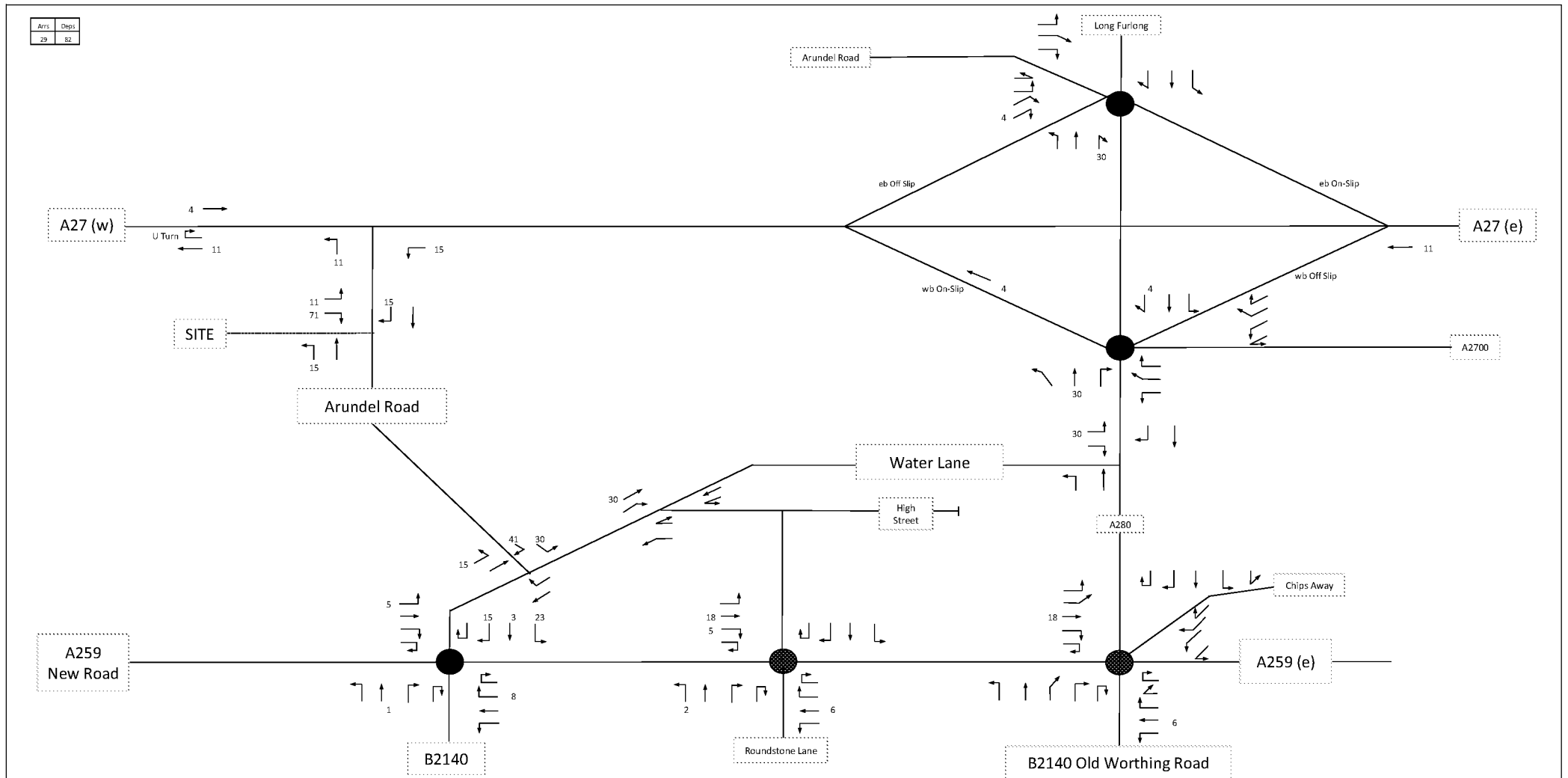


Figure 19 - Development Flows
AM Peak Period (0745 - 0845)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk

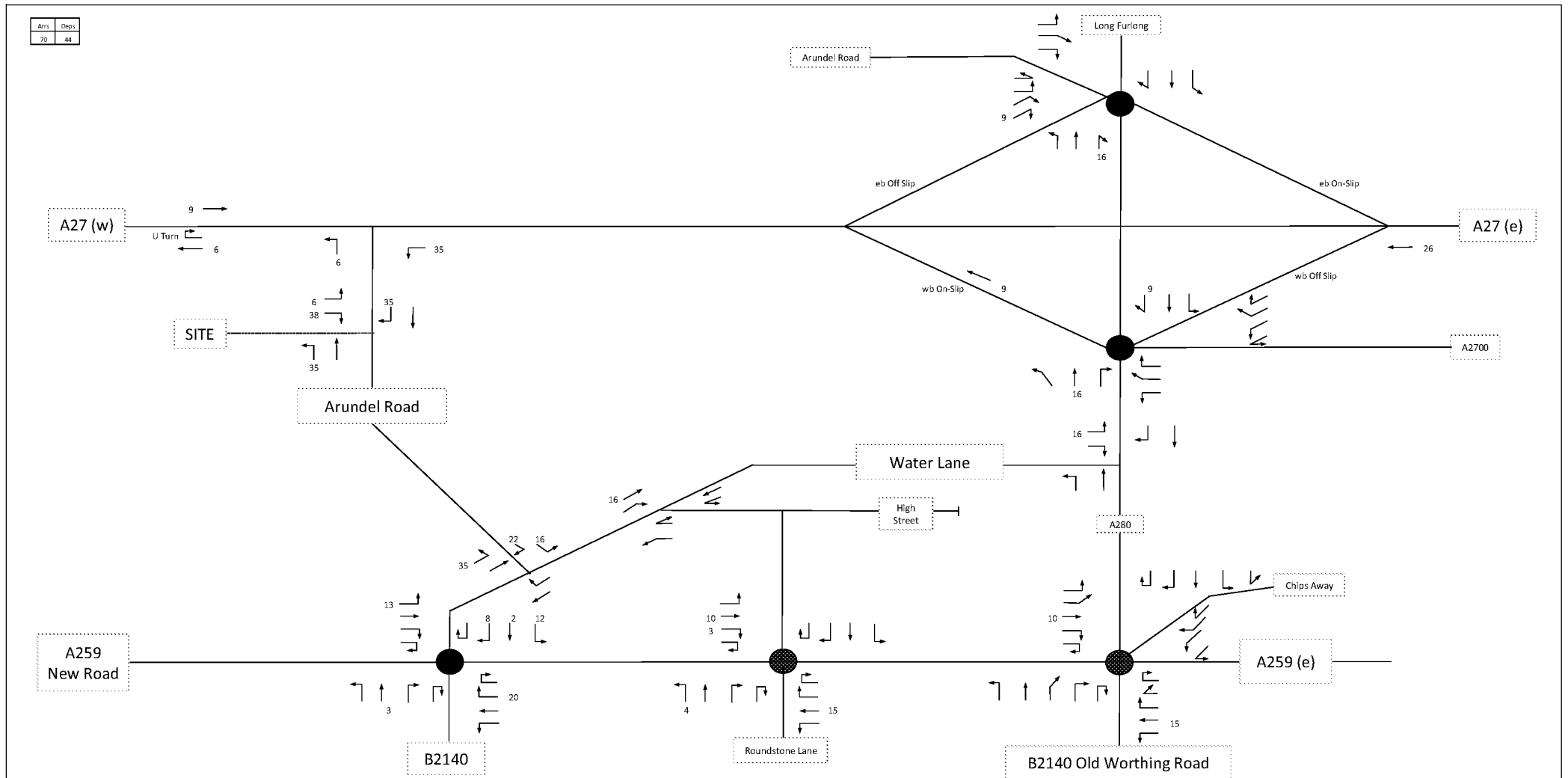
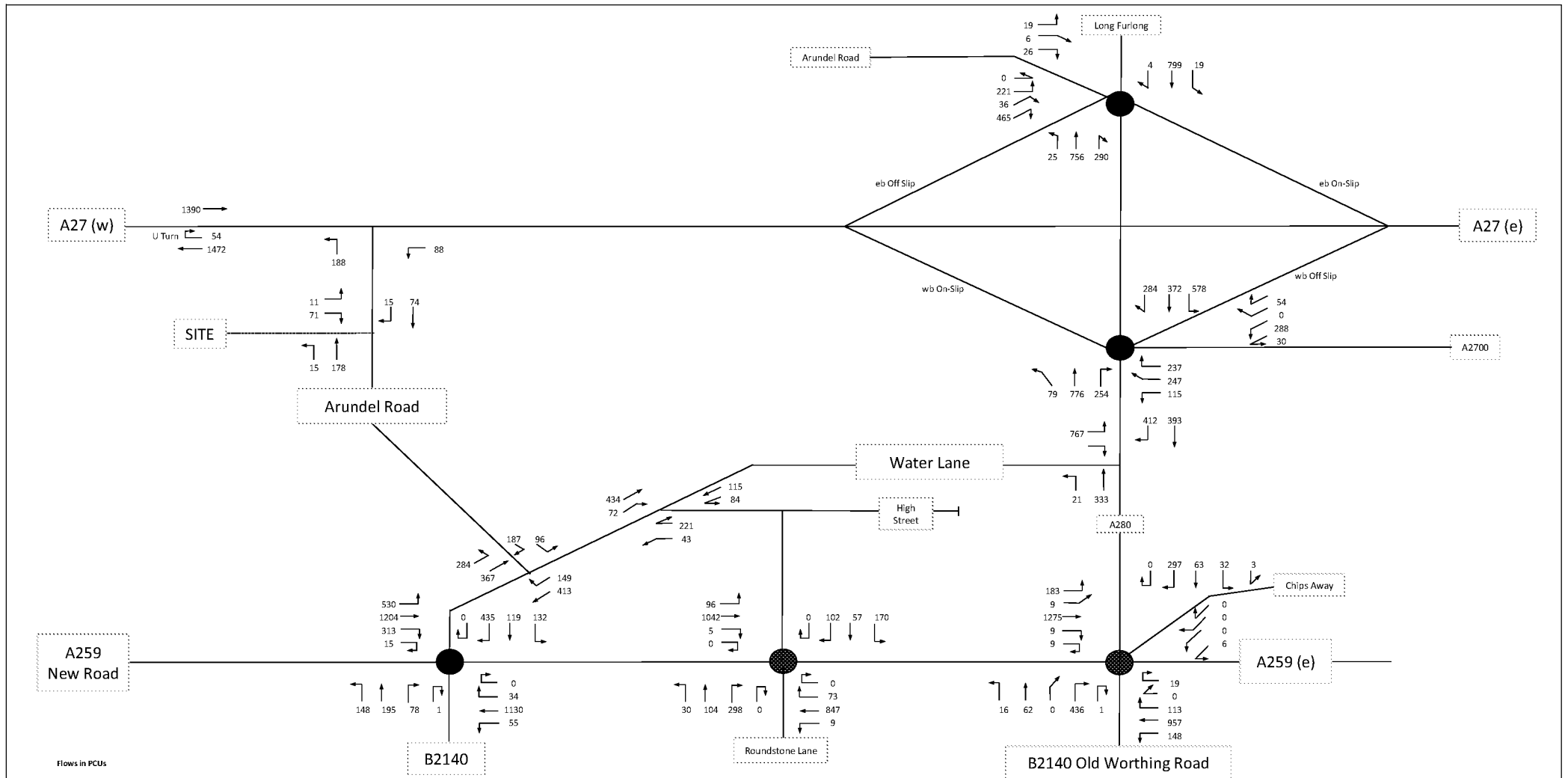


Figure 20 - Development Flows
PM Peak Period (1645 -1745)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk



croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk

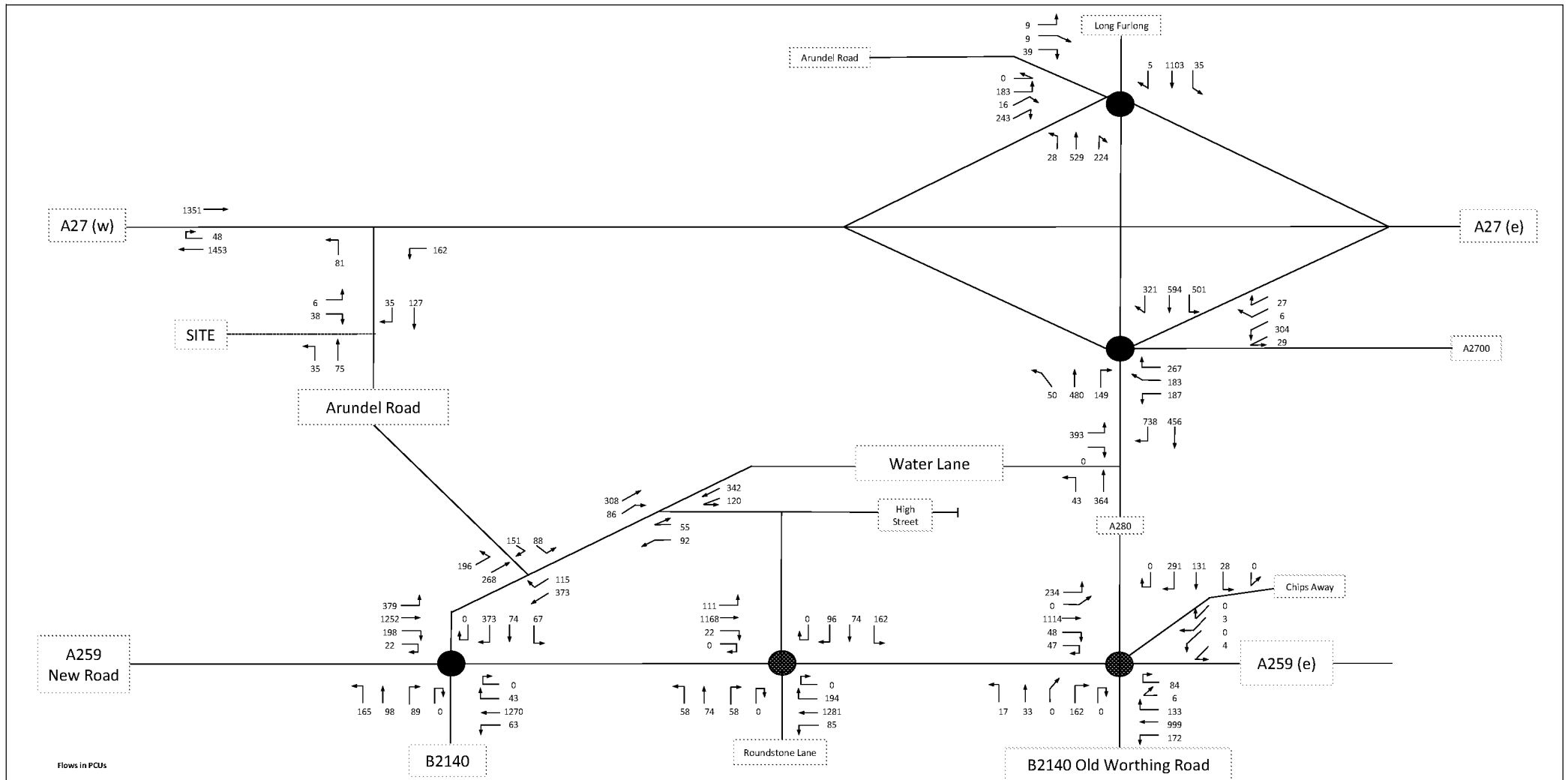
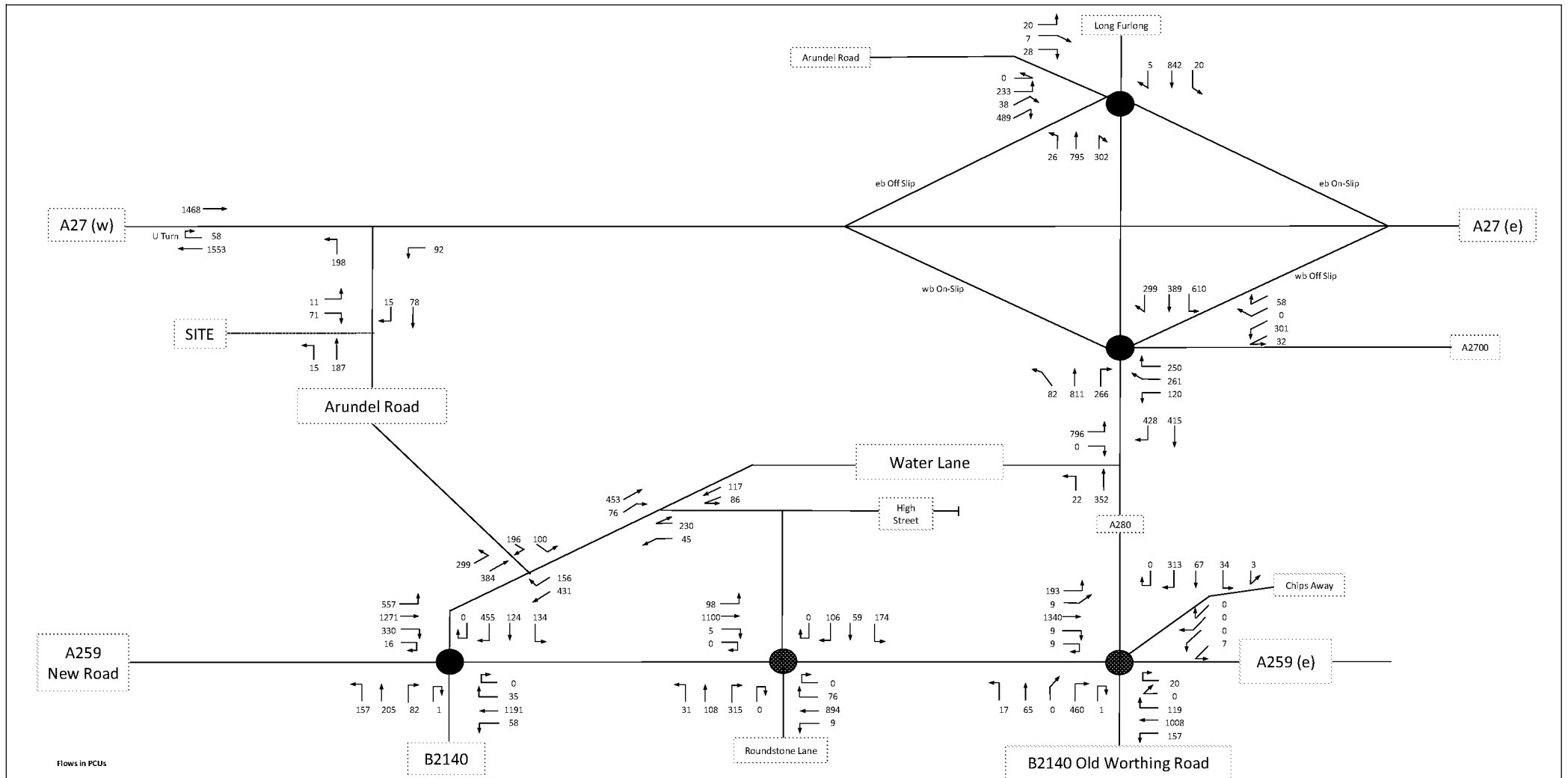


Figure 22 - 2022 Assessment Flows
PM Peak Period (1645 - 1745)



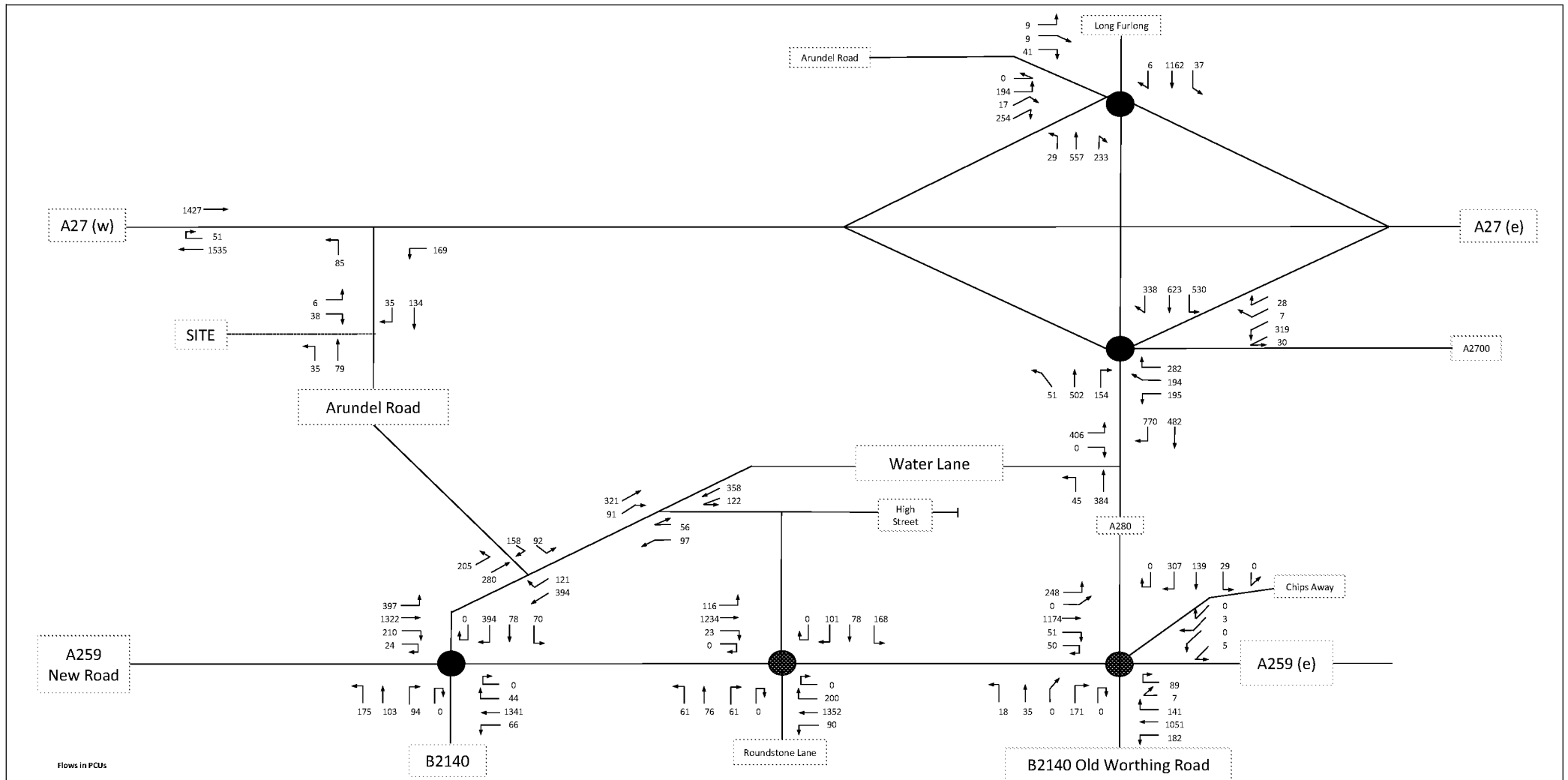


Figure 24 - 2027 Assessment Flows
PM Peak Period (1645 -1745)

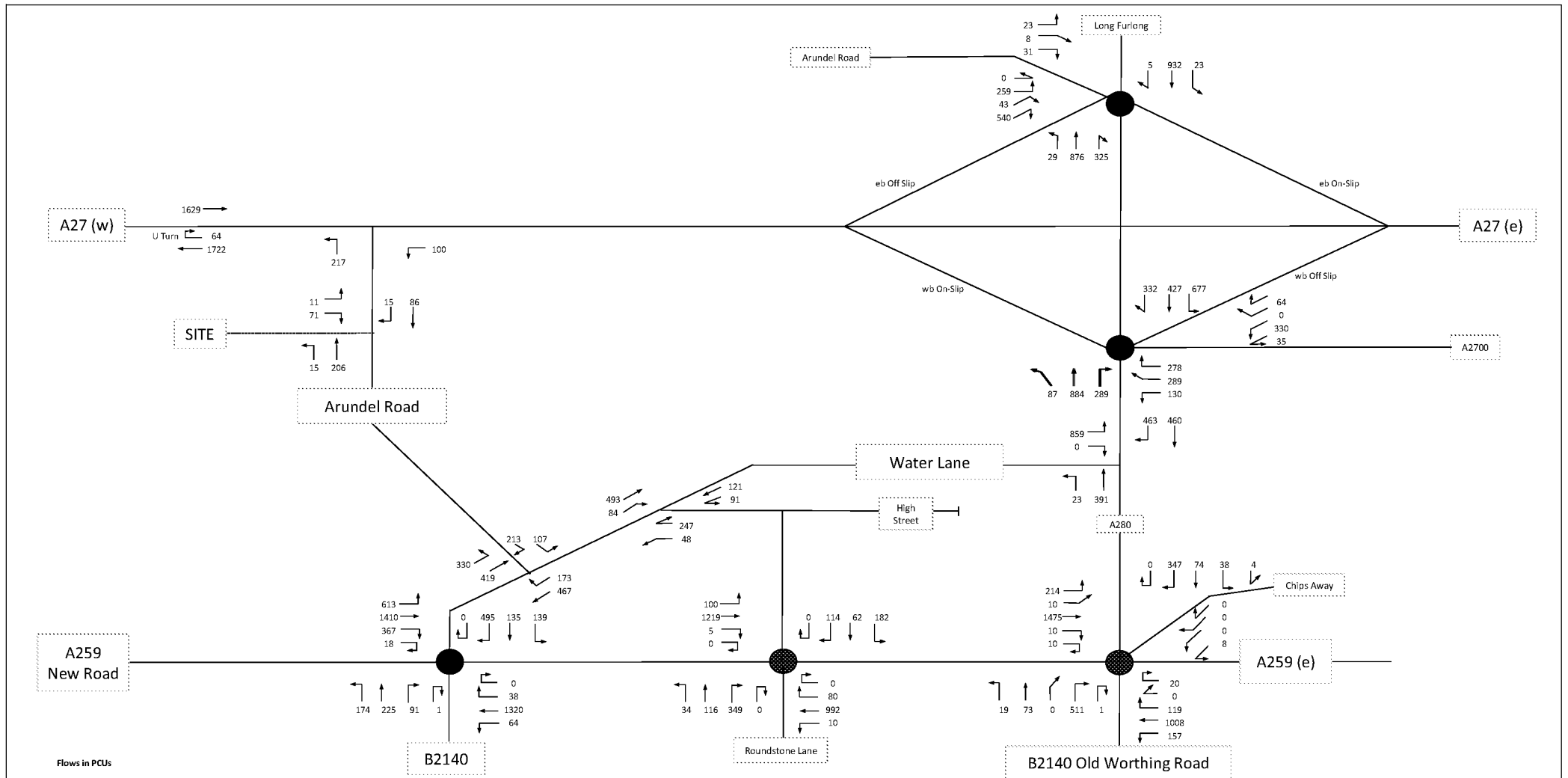


Figure 25 - 2031 Assessment Flows
AM Peak Period (0745 - 0845)

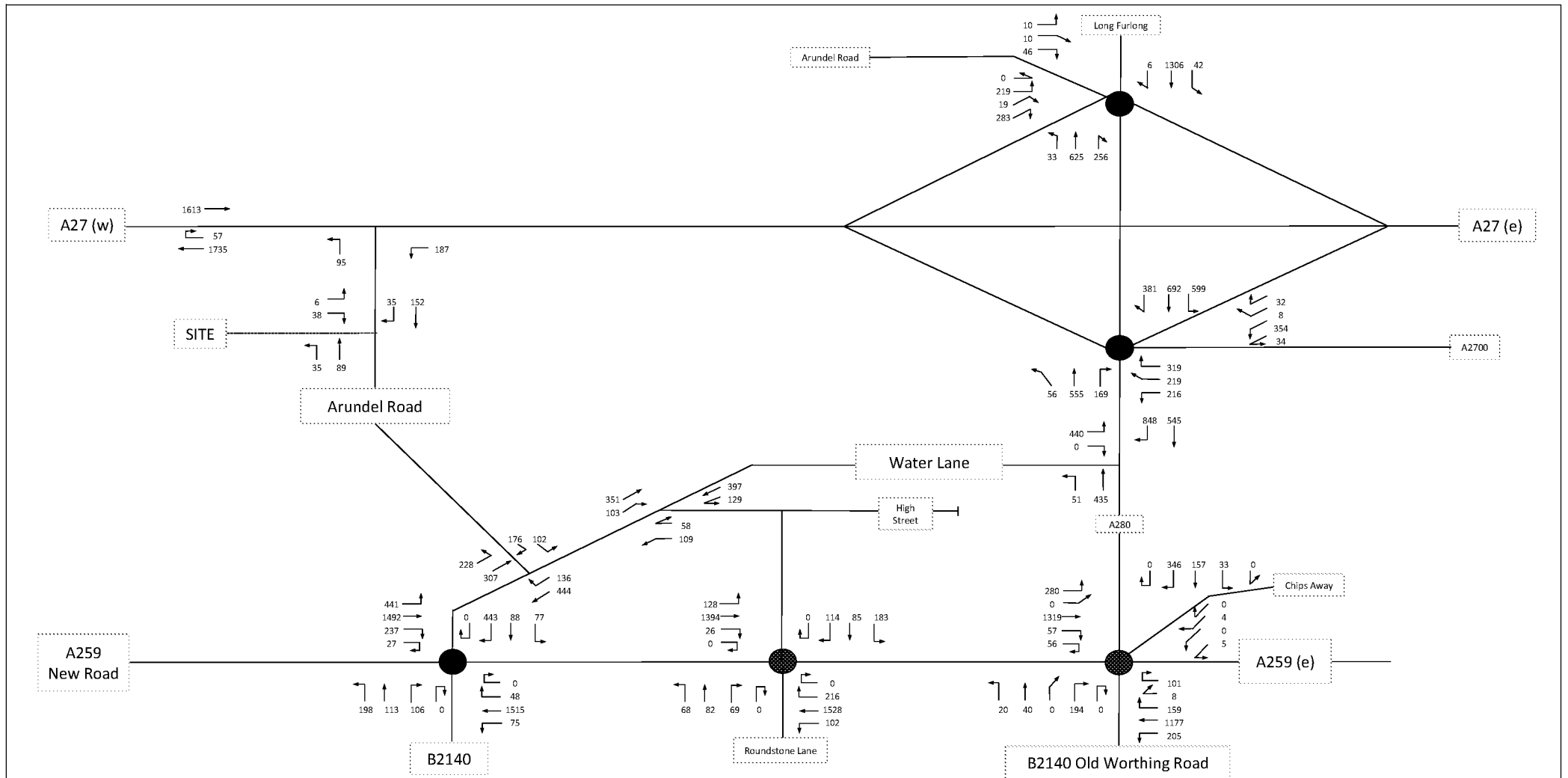


Figure 26 - 2031 Assessment Flows
PM Peak Period (1645 -1745)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.croftts.co.uk info@croftts.co.uk

FIGURE	DESCRIPTION	SCENARIO	CALC
FIGURE A	TOTAL COMMITTED DEVELOPMENT (AS PER TA)	AM PEAK	See TA
FIGURE B	TOTAL COMMITTED DEVELOPMENT (AS PER TA)	PM PEAK	See TA
FIGURE C	2031 (COMMITTED + WATER LANE DEVELOPMENTS + SENSITIVITY)	AM PEAK	See TA
FIGURE D	2031 (COMMITTED + WATER LANE DEVELOPMENTS + SENSITIVITY)	PM PEAK	See TA
FIGURE E	2031 BASE (COMMITTED + WATER LANE DEVELOPMENTS + SENSITIVITY)	AM PEAK	FA+FC
FIGURE F	2031 BASE (COMMITTED + WATER LANE DEVELOPMENTS + SENSITIVITY)	PM PEAK	FB+FD
FIGURE G	TRIP DISTRIBUTION (REASSIGNED TO PERMIT RIGHT TURNS FROM WATER LANE)	AM PEAK	See TA
FIGURE H	TRIP DISTRIBUTION (REASSIGNED TO PERMIT RIGHT TURNS FROM WATER LANE)	PM PEAK	See TA
FIGURE I	DEVELOPMENT FLOWS (REASSIGNED TRAFFIC)	AM PEAK	See TA
FIGURE J	DEVELOPMENT FLOWS (REASSIGNED TRAFFIC)	PM PEAK	See TA
FIGURE K	2031 ASSESSMENT (AS FIGURE E PLUS ARUNDEL ROAD DEVELOPMENT)	AM PEAK	FG+FI
FIGURE L	2032 ASSESSMENT (AS FIGURE E PLUS ARUNDEL ROAD DEVELOPMENT)	PM PEAK	FH+FJ

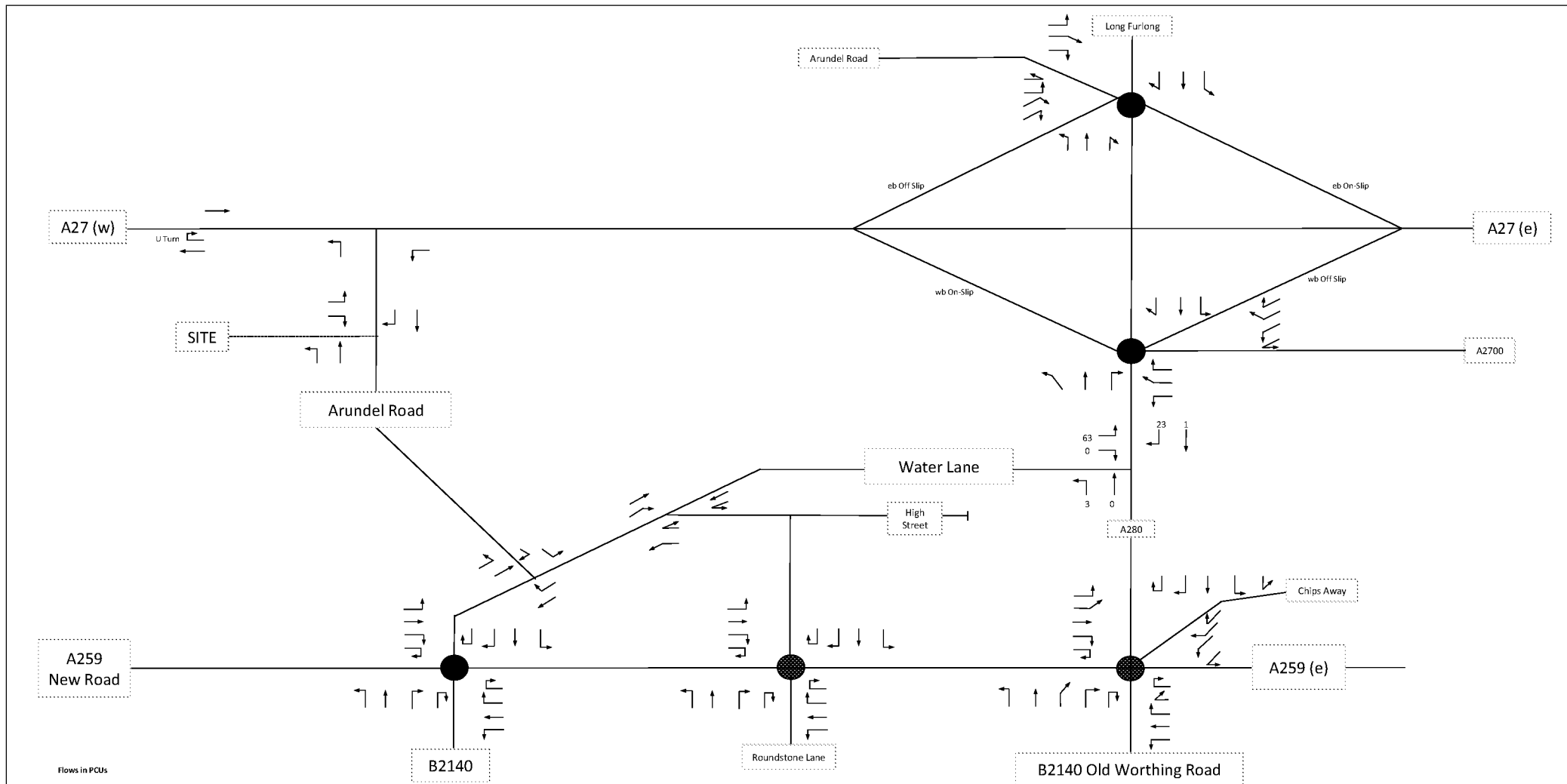


Figure A - Total Committed Development
AM Peak Period (0745 - 0845)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk

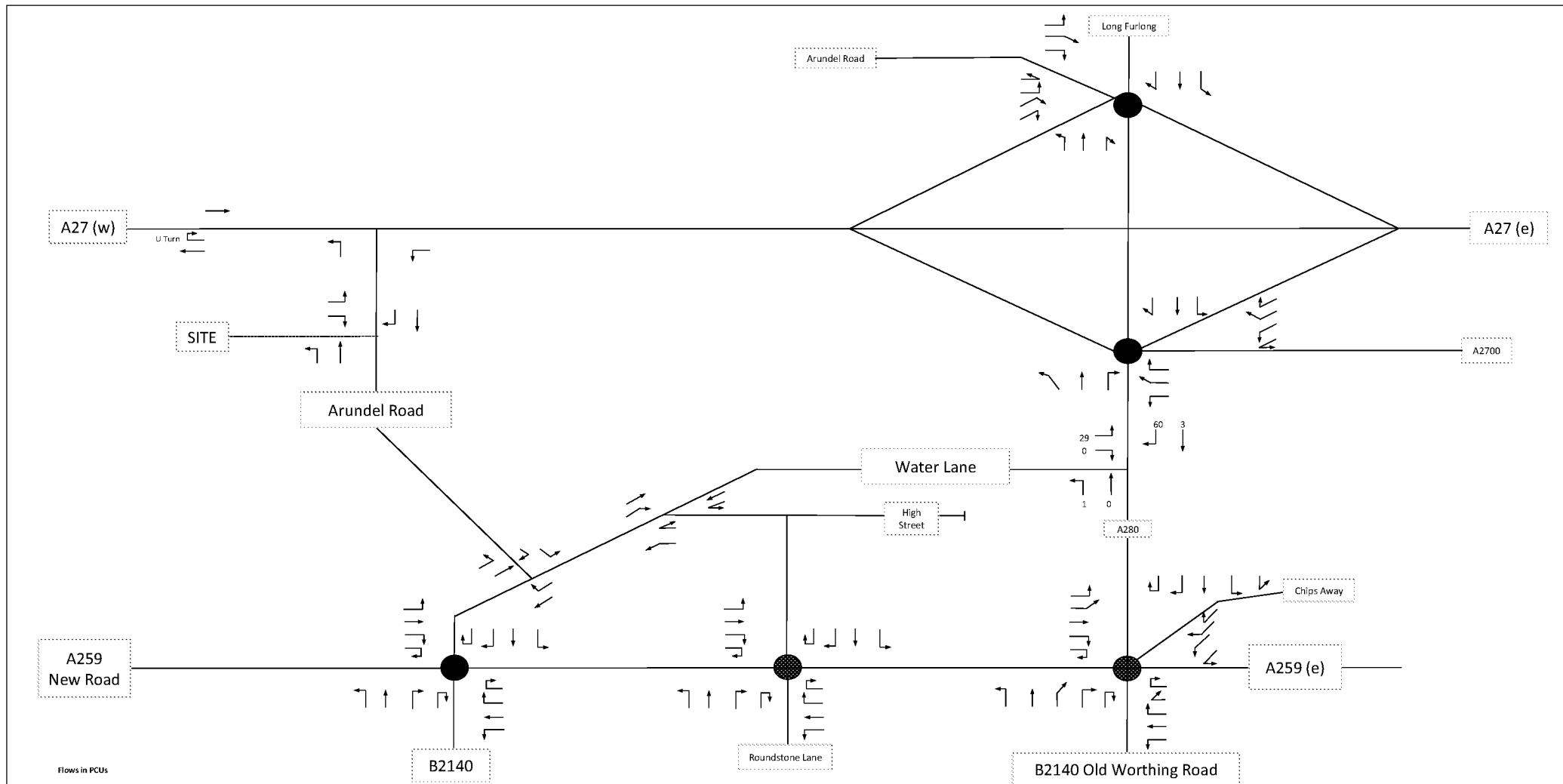


Figure B - Total Committed Development
PM Peak Period (1645 - 1745)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk

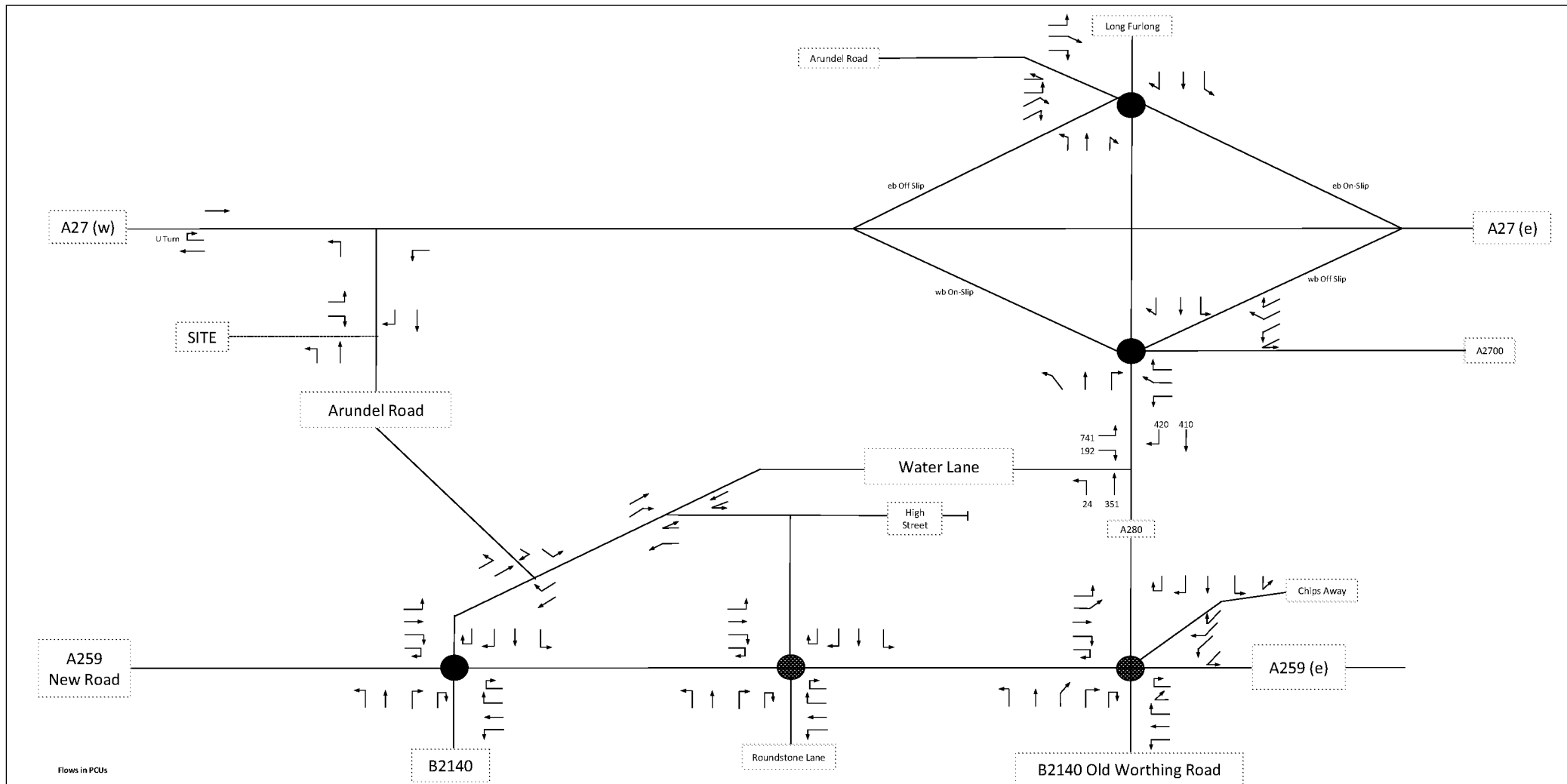


Figure C - 2031 + Committed + Development + Sensitivity (derived from Land North of Water Lane TA)
AM Peak Period (0745 - 0845)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk

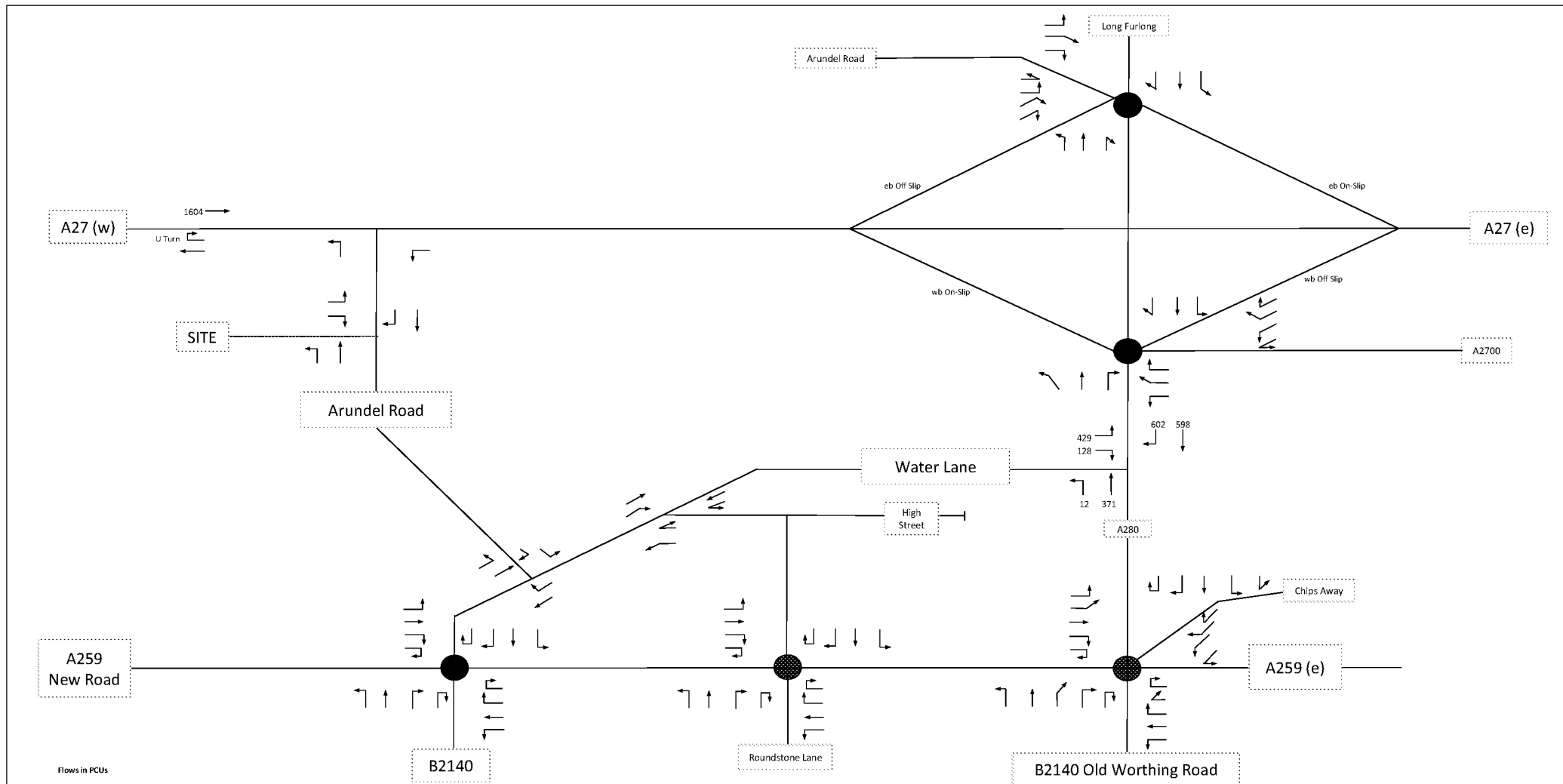


Figure D - 2031 + Committed + Development + Sensitivity (derived from Land North of Water Lane TA)
PM Peak Period (1645 - 1745)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk

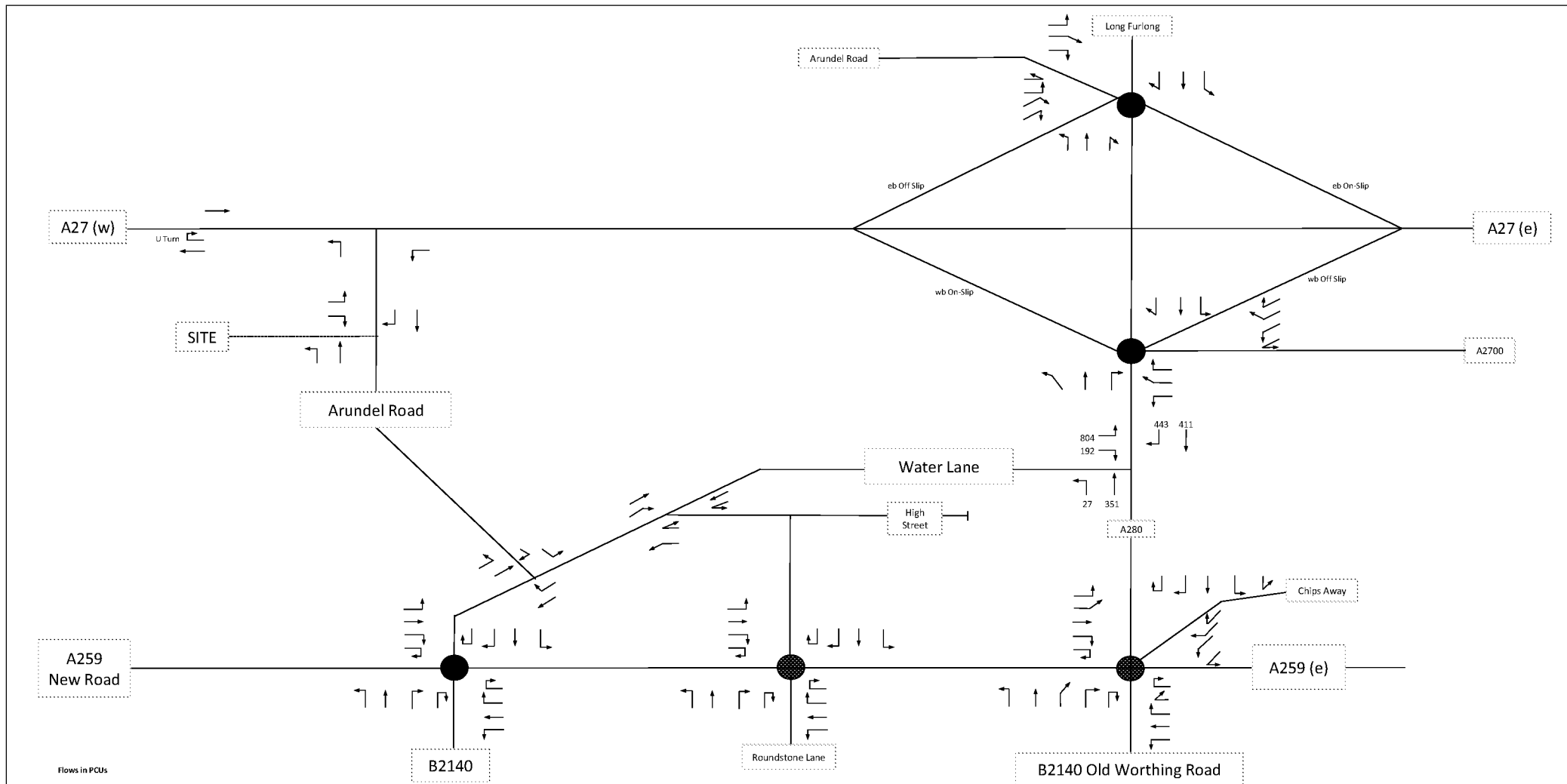


Figure E - 2031 Base Flows (includes all Water Lane Committed & Water Lane Developments & Other Committed as per the TA)
AM Peak Period (0745 - 0845)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk

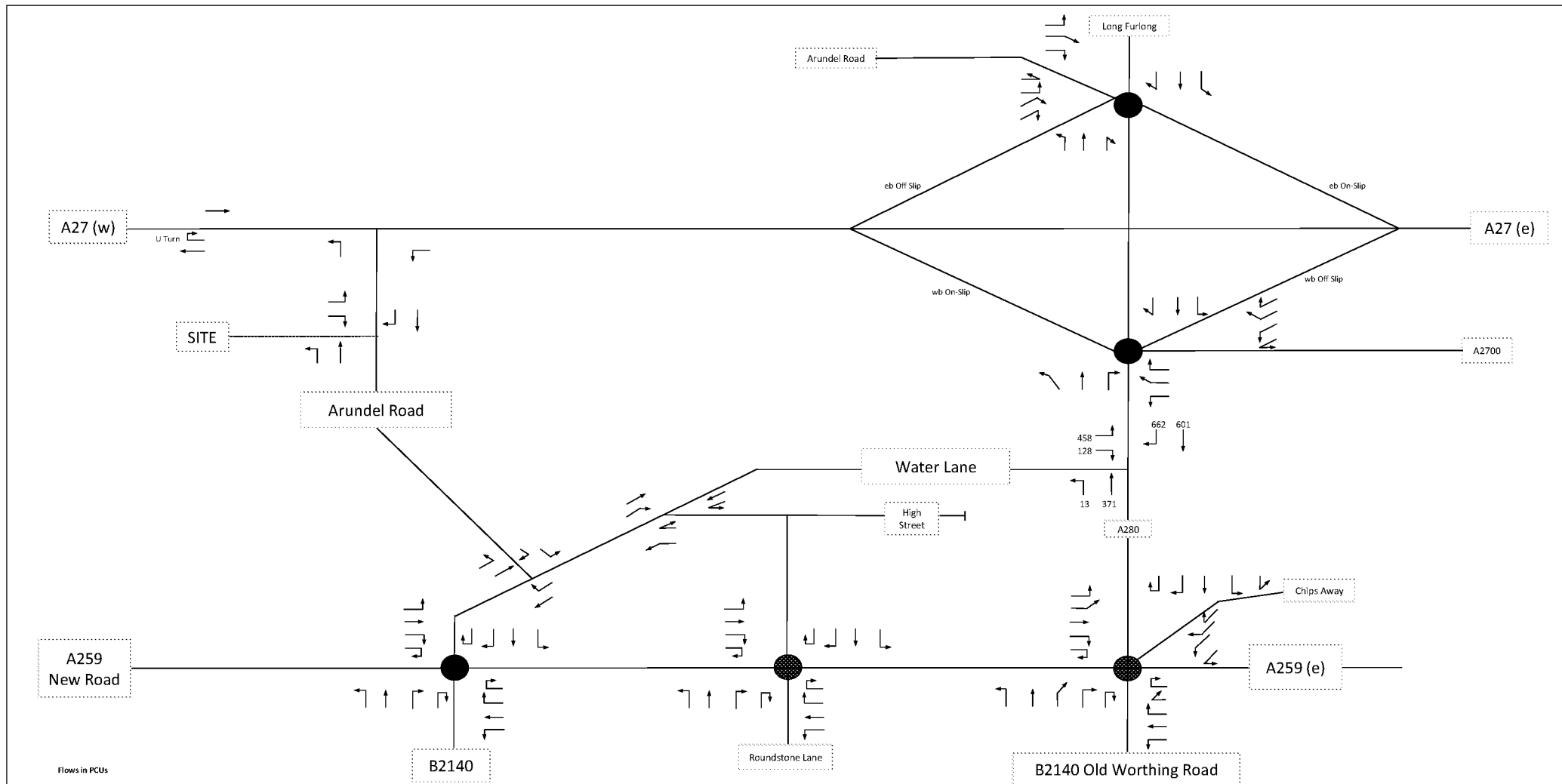


Figure F - 2031 Base Flows (includes all Water Lane Committed & Water Lane Developments & Other Committed as per the TA)
PM Peak Period (1645 - 1745)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk

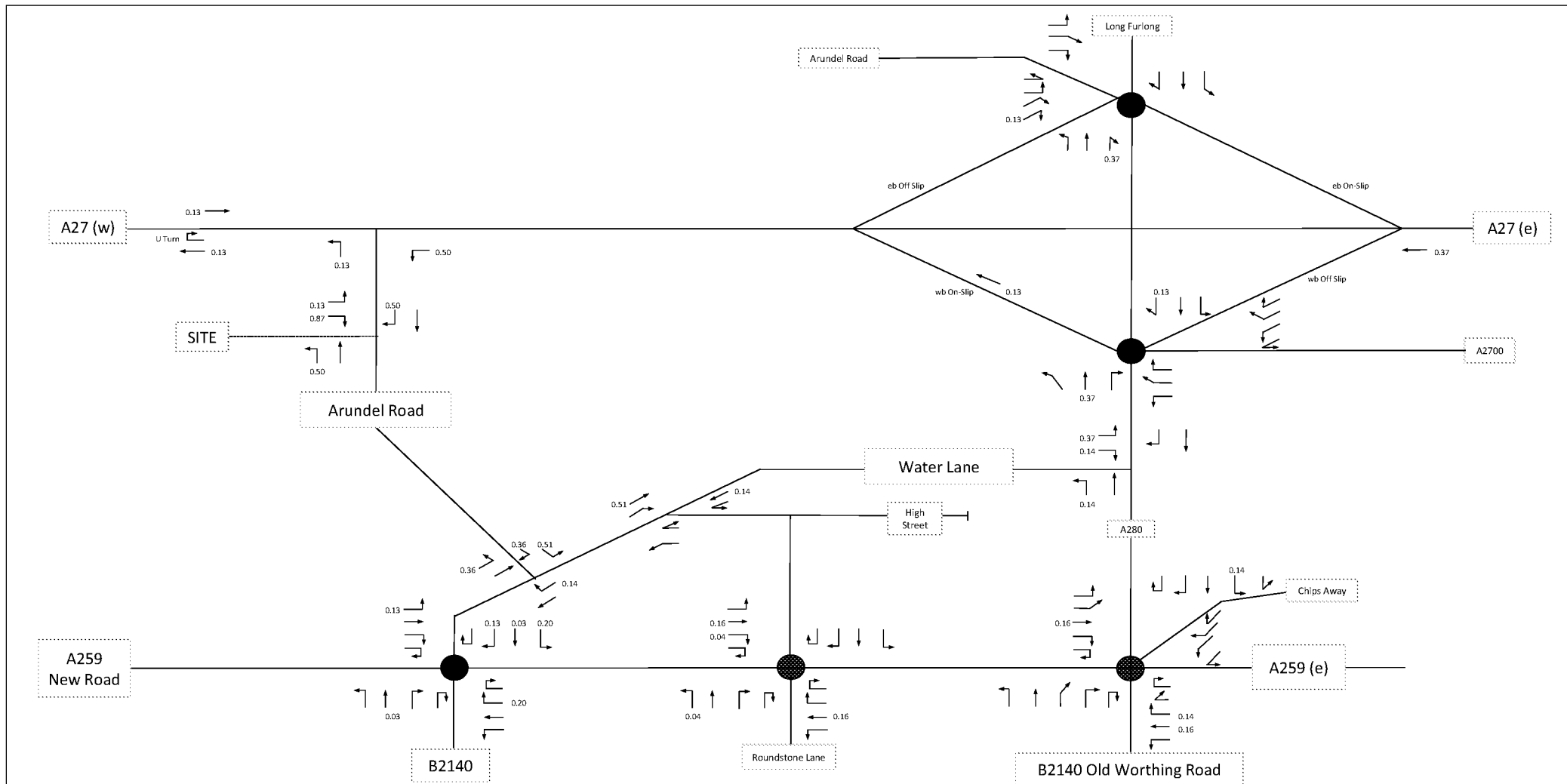


Figure G - Trip Distribution (Reassigned to permit right turn out of Water Lane)
AM Peak Period (0745 - 0845)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk

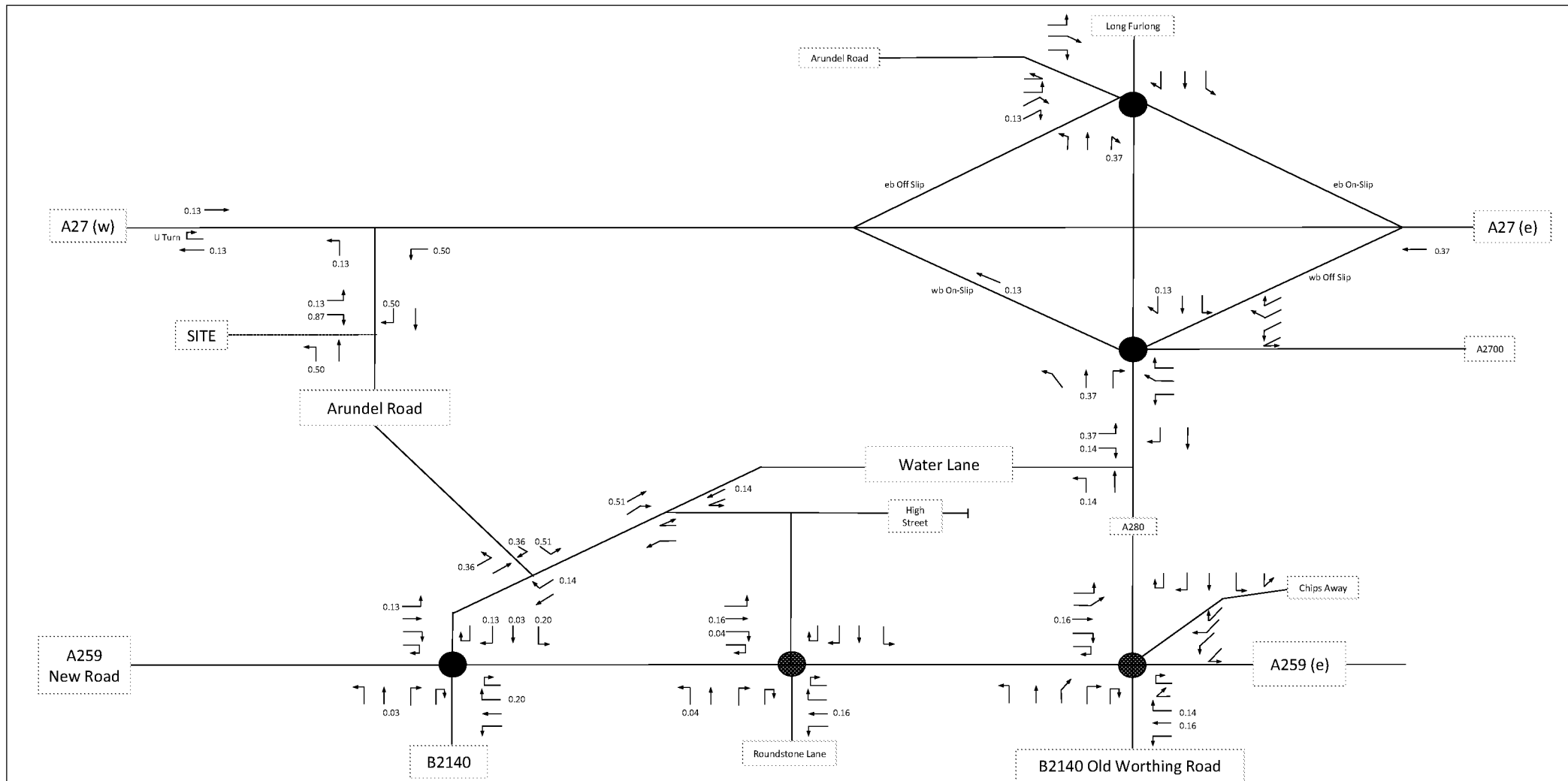
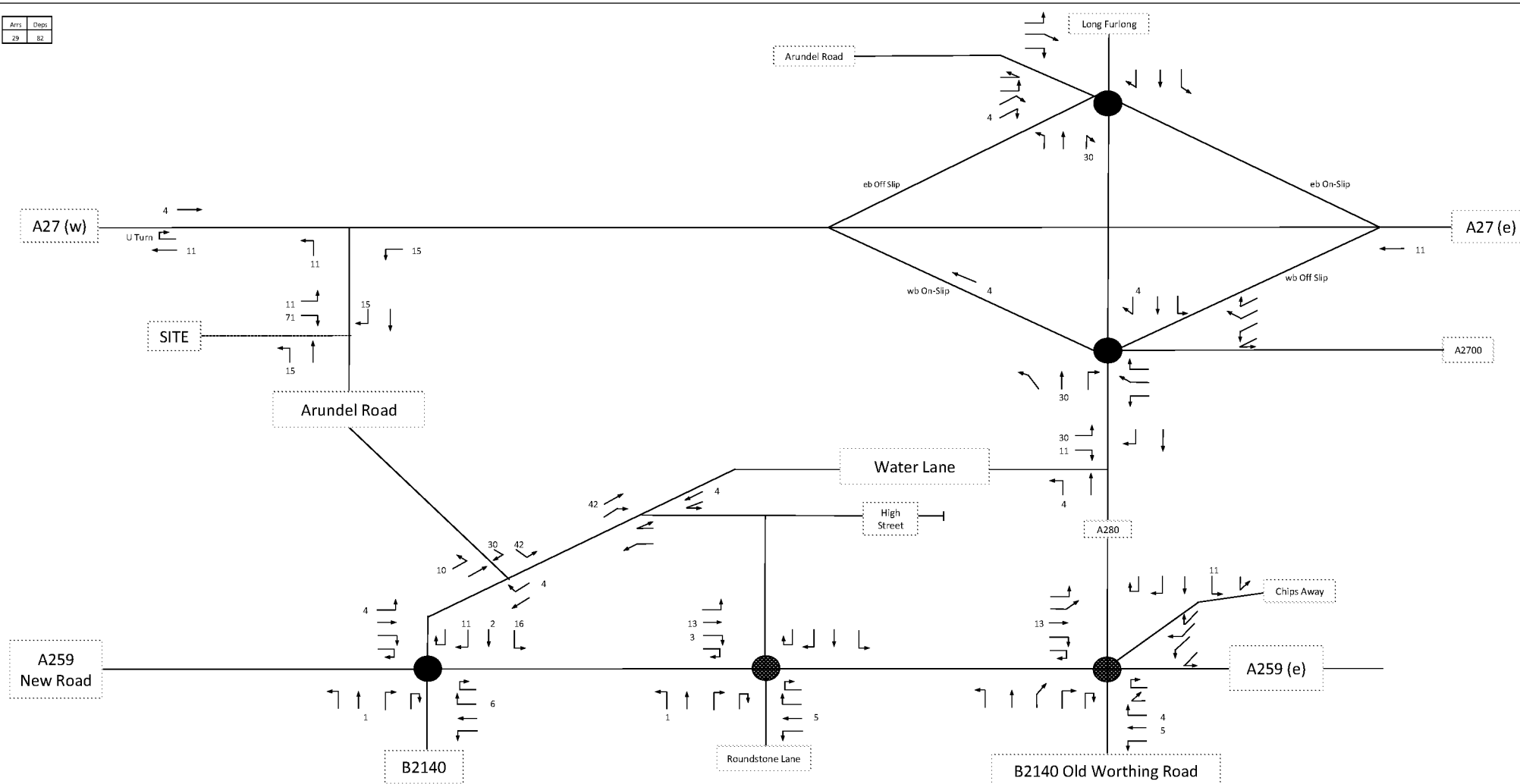


Figure H - Trip Distribution (Reassigned to permit right turn out of Water Lane)
PM Peak Period (1645 - 1745)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk

Arts	Deps
29	82



**Figure I - Development Flows (Re-assigned traffic to permit right turn out of Water Lane)
AM Peak Period (0745 - 0845)**

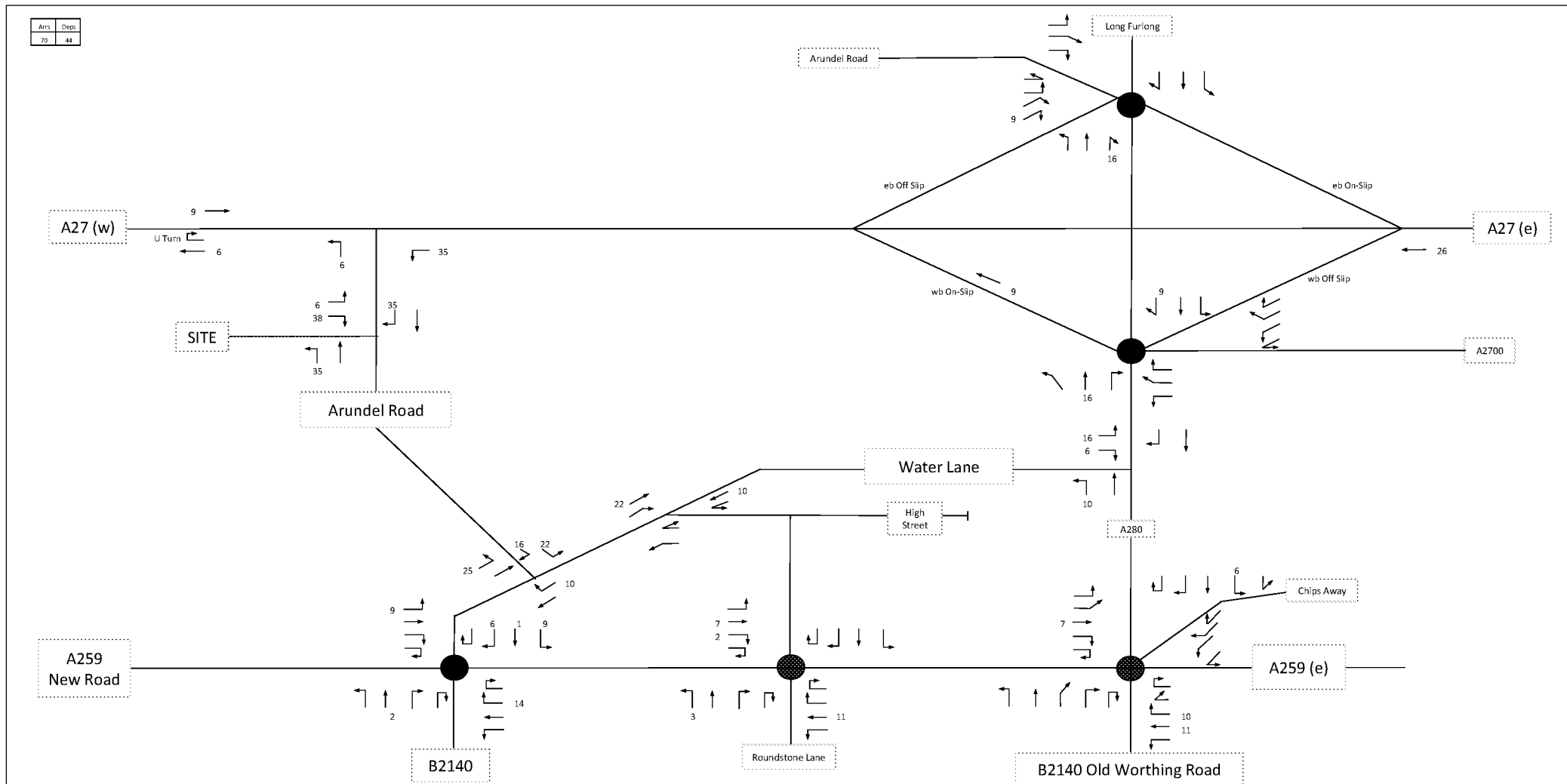


Figure J - Development Flows (Re-assigned traffic to permit right turn out of Water Lane)
PM Peak Period (1645 -1745)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk

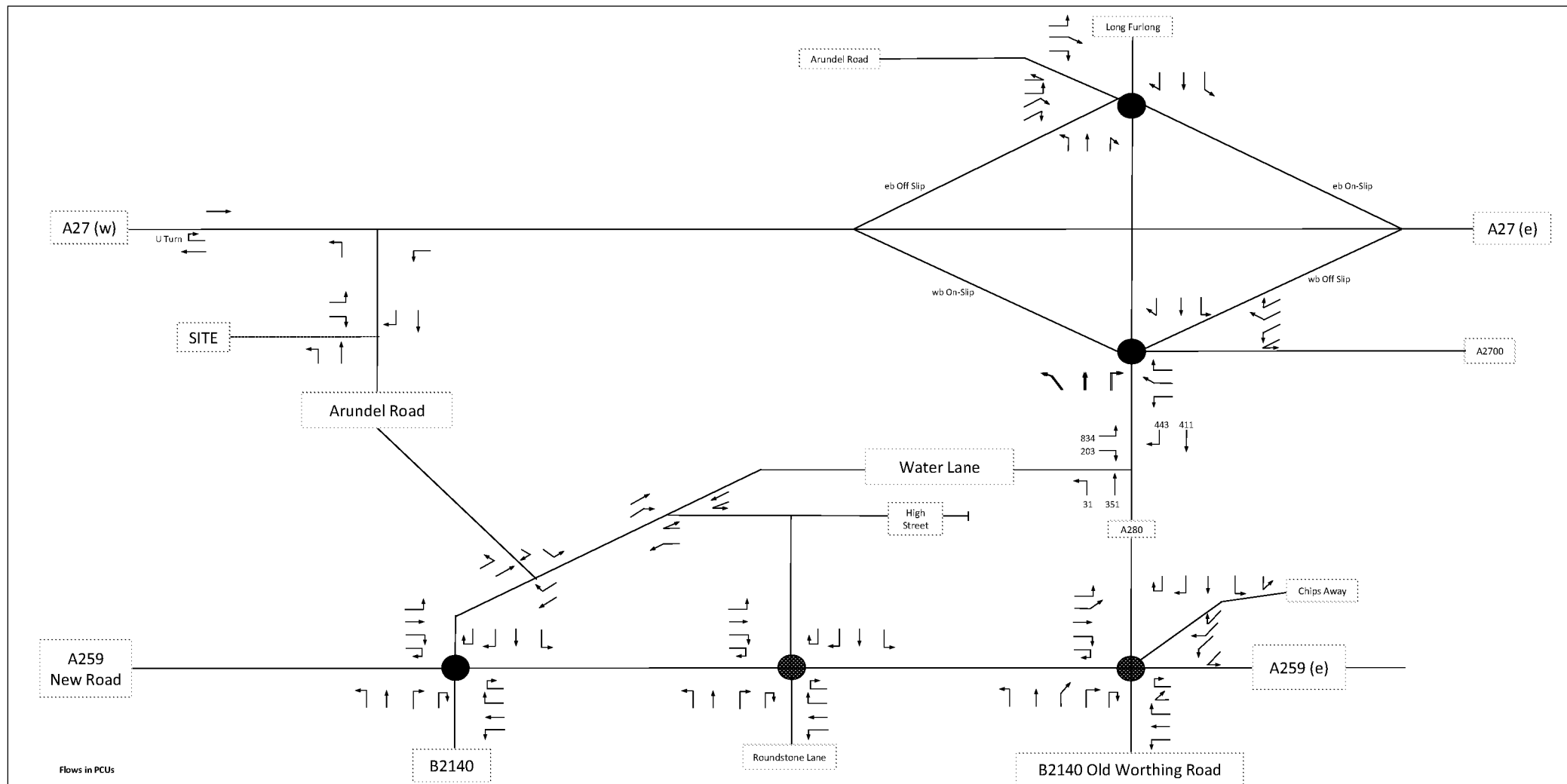


Figure K - 2031 Base Flows (includes all Water Lane Committed & Water Lane Developments & Other Committed as per the TA) + Arundel Road Development
AM Peak Period (0745 - 0845)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk

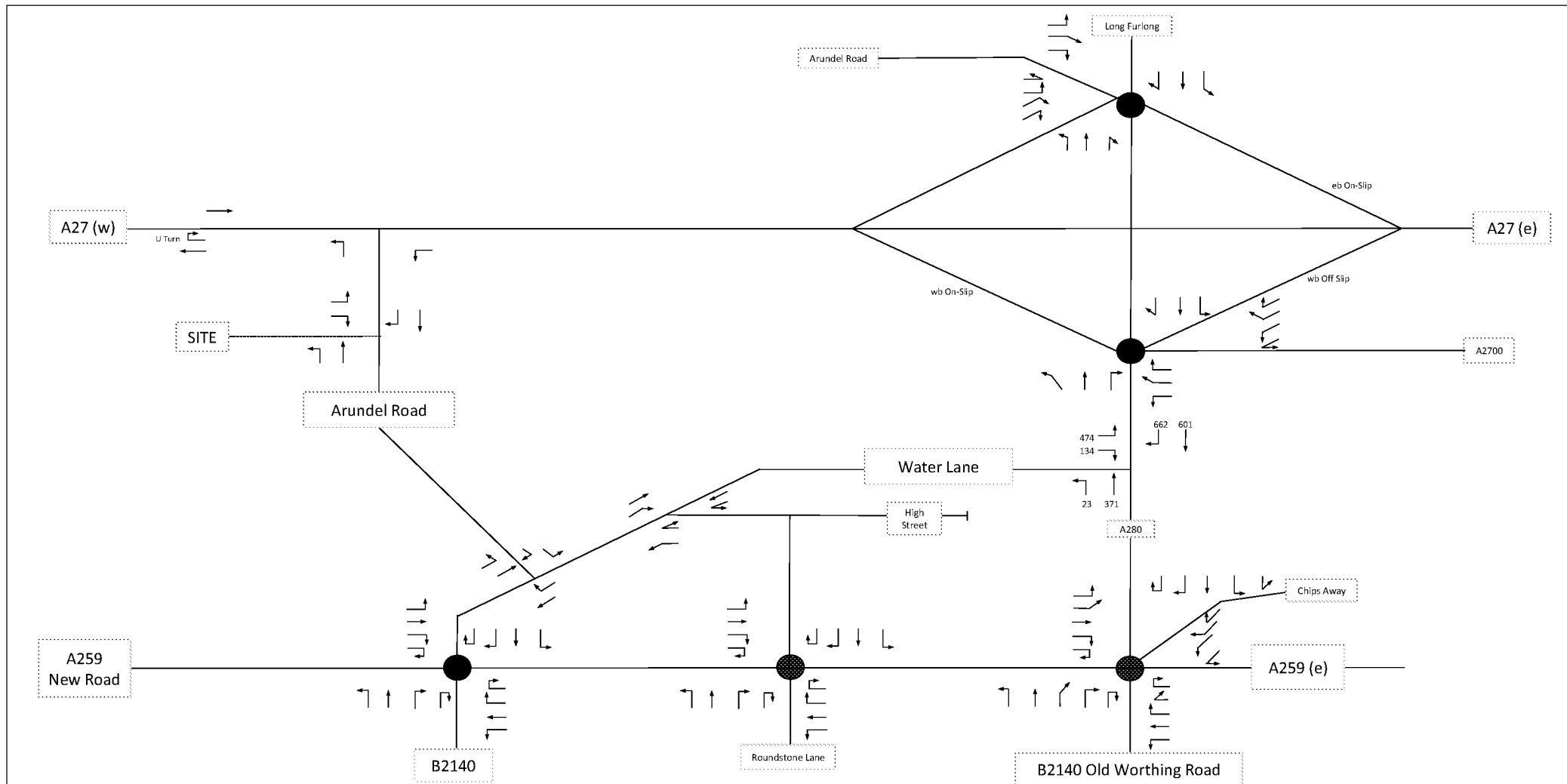
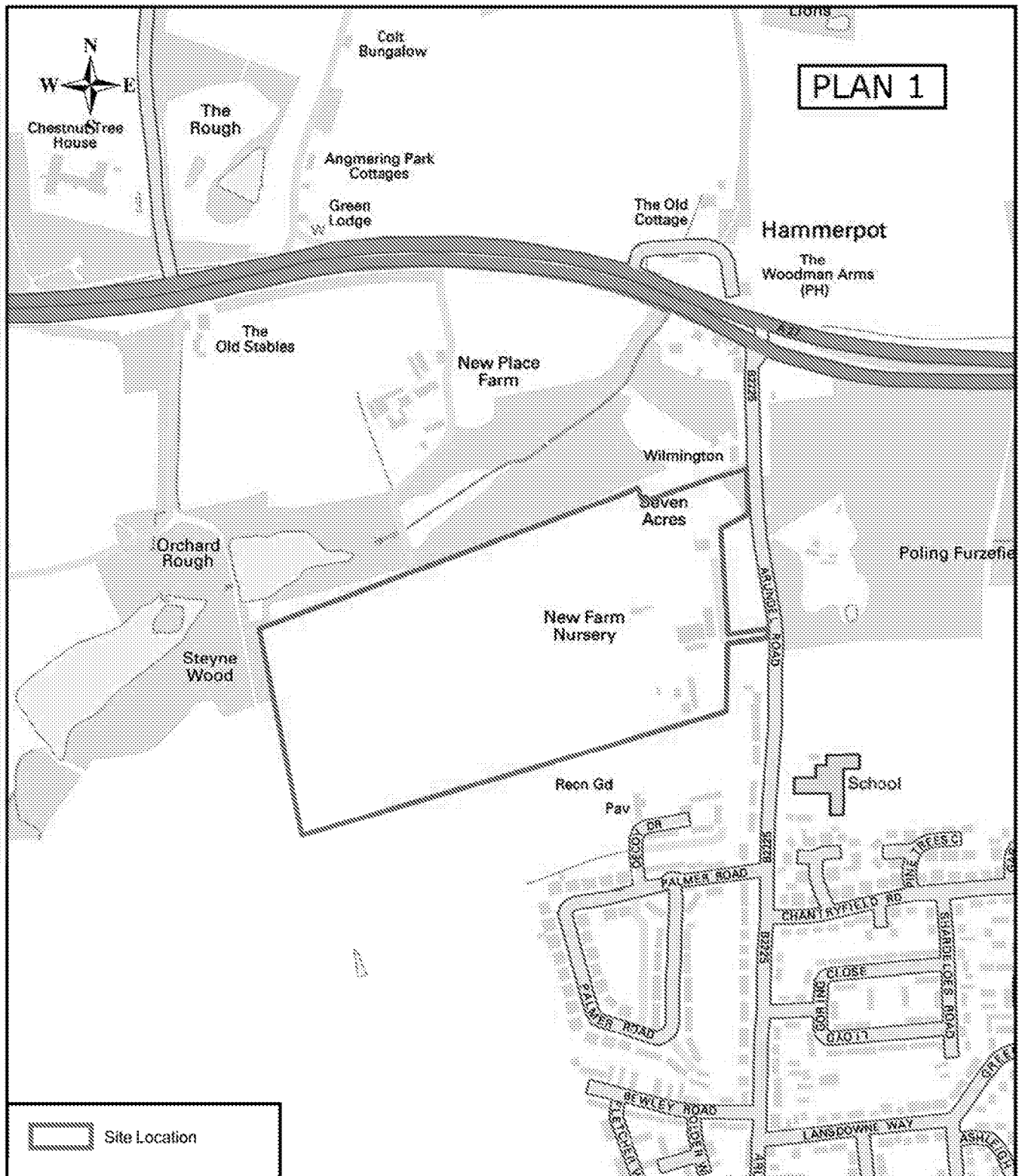


Figure L - 2031 Base Flows (includes all Water Lane Committed & Water Lane Developments & Other Committed as per the TA) + Arundel Road Development
PM Peak Period (1645 -1745)

croft
Transport Solutions

Hill Quays, 9 Jordan Street, Manchester M15 4PY
Tel: 0161 667 3746 www.crofts.co.uk info@crofts.co.uk

PLANS



Site Location

GLADMAN DEVELOPMENTS

PROPOSED RESIDENTIAL DEVELOPMENT
ARUNDEL ROAD, ANGMERING
SITE LOCATION PLAN

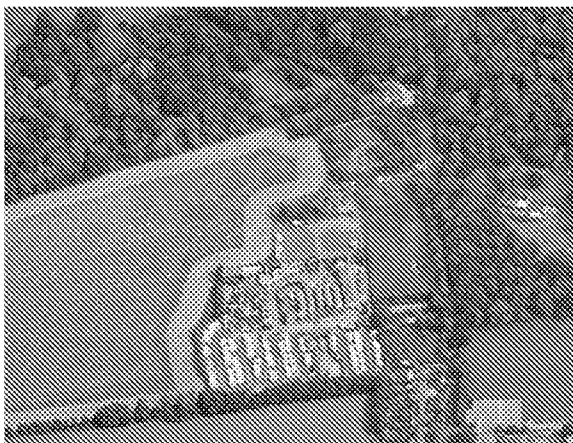
croft

Transport Solutions

Email: info@crofts.co.uk
Tel: 0161 667 3746
Web: www.crofts.co.uk

9 Jordan Street,
Manchester
M15 4PY

DRAWN:	DATE:	CHECKED:	DATE:	SCALE:	DRAWING NUMBER:	REVISION:
GM	20.11.17	PJW	20.11.17	N.T.S	2020-01	.

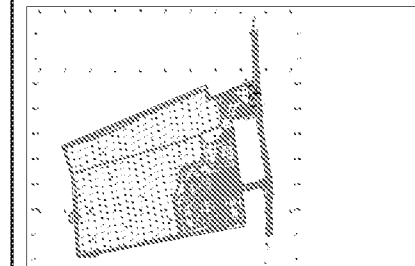


NORTH SOUTH AERIAL VIEW



NOTES

DRAWING IS INDICATIVE ONLY AND WILL BE SUBJECT TO
CHANGE AS DESIGN IS PROGRESSED WITH LOCAL AUTHORITY



SITE LAYOUT NTS

----- INDICATIVE SITE BOUNDARY

REV.	DETAILS	DRAWN	CHECKED	DATE
------	---------	-------	---------	------

CLIENT:

GLADMAN

PROJECT:

ARUNDEL ROAD, ANGMERING

DRAWING TITLE:

PROPOSED ACCESS ARRANGEMENT

SCALES:

1:500 @ A3

DRAWN: MC	CHECKED: MC	DATE: OCT 2017
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9 Jordan St
Manchester
M15 4PY

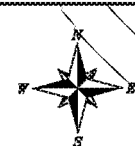
Email: info@croftts.co.uk
Tel: 0161 667 3746
Web: www.croftts.co.uk



DRAWING NUMBER: 2020-F01

REVISION	

PLAN 3



NOTES

THIS IS NOT A CONSTRUCTION DRAWING AND IS FOR INDICATIVE PURPOSES ONLY. IT IS SUBJECT TO FURTHER DESIGN ANALYSIS, TOPOGRAPHICAL MAPPING & CONFIRMATION OF HIGHWAY/THIRD PARTY LAND BOUNDARIES.

- INDICATIVE SITE BOUNDARY
- DENOTES NEW KERBS
- EXISTING ADOPTED HIGHWAY

2.4x43M VISIBILITY SPLAY

EXISTING LOCATION OF SPEED LIMIT CHANGE FROM 30MPH TO NATIONAL SPEED LIMIT TRAVELING NORTH.

ARUNDEL ROAD

R6.0M

2.4x43M VISIBILITY SPLAY

n Nursery

REV.	DETAILS	DRAWN	CHECKED	DATE

CLIENT:

GLADMAN

PROJECT:

ARUNDEL ROAD, ANGMERING

DRAWING TITLE:

POTENTIAL SECONDARY ACCESS ARRANGEMENT

SCALES:

1:500 @ A3

DRAWN:

JC

CHECKED:

MR

DATE:

DEC 17

9 Jordan Street,
Manchester,
M15 4PY

Email: info@crofts.co.uk
Tel: 0161 667 3746
Web: www.crofts.co.uk

croft
Transport Solutions

DRAWING NUMBER:

2020-F03

REVISION:

.

Z:\projects\2020 Arundel Road, Angmering\CAD\Craft Drawings\2020-SP01.dwg



NOTES

Large Refuse Vehicle (3 axle)

Overall Length	9.860m
Overall Width	3.814m
Overall Body Height	3.366m
Track Width	2.430m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.500m

PLAN 4

REV.	DETAILS	DRAWN	CHECKED	DATE

CLIENT:
GLADMAN

PROJECT:
ARUNDEL ROAD, ANGMERING

DRAWING TITLE:
SWEPT PATH ANALYSIS

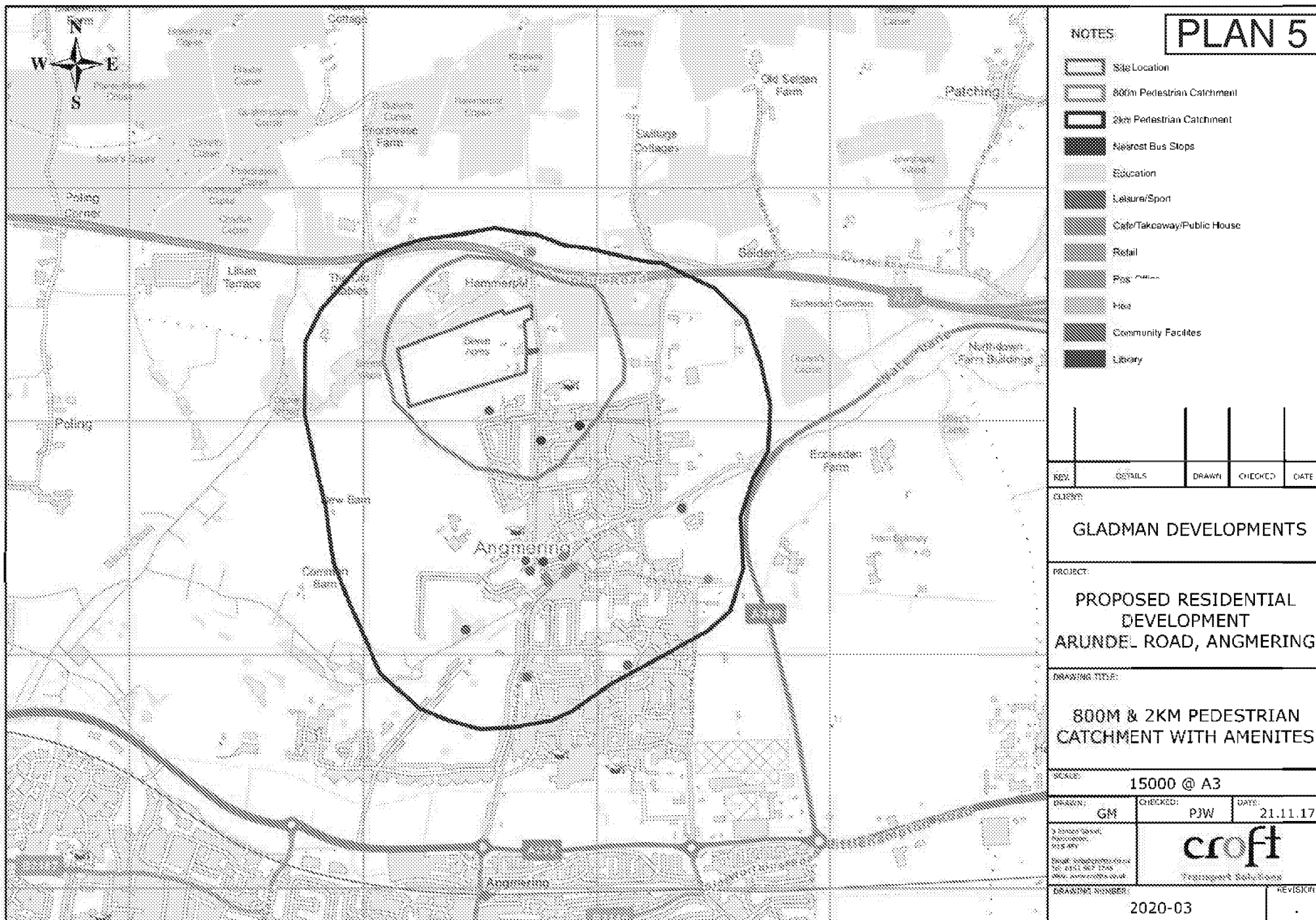
SCALES:
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DRAWN: GM	CHECKED: MR	DATE: JAN 2018
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9 Jordan Street,
Manchester,
M15 4PY

Email: info@crofts.co.uk
Tel: 0161 667 3746
Web: www.crofts.co.uk

DRAWING NUMBER: 2020-SP01	REVISION:
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APPENDICES

APPENDIX 1

Traffic Survey Data

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 15TH NOVEMBER 2017

LOCATION : ANGMERING, WEST SUSSEX

A259 / A280 / B2140 OLD WORTHING ROAD ROUNDABOUT

	A259 EAST LEFT TURN TO B2140 OLD WORTHING RD SOUTH						A259 EAST STRAIGHT AHEAD TO A259 ROUNDSTONE BY-PASS WEST						A259 EAST RIGHT TURN TO A280 NORTH						A259 EAST RIGHT TURN TO CHIPS AWAY ACCESS						A259 EAST U TURNS					
	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT
0730-0745	24	2	1			27	213	9	4	3	1	230	17					17	0					0	2					2
0745-0800	35	3	1			39	203	1	4	2		210	20	1				21	0					0	3					3
0800-0815	28	2	1			31	214	3		2	4	223	17					17	0					0	4					4
0815-0830	25		1			26	201	5		3		209	21	2	1			24	0					0	5					5
0830-0845	33		1			34	192	7	1	1	2	203	30	2	1			33	0					0	6					6
0845-0900	40	2	3			45	193	4	1	1		199	28	2				30	0					0	7					7
0900-0915	30		2			32	178	7	3	1		189	17	2				19	0					0	4					4
0915-0930	25		2			27	198	3		2	1	204	20	2				22	0					0	5					5
0730-0930	240	9	12	0	0	261	1592	39	13	15	8	1667	170	11	2	0	0	183	0	0	0	0	0	0	36	0	0	0	0	36
0730-0830	112	7	4	0	0	123	831	18	8	10	5	872	75	3	1	0	0	79	0	0	0	0	0	0	14	0	0	0	0	14
0745-0845	121	5	4	0	0	130	810	16	5	8	6	845	88	5	2	0	0	95	0	0	0	0	0	0	18	0	0	0	0	18
0800-0900	126	4	6	0	0	136	800	19	2	7	6	834	96	6	2	0	0	104	0	0	0	0	0	0	22	0	0	0	0	22
0815-0915	128	2	7	0	0	137	764	23	5	6	2	800	96	8	2	0	0	106	0	0	0	0	0	0	22	0	0	0	0	22
0830-0930	128	2	8	0	0	138	761	21	5	5	3	795	95	8	1	0	0	104	0	0	0	0	0	0	22	0	0	0	0	22

	A259 EAST LEFT TURN TO B2140 OLD WORTHING RD SOUTH						A259 EAST STRAIGHT AHEAD TO A259 ROUNDSTONE BY-PASS WEST						A259 EAST RIGHT TURN TO A280 NORTH						A259 EAST RIGHT TURN TO CHIPS AWAY ACCESS						A259 EAST U TURNS					
	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT
1630-1645	35	1	2	3		41	205	1		2		208	28					28	3					3	15					15
1645-1700	31		1	1		33	206	2		4	2	214	20		1			21	2					2	17					17
1700-1715	40		4			44	220	2	2	4		228	32	1				33	2					2	20					20
1715-1730	32		3			35	176	1		2		179	32			1		33	1					1	18					18
1730-1745	39		1		1	41	223	1		1	1	226	36					36	1					1	24					24
1745-1800	30		1			31	210		1	4		215	43	1				44	3					3	23					23
1800-1815	35		2			37	210	1	1	5		217	36		1		1	38	1					1	17					17
1815-1830	15		1			16	180		1			181	43					43	1					1	12					12
1630-1830	257	1	15	4	1	278	1630	8	5	22	3	1668	270	2	2	1	1	276	14	0	0	0	0	14	146	0	0	0	0	146
1630-1730	138	1	10	4	0	153	807	6	2	12	2	829	112	1	1	1	0	115	8	0	0	0	0	8	70	0	0	0	0	70
1645-1745	142	0	9	1	1	153	825	6	2	11	3	847	120	1	1	1	0	123	6	0	0	0	0	6	79	0	0	0	0	79
1700-1800	141	0	9	0	1	151	829	4	3	11	1	848	143	2	0	1	0	146	7	0	0	0	0	7	85	0	0	0	0	85
1715-1815	136	0	7	0	1	144	819	3	2	12	1	837	147	1	1	1	1	151	6	0	0	0	0	6	82	0	0	0	0	82
1730-1830	119	0	5	0	1	125	823	2	3	10	1	839	158	1	1	0	1	161	6	0	0	0	0	6	76	0	0	0	0	76

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 15TH NOVEMBER 2017

LOCATION : ANGMERING, WEST SUSSEX

A259 / A280 / B2140 OLD WORTHING ROAD ROUNDABOUT

		B2140 OLD WORTHING RD SOUTH LEFT TURN TO A259 ROUNDSTONE BY-PASS WEST						B2140 OLD WORTHING RD SOUTH STRAIGHT AHEAD TO A280 NORTH						B2140 OLD WORTHING RD SOUTH STRAIGHT AHEAD TO CHIPS AWAY ACCESS						B2140 OLD WORTHING RD SOUTH RIGHT TURN TO A259 EAST						B2140 OLD WORTHING RD SOUTH U TURNS					
		CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT
0730-0745		5					5	15	1		1		17	0					0	106		1			107	0					0
0745-0800		3					3	15	1				16	0					0	119	2	1	1		123	0					0
0800-0815		4					4	7					7	0					0	87	2	1	1		91	0					0
0815-0830		4					4	19					19	0					0	112		2			114	1					1
0830-0845		4					4	13		1			14	0					0	64	3	1			68	0					0
0845-0900		3					3	10					10	0					0	81	1	2			84	0					0
0900-0915		3					3	26	1		1		28	0					0	62		1			63	0					0
0915-0930		2					2	14					14	0					0	35		2			37	0					0
0730-0930		28	0	0	0	0	28	119	3	1	2	0	125	0	0	0	0	0	0	666	8	11	2	0	687	1	0	0	0	0	1
0730-0830		16	0	0	0	0	16	56	2	0	1	0	59	0	0	0	0	0	0	424	4	5	2	0	435	1	0	0	0	0	1
0745-0845		15	0	0	0	0	15	54	1	1	0	0	56	0	0	0	0	0	0	382	7	5	2	0	396	1	0	0	0	0	1
0800-0900		15	0	0	0	0	15	49	0	1	0	0	50	0	0	0	0	0	0	344	6	6	1	0	357	1	0	0	0	0	1
0815-0915		14	0	0	0	0	14	68	1	1	1	0	71	0	0	0	0	0	0	319	4	6	0	0	329	1	0	0	0	0	1
0830-0930		12	0	0	0	0	12	63	1	1	1	0	66	0	0	0	0	0	0	242	4	6	0	0	252	0	0	0	0	0	0

		B2140 OLD WORTHING RD SOUTH LEFT TURN TO A259 ROUNDSTONE BY-PASS WEST						B2140 OLD WORTHING RD SOUTH STRAIGHT AHEAD TO A280 NORTH						B2140 OLD WORTHING RD SOUTH STRAIGHT AHEAD TO CHIPS AWAY ACCESS						B2140 OLD WORTHING RD SOUTH RIGHT TURN TO A259 EAST						B2140 OLD WORTHING RD SOUTH U TURNS					
		CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT
1630-1645		5					5	3			1		4	0					0	35		2			37	0					0
1645-1700		9					9	9					9	0					0	43		1		1	45	0					0
1700-1715		4					4	7			1		8	0					0	35		1		1	37	0					0
1715-1730		3					3	5					5	0					0	30		1			31	0					0
1730-1745		0					0	9					9	0					0	32		3			35	0					0
1745-1800		1					1	6					6	0					0	28		1			29	0					0
1800-1815		4					4	6					6	0					0	31		1			32	0					0
1815-1830		9					9	8					8	0					0	47		1		1	49	0					0
1630-1830		35	0	0	0	0	35	53	0	0	2	0	55	0	0	0	0	0	0	281	0	11	1	2	295	0	0	0	0	0	0
1630-1730		21	0	0	0	0	21	24	0	0	2	0	26	0	0	0	0	0	0	143	0	5	0	2	150	0	0	0	0	0	0
1645-1745		16	0	0	0	0	16	30	0	0	1	0	31	0	0	0	0	0	0	140	0	6	0	2	148	0	0	0	0	0	0
1700-1800		8	0	0	0	0	8	27	0	0	1	0	28	0	0	0	0	0	0	125	0	6	0	1	132	0	0	0	0	0	0
1715-1815		8	0	0	0	0	8	26	0	0	0	0	26	0	0	0	0	0	0	121	0	6	0	0	127	0	0	0	0	0	0
1730-1830		14	0	0	0	0	14	29	0	0	0	0	29	0	0	0	0	0	0	138	0	6	1	0	145	0	0	0	0	0	0

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 15TH NOVEMBER 2017

LOCATION : ANGMERING, WEST SUSSEX

A259 / A280 / B2140 OLD WORTHING ROAD ROUNDABOUT

	A259 ROUNDSTONE BY-PASS WEST LEFT TURN TO A280 NORTH						A259 ROUNDSTONE BY-PASS WEST STRAIGHT AHEAD TO CHIPS AWAY ACCESS						A259 ROUNDSTONE BY-PASS WEST STRAIGHT AHEAD TO A259 EAST						A259 ROUNDSTONE BY-PASS WEST RIGHT TURN TO B2140 OLD WORTHING RD SOUTH						A259 ROUNDSTONE BY-PASS WEST U TURNS					
	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT
0730-0745	24	4		1		29	0					0	289	9	1	8	1	308	0					0	0					0
0745-0800	20	3				23	0					0	270	8	2	3	1	284	0					0	1					1
0800-0815	27	2		1		30	1			1		2	278	8	4	2	1	293	0					0	2					2
0815-0830	33	4		3		40	2					2	221	6	6	2		235	3					3	2					2
0830-0845	56	4				60	4					4	232	4	3	2	1	242	5					5	3					3
0845-0900	41	4		1		46	2					2	252	7		1		260	1					1	1		1			2
0900-0915	39	4	1			44	2					2	222	9	2	2	1	236	1					1	1					1
0915-0930	35	3	1			39	1					1	236	15	1	1		253	0					0	1					1
0730-0930	275	28	2	6	0	311	12	0	0	1	0	13	2000	66	19	21	5	2111	10	0	0	0	0	10	11	0	1	0	0	12
0730-0830	104	13	0	5	0	122	3	0	0	1	0	4	1058	31	13	15	3	1120	3	0	0	0	0	3	5	0	0	0	0	5
0745-0845	136	13	0	4	0	153	7	0	0	1	0	8	1001	26	15	9	3	1054	8	0	0	0	0	8	8	0	0	0	0	8
0800-0900	157	14	0	5	0	176	9	0	0	1	0	10	983	25	13	7	2	1030	9	0	0	0	0	9	8	0	1	0	0	9
0815-0915	169	16	1	4	0	190	10	0	0	0	0	10	927	26	11	7	2	973	10	0	0	0	0	10	7	0	1	0	0	8
0830-0930	171	15	2	1	0	189	9	0	0	0	0	9	942	35	6	6	2	991	7	0	0	0	0	7	6	0	1	0	0	7

	A259 ROUNDSTONE BY-PASS WEST LEFT TURN TO A280 NORTH						A259 ROUNDSTONE BY-PASS WEST STRAIGHT AHEAD TO CHIPS AWAY ACCESS						A259 ROUNDSTONE BY-PASS WEST STRAIGHT AHEAD TO A259 EAST						A259 ROUNDSTONE BY-PASS WEST RIGHT TURN TO B2140 OLD WORTHING RD SOUTH						A259 ROUNDSTONE BY-PASS WEST U TURNS					
	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT
1630-1645	45	4		1		50	0					0	259	4	3	9	1	276	6			1		7	5			1		6
1645-1700	47	3	1			51	0					0	239	1	1	1		242	4					4	6					6
1700-1715	47	1				48	0					0	237	5	1	5	1	249	18					18	7		1			8
1715-1730	54	2	1	1		58	0					0	236	2	1	4	1	244	8					8	11					11
1730-1745	50	1				51	0					0	239	1		3		243	15					15	15		1	1		17
1745-1800	42	2	2			46	0					0	220	1		1	2	224	9					9	15					15
1800-1815	44					44	0					0	229	1	1	2		233	14					14	16					16
1815-1830	25				1	26	0					0	187	1	3			191	15					15	7					7
1630-1830	354	13	4	2	1	374	0	0	0	0	0	0	1846	16	10	25	5	1902	89	0	0	1	0	90	82	0	2	2	0	86
1630-1730	193	10	2	2	0	207	0	0	0	0	0	0	971	12	6	19	3	1011	36	0	0	1	0	37	29	0	1	1	0	31
1645-1745	198	7	2	1	0	208	0	0	0	0	0	0	951	9	3	13	2	978	45	0	0	0	0	45	39	0	2	1	0	42
1700-1800	193	6	3	1	0	203	0	0	0	0	0	0	932	9	2	13	4	960	50	0	0	0	0	50	48	0	2	1	0	51
1715-1815	190	5	3	1	0	199	0	0	0	0	0	0	924	5	2	10	3	944	46	0	0	0	0	46	57	0	1	1	0	59
1730-1830	161	3	2	0	1	167	0	0	0	0	0	0	875	4	4	6	2	891	53	0	0	0	0	53	53	0	1	1	0	55

K&M TRAFFIC SURVEYS

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LOCATION : ANGMERING, WEST SUSSEX

A259 / A280 / B2140 OLD WORTHING ROAD ROUNDABOUT

	A280 NORTH LEFT TURN TO CHIPS AWAY ACCESS						A280 NORTH LEFT TURN TO A259 EAST						A280 NORTH STRAIGHT AHEAD TO B2140 OLD WORTHING RD SOUTH						A280 NORTH RIGHT TURN TO A259 ROUNDSTONE BY-PASS WEST						A280 NORTH U TURNS													
	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT								
0730-0745	0					0	7					1	8	18					18	44					5	49					0					0		
0745-0800	0					0	2						2	14					14	47					4	1	1	53					0					0
0800-0815	1					1	13						13	20					20	65					3	68					0					0		
0815-0830	1			1		2	5	1				6	12						12	50	3				53	0					0							
0830-0845	0					0	8						8	11					1			12	76	6	1	83					0					0		
0845-0900	1					1	19	1				20	14	1					15	70	4	1	75					0					0					
0900-0915	0					0	10						10	11					3			14	56	6	62					0					0			
0915-0930	0					0	6					2	8	10					2			12	55	7	62					0					0			
0730-0930	3	0	0	1	0	4	70	5	0	0	0	75	110	6	1	0	0	117	463	38	3	1	0	505	0	0	0	0	0	0								
0730-0830	2	0	0	1	0	3	27	2	0	0	0	29	64	0	0	0	0	64	206	15	1	1	0	223	0	0	0	0	0	0								
0745-0845	2	0	0	1	0	3	28	1	0	0	0	29	57	0	1	0	0	58	238	16	2	1	0	257	0	0	0	0	0	0								
0800-0900	3	0	0	1	0	4	45	2	0	0	0	47	57	1	1	0	0	59	261	16	2	0	0	279	0	0	0	0	0	0								
0815-0915	2	0	0	1	0	3	42	2	0	0	0	44	48	4	1	0	0	53	252	19	2	0	0	273	0	0	0	0	0	0								
0830-0930	1	0	0	0	0	1	43	3	0	0	0	46	46	6	1	0	0	53	257	23	2	0	0	282	0	0	0	0	0	0								

	A280 NORTH LEFT TURN TO CHIPS AWAY ACCESS						A280 NORTH LEFT TURN TO A259 EAST						A280 NORTH STRAIGHT AHEAD TO B2140 OLD WORTHING RD SOUTH						A280 NORTH RIGHT TURN TO A259 ROUNDSTONE BY-PASS WEST						A280 NORTH U TURNS													
	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT								
1630-1645	0					0	13						13	23					23	58					4		1	63					0					0
1645-1700	0					0	8						8	27					27	62								62					0					0
1700-1715	0					0	7					1	8	26					26	63					4		1	68					0					0
1715-1730	0					0	4						4	30						1	1	32	59		1	60					0					0		
1730-1745	0					0	4						5	37								37	70			1	71					0					0	
1745-1800	0					0	8						9	44								44	78	2		4	84					0					0	
1800-1815	0					0	10						10	34								34	79	1		1	81					0					0	
1815-1830	0					0	6						6	38								38	90		1	1	92					0					0	
1630-1830	0	0	0	0	0	0	60	1	0	2	0	63	259	0	1	1	0	261	559	11	2	9	0	581	0	0	0	0	0	0								
1630-1730	0	0	0	0	0	0	32	1	0	0	0	33	106	0	1	1	0	108	242	8	1	2	0	253	0	0	0	0	0	0								
1645-1745	0	0	0	0	0	0	23	1	0	1	0	25	120	0	1	1	0	122	254	4	1	2	0	261	0	0	0	0	0	0								
1700-1800	0	0	0	0	0	0	23	1	0	2	0	26	137	0	1	1	0	139	270	6	1	6	0	283	0	0	0	0	0	0								
1715-1815	0	0	0	0	0	0	26	0	0	2	0	28	145	0	1	1	0	147	286	3	1	6	0	296	0	0	0	0	0	0								
1730-1830	0	0	0	0	0	0	28	0	0	2	0	30	153	0	0	0	0	153	317	3	1	7	0	328	0	0	0	0	0	0								

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 15TH NOVEMBER 2017

LOCATION : ANGMERING, WEST SUSSEX

A259 NEW ROAD / STATION ROAD / A259 ROUNDSTONE BY-PASS / B2140 ROUNDABOUT

A259 ROUNDSTONE BY-PASS EAST LEFT TURN TO B2140 SOUTH						
CAR	HGV	BUS	MCY	PCY	TOT	
0730-0745	15	2			17	
0745-0800	13				13	
0800-0815	8	1			9	
0815-0830	9		1		10	
0830-0845	13				13	
0845-0900	8				8	
0900-0915	14	2			16	
0915-0930	12	1			13	
0730-0930	92	6	0	1	0	99
0730-0830	45	3	0	1	0	49
0745-0845	43	1	0	1	0	45
0800-0900	38	1	0	1	0	40
0815-0915	44	2	0	1	0	47
0830-0930	47	3	0	0	0	50

A259 ROUNDSTONE BY-PASS EAST STRAIGHT AHEAD TO A259 NEW ROAD WEST						
CAR	HGV	BUS	MCY	PCY	TOT	
238	10	4	3		255	
225	8	3	3	2	241	
252	3		1	2	258	
248	8		2	2	260	
231	10	2	4	1	248	
273	6	2	1	1	283	
271	11	2	1		285	
241	5	1	2	1	250	
1979	61	14	17	9	2080	
963	29	7	9	6	1014	
956	29	5	10	7	1007	
1004	27	4	8	6	1049	
1023	35	6	8	4	1076	
1016	32	7	8	3	1066	

A259 ROUNDSTONE BY-PASS EAST RIGHT TURN TO STATION ROAD NORTH						
CAR	HGV	BUS	MCY	PCY	TOT	
8					8	
9					9	
5					5	
6					6	
4					4	
3					3	
6					6	
6					6	
47	0	0	0	0	47	
28	0	0	0	0	28	
24	0	0	0	0	24	
18	0	0	0	0	18	
19	0	0	0	0	19	
19	0	0	0	0	19	

A259 ROUNDSTONE BY-PASS EAST U TURNS						
CAR	HGV	BUS	MCY	PCY	TOT	
0					0	
0					0	
0					0	
0					0	
0					0	
1					1	
0					0	
1	0	0	0	0	1	
0	0	0	0	0	0	
0	0	0	0	0	0	
0	0	0	0	0	0	
1	0	0	0	0	1	
1	0	0	0	0	1	

A259 ROUNDSTONE BY-PASS EAST LEFT TURN TO B2140 SOUTH						
CAR	HGV	BUS	MCY	PCY	TOT	
11					11	
13					13	
14					14	
15					15	
15				1	16	
16					16	
12			1		13	
29					29	
125	0	0	0	2	127	
53	0	0	0	0	53	
57	0	0	0	1	58	
60	0	0	0	1	61	
58	0	0	0	2	60	
72	0	0	0	2	74	

A259 ROUNDSTONE BY-PASS EAST STRAIGHT AHEAD TO A259 NEW ROAD WEST						
CAR	HGV	BUS	MCY	PCY	TOT	
265	5	1	6		277	
290	1	2	9		302	
266	6	1	5	1	279	
302	3	1	4		310	
271	1		1		273	
289	2	1	7	1	300	
289	4		5	1	299	
289	1		2		292	
2261	23	6	39	3	2332	
1123	15	5	24	1	1168	
1129	11	4	19	1	1164	
1128	12	3	17	2	1162	
1151	10	2	17	2	1182	
1138	8	1	15	2	1164	

A259 ROUNDSTONE BY-PASS EAST RIGHT TURN TO STATION ROAD NORTH						
CAR	HGV	BUS	MCY	PCY	TOT	
6					6	
6		1			7	
6					6	
4					4	
4				1	5	
2					2	
2					2	
3					3	
33	0	1	0	1	35	
22	0	1	0	0	23	
20	0	1	0	1	22	
16	0	0	0	1	17	
12	0	0	0	1	13	
11	0	0	0	1	12	

A259 ROUNDSTONE BY-PASS EAST U TURNS						
CAR	HGV	BUS	MCY	PCY	TOT	
0					0	
0					0	
0					0	
0					0	
0					0	
0					0	
0					0	
0	0	0	0	0	0	
0	0	0	0	0	0	
0	0	0	0	0	0	
0	0	0	0	0	0	
0	0	0	0	0	0	
0	0	0	0	0	0	

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 15TH NOVEMBER 2017

LOCATION : ANGMERING, WEST SUSSEX

A259 NEW ROAD / STATION ROAD / A259 ROUNDSTONE BY-PASS / B2140 ROUNDABOUT

	B2140 SOUTH LEFT TURN TO A259 NEW ROAD WEST							B2140 SOUTH STRAIGHT AHEAD TO STATION ROAD NORTH							B2140 SOUTH RIGHT TURN TO A259 ROUNDSTONE BY-PASS EAST							B2140 SOUTH U TURNS					
	CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT
0730-0745	23	3				26		23	1				24		18					18		0					0
0745-0800	28	1				29		36			1		37		12					12		0					0
0800-0815	37	1			1	39		40		1			41		22			1		23		1					1
0815-0830	33	2				35		53		1			54		14	2				16		0					0
0830-0845	31	1				32		33					33		19					19		0					0
0845-0900	50	2				52		17					17		16	1				17		0					0
0900-0915	45	3	1		1	50		24		1			25		26					26		0					0
0915-0930	45					45		25	1	1			27		14			1		15		1					1
0730-0930	292	13	1	0	2	308		251	2	4	1	0	258		141	3	0	2	0	146		2	0	0	0	0	2
0730-0830	121	7	0	0	1	129		152	1	2	1	0	156		66	2	0	1	0	69		1	0	0	0	0	1
0745-0845	129	5	0	0	1	135		162	0	2	1	0	165		67	2	0	1	0	70		1	0	0	0	0	1
0800-0900	151	6	0	0	1	158		143	0	2	0	0	145		71	3	0	1	0	75		1	0	0	0	0	1
0815-0915	159	8	1	0	1	169		127	0	2	0	0	129		75	3	0	0	0	78		0	0	0	0	0	0
0830-0930	171	6	1	0	1	179		99	1	2	0	0	102		75	1	0	1	0	77		1	0	0	0	0	1

	B2140 SOUTH LEFT TURN TO A259 NEW ROAD WEST							B2140 SOUTH STRAIGHT AHEAD TO STATION ROAD NORTH							B2140 SOUTH RIGHT TURN TO A259 ROUNDSTONE BY-PASS EAST							B2140 SOUTH U TURNS					
	CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT
1630-1645	48	2				50		16					16		21	1				22		0					0
1645-1700	42			1		43		21					21		23			1		24		0					0
1700-1715	26	1		1		28		10		1			11		16			1		17		0					0
1715-1730	48					48		23					23		21					21		0					0
1730-1745	35				3	38		14					14		18					18		0					0
1745-1800	29			2		31		11					11		11		1			12		0					0
1800-1815	52					52		26		1			27		20					20		0					0
1815-1830	46					46		22					22		8					8		0					0
1630-1830	326	3	0	4	3	336		143	0	2	0	0	145		138	1	1	2	0	142		0	0	0	0	0	0
1630-1730	164	3	0	2	0	169		70	0	1	0	0	71		81	1	0	2	0	84		0	0	0	0	0	0
1645-1745	151	1	0	2	3	157		68	0	1	0	0	69		78	0	0	2	0	80		0	0	0	0	0	0
1700-1800	138	1	0	3	3	145		58	0	1	0	0	59		66	0	1	1	0	68		0	0	0	0	0	0
1715-1815	164	0	0	2	3	169		74	0	1	0	0	75		70	0	1	0	0	71		0	0	0	0	0	0
1730-1830	162	0	0	2	3	167		73	0	1	0	0	74		57	0	1	0	0	58		0	0	0	0	0	0

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 15TH NOVEMBER 2017

LOCATION : ANGMERING, WEST SUSSEX

A259 NEW ROAD / STATION ROAD / A259 ROUNDSTONE BY-PASS / B2140 ROUNDABOUT

		A259 NEW ROAD WEST LEFT TURN TO STATION ROAD NORTH						A259 NEW ROAD WEST STRAIGHT AHEAD TO A259 ROUNDSTONE BY-PASS EAST						A259 NEW ROAD WEST RIGHT TURN TO B2140 SOUTH						A259 NEW ROAD WEST U TURNS						
		CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	
0730-0745		75			1		76	230	9	1	2		242	63	1					64	0					0
0745-0800		79	2				81	245	10	2	3		260	59						59	1					1
0800-0815		91	4			4	99	276	10	4	3	1	294	89	2					91	2	1				3
0815-0830		116					116	244	10	6			260	72	2					74	3					3
0830-0845		151	1		1		153	235	9	4	3		251	61	2					63	4	1				5
0845-0900		55	1	1		3	60	220	11	1	1		233	38						38	4					4
0900-0915		60	2			2	64	254	14	2	1		271	25	3					28	3	1				4
0915-0930		87	4		1		92	250	17	1	2		270	32	1					33	2	1				3
0730-0930		714	14	1	3	9	741	1954	90	21	15	1	2081	439	11	0	0	0		450	19	4	0	0	0	23
0730-0830		361	6	0	1	4	372	995	39	13	8	1	1056	283	5	0	0	0		288	6	1	0	0	0	7
0745-0845		437	7	0	1	4	449	1000	39	16	9	1	1065	281	6	0	0	0		287	10	2	0	0	0	12
0800-0900		413	6	1	1	7	428	975	40	15	7	1	1038	260	6	0	0	0		266	13	2	0	0	0	15
0815-0915		382	4	1	1	5	393	953	44	13	5	0	1015	196	7	0	0	0		203	14	2	0	0	0	16
0830-0930		353	8	1	2	5	369	959	51	8	7	0	1025	156	6	0	0	0		162	13	3	0	0	0	16

		A259 NEW ROAD WEST LEFT TURN TO STATION ROAD NORTH						A259 NEW ROAD WEST STRAIGHT AHEAD TO A259 ROUNDSTONE BY-PASS EAST						A259 NEW ROAD WEST RIGHT TURN TO B2140 SOUTH						A259 NEW ROAD WEST U TURNS						
		CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	
1630-1645		70					70	254	2	2	6	2	266	33						33	5					5
1645-1700		92	1				93	259	3	2	3		267	43						43	7					7
1700-1715		62		1			63	255	3	2	6		266	51						51	6					6
1715-1730		68	1		1		70	295	5	2	3	1	306	53						53	6					6
1730-1745		63	2		1		66	286	4	1	3		294	38			1			39	2					2
1745-1800		74		1			75	256	2	2	4	3	267	48						48	6					6
1800-1815		71			1	1	73	257	1	2	2		262	27	1					28	7					7
1815-1830		59					59	216	2	1	1	1	221	37						37	8					8
1630-1830		559	4	1	4	1	569	2078	22	14	28	7	2149	330	1	0	1	0		332	47	0	0	0	0	47
1630-1730		292	2	1	1	0	296	1063	13	8	18	3	1105	180	0	0	0	0		180	24	0	0	0	0	24
1645-1745		285	4	1	2	0	292	1095	15	7	15	1	1133	185	0	0	1	0		186	21	0	0	0	0	21
1700-1800		267	3	1	3	0	274	1092	14	7	16	4	1133	190	0	0	1	0		191	20	0	0	0	0	20
1715-1815		276	3	0	4	1	284	1094	12	7	12	4	1129	166	1	0	1	0		168	21	0	0	0	0	21
1730-1830		267	2	0	3	1	273	1015	9	6	10	4	1044	150	1	0	1	0		152	23	0	0	0	0	23

K&M TRAFFIC SURVEYS

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LOCATION : ANGMERING, WEST SUSSEX

A259 NEW ROAD / STATION ROAD / A259 ROUNDSTONE BY-PASS / B2140 ROUNDABOUT

	STATION ROAD NORTH LEFT TURN TO A259 ROUNDSTONE BY-PASS EAST							STATION ROAD NORTH STRAIGHT AHEAD TO B2140 SOUTH							STATION ROAD NORTH RIGHT TURN TO A259 NEW ROAD WEST							STATION ROAD NORTH U TURNS						
	CAR HGV BUS MCY PCY					TOT		CAR HGV BUS MCY PCY					TOT		CAR HGV BUS MCY PCY					TOT		CAR HGV BUS MCY PCY					TOT	
	CAR	HGV	BUS	MCY	PCY			CAR	HGV	BUS	MCY	PCY			CAR	HGV	BUS	MCY	PCY			CAR	HGV	BUS	MCY	PCY		
0730-0745	14					14		11					11		39 1 1					41		0					0	
0745-0800	9 1					10		17 1					18		67 1 1					69		0					0	
0800-0815	10					10		20 1 1					22		71 1					72		0					0	
0815-0830	11					11		21 2					23		90 1					91		0					0	
0830-0845	9 1					10		18					18		85 1 2 1					89		0					0	
0845-0900	8 1					9		38					38		118 1					119		0					0	
0900-0915	11					11		21					21		68 1					69		0					0	
0915-0930	8					8		13 2					15		53 1 1					55		0					0	
0730-0930	80	0	1	0	2	83		159	4	3	0	0	166		591	5	6	2	1	605		0	0	0	0	0	0	
0730-0830	44	0	0	0	1	45		69	4	1	0	0	74		267	2	3	1	0	273		0	0	0	0	0	0	
0745-0845	39	0	1	0	1	41		76	4	1	0	0	81		313	3	4	1	0	321		0	0	0	0	0	0	
0800-0900	38	0	1	0	1	40		97	3	1	0	0	101		364	3	3	1	0	371		0	0	0	0	0	0	
0815-0915	39	0	1	0	1	41		98	2	0	0	0	100		361	2	4	1	0	368		0	0	0	0	0	0	
0830-0930	36	0	1	0	1	38		90	0	2	0	0	92		324	3	3	1	1	332		0	0	0	0	0	0	

	STATION ROAD NORTH LEFT TURN TO A259 ROUNDSTONE BY-PASS EAST							STATION ROAD NORTH STRAIGHT AHEAD TO B2140 SOUTH							STATION ROAD NORTH RIGHT TURN TO A259 NEW ROAD WEST							STATION ROAD NORTH U TURNS						
	CAR HGV BUS MCY PCY					TOT		CAR HGV BUS MCY PCY					TOT		CAR HGV BUS MCY PCY					TOT		CAR HGV BUS MCY PCY					TOT	
	CAR	HGV	BUS	MCY	PCY			CAR	HGV	BUS	MCY	PCY			CAR	HGV	BUS	MCY	PCY			CAR	HGV	BUS	MCY	PCY		
1630-1645	9 1					10		14					14		81 1					82		0					0	
1645-1700	11 1					12		24 1					25		94 1					95		0					0	
1700-1715	19 1					20		18					18		77 1 1 1					80		0					0	
1715-1730	8					8		9					9		70 3 2					75		0					0	
1730-1745	7 1					8		13 1					14		81					81		0					0	
1745-1800	3					3		20					20		85 1 1					87		0					0	
1800-1815	5					5		18					18		96 2 2					100		0					0	
1815-1830	3					3		22 1					23		129 2 1					132		0					0	
1630-1830	65	2	1	1	0	69		138	0	3	0	0	141		713	9	2	5	3	732		0	0	0	0	0	0	
1630-1730	47	1	1	1	0	50		65	0	1	0	0	66		322	5	1	3	1	332		0	0	0	0	0	0	
1645-1745	45	2	1	0	0	48		64	0	2	0	0	66		322	4	1	3	1	331		0	0	0	0	0	0	
1700-1800	37	1	1	0	0	39		60	0	1	0	0	61		313	4	1	3	2	323		0	0	0	0	0	0	
1715-1815	23	1	0	0	0	24		60	0	1	0	0	61		332	5	1	4	1	343		0	0	0	0	0	0	
1730-1830	18	1	0	0	0	19		73	0	2	0	0	75		391	4	1	2	2	400		0	0	0	0	0	0	

DATE : WEDNESDAY 15TH NOVEMBER 2017

LOCATION : ANGMERING, WEST SUSSEX

WATER LANE / Arundel Road PRIORITY JUNCTION

Arundel Road OUT LEFT TO WATER LANE NORTH							Arundel Road OUT RIGHT TO WATER LANE SOUTH							Arundel Road RIGHT TURN IN FROM WATER LANE NORTH							Arundel Road LEFT TURN IN FROM WATER LANE SOUTH										
CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT								
0730-0745	24					24	30					1	31	15					1	16	23					23					
0745-0800	12					12	29						29	20					1	1	22	44					1	2	47		
0800-0815	16					16	35					1	1	37	25						25	56					1	2	59		
0815-0830	11					2	13	24					1	1	26	39						39	78							78	
0830-0845	21						21	40					1	1	2	44	40					1	41	64							64
0845-0900	26						26	56							56	20						20	39					2	3	44	
0900-0915	20					1	21	45					1	46	16					1	17	22					1	1	24		
0915-0930	9						9	35						35	11						11	28					2	1	31		
0730-0930	139	0	1	0	2	142	294	3	2	1	4	304	186	3	1	1	0	191	354	3	6	2	5	370							
0730-0830	63	0	0	0	2	65	118	2	1	0	2	123	99	1	1	1	0	102	201	1	3	2	0	207							
0745-0845	60	0	0	0	2	62	128	3	1	1	3	136	124	2	0	1	0	127	242	1	3	2	0	248							
0800-0900	74	0	0	0	2	76	155	3	1	1	3	163	124	1	0	0	0	125	237	1	4	0	3	245							
0815-0915	78	0	1	0	2	81	165	2	1	1	3	172	115	2	0	0	0	117	203	0	3	0	4	210							
0830-0930	76	0	1	0	0	77	176	1	1	1	2	181	87	2	0	0	0	89	153	2	3	0	5	163							

Arundel Road OUT LEFT TO WATER LANE NORTH							Arundel Road OUT RIGHT TO WATER LANE SOUTH							Arundel Road RIGHT TURN IN FROM WATER LANE NORTH							Arundel Road LEFT TURN IN FROM WATER LANE SOUTH												
CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT										
1630-1645	17					17	34					2	36	17						17	32					1	33						
1645-1700	12					12	23						23	26						26	55					1	56						
1700-1715	24					24	29						1	30	27						1	28	29					2	31				
1715-1730	20						20	32					1	1	34	26					2	1	29	31						1	32		
1730-1745	11						12	33						1	34	20							20	30						1	31		
1745-1800	19					1	20	30							30	15						1	1	17	32					1	2	1	36
1800-1815	12						13	27							27	20							20	35						1	1	37	
1815-1830	13						13	22					1	23	18						1	19	34						1		35		
1630-1830	128	0	1	1	1	131	230	1	4	0	2	237	169	2	0	1	4	176	278	2	3	3	5	291									
1630-1730	73	0	0	0	0	73	118	1	3	0	1	123	96	2	0	0	2	100	147	1	2	0	2	152									
1645-1745	67	0	0	0	1	68	117	1	1	0	2	121	99	2	0	0	2	103	145	1	2	0	2	150									
1700-1800	74	0	1	0	1	76	124	1	1	0	2	128	88	2	0	1	3	94	122	1	2	2	3	130									
1715-1815	62	0	1	1	1	65	122	1	1	0	1	125	81	2	0	1	2	86	128	1	0	3	4	136									
1730-1830	55	0	1	1	1	58	112	0	1	0	1	114	73	0	0	1	2	76	131	1	1	3	3	139									

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 15TH NOVEMBER 2017

LOCATION : ANGMERING, WEST SUSSEX

WATER LANE / Arundel Road PRIORITY JUNCTION

WATER LANE FROM NORTH STRAIGHT AHEAD TO WATER LANE SOUTH							WATER LANE FROM SOUTH STRAIGHT AHEAD TO WATER LANE NORTH						
	CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT
0730-0745	48			1	1	50		85			1		86
0745-0800	71	1			1	73		58		1			59
0800-0815	70	1	1		3	75		73	2				75
0815-0830	80		1		4	85		78		1			79
0830-0845	66				1	67		68	1				69
0845-0900	60				2	62		53	2				55
0900-0915	43					43		42	1				43
0915-0930	48	1			1	50		57	2		1	1	61
0730-0930	486	3	2	1	13	505		514	8	2	2	1	527
0730-0830	269	2	2	1	9	283		294	2	2	1	0	299
0745-0845	287	2	2	0	9	300		277	3	2	0	0	282
0800-0900	276	1	2	0	10	289		272	5	1	0	0	278
0815-0915	249	0	1	0	7	257		241	4	1	0	0	246
0830-0930	217	1	0	0	4	222		220	6	0	1	1	228

WATER LANE FROM NORTH STRAIGHT AHEAD TO WATER LANE SOUTH							WATER LANE FROM SOUTH STRAIGHT AHEAD TO WATER LANE NORTH						
	CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT
1630-1645	84	1			2	87		53					53
1645-1700	78	1				79		44					44
1700-1715	84	1		2	2	89		57					57
1715-1730	74	1		1	1	77		46	2			1	49
1730-1745	97					97		32	1			1	34
1745-1800	73		1		2	76		42				1	43
1800-1815	91	2		2	1	96		38			2		40
1815-1830	91	2			1	94		31					31
1630-1830	672	8	1	5	9	695		343	3	0	2	3	351
1630-1730	320	4	0	3	5	332		200	2	0	0	1	203
1645-1745	333	3	0	3	3	342		179	3	0	0	2	184
1700-1800	328	2	1	3	5	339		177	3	0	0	3	183
1715-1815	335	3	1	3	4	346		158	3	0	2	3	166
1730-1830	352	4	1	2	4	363		143	1	0	2	2	148

DATE : WEDNESDAY 15TH NOVEMBER 2017

LOCATION : ANGMERING, WEST SUSSEX

WATER LANE / A280 PRIORITY JUNCTION

	WATER LANE OUT LEFT TO A280 NORTH						TOT	WATER LANE RIGHT TURN IN FROM A280 NORTH						TOT	WATER LANE LEFT TURN IN FROM A280 SOUTH						TOT	A280 FROM NORTH STRAIGHT AHEAD TO A280 SOUTH						TOT	A280 FROM SOUTH STRAIGHT AHEAD TO A280 NORTH						TOT
	CAR	HGV	BUS	MCY	PCY	CAR		HGV	BUS	MCY	PCY	CAR	HGV		BUS	MCY	PCY	CAR	HGV	BUS		MCY	PCY	CAR	HGV	BUS	MCY		PCY	CAR	HGV	BUS	MCY	PCY	
0730-0745	129			3			132	34	1	1	2		38	2								62	4				66	49	5		1		55		
0745-0800	127	1	1	1			130	74	1	1			76	2								73	5		1		79	46	5		2		53		
0800-0815	122	2	1	1			126	57			1		58	3								76	3				79	49	4				53		
0815-0830	124	1	3	1			129	73	2	2			77	3								79	7				86	70	6	2	3		81		
0830-0845	101	1	2				104	58					58	3	1							96	4	2			102	98	3	2			103		
0845-0900	100	2	1	2			105	59					59	7								91	7	1			99	63	7		1		71		
0900-0915	77						77	57	1				58	1								72	7				79	95	3	1			99		
0915-0930	85	2					87	52	1	1	1		55	1								73	11				84	73	5		1		79		
0730-0930	865	9	8	8	0		890	464	6	6	3	0	479	22	1	0	0	0				622	48	3	1	0	674	543	38	5	8	0		594	
0730-0830	502	4	5	6	0		517	238	4	5	2	0	249	10	0	0	0	0				290	19	0	1	0	310	214	20	2	6	0		242	
0745-0845	474	5	7	3	0		489	262	3	4	0	0	269	11	1	0	0	0				324	19	2	1	0	346	263	18	4	5	0		290	
0800-0900	447	6	7	4	0		464	247	2	3	0	0	252	16	1	0	0	0				342	21	3	0	0	366	280	20	4	4	0		308	
0815-0915	402	4	6	3	0		415	247	3	2	0	0	252	14	1	0	0	0				338	25	3	0	0	366	326	19	5	4	0		354	
0830-0930	363	5	3	2	0		373	226	2	1	1	0	230	12	1	0	0	0				332	29	3	0	0	364	329	18	3	2	0		352	

	WATER LANE OUT LEFT TO A280 NORTH						TOT	WATER LANE RIGHT TURN IN FROM A280 NORTH						TOT	WATER LANE LEFT TURN IN FROM A280 SOUTH						TOT	A280 FROM NORTH STRAIGHT AHEAD TO A280 SOUTH						TOT	A280 FROM SOUTH STRAIGHT AHEAD TO A280 NORTH						TOT
	CAR	HGV	BUS	MCY	PCY	CAR		HGV	BUS	MCY	PCY	CAR	HGV		BUS	MCY	PCY	CAR	HGV	BUS		MCY	PCY	CAR	HGV	BUS	MCY		PCY	CAR	HGV	BUS	MCY	PCY	
1630-1645	62	1	1				64	83	1				84	8			1					86	4		1		91	62	3		1		66		
1645-1700	49	2	1				52	113	2	2			117	11								89					89	77	3	2	1		83		
1700-1715	65			1			66	128	1		4		133	9								86	4				90	83	1		1		85		
1715-1730	56	2		1			59	127	1				128	10	1							115	2	1	1		119	80	2	1			83		
1730-1745	45	1					46	140	1				141	7								113	1	1	3		118	75	3				78		
1745-1800	33						33	124	2		2		128	15								127	2		3		132	65	3	1			69		
1800-1815	46			2			48	123	1	1			125	17			1					111			1		112	62		1			63		
1815-1830	42	1					43	126	2				128	17								127			1		128	57					57		
1630-1830	398	7	2	4	0		411	964	11	3	6	0	984	94	1	0	2	0				854	13	2	10	0	879	561	15	5	3	0		584	
1630-1730	232	5	2	2	0		241	451	5	2	4	0	462	38	1	0	1	0				376	10	1	2	0	389	302	9	3	3	0		317	
1645-1745	215	5	1	2	0		223	508	5	2	4	0	519	37	1	0	0	0				403	7	2	4	0	416	315	9	3	2	0		329	
1700-1800	199	3	0	2	0		204	519	5	0	6	0	530	41	1	0	0	0				441	9	2	7	0	459	303	9	2	1	0		315	
1715-1815	180	3	0	3	0		186	514	5	1	2	0	522	49	1	0	1	0				466	5	2	8	0	481	282	8	3	0	0		293	
1730-1830	166	2	0	2	0		170	513	6	1	2	0	522	56	0	0	1	0				478	3	1	8	0	490	259	6	2	0	0		267	

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 15TH NOVEMBER 2017

LOCATION : ANGMERING, WEST SUSSEX

ARUNDEL ROAD / A27 PRIORITY JUNCTION

ARUNDEL ROAD OUT LEFT TO A27 WEST							ARUNDEL ROAD LEFT TURN IN FROM A27 EAST							
CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT		
0730-0745	34	1					35	10					10	
0745-0800	48			2				50	18	1				19
0800-0815	32			1				33	13					13
0815-0830	43						43	15					15	
0830-0845	28	1			1		30	13	1	2				16
0845-0900	41						41	12	1	1				14
0900-0915	24						24	11					11	
0915-0930	23	1			3		27	11	2					13
0730-0930	273	2	1	3	4	283	103	3	5	0	0	111		
0730-0830	157	0	1	3	0	161	56	1	0	0	0	57		
0745-0845	151	1	0	3	1	156	59	2	2	0	0	63		
0800-0900	144	1	0	1	1	147	53	2	3	0	0	58		
0815-0915	136	1	0	0	1	138	51	2	3	0	0	56		
0830-0930	116	2	0	0	4	122	47	2	5	0	0	54		

ARUNDEL ROAD OUT LEFT TO A27 WEST							ARUNDEL ROAD LEFT TURN IN FROM A27 EAST							
CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT		
1630-1645	22					22	21	1	1	2				25
1645-1700	21					21	20	1		1				22
1700-1715	19	1				20	24					24		
1715-1730	17	1			18	35			2				37	
1730-1745	5			2	7	32	1	1					34	
1745-1800	8					8	30	1					31	
1800-1815	9	1				10	22	1					23	
1815-1830	12	1				13	22					22		
1630-1830	113	4	0	0	2	119	206	2	4	6	0	218		
1630-1730	79	2	0	0	0	81	100	1	2	5	0	108		
1645-1745	62	2	0	0	2	66	111	1	1	4	0	117		
1700-1800	49	2	0	0	2	53	121	1	1	3	0	126		
1715-1815	39	2	0	0	2	43	119	1	2	3	0	125		
1730-1830	34	2	0	0	2	38	106	1	2	1	0	110		

DATE : WEDNESDAY 15TH NOVEMBER 2017

LOCATION : ANGMERING, WEST SUSSEX

A27 / U TURN TO A27 EAST

A27 FROM EAST STRAIGHT AHEAD TO A27 WEST							A27 FROM EAST U TURN TO A27 EASTBOUND							A27 FROM WEST STRAIGHT AHEAD TO A27 EAST						
CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT	
0730-0745	301	25	2	3		331	8	1				9		245	27		2		274	
0745-0800	295	18		6		319	9					9		268	27		2		297	
0800-0815	258	22		2		282	11	1				12		271	3		3		277	
0815-0830	332	20		1		353	17					17		315	32	2	1	1	351	
0830-0845	298	22		2		322	12					12		242	33		2		277	
0845-0900	281		1			282	13		1			14		230	31				261	
0900-0915	264	36	1			301	8					8		241	23	2			266	
0915-0930	257	28	1		1	287	10	1				11		272	30	2	4		308	
0730-0930	2286	171	5	14	1	2477	88	3	1	0	0	92		2084	206	6	14	1	2311	
0730-0830	1186	85	2	12	0	1285	45	2	0	0	0	47		1099	89	2	8	1	1199	
0745-0845	1183	82	0	11	0	1276	49	1	0	0	0	50		1096	95	2	8	1	1202	
0800-0900	1169	64	1	5	0	1239	53	1	1	0	0	55		1058	99	2	6	1	1166	
0815-0915	1175	78	2	3	0	1258	50	0	1	0	0	51		1028	119	4	3	1	1155	
0830-0930	1100	86	3	2	1	1192	43	1	1	0	0	45		985	117	4	6	0	1112	

A27 FROM EAST STRAIGHT AHEAD TO A27 WEST							A27 FROM EAST U TURN TO A27 EASTBOUND							A27 FROM WEST STRAIGHT AHEAD TO A27 EAST						
CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT		CAR	HGV	BUS	MCY	PCY	TOT	
1630-1645	309	15		1		325	8					8		291	5	5			301	
1645-1700	308	14		2		324	6					6		304	10				314	
1700-1715	330	15		3		348	12	2				14		285	12	1			298	
1715-1730	311	12		3	1	327	12	1				13		277	8		2	1	288	
1730-1745	291	10		2		303	9					9		309	8	1	1		319	
1745-1800	282	10		2		294	7					7		294	5		3		302	
1800-1815	263	11	1	2		277	8					8		300	6	1			307	
1815-1830	203	6		1		210	5					5		306	6		1		313	
1630-1830	2297	93	1	16	1	2408	67	3	0	0	0	70		2366	60	8	7	1	2442	
1630-1730	1258	56	0	9	1	1324	38	3	0	0	0	41		1157	35	6	2	1	1201	
1645-1745	1240	51	0	10	1	1302	39	3	0	0	0	42		1175	38	2	3	1	1219	
1700-1800	1214	47	0	10	1	1272	40	3	0	0	0	43		1165	33	2	6	1	1207	
1715-1815	1147	43	1	9	1	1201	36	1	0	0	0	37		1180	27	2	6	1	1216	
1730-1830	1039	37	1	7	0	1084	29	0	0	0	0	29		1209	25	2	5	0	1241	

	A280 / OLD WORTHING RD / A259 ROUNDABOUT								
	A259 EAST		OLD WORTHING ROAD		A259 WEST		A280 NORTH		CHIPS AWAY
	INSIDE	OUTSIDE	INSIDE	OUTSIDE	INSIDE	OUTSIDE	INSIDE	OUTSIDE	INSIDE
0735	5	2	0	0	7	0	2	10	0
0740	7	3	0	0	0	1	0	7	0
0745	6	4	0	6	7	0	0	8	0
0750	8	2	0	8	5	0	1	12	0
0755	4	0	2	5	4	0	1	14	0
0800	5	1	0	6	2	0	2	20	0
0805	6	2	0	8	4	2	2	40	0
0810	4	3	0	10	2	0	0	10	0
0815	6	1	0	15+	0	0	0	10	0
0820	7	0	0	15+	10	4	1	4	0
0825	8	0	0	10	4	0	0	10	0
0830	17	2	1	4	6	0	0	11	0
0835	20	3	0	15	0	0	1	7	0
0840	20	1	0	5	4	0	0	4	0
0845	20	3	0	7	5	0	0	3	0
0850	20	0	0	7	0	0	1	5	0
0855	15	1	0	7	6	0	0	4	0
0900	10	3	0	5	4	0	0	3	0
0905	5	0	0	6	0	0	0	8	0
0910	9	1	2	12	3	0	2	2	0
0915	10	4	0	5	4	0	1	4	0
0920	7	4	0	3	0	0	0	6	0
0925	8	0	0	9	0	0	1	1	0
0930	6	0	0	0	0	0	2	4	0

	STATION ROAD / A259 / B2140 ROUNDABOUT						
	A259 EAST		B24140 SOUTH	A259 WEST		STATION RD NORTH	
	INSIDE	OUTSIDE	INSIDE	INSIDE	OUTSIDE	INSIDE	OUTSIDE
0735	6	3	5	20	20	1	12
0740	7	2	5	20	20	0	10
0745	10	5	2	40+	40+	0	15
0750	14	10	3	40+	40+	0	3
0755	14	7	2	40+	40+	0	18
0800	5	4	1	40+	40+	1	20+
0805	4	4	12	40+	40+	0	8
0810	8	10	1	40+	40+	0	8
0815	17	3	2	40+	40+	1	12
0820	9	5	10	40+	40+	0	3
0825	6	6	2	40+	40+	0	2
0830	4	7	7	40+	40+	2	5
0835	3	2	3	40+	40+	1	5
0840	5	10	5	40+	40+	1	20
0845	2	2	5	20	20	0	30+
0850	7	1	5	10	10	0	30+
0855	7	2	3	15	10	1	25
0900	5	2	0	11	2	1	8
0905	2	2	14	9	7	3	2
0910	10	1	2	6	6	1	0
0915	5	0	1	7	5	5	1
0920	2	3	1	10	4	1	2
0925	3	3	1	7	3	1	2
0930	4	0	2	5	5	2	3

QUEUE LENGHTS RECORDED IN TOTAL NUMBER OF VEHICLES

DATE : WEDNESDAY 15TH NOVEMBER 2017

LOCATION : ANGMERING, WEST SUSSEX

	A280 / OLD WORTHING RD / A259 ROUNDABOUT								
	A259 EAST		OLD WORTHING ROAD		A259 WEST		A280 NORTH		CHIPS AWAY
	INSIDE	OUTSIDE	INSIDE	OUTSIDE	INSIDE	OUTSIDE	INSIDE	OUTSIDE	INSIDE
1635	30+	30+	0	7	7	2	2	7	0
1640	30+	30+	0	2	2	0	0	10	0
1645	30+	30+	0	10	7	2	3	10	0
1650	30+	30+	0	7	2	0	3	5	0
1655	30+	30+	0	5	5	7	2	6	0
1700	30+	30+	0	10	0	0	3	4	0
1705	30+	30+	0	5	6	3	5	4	0
1710	30+	30+	0	4	3	2	1	3	0
1715	30+	30+	0	3	8	3	2	4	0
1720	30+	30+	0	2	14	4	1	5	0
1725	30+	30+	1	3	8	0	2	10	0
1730	30+	30+	1	3	5	2	2	25	0
1735	30+	30+	1	15	8	2	3	30	0
1740	30+	30+	0	10	0	0	1	30	0
1745	30+	30+	0	7	4	2	1	50	0
1750	30+	30+	1	2	8	2	1	50	0
1755	30+	30+	4	5	2	2	2	50	0
1800	30+	30+	0	10	3	2	0	18	0
1805	30+	30+	0	2	0	0	2	5	0
1810	30+	30+	1	3	0	0	0	4	0
1815	30+	30+	0	12	0	0	0	0	0
1820	20	20	1	10	10	1	1	9	0
1825	20	20	1	10	0	0	2	3	0
1830	20	20	0	8	0	0	5	2	0

	STATION ROAD / A259 / B2140 ROUNDABOUT						
	A259 EAST		B24140 SOUTH	A259 WEST		STATION RD NORTH	
	INSIDE	OUTSIDE	INSIDE	INSIDE	OUTSIDE	INSIDE	OUTSIDE
1635	3	3	9	7	2	0	15
1640	2	3	2	12	3	0	20+
1645	2	3	2	8	2	0	20+
1650	2	2	8	4	3	0	20+
1655	9	2	10	6	2	1	12
1700	3	3	7	5	3	1	10
1705	5	2	3	2	2	2	10
1710	4	4	2	7	4	3	12
1715	14	9	0	20	8	1	25
1720	4	1	7	15	4	0	25+
1725	8	5	4	9	2	0	25+
1730	5	5	2	6	3	0	25+
1735	3	2	4	0	0	1	25+
1740	3	2	0	12	3	0	25+
1745	3	2	2	9	0	2	25+
1750	4	1	4	4	3	0	25+
1755	4	1	5	10	2	1	25+
1800	6	2	0	5	2	1	25+
1805	5	7	6	10	3	1	25+
1810	4	2	5	8	1	0	25+
1815	4	4	3	4	0	0	25+
1820	4	4	3	4	1	1	25+
1825	10	2	4	2	2	3	25+
1830	8	7	2	2	0	0	5

QUEUE LENGHTS RECORDED IN TOTAL NUMBER OF VEHICLES

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 15TH NOVEMBER 2017

LOCATION : ANGMERING, WEST SUSSEX

	WATER LANE / Arundel Road	
	OUT Arundel Road	
	INSIDE	RIGHT IN
0735	2	3
0740	0	0
0745	2	1
0750	0	0
0755	0	3
0800	3	2
0805	2	2
0810	3	0
0815	0	3
0820	2	0
0825	1	3
0830	0	4
0835	5	1
0840	0	0
0845	5	0
0850	6	4
0855	4	0
0900	0	0
0905	0	0
0910	0	0
0915	0	0
0920	0	2
0925	5	3
0930	0	0

	A280 / WATER LANE	
	LEFT OUT OF WATER LANE	RIGHT INTO WATER LANE
0735	2	0
0740	5	0
0745	0	0
0750	4	0
0755	0	0
0800	5	0
0805	2	1
0810	6	0
0815	0	0
0820	6	0
0825	0	3
0830	0	0
0835	4	0
0840	0	3
0845	3	0
0850	5	0
0855	6	0
0900	0	0
0905	3	1
0910	0	0
0915	6	0
0920	0	2
0925	0	0
0930	7	0

	A27 / Arundel Road	
	OUT OF Arundel Road	
	INSIDE	
0735	1	
0740	2	
0745	2	
0750	2	
0755	3	
0800	1	
0805	1	
0810	0	
0815	1	
0820	1	
0825	1	
0830	1	
0835	2	
0840	0	
0845	1	
0850	1	
0855	3	
0900	1	
0905	0	
0910	0	
0915	1	
0920	1	
0925	0	
0930	0	

	A27 / U TURNS	
	U TURNS	
0735	0	
0740	0	
0745	0	
0750	0	
0755	0	
0800	0	
0805	0	
0810	0	
0815	0	
0820	0	
0825	0	
0830	0	
0835	0	
0840	0	
0845	0	
0850	0	
0855	0	
0900	0	
0905	0	
0910	0	
0915	0	
0920	0	
0925	0	
0930	0	

QUEUE LENGHTS RECORDED IN TOTAL NUMBER OF VEHICLES

DATE : WEDNESDAY 15TH NOVEMBER 2017

LOCATION : ANGMERING, WEST SUSSEX

	WATER LANE / Arundel Road	
	OUT Arundel Road	
	INSIDE	RIGHT IN
1635	2	0
1640	0	0
1645	2	3
1650	0	0
1655	2	0
1700	0	5
1705	0	0
1710	5	0
1715	2	0
1720	5	0
1725	0	6
1730	0	0
1735	1	0
1740	0	0
1745	1	0
1750	0	0
1755	0	0
1800	1	0
1805	0	2
1810	1	0
1815	2	0
1820	2	8
1825	2	0
1830	1	0

	A280 / WATER LANE	
	LEFT OUT OF WATER LANE	RIGHT INTO WATER LANE
1635	2	0
1640	4	3
1645	3	0
1650	2	2
1655	8	0
1700	0	0
1705	3	3
1710	2	2
1715	0	4
1720	0	4
1725	3	3
1730	2	0
1735	0	3
1740	3	4
1745	0	0
1750	0	4
1755	4	6
1800	0	2
1805	0	2
1810	5	3
1815	0	0
1820	0	5
1825	2	8
1830	0	3

	A27 / Arundel Road	
	OUT OF Arundel Road	
	INSIDE	
1635	1	
1640	1	
1645	1	
1650	0	
1655	0	
1700	0	
1705	0	
1710	1	
1715	1	
1720	1	
1725	1	
1730	1	
1735	0	
1740	0	
1745	1	
1750	1	
1755	0	
1800	0	
1805	1	
1810	1	
1815	0	
1820	2	
1825	0	
1830	1	

	A27 / U TURNS	
	U TURNS	
1635	0	
1640	0	
1645	0	
1650	0	
1655	0	
1700	0	
1705	0	
1710	0	
1715	0	
1720	0	
1725	0	
1730	0	
1735	0	
1740	0	
1745	0	
1750	0	
1755	0	
1800	0	
1805	0	
1810	0	
1815	0	
1820	0	
1825	0	
1830	0	

QUEUE LENGHTS RECORDED IN TOTAL NUMBER OF VEHICLES

APPENDIX 2

TRICS Output for Residential Use

Calculation Reference: AUDIT-851401-150818-0832

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : A - HOUSES PRIVATELY OWNED

VEHICLES

Selected regions and areas:

02 SOUTH EAST	
EX ESSEX	1 days
WS WEST SUSSEX	1 days
04 EAST ANGLIA	
SF SUFFOLK	1 days
05 EAST MIDLANDS	
LN LINCOLNSHIRE	2 days
06 WEST MIDLANDS	
SH SHROPSHIRE	1 days
07 YORKSHIRE & NORTH LINCOLNSHIRE	
NE NORTH EAST LINCOLNSHIRE	2 days
NY NORTH YORKSHIRE	1 days
08 NORTH WEST	
CH CHESHIRE	2 days
10 WALES	
CF CARDIFF	1 days
11 SCOTLAND	
FA FALKIRK	1 days
FI FIFE	1 days
SR STIRLING	1 days

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

Filtering Stage 2 selection:

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

Parameter: Number of dwellings
 Actual Range: 108 to 432 (units:)
 Range Selected by User: 100 to 800 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/07 to 11/12/14

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

Selected survey days:

Monday	4 days
Tuesday	5 days
Wednesday	1 days
Thursday	3 days
Friday	2 days

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

Selected survey types:

Manual count	15 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	1
Suburban Area (PPS6 Out of Centre)	6
Edge of Town	8

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

Selected Location Sub Categories:

Residential Zone	12
No Sub Category	3

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

Filtering Stage 3 selection:

Use Class:

C3	15 days
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This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

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

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

Population within 5 miles:

5,001 to 25,000	2 days
50,001 to 75,000	2 days
75,001 to 100,000	3 days
100,001 to 125,000	5 days
125,001 to 250,000	3 days

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

Car ownership within 5 miles:

0.6 to 1.0	4 days
1.1 to 1.5	11 days

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

Travel Plan:

Yes	1 days
No	14 days

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

LIST OF SITES relevant to selection parameters

1	CF-03-A-02	MIXED HOUSES	CARDIFF
	DROPE ROAD		
	CARDIFF		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	196	
	Survey date: FRIDAY	05/10/07	Survey Type: MANUAL
2	CH-03-A-02	HOUSES/ FLATS	CHESHIRE
	SYDNEY ROAD		
	CREWE		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	174	
	Survey date: TUESDAY	14/10/08	Survey Type: MANUAL
3	CH-03-A-06	SEMI-DET./ BUNGALOWS	CHESHIRE
	CREWE ROAD		
	CREWE		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total Number of dwellings:	129	
	Survey date: TUESDAY	14/10/08	Survey Type: MANUAL
4	EX-03-A-01	SEMI-DET.	ESSEX
	MILTON ROAD		
	CORRINGHAM		
	STANFORD-LE-HOPE		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	237	
	Survey date: TUESDAY	13/05/08	Survey Type: MANUAL
5	FA-03-A-02	MIXED HOUSES	FALKIRK
	ROSEBANK AVENUE & SPRINGFIELD DRIVE		
	FALKIRK		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	161	
	Survey date: WEDNESDAY	29/05/13	Survey Type: MANUAL
6	FI-03-A-03	MIXED HOUSES	FIFE
	WOODMILL ROAD		
	DUNFERMLINE		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	155	
	Survey date: MONDAY	30/04/07	Survey Type: MANUAL
7	LN-03-A-01	MIXED HOUSES	LINCOLNSHIRE
	BRANT ROAD		
	BRACEBRIDGE		
	LINCOLN		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	150	
	Survey date: TUESDAY	15/05/07	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	LN-03-A-02	MIXED HOUSES	LI NCOLNSHI RE
	HYKEHAM ROAD		
	LINCOLN		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings: 186		
	Survey date: MONDAY 14/05/07		Survey Type: MANUAL
9	NE-03-A-02	SEMI DETACHED & DETACHED	NORTH EAST LI NCOLNSHI RE
	HANOVER WALK		
	SCUNTHORPE		
	Edge of Town		
	No Sub Category		
	Total Number of dwellings: 432		
	Survey date: MONDAY 12/05/14		Survey Type: MANUAL
10	NE-03-A-03	PRIVATE HOUSES	NORTH EAST LI NCOLNSHI RE
	STATION ROAD		
	SCUNTHORPE		
	Edge of Town Centre		
	Residential Zone		
	Total Number of dwellings: 180		
	Survey date: TUESDAY 20/05/14		Survey Type: MANUAL
11	NY-03-A-06	BUNGALOWS & SEMI DET.	NORTH YORKSHIRE
	HORSEFAIR		
	BOROUGHBRIDGE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings: 115		
	Survey date: FRIDAY 14/10/11		Survey Type: MANUAL
12	SF-03-A-02	SEMI DET./ TERRACED	SUFFOLK
	STOKE PARK DRIVE		
	MAIDENHALL		
	IPSWICH		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings: 230		
	Survey date: THURSDAY 24/05/07		Survey Type: MANUAL
13	SH-03-A-04	TERRACED	SHROPSHIRE
	ST MICHAEL'S STREET		
	SHREWSBURY		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total Number of dwellings: 108		
	Survey date: THURSDAY 11/06/09		Survey Type: MANUAL
14	SR-03-A-01	DETACHED	STIRLING
	BENVUE		
	STIRLING		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings: 115		
	Survey date: MONDAY 23/04/07		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

15 WS-03-A-04 MIXED HOUSES WEST SUSSEX
 HILLS FARM LANE
 BROADBRIDGE HEATH
 HORSHAM
 Edge of Town
 Residential Zone
 Total Number of dwellings: 151
 Survey date: THURSDAY 11/12/14 Survey Type: MANUAL

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
AN-03-A-06	Idn/ire
AN-03-A-08	Idn/ire
AR-03-A-01	Idn/ire
DL-03-A-02	Idn/ire
DL-03-A-03	Idn/ire
DL-03-A-06	Idn/ire
DN-03-A-05	Idn/ire
WA-03-A-04	Idn/ire

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

VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	15	181	0.074	15	181	0.270	15	181	0.344
08:00 - 09:00	15	181	0.145	15	181	0.408	15	181	0.553
09:00 - 10:00	15	181	0.154	15	181	0.182	15	181	0.336
10:00 - 11:00	15	181	0.139	15	181	0.176	15	181	0.315
11:00 - 12:00	15	181	0.153	15	181	0.153	15	181	0.306
12:00 - 13:00	15	181	0.180	15	181	0.167	15	181	0.347
13:00 - 14:00	15	181	0.172	15	181	0.162	15	181	0.334
14:00 - 15:00	15	181	0.168	15	181	0.187	15	181	0.355
15:00 - 16:00	15	181	0.286	15	181	0.201	15	181	0.487
16:00 - 17:00	15	181	0.311	15	181	0.191	15	181	0.502
17:00 - 18:00	15	181	0.352	15	181	0.222	15	181	0.574
18:00 - 19:00	15	181	0.247	15	181	0.202	15	181	0.449
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.381			2.521			4.902

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

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP \times FACT$. Trip rates are then rounded to 3 decimal places.

Parameter summary

Trip rate parameter range selected: 108 - 432 (units:)
 Survey date date range: 01/01/07 - 11/12/14
 Number of weekdays (Monday-Friday): 15
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 9

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

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

TAXIS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	15	181	0.003	15	181	0.002	15	181	0.005
08:00 - 09:00	15	181	0.002	15	181	0.003	15	181	0.005
09:00 - 10:00	15	181	0.002	15	181	0.002	15	181	0.004
10:00 - 11:00	15	181	0.003	15	181	0.003	15	181	0.006
11:00 - 12:00	15	181	0.001	15	181	0.001	15	181	0.002
12:00 - 13:00	15	181	0.002	15	181	0.002	15	181	0.004
13:00 - 14:00	15	181	0.001	15	181	0.001	15	181	0.002
14:00 - 15:00	15	181	0.002	15	181	0.002	15	181	0.004
15:00 - 16:00	15	181	0.004	15	181	0.004	15	181	0.008
16:00 - 17:00	15	181	0.003	15	181	0.002	15	181	0.005
17:00 - 18:00	15	181	0.002	15	181	0.001	15	181	0.003
18:00 - 19:00	15	181	0.001	15	181	0.001	15	181	0.002
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.026			0.024			0.050

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

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP \times FACT$. Trip rates are then rounded to 3 decimal places.

Parameter summary

Trip rate parameter range selected: 108 - 432 (units:)
 Survey date date range: 01/01/07 - 11/12/14
 Number of weekdays (Monday-Friday): 15
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 9

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

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

OGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	15	181	0.003	15	181	0.002	15	181	0.005
08:00 - 09:00	15	181	0.003	15	181	0.003	15	181	0.006
09:00 - 10:00	15	181	0.003	15	181	0.001	15	181	0.004
10:00 - 11:00	15	181	0.003	15	181	0.003	15	181	0.006
11:00 - 12:00	15	181	0.001	15	181	0.002	15	181	0.003
12:00 - 13:00	15	181	0.003	15	181	0.003	15	181	0.006
13:00 - 14:00	15	181	0.002	15	181	0.003	15	181	0.005
14:00 - 15:00	15	181	0.001	15	181	0.003	15	181	0.004
15:00 - 16:00	15	181	0.001	15	181	0.001	15	181	0.002
16:00 - 17:00	15	181	0.002	15	181	0.001	15	181	0.003
17:00 - 18:00	15	181	0.000	15	181	0.000	15	181	0.000
18:00 - 19:00	15	181	0.000	15	181	0.000	15	181	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.022			0.022			0.044

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

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP \times FACT$. Trip rates are then rounded to 3 decimal places.

Parameter summary

Trip rate parameter range selected: 108 - 432 (units:)
 Survey date date range: 01/01/07 - 11/12/14
 Number of weekdays (Monday-Friday): 15
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 9

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

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

PSVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	15	181	0.000	15	181	0.000	15	181	0.000
08:00 - 09:00	15	181	0.001	15	181	0.001	15	181	0.002
09:00 - 10:00	15	181	0.000	15	181	0.000	15	181	0.000
10:00 - 11:00	15	181	0.000	15	181	0.000	15	181	0.000
11:00 - 12:00	15	181	0.000	15	181	0.000	15	181	0.000
12:00 - 13:00	15	181	0.000	15	181	0.000	15	181	0.000
13:00 - 14:00	15	181	0.000	15	181	0.000	15	181	0.000
14:00 - 15:00	15	181	0.000	15	181	0.000	15	181	0.000
15:00 - 16:00	15	181	0.000	15	181	0.001	15	181	0.001
16:00 - 17:00	15	181	0.000	15	181	0.000	15	181	0.000
17:00 - 18:00	15	181	0.000	15	181	0.000	15	181	0.000
18:00 - 19:00	15	181	0.000	15	181	0.000	15	181	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.001			0.002			0.003

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

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP \times FACT$. Trip rates are then rounded to 3 decimal places.

Parameter summary

Trip rate parameter range selected: 108 - 432 (units:)
 Survey date date range: 01/01/07 - 11/12/14
 Number of weekdays (Monday-Friday): 15
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 9

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

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

CYCLISTS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	15	181	0.006	15	181	0.010	15	181	0.016
08:00 - 09:00	15	181	0.004	15	181	0.015	15	181	0.019
09:00 - 10:00	15	181	0.004	15	181	0.003	15	181	0.007
10:00 - 11:00	15	181	0.003	15	181	0.006	15	181	0.009
11:00 - 12:00	15	181	0.004	15	181	0.003	15	181	0.007
12:00 - 13:00	15	181	0.006	15	181	0.005	15	181	0.011
13:00 - 14:00	15	181	0.003	15	181	0.004	15	181	0.007
14:00 - 15:00	15	181	0.003	15	181	0.004	15	181	0.007
15:00 - 16:00	15	181	0.017	15	181	0.011	15	181	0.028
16:00 - 17:00	15	181	0.009	15	181	0.005	15	181	0.014
17:00 - 18:00	15	181	0.011	15	181	0.010	15	181	0.021
18:00 - 19:00	15	181	0.011	15	181	0.006	15	181	0.017
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.081			0.082			0.163

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

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP \times FACT$. Trip rates are then rounded to 3 decimal places.

Parameter summary

Trip rate parameter range selected: 108 - 432 (units:)
 Survey date date range: 01/01/07 - 11/12/14
 Number of weekdays (Monday-Friday): 15
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 9

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

APPENDIX 3

PICADY Output for Arundel Road/Site Access

Junctions 9
PICADY 9 - Priority Intersection Module
Version: 9.0.0.4211 [] © Copyright TRL Limited, 2018
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Site Access - WSCC2031.j9

Path: \\CADWORKSTATION\Shared Storage\projects\2020 Arundel Road, Angmering\Picady\WSCC2031

Report generation date: 05/07/2018 15:58:21

»2031 Assessment Flows, AM

»2031 Assessment Flows, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2031 Assessment Flows								
Stream B-AC	0.2	9.36	0.19	A	0.1	8.20	0.10	A
Stream C-A								
Stream C-B	0.0	5.94	0.03	A	0.1	5.88	0.06	A
Stream A-B								
Stream A-C								

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	Arundel Road/Site Access
Location	Angmering
Site number	
Date	12/12/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	2020
Enumerator	Croft Transport Solutions
Description	

Units

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



Analysis Options

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

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
2031 Assessment Flows	AM	ONE HOUR	07:45	09:15	15
2031 Assessment Flows	PM	ONE HOUR	16:45	18:15	15

2031 Assessment Flows, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.12	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Arundel Road (S)		Major
B	Site Access		Minor
C	Arundel Road (N)		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	6.00		✓	3.00	100.0		-

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	2.75	90	90

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	538.354	0.098	0.248	0.156	0.354
1	B-C	663.560	0.102	0.257	-	-
1	C-B	686.890	0.266	0.266	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D1	2031 Assessment Flows	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	221.00	100.000
B		✓	82.00	100.000
C		✓	101.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		A	B	C
	A	0.000	15.000	206.000
	B	71.000	0.000	11.000
	C	86.000	15.000	0.000

Vehicle Mix

Heavy Vehicle proportion

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-A-C	0.19	9.36	0.2	A
C-A				
C-B	0.03	5.94	0.0	A
A-B				
A-C				

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A-C	61.73	499.55	0.124	61.18	0.1	8.203	A
C-A	64.75			64.75			
C-B	11.29	642.61	0.018	11.22	0.0	5.701	A
A-B	11.29			11.29			
A-C	155.09			155.09			

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A-C	73.72	489.26	0.151	73.57	0.2	8.657	A
C-A	77.31			77.31			
C-B	13.48	634.02	0.021	13.47	0.0	5.800	A
A-B	13.48			13.48			
A-C	185.19			185.19			

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A-C	90.28	475.05	0.190	90.06	0.2	9.344	A
C-A	94.69			94.69			
C-B	16.52	622.13	0.027	16.49	0.0	5.943	A
A-B	16.52			16.52			
A-C	226.81			226.81			

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A-C	90.28	475.04	0.190	90.28	0.2	9.356	A
C-A	94.69			94.69			
C-B	16.52	622.13	0.027	16.51	0.0	5.943	A
A-B	16.52			16.52			
A-C	226.81			226.81			

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A-C	73.72	489.25	0.151	73.93	0.2	8.672	A
C-A	77.31			77.31			
C-B	13.48	634.02	0.021	13.51	0.0	5.803	A
A-B	13.48			13.48			
A-C	185.19			185.19			

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A-C	61.73	499.52	0.124	61.88	0.1	8.230	A
C-A	64.75			64.75			
C-B	11.29	642.61	0.018	11.31	0.0	5.704	A
A-B	11.29			11.29			
A-C	155.09			155.09			

2031 Assessment Flows, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.60	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D2	2031 Assessment Flows	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	124.00	100.000
B		✓	44.00	100.000
C		✓	187.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
From	A	0.000	35.000	89.000
	B	38.000	0.000	6.000
	C	152.000	35.000	0.000

Vehicle Mix

Heavy Vehicle proportion

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-A	0.10	8.20	0.1	A
C-A				
C-B	0.06	5.88	0.1	A
A-B				
A-C				

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	33.13	508.33	0.065	32.85	0.1	7.568	A
C-A	114.43			114.43			
C-B	26.35	662.04	0.040	26.19	0.0	5.660	A
A-B	26.35			26.35			
A-C	67.00			67.00			

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	39.56	499.64	0.079	39.49	0.1	7.822	A
C-A	136.64			136.64			
C-B	31.46	657.22	0.048	31.43	0.0	5.752	A
A-B	31.46			31.46			
A-C	80.01			80.01			

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	48.44	487.67	0.099	48.35	0.1	8.192	A
C-A	167.36			167.36			
C-B	38.54	650.56	0.059	38.49	0.1	5.881	A
A-B	38.54			38.54			
A-C	97.99			97.99			

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	48.44	487.65	0.099	48.44	0.1	8.196	A
C-A	167.36			167.36			
C-B	38.54	650.56	0.059	38.53	0.1	5.881	A
A-B	38.54			38.54			
A-C	97.99			97.99			

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	39.56	499.61	0.079	39.65	0.1	7.829	A
C-A	136.64			136.64			
C-B	31.46	657.22	0.048	31.51	0.1	5.753	A
A-B	31.46			31.46			
A-C	80.01			80.01			

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	33.13	508.26	0.065	33.19	0.1	7.580	A
C-A	114.43			114.43			
C-B	26.35	662.04	0.040	26.39	0.0	5.665	A
A-B	26.35			26.35			
A-C	67.00			67.00			

APPENDIX 4

LINSIG Output for Arundel Road/Water Lane/Station Road/High Street

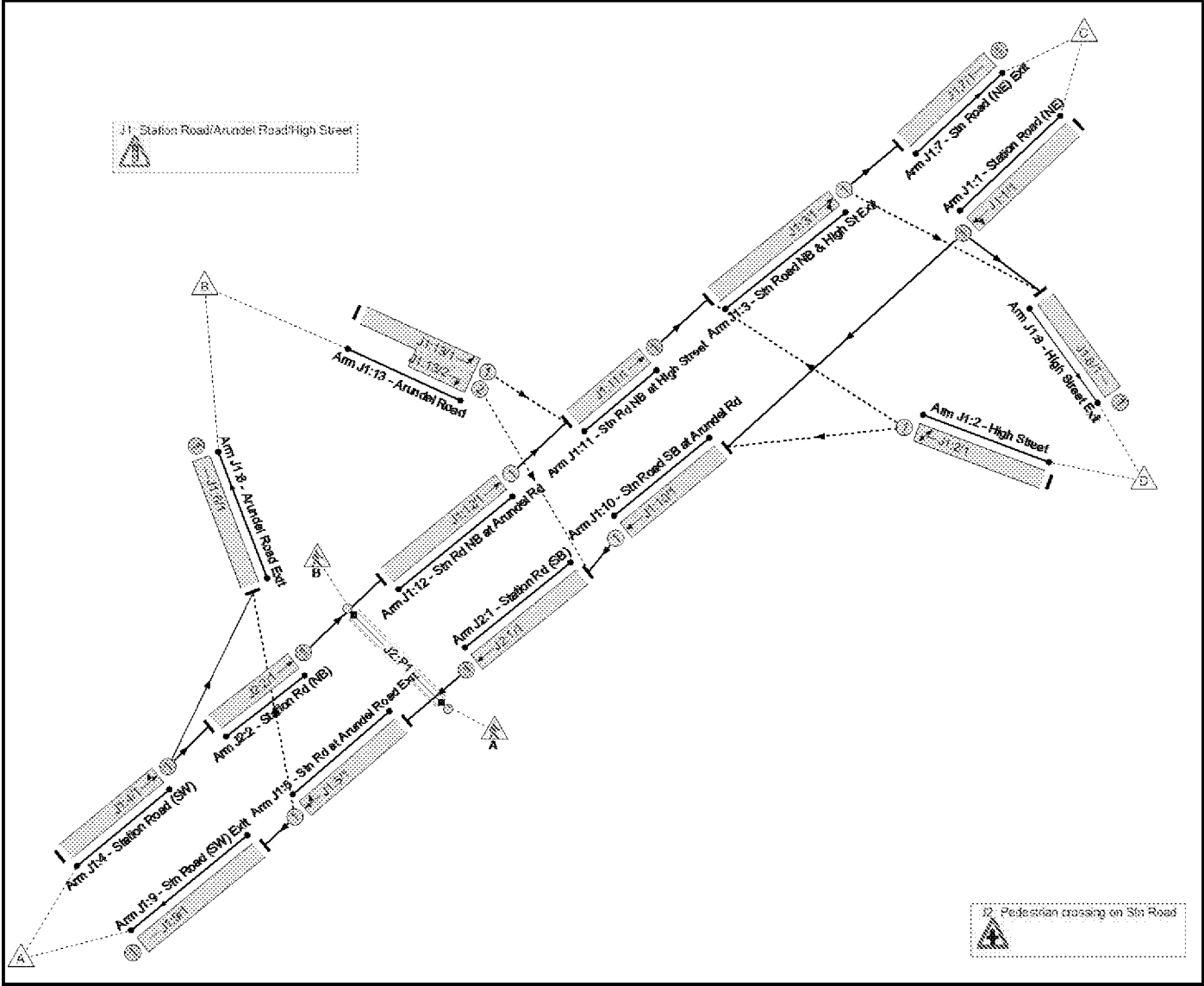
Full Input Data And Results

Full Input Data And Results

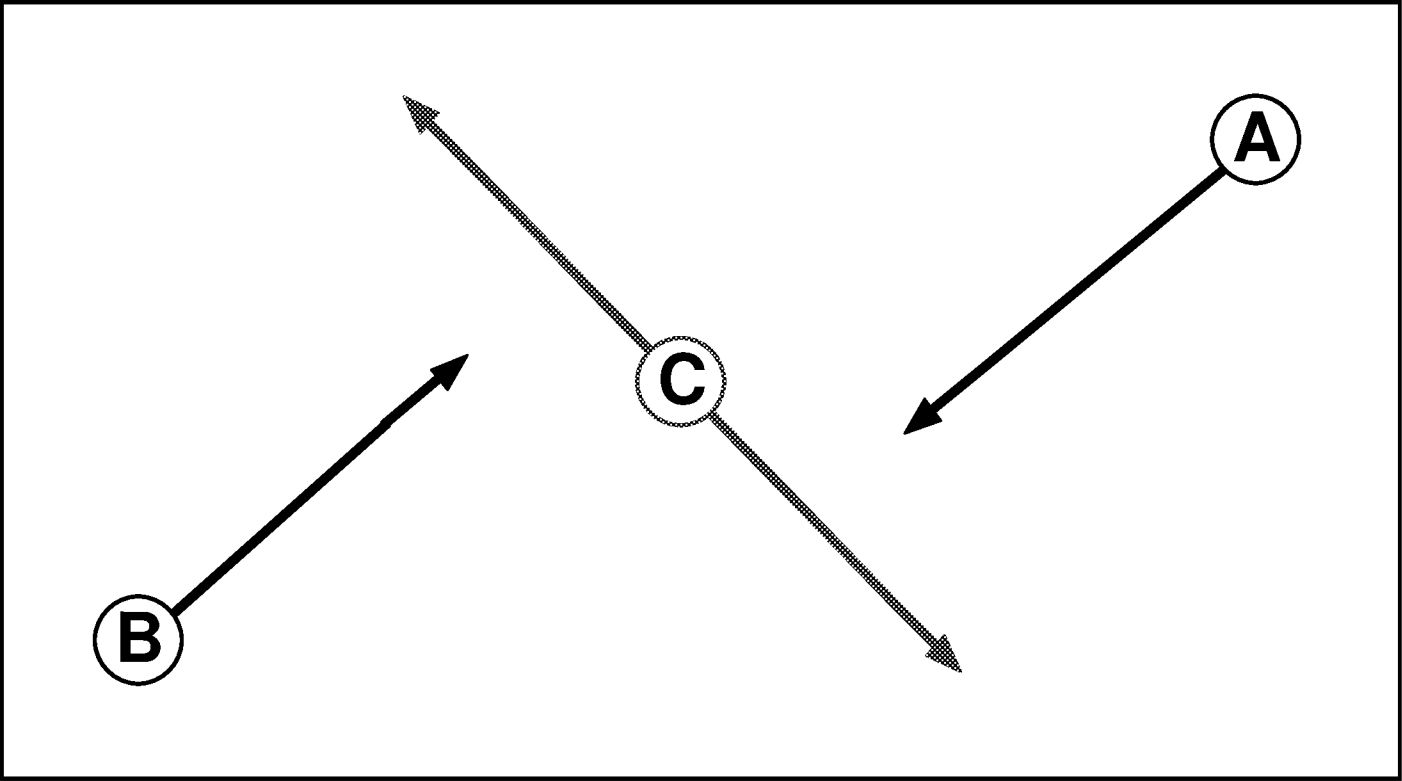
User and Project Details

Project:	Proposed Residential Development
Title:	Arundel Road, Angmering
Location:	
File name:	Arundel Road-High Street v2.lsg3x
Author:	
Company:	
Address:	
Notes:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Pedestrian		4	4

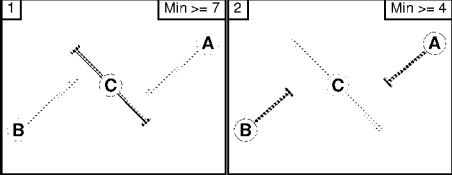
Phase Intergreens Matrix

Terminating Phase	Starting Phase			
		A	B	C
	A		-	5
	B	-		5
	C	8	8	

Phases in Stage

Stage No.	Phases in Stage
1	A B
2	C

Stage Diagram



Full Input Data And Results

Phase Delays

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

Prohibited Stage Change

	To Stage		
From Stage		1	2
	1		5
	2	8	

Full Input Data And Results

Give-Way Lane Input Data

Junction: J1: Station Road/Arundel Road/High Street											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
J1:2/1 (High Street)	J1:3/1 (Right)	481	0	J1:1/1	0.21	To J1:10/1 (Ahead)	-	-	-	-	-
				J1:11/1	0.13	All					
	J1:10/1 (Left)	611	0	J1:1/1	0.22	To J1:10/1 (Ahead)					
J1:3/1 (Stn Road NB & High St Exit)	J1:8/1 (Right)	632	0	J1:1/1	0.23	All	-	-	-	-	-
J1:5/1 (Stn Rd at Arundel Road Exit)	J1:6/1 (Right)	643	0	J1:4/1	0.23	All	-	-	-	-	-
J1:13/1 (Arundel Road)	J1:11/1 (Left)	621	0	J1:12/1	0.09	All	-	-	-	-	-
J1:13/2 (Arundel Road)	J2:1/1 (Right)	491	0	J1:12/1	0.08	All	-	-	-	-	-
				J1:10/1	0.23	All					

Junction: J2: Pedestrian crossing on Stn Road
There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: J1: Station Road/Arundel Road/High Street												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J1:1/1 (Station Road (NE))	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:2/1 (High Street)	O		2	3	60.0	Geom	-	3.25	0.00	Y	Arm J1:3 Right	20.00
											Arm J1:10 Left	Inf
J1:3/1 (Stn Road NB & High St Exit)	O		2	3	60.0	Geom	-	3.25	0.00	Y	Arm J1:7 Ahead	Inf
											Arm J1:8 Right	20.00
J1:4/1 (Station Road (SW))	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:5/1 (Stn Rd at Arundel Road Exit)	O		2	3	60.0	Geom	-	3.25	0.00	Y	Arm J1:6 Right	20.00
											Arm J1:9 Ahead	Inf
J1:6/1 (Arundel Road Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:7/1 (Stn Road (NE) Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:8/1 (High Street Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:9/1 (Stn Road (SW) Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:10/1 (Stn Road SB at Arundel Rd)	U	A	2	3	60.0	Geom	-	3.50	0.00	Y	Arm J2:1 Ahead	Inf
J1:11/1 (Stn Rd NB at High Street)	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:12/1 (Stn Rd NB at Arundel Rd)	U	B	2	3	60.0	Geom	-	3.50	0.00	Y	Arm J1:11 Ahead	Inf
J1:13/1 (Arundel Road)	O		2	3	60.0	User	1800	-	-	-	-	-
J1:13/2 (Arundel Road)	O		2	3	5.0	User	1800	-	-	-	-	-

Full Input Data And Results

Junction: J2: Pedestrian crossing on Stn Road												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J2:1/1 (Station Rd (SB))	U		2	3	60.0	Geom	-	3.50	0.00	Y	Arm J1:5 Ahead	Inf
J2:2/1 (Station Rd (NB))	U		2	3	60.0	Geom	-	3.50	0.00	Y	Arm J1:12 Ahead	Inf

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2031 AM Base'	07:45	08:45	01:00	
2: '2031 PM Base'	16:45	17:45	01:00	
3: '2031 AM Ass'	07:45	08:45	01:00	
4: '2031 PM Ass'	16:45	17:45	01:00	

Scenario 1: '2031 Base AM' (FG1: '2031 AM Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	316	356	63	735
	B	172	0	12	65	249
	C	88	33	0	91	212
	D	35	13	247	0	295
	Tot.	295	362	615	219	1491

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2031 Base AM
Junction: J1: Station Road/Arundel Road/High Street	
J1:1/1	212
J1:2/1	295
J1:3/1	743
J1:4/1	735
J1:5/1	341
J1:6/1	362
J1:7/1	615
J1:8/1	219
J1:9/1	295
J1:10/1	169
J1:11/1	496
J1:12/1	419
J1:13/1 (with short)	249(In) 77(Out)
J1:13/2 (short)	172
Junction: J2: Pedestrian crossing on Stn Road	
J2:1/1	341
J2:2/1	419

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Station Road/Arundel Road/High Street								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Station Road (NE) Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/1 (High Street)	3.25	0.00	Y	Arm J1:3 Right	20.00	83.7 %	1825	1825
				Arm J1:10 Left	Inf	16.3 %		
J1:3/1 (Stn Road NB & High St Exit)	3.25	0.00	Y	Arm J1:7 Ahead	Inf	82.8 %	1915	1915
				Arm J1:8 Right	20.00	17.2 %		
J1:4/1 (Station Road (SW) Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Stn Rd at Arundel Road Exit)	3.25	0.00	Y	Arm J1:6 Right	20.00	13.5 %	1921	1921
				Arm J1:9 Ahead	Inf	86.5 %		
J1:6/1 (Arundel Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:7/1 (Stn Road (NE) Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:8/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/1 (Stn Road (SW) Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:10/1 (Stn Road SB at Arundel Rd)	3.50	0.00	Y	Arm J2:1 Ahead	Inf	100.0 %	1965	1965
J1:11/1 (Stn Rd NB at High Street Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:12/1 (Stn Rd NB at Arundel Rd)	3.50	0.00	Y	Arm J1:11 Ahead	Inf	100.0 %	1965	1965
J1:13/1 (Arundel Road Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J1:13/2 (Arundel Road Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800

Full Input Data And Results

Junction: J2: Pedestrian crossing on Stn Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Station Rd (SB))	3.50	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1965	1965
J2:2/1 (Station Rd (NB))	3.50	0.00	Y	Arm J1:12 Ahead	Inf	100.0 %	1965	1965

Scenario 2: '2031 Base PM' (FG2: '2031 PM Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	193	236	71	500
	B	154	0	65	20	239
	C	301	96	0	129	526
	D	83	26	58	0	167
	Tot.	538	315	359	220	1432

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2031 Base PM
Junction: J1: Station Road/Arundel Road/High Street	
J1:1/1	526
J1:2/1	167
J1:3/1	450
J1:4/1	500
J1:5/1	660
J1:6/1	315
J1:7/1	359
J1:8/1	220
J1:9/1	538
J1:10/1	506
J1:11/1	392
J1:12/1	307
J1:13/1 (with short)	239(In) 85(Out)
J1:13/2 (short)	154
Junction: J2: Pedestrian crossing on Stn Road	
J2:1/1	660
J2:2/1	307

Lane Saturation Flows

Junction: J1: Station Road/Arundel Road/High Street								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Station Road (NE) Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/1 (High Street)	3.25	0.00	Y	Arm J1:3 Right	20.00	34.7 %	1891	1891
				Arm J1:10 Left	Inf	65.3 %		
J1:3/1 (Stn Road NB & High St Exit)	3.25	0.00	Y	Arm J1:7 Ahead	Inf	79.8 %	1911	1911
				Arm J1:8 Right	20.00	20.2 %		
J1:4/1 (Station Road (SW) Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Stn Rd at Arundel Road Exit)	3.25	0.00	Y	Arm J1:6 Right	20.00	18.5 %	1913	1913
				Arm J1:9 Ahead	Inf	81.5 %		
J1:6/1 (Arundel Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:7/1 (Stn Road (NE) Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:8/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/1 (Stn Road (SW) Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:10/1 (Stn Road SB at Arundel Rd)	3.50	0.00	Y	Arm J2:1 Ahead	Inf	100.0 %	1965	1965
J1:11/1 (Stn Rd NB at High Street Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:12/1 (Stn Rd NB at Arundel Rd)	3.50	0.00	Y	Arm J1:11 Ahead	Inf	100.0 %	1965	1965
J1:13/1 (Arundel Road Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J1:13/2 (Arundel Road Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800

Full Input Data And Results

Junction: J2: Pedestrian crossing on Stn Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Station Rd (SB))	3.50	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1965	1965
J2:2/1 (Station Rd (NB))	3.50	0.00	Y	Arm J1:12 Ahead	Inf	100.0 %	1965	1965

Scenario 3: '2031 Ass' (FG3: '2031 AM Ass', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	330	356	63	749
	B	213	0	90	17	320
	C	88	33	0	91	212
	D	35	13	247	0	295
	Tot.	336	376	693	171	1576

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: 2031 Ass
Junction: J1: Station Road/Arundel Road/High Street	
J1:1/1	212
J1:2/1	295
J1:3/1	773
J1:4/1	749
J1:5/1	382
J1:6/1	376
J1:7/1	693
J1:8/1	171
J1:9/1	336
J1:10/1	169
J1:11/1	526
J1:12/1	419
J1:13/1 (with short)	320(In) 107(Out)
J1:13/2 (short)	213
Junction: J2: Pedestrian crossing on Stn Road	
J2:1/1	382
J2:2/1	419

Lane Saturation Flows

Junction: J1: Station Road/Arundel Road/High Street								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Station Road (NE) Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/1 (High Street)	3.25	0.00	Y	Arm J1:3 Right	20.00	83.7 %	1825	1825
				Arm J1:10 Left	Inf	16.3 %		
J1:3/1 (Stn Road NB & High St Exit)	3.25	0.00	Y	Arm J1:7 Ahead	Inf	89.7 %	1925	1925
				Arm J1:8 Right	20.00	10.3 %		
J1:4/1 (Station Road (SW) Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Stn Rd at Arundel Road Exit)	3.25	0.00	Y	Arm J1:6 Right	20.00	12.0 %	1923	1923
				Arm J1:9 Ahead	Inf	88.0 %		
J1:6/1 (Arundel Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:7/1 (Stn Road (NE) Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:8/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/1 (Stn Road (SW) Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:10/1 (Stn Road SB at Arundel Rd)	3.50	0.00	Y	Arm J2:1 Ahead	Inf	100.0 %	1965	1965
J1:11/1 (Stn Rd NB at High Street Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:12/1 (Stn Rd NB at Arundel Rd)	3.50	0.00	Y	Arm J1:11 Ahead	Inf	100.0 %	1965	1965
J1:13/1 (Arundel Road Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J1:13/2 (Arundel Road Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800

Full Input Data And Results

Junction: J2: Pedestrian crossing on Stn Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Station Rd (SB))	3.50	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1965	1965
J2:2/1 (Station Rd (NB))	3.50	0.00	Y	Arm J1:12 Ahead	Inf	100.0 %	1965	1965

Scenario 4: '2031 Ass' (FG4: '2031 PM Ass', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	228	236	71	535
	B	176	0	79	23	278
	C	302	95	0	129	526
	D	83	26	58	0	167
	Tot.	561	349	373	223	1506

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2031 Ass
Junction: J1: Station Road/Arundel Road/High Street	
J1:1/1	526
J1:2/1	167
J1:3/1	467
J1:4/1	535
J1:5/1	682
J1:6/1	349
J1:7/1	373
J1:8/1	223
J1:9/1	561
J1:10/1	506
J1:11/1	409
J1:12/1	307
J1:13/1 (with short)	278(In) 102(Out)
J1:13/2 (short)	176
Junction: J2: Pedestrian crossing on Stn Road	
J2:1/1	682
J2:2/1	307

Lane Saturation Flows

Junction: J1: Station Road/Arundel Road/High Street								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Station Road (NE) Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/1 (High Street)	3.25	0.00	Y	Arm J1:3 Right	20.00	34.7 %	1891	1891
				Arm J1:10 Left	Inf	65.3 %		
J1:3/1 (Stn Road NB & High St Exit)	3.25	0.00	Y	Arm J1:7 Ahead	Inf	79.9 %	1911	1911
				Arm J1:8 Right	20.00	20.1 %		
J1:4/1 (Station Road (SW) Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Stn Rd at Arundel Road Exit)	3.25	0.00	Y	Arm J1:6 Right	20.00	17.7 %	1915	1915
				Arm J1:9 Ahead	Inf	82.3 %		
J1:6/1 (Arundel Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:7/1 (Stn Road (NE) Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:8/1 (High Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/1 (Stn Road (SW) Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:10/1 (Stn Road SB at Arundel Rd)	3.50	0.00	Y	Arm J2:1 Ahead	Inf	100.0 %	1965	1965
J1:11/1 (Stn Rd NB at High Street Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:12/1 (Stn Rd NB at Arundel Rd)	3.50	0.00	Y	Arm J1:11 Ahead	Inf	100.0 %	1965	1965
J1:13/1 (Arundel Road Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J1:13/2 (Arundel Road Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800

Full Input Data And Results

Junction: J2: Pedestrian crossing on Stn Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Station Rd (SB))	3.50	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1965	1965
J2:2/1 (Station Rd (NB))	3.50	0.00	Y	Arm J1:12 Ahead	Inf	100.0 %	1965	1965

Full Input Data And Results

Network Results '2031 Base AM'

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	-	-		-	-	-	-	-	-	71.5%
J1: Station Road/Arundel Road/High Street	-	-	N/A	-	-		-	-	-	-	-	-	71.5%
1/1	Station Road (NE) Left Ahead	U	N/A	N/A	-		-	-	-	212	Inf	Inf	0.0%
2/1	High Street Right Left	O	N/A	N/A	-		-	-	-	295	1825	413	71.5%
3/1	Stn Road NB & High St Exit Ahead Right	O	N/A	N/A	-		-	-	-	743	1915	1374	54.1%
4/1	Station Road (SW) Left Ahead	U	N/A	N/A	-		-	-	-	735	Inf	Inf	0.0%
5/1	Stn Rd at Arundel Road Exit Right Ahead	O	N/A	N/A	-		-	-	-	341	1921	1361	25.1%
6/1	Arundel Road Exit	U	N/A	N/A	-		-	-	-	362	Inf	Inf	0.0%
7/1	Stn Road (NE) Exit	U	N/A	N/A	-		-	-	-	615	Inf	Inf	0.0%
8/1	High Street Exit	U	N/A	N/A	-		-	-	-	219	Inf	Inf	0.0%
9/1	Stn Road (SW) Exit	U	N/A	N/A	-		-	-	-	295	Inf	Inf	0.0%
10/1	Stn Road SB at Arundel Rd Ahead	U	N/A	N/A	A		1	43	-	169	1965	1441	11.7%
11/1	Stn Rd NB at High Street Ahead	U	N/A	N/A	-		-	-	-	496	Inf	Inf	0.0%
12/1	Stn Rd NB at Arundel Rd Ahead	U	N/A	N/A	B		1	43	-	419	1965	1441	29.1%
13/1+13/2	Arundel Road Left Right	O	N/A	N/A	-		-	-	-	249	1800:1800	344+769	22.4 : 22.4%

Full Input Data And Results

J2: Pedestrian crossing on Stn Road	-	-	N/A	-	-		-	-	-	-	-	-	21.3%
1/1	Station Rd (SB) Ahead	U	N/A	N/A	-		-	-	-	341	1965	1965	17.4%
2/1	Station Rd (NB) Ahead	U	N/A	N/A	-		-	-	-	419	1965	1965	21.3%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	C		1	4	-	0	-	4800	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	-	-	834	133	0	0.5	2.6	0.0	3.1	-	-	-	-
J1: Station Road/Arundel Road/High Street	-	-	834	133	0	0.5	2.4	0.0	2.9	-	-	-	-
1/1	212	212	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	295	295	295	0	0	0.0	1.2	-	1.2	15.0	0.4	1.2	1.6
3/1	743	743	128	0	0	0.0	0.6	-	0.6	3.0	3.2	0.6	3.8
4/1	735	735	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	341	341	46	0	0	0.0	0.2	-	0.2	1.8	0.0	0.2	0.2
6/1	362	362	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	615	615	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	219	219	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	295	295	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	169	169	-	-	-	0.1	0.1	-	0.2	3.8	0.8	0.1	0.9
11/1	496	496	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	419	419	-	-	-	0.3	0.2	-	0.5	4.5	2.3	0.2	2.5
13/1+13/2	249	249	365	133	0	0.0	0.1	-	0.1	2.1	0.2	0.1	0.3
J2: Pedestrian crossing on Stn Road	-	-	0	0	0	0.0	0.2	0.0	0.2	-	-	-	-
1/1	341	341	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
2/1	419	419	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
C1 PRC for Signalled Lanes (%): 209.5 PRC Over All Lanes (%): 25.9 Total Delay for Signalled Lanes (pcuHr): 0.70 Total Delay Over All Lanes(pcuHr): 3.11 Cycle Time (s): 60													

Full Input Data And Results

Network Results : '2031 Base PM'

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	-	-		-	-	-	-	-	-	51.2%
J1: Station Road/Arundel Road/High Street	-	-	N/A	-	-		-	-	-	-	-	-	51.2%
1/1	Station Road (NE) Left Ahead	U	N/A	N/A	-		-	-	-	526	Inf	Inf	0.0%
2/1	High Street Right Left	O	N/A	N/A	-		-	-	-	167	1891	443	37.7%
3/1	Stn Road NB & High St Exit Ahead Right	O	N/A	N/A	-		-	-	-	450	1911	1229	36.6%
4/1	Station Road (SW) Left Ahead	U	N/A	N/A	-		-	-	-	500	Inf	Inf	0.0%
5/1	Stn Rd at Arundel Road Exit Right Ahead	O	N/A	N/A	-		-	-	-	660	1913	1288	51.2%
6/1	Arundel Road Exit	U	N/A	N/A	-		-	-	-	315	Inf	Inf	0.0%
7/1	Stn Road (NE) Exit	U	N/A	N/A	-		-	-	-	359	Inf	Inf	0.0%
8/1	High Street Exit	U	N/A	N/A	-		-	-	-	220	Inf	Inf	0.0%
9/1	Stn Road (SW) Exit	U	N/A	N/A	-		-	-	-	538	Inf	Inf	0.0%
10/1	Stn Road SB at Arundel Rd Ahead	U	N/A	N/A	A		1	43	-	506	1965	1441	35.1%
11/1	Stn Rd NB at High Street Ahead	U	N/A	N/A	-		-	-	-	392	Inf	Inf	0.0%
12/1	Stn Rd NB at Arundel Rd Ahead	U	N/A	N/A	B		1	43	-	307	1965	1441	21.3%
13/1+13/2	Arundel Road Left Right	O	N/A	N/A	-		-	-	-	239	1800:1800	389+705	21.9 : 21.9%

Full Input Data And Results

J2: Pedestrian crossing on Stn Road	-	-	N/A	-	-		-	-	-	-	-	-	33.6%
1/1	Station Rd (SB) Ahead	U	N/A	N/A	-		-	-	-	660	1965	1965	33.6%
2/1	Station Rd (NB) Ahead	U	N/A	N/A	-		-	-	-	307	1965	1965	15.6%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	C		1	4	-	0	-	4800	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	-	-	731	127	0	0.7	2.0	0.0	2.7	-	-	-	-
J1: Station Road/Arundel Road/High Street	-	-	731	127	0	0.7	1.7	0.0	2.4	-	-	-	-
1/1	526	526	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	167	167	167	0	0	0.0	0.3	-	0.3	6.5	0.0	0.3	0.3
3/1	450	450	91	0	0	0.0	0.3	-	0.3	2.4	1.7	0.3	2.0
4/1	500	500	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	660	660	122	0	0	0.1	0.5	-	0.6	3.3	4.1	0.5	4.7
6/1	315	315	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	359	359	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	220	220	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	538	538	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	506	506	-	-	-	0.4	0.3	-	0.7	4.8	3.0	0.3	3.2
11/1	392	392	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	307	307	-	-	-	0.2	0.1	-	0.4	4.1	1.5	0.1	1.7
13/1+13/2	239	239	351	127	0	0.0	0.1	-	0.2	2.4	0.4	0.1	0.5
J2: Pedestrian crossing on Stn Road	-	-	0	0	0	0.0	0.3	0.0	0.3	-	-	-	-
1/1	660	660	-	-	-	0.0	0.3	-	0.3	1.4	1.7	0.3	1.9
2/1	307	307	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
C1 PRC for Signalled Lanes (%): 156.3 PRC Over All Lanes (%): 75.7 Total Delay for Signalled Lanes (pcuHr): 1.03 Total Delay Over All Lanes(pcuHr): 2.74 Cycle Time (s): 60													

Full Input Data And Results

Network Results '2031 Ass'

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	-	-		-	-	-	-	-	-	72.2%
J1: Station Road/Arundel Road/High Street	-	-	N/A	-	-		-	-	-	-	-	-	72.2%
1/1	Station Road (NE) Left Ahead	U	N/A	N/A	-		-	-	-	212	Inf	Inf	0.0%
2/1	High Street Right Left	O	N/A	N/A	-		-	-	-	295	1825	409	72.2%
3/1	Stn Road NB & High St Exit Ahead Right	O	N/A	N/A	-		-	-	-	773	1925	1555	49.7%
4/1	Station Road (SW) Left Ahead	U	N/A	N/A	-		-	-	-	749	Inf	Inf	0.0%
5/1	Stn Rd at Arundel Road Exit Right Ahead	O	N/A	N/A	-		-	-	-	382	1923	1402	27.2%
6/1	Arundel Road Exit	U	N/A	N/A	-		-	-	-	376	Inf	Inf	0.0%
7/1	Stn Road (NE) Exit	U	N/A	N/A	-		-	-	-	693	Inf	Inf	0.0%
8/1	High Street Exit	U	N/A	N/A	-		-	-	-	171	Inf	Inf	0.0%
9/1	Stn Road (SW) Exit	U	N/A	N/A	-		-	-	-	936	Inf	Inf	0.0%
10/1	Stn Road SB at Arundel Rd Ahead	U	N/A	N/A	A		1	43	-	169	1965	1441	11.7%
11/1	Stn Rd NB at High Street Ahead	U	N/A	N/A	-		-	-	-	526	Inf	Inf	0.0%
12/1	Stn Rd NB at Arundel Rd Ahead	U	N/A	N/A	B		1	43	-	419	1965	1441	29.1%
13/1+13/2	Arundel Road Left Right	O	N/A	N/A	-		-	-	-	320	1800:1800	387+769	27.7 : 27.7%

Full Input Data And Results

J2: Pedestrian crossing on Stn Road	-	-	N/A	-	-		-	-	-	-	-	-	21.3%
1/1	Station Rd (SB) Ahead	U	N/A	N/A	-		-	-	-	382	1965	1965	19.4%
2/1	Station Rd (NB) Ahead	U	N/A	N/A	-		-	-	-	419	1965	1965	21.3%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	C		1	4	-	0	-	4800	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	-	-	890	171	0	0.5	2.7	0.0	3.1	-	-	-	-
J1: Station Road/Arundel Road/High Street	-	-	890	171	0	0.5	2.4	0.0	2.9	-	-	-	-
1/1	212	212	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	295	295	295	0	0	0.0	1.3	-	1.3	15.5	0.5	1.3	1.8
3/1	773	773	80	0	0	0.0	0.5	-	0.5	2.4	3.0	0.5	3.5
4/1	749	749	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	382	382	46	0	0	0.0	0.2	-	0.2	1.8	0.3	0.2	0.5
6/1	376	376	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	693	693	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	171	171	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	336	336	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	169	169	-	-	-	0.1	0.1	-	0.2	3.8	0.8	0.1	0.9
11/1	526	526	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	419	419	-	-	-	0.3	0.2	-	0.5	4.5	2.3	0.2	2.5
13/1+13/2	320	320	469	171	0	0.0	0.2	-	0.2	2.2	0.3	0.2	0.5
J2: Pedestrian crossing on Stn Road	-	-	0	0	0	0.0	0.3	0.0	0.3	-	-	-	-
1/1	382	382	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
2/1	419	419	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
C1 PRC for Signalled Lanes (%): 209.5 PRC Over All Lanes (%): 24.7 Total Delay for Signalled Lanes (pcuHr): 0.70 Total Delay Over All Lanes(pcuHr): 3.13 Cycle Time (s): 60													

Full Input Data And Results

Network Results '2031 Ass'

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	-	-		-	-	-	-	-	-	52.6%
J1: Station Road/Arundel Road/High Street	-	-	N/A	-	-		-	-	-	-	-	-	52.6%
1/1	Station Road (NE) Left Ahead	U	N/A	N/A	-		-	-	-	526	Inf	Inf	0.0%
2/1	High Street Right Left	O	N/A	N/A	-		-	-	-	167	1891	441	37.8%
3/1	Stn Road NB & High St Exit Ahead Right	O	N/A	N/A	-		-	-	-	467	1911	1232	37.9%
4/1	Station Road (SW) Left Ahead	U	N/A	N/A	-		-	-	-	535	Inf	Inf	0.0%
5/1	Stn Rd at Arundel Road Exit Right Ahead	O	N/A	N/A	-		-	-	-	682	1915	1297	52.6%
6/1	Arundel Road Exit	U	N/A	N/A	-		-	-	-	349	Inf	Inf	0.0%
7/1	Stn Road (NE) Exit	U	N/A	N/A	-		-	-	-	373	Inf	Inf	0.0%
8/1	High Street Exit	U	N/A	N/A	-		-	-	-	223	Inf	Inf	0.0%
9/1	Stn Road (SW) Exit	U	N/A	N/A	-		-	-	-	561	Inf	Inf	0.0%
10/1	Stn Road SB at Arundel Rd Ahead	U	N/A	N/A	A		1	43	-	506	1965	1441	35.1%
11/1	Stn Rd NB at High Street Ahead	U	N/A	N/A	-		-	-	-	409	Inf	Inf	0.0%
12/1	Stn Rd NB at Arundel Rd Ahead	U	N/A	N/A	B		1	43	-	307	1965	1441	21.3%
13/1+13/2	Arundel Road Left Right	O	N/A	N/A	-		-	-	-	278	1800:1800	408+705	25.0 : 25.0%

Full Input Data And Results

J2: Pedestrian crossing on Stn Road	-	-	N/A	-	-		-	-	-	-	-	-	34.7%
1/1	Station Rd (SB) Ahead	U	N/A	N/A	-		-	-	-	682	1965	1965	34.7%
2/1	Station Rd (NB) Ahead	U	N/A	N/A	-		-	-	-	307	1965	1965	15.6%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	C		1	4	-	0	-	4800	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	-	-	790	148	0	0.7	2.1	0.0	2.8	-	-	-	-
J1: Station Road/Arundel Road/High Street	-	-	790	148	0	0.7	1.7	0.0	2.5	-	-	-	-
1/1	526	526	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	167	167	167	0	0	0.0	0.3	-	0.3	6.5	0.0	0.3	0.3
3/1	467	467	94	0	0	0.0	0.3	-	0.3	2.5	1.7	0.3	2.0
4/1	535	535	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	682	682	121	0	0	0.1	0.6	-	0.6	3.4	4.2	0.6	4.7
6/1	349	349	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	373	373	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	223	223	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	561	561	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	506	506	-	-	-	0.4	0.3	-	0.7	4.8	3.0	0.3	3.2
11/1	409	409	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	307	307	-	-	-	0.2	0.1	-	0.4	4.1	1.5	0.1	1.7
13/1+13/2	278	278	408	148	0	0.0	0.2	-	0.2	2.5	0.5	0.2	0.7
J2: Pedestrian crossing on Stn Road	-	-	0	0	0	0.0	0.4	0.0	0.4	-	-	-	-
1/1	682	682	-	-	-	0.0	0.3	-	0.3	1.4	1.7	0.3	1.9
2/1	307	307	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
C1 PRC for Signalled Lanes (%): 156.3 PRC Over All Lanes (%): 71.2 Total Delay for Signalled Lanes (pcuHr): 1.03 Total Delay Over All Lanes(pcuHr): 2.84 Cycle Time (s): 60													

APPENDIX 5

PICADY Output for Water Lane/A280

(Existing & Proposed)

Junctions 9	
PICADY 9 - Priority Intersection Module	
Version: 9.0.0.4211 [] © Copyright TBL Limited, 2018	
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Filename: A280 Angmering_Water Lane - WSCC2031.j9

Path: \\CADWORKSTATION\Shared Storage\projects\2020 Arundel Road, Angmering\Picady\WSCC2031

Report generation date: 05/07/2018 15:52:52

- »2031 Base Flows, AM
- »2031 Base Flows, PM
- »2031 Assessment Flows, AM
- »2031 Assessment Flows, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2031 Base Flows								
Stream B-AC	121.5	594.00	1.25	F	2.0	15.62	0.67	C
Stream C-A								
Stream C-B	3.1	23.04	0.77	C	200.8	1035.51	1.44	F
Stream A-B								
Stream A-C								
2031 Assessment Flows								
Stream B-AC	150.4	718.07	1.33	F	2.2	16.90	0.70	C
Stream C-A								
Stream C-B	3.1	23.04	0.77	C	200.8	1035.51	1.44	F
Stream A-B								
Stream A-C								

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	A280 Angmering/Water Lane
Location	Angmering
Site number	
Date	12/12/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	2020
Enumerator	Croft Transport Solutions
Description	

Units

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

Analysis Options

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

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
2031 Base Flows	AM	ONE HOUR	07:45	09:15	15
2031 Base Flows	PM	ONE HOUR	16:45	18:15	15
2031 Assessment Flows	AM	ONE HOUR	07:45	09:15	15
2031 Assessment Flows	PM	ONE HOUR	16:45	18:15	15

2031 Base Flows, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	232.10	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A280 Angmering Bypass (South)		Major
B	Water Lane		Minor
C	A280 Angmering Bypass (North)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	12.21	✓	7.94	✓	3.80	130.0		-

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.97	154	184

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	806.091	0.091	0.230	0.145	0.329
1	B-C	811.612	0.091	0.230	-	-
1	C-B	762.304	0.216	0.216	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D1	2031 Base Flows	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	414.00	100.000
B		✓	828.00	100.000
C		✓	923.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		A	B	C
	A	0.000	23.000	391.000
	B	0.000	0.000	828.000
	C	460.000	463.000	0.000

Vehicle Mix

Heavy Vehicle proportion

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-A-C	1.28	594.00	121.5	F
C-A				
C-B	0.77	23.04	3.1	C
A-B				
A-C				

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A-C	623.36	742.48	0.840	605.66	4.4	23.910	C
C-A	346.31			346.31			
C-B	348.57	695.12	0.501	344.64	1.0	10.162	B
A-B	17.32			17.32			
A-C	294.37			294.37			

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A-C	744.36	729.06	1.021	697.44	16.2	68.728	F
C-A	413.53			413.53			
C-B	416.23	682.08	0.610	414.12	1.5	13.323	B
A-B	20.68			20.68			
A-C	351.50			351.50			

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A-C	911.64	710.51	1.283	708.31	67.0	224.488	F
C-A	506.47			506.47			
C-B	509.77	664.05	0.768	503.79	3.0	21.666	C
A-B	25.32			25.32			
A-C	430.50			430.50			

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A-C	911.64	710.51	1.285	710.14	117.4	472.645	F
C-A	506.47			506.47			
C-B	509.77	664.05	0.768	509.24	3.1	23.044	S
A-B	25.32			25.32			
A-C	430.50			430.50			

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A-C	744.36	729.06	1.021	727.70	121.5	594.004	F
C-A	413.53			413.53			
C-B	416.23	682.08	0.610	422.30	1.6	14.161	S
A-B	20.68			20.68			
A-C	351.50			351.50			

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A-C	623.36	742.48	0.840	736.42	93.3	526.048	F
C-A	346.31			346.31			
C-B	348.57	695.12	0.501	350.95	1.0	10.532	S
A-B	17.32			17.32			
A-C	294.37			294.37			

2031 Base Flows, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	384.17	F

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D2	2031 Base Flows	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	486.00	100.000
B		✓	424.00	100.000
C		✓	1393.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
From	A	0.000	51.000	435.000
	B	0.000	0.000	424.000
	C	545.000	848.000	0.000

Vehicle Mix

Heavy Vehicle proportion

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-A	0.67	15.62	2.0	C
C-A				
C-B	1.44	1035.51	200.8	F
A-B				
A-C				

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	319.21	732.97	0.436	316.18	0.8	8.578	A
C-A	410.30			410.30			
C-B	638.42	683.43	0.934	606.76	7.9	38.002	E
A-B	38.40			38.40			
A-C	327.49			327.49			

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	381.17	717.70	0.531	379.78	1.1	10.608	B
C-A	489.94			489.94			
C-B	762.33	668.13	1.141	659.28	33.7	190.722	F
A-B	45.85			45.85			
A-C	391.06			391.06			

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	466.83	696.60	0.670	463.51	1.9	15.224	C
C-A	600.06			600.06			
C-B	933.67	646.96	1.443	646.43	105.5	398.689	F
A-B	56.15			56.15			
A-C	478.94			478.94			

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	466.83	696.60	0.670	466.65	2.0	15.622	C
C-A	600.06			600.06			
C-B	933.67	646.96	1.443	646.85	177.2	789.039	F
A-B	56.15			56.15			
A-C	478.94			478.94			

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	381.17	717.70	0.531	384.45	1.2	10.908	B
C-A	489.94			489.94			
C-B	762.33	668.13	1.141	667.99	206.8	1023.124	F
A-B	45.85			45.85			
A-C	391.06			391.06			

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	319.21	732.97	0.436	320.71	0.8	8.765	A
C-A	410.30			410.30			
C-B	638.42	683.43	0.934	680.05	190.4	1095.513	F
A-B	38.40			38.40			
A-C	327.49			327.49			

2031 Assessment Flows, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	285.74	F

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D3	2031 Assessment Flows	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	414.00	100.000
B		✓	859.00	100.000
C		✓	923.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
From	A	0.000	23.000	391.000
	B	0.000	0.000	859.000
	C	460.000	463.000	0.000

Vehicle Mix

Heavy Vehicle proportion

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-A	1.33	718.07	150.4	F
C-A				
C-B	0.77	23.04	3.1	C
A-B				
A-C				

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A-C	646.70	742.48	0.871	625.35	5.3	27.153	D
C-A	346.31			346.31			
C-B	348.57	695.12	0.501	344.64	1.0	10.162	B
A-B	17.32			17.32			
A-C	294.37			294.37			

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A-C	772.22	729.06	1.059	707.75	21.5	34.484	F
C-A	413.53			413.53			
C-B	416.23	682.08	0.610	414.12	1.5	13.323	B
A-B	20.68			20.68			
A-C	351.50			351.50			

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A-C	945.78	710.51	1.331	709.18	80.6	271.201	F
C-A	506.47			506.47			
C-B	509.77	664.05	0.768	503.79	3.0	21.666	C
A-B	25.32			25.32			
A-C	430.50			430.50			

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A-C	945.78	710.51	1.331	710.28	139.5	561.088	F
C-A	506.47			506.47			
C-B	509.77	664.05	0.768	509.24	3.1	23.044	C
A-B	25.32			25.32			
A-C	430.50			430.50			

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A-C	772.22	729.06	1.059	728.57	150.4	718.068	F
C-A	413.53			413.53			
C-B	416.23	682.08	0.610	422.30	1.6	14.161	B
A-B	20.68			20.68			
A-C	351.50			351.50			

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A-C	646.70	742.48	0.871	737.58	127.7	679.220	F
C-A	346.31			346.31			
C-B	348.57	695.12	0.501	350.95	1.0	10.532	B
A-B	17.32			17.32			
A-C	294.37			294.37			

2031 Assessment Flows, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	381.87	F

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D4	2031 Assessment Flows	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	486.00	100.000
B		✓	440.00	100.000
C		✓	1393.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
From	A	0.000	51.000	435.000
	B	0.000	0.000	440.000
	C	545.000	848.000	0.000

Vehicle Mix

Heavy Vehicle proportion

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-A	0.70	16.90	2.2	C
C-A				
C-B	1.44	1035.51	200.8	F
A-B				
A-C				

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	331.26	732.97	0.452	328.02	0.8	8.823	A
C-A	410.30			410.30			
C-B	638.42	683.43	0.934	606.76	7.9	38.002	E
A-B	38.40			38.40			
A-C	327.49			327.49			

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	395.55	717.70	0.551	394.00	1.2	11.067	B
C-A	489.94			489.94			
C-B	762.33	668.13	1.141	659.28	33.7	190.722	F
A-B	45.85			45.85			
A-C	391.06			391.06			

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	484.45	696.60	0.695	480.59	2.2	16.370	C
C-A	600.06			600.06			
C-B	933.67	646.96	1.443	646.43	105.5	398.689	F
A-B	56.15			56.15			
A-C	478.94			478.94			

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	484.45	696.60	0.695	484.22	2.2	16.899	C
C-A	600.06			600.06			
C-B	933.67	646.96	1.443	646.85	177.2	789.039	F
A-B	56.15			56.15			
A-C	478.94			478.94			

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	395.55	717.70	0.551	399.38	1.3	11.442	B
C-A	489.94			489.94			
C-B	762.33	668.13	1.141	667.99	206.8	1023.124	F
A-B	45.85			45.85			
A-C	391.06			391.06			

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	331.26	732.97	0.452	332.94	0.8	9.038	A
C-A	410.30			410.30			
C-B	638.42	683.43	0.934	680.05	190.4	1095.513	F
A-B	38.40			38.40			
A-C	327.49			327.49			

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.0.0.4211 [] © Copyright TRL Limited, 2018
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Filename: Water Lane - A280 WSCC2031.j9

Path: \\CADWORKSTATION\Shared Storage\projects\2020 Arundel Road, Angmering\Arcady\WSCC2031

Report generation date: 06/07/2018 14:47:00

- »2031 Base Flows, AM
- »2031 Base Flows, PM
- »2031 Base Flows + Arundel Road Development, AM
- »2031 Base Flows + Arundel Road Development, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2031 Base Flows								
Arm 1	0.3	2.78	0.25	A	0.4	3.27	0.28	A
Arm 2	2.4	7.70	0.71	A	0.7	3.90	0.42	A
Arm 3	1.0	3.86	0.50	A	2.6	6.70	0.72	A
2031 Base Flows + Arundel Road Development								
Arm 1	0.3	2.77	0.24	A	0.4	3.23	0.28	A
Arm 2	2.1	7.03	0.68	A	0.7	3.80	0.40	A
Arm 3	1.0	3.82	0.50	A	2.5	6.64	0.72	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	05/07/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	Cadworkstation4"Kyle
Description	

Units

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

Analysis Options

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

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
2031 Base Flows	AM	ONE HOUR	08:00	09:30	15
2031 Base Flows	PM	ONE HOUR	17:00	18:30	15
2031 Base Flows + Arundel Road Development	AM	ONE HOUR	08:00	09:30	15
2031 Base Flows + Arundel Road Development	PM	ONE HOUR	17:00	18:30	15

2031 Base Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	5.43	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A280 South	
2	Water Lane	
3	A280 North	

Capacity Options

Arm	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.65	7.00	43.0	30.0	40.0	11.0	
2	3.50	7.00	23.0	25.0	40.0	16.0	
3	4.96	7.00	36.0	25.0	40.0	32.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.742	2076.197
2	0.695	1877.215
3	0.709	2031.873

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D1	2031 Base Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	382.00	100.000
2		✓	1037.00	100.000
3		✓	854.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		1	2	3
	1	0.000	31.000	351.000
	2	203.000	0.000	834.000
	3	411.000	443.000	0.000

Vehicle Mix

Heavy Vehicle proportion

	To			
		1	2	3
	1	0	0	0
	2	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.25	2.78	0.3	A
2	0.71	7.70	2.4	A
3	0.50	3.86	1.0	A

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	287.59	332.48	1829.54	0.157	286.85	0.2	2.332	A
2	780.71	263.57	1694.05	0.461	777.32	0.8	3.913	A
3	642.94	152.17	1923.99	0.334	640.94	0.5	2.803	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	343.41	397.89	1781.01	0.193	343.20	0.2	2.503	A
2	932.24	315.35	1658.07	0.562	930.56	1.3	4.938	A
3	767.73	182.16	1902.72	0.403	767.04	0.7	3.168	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	420.59	487.08	1714.84	0.245	420.25	0.3	2.780	A
2	1141.76	386.14	1608.87	0.710	1137.33	2.4	7.563	A
3	940.27	222.64	1874.02	0.502	938.97	1.0	3.844	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	420.59	487.74	1714.35	0.245	420.59	0.3	2.782	A
2	1141.76	386.46	1608.65	0.710	1141.62	2.4	7.702	A
3	940.27	223.48	1873.42	0.502	940.25	1.0	3.857	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	343.41	398.92	1780.24	0.193	343.75	0.2	2.506	A
2	932.24	315.85	1657.72	0.562	936.68	1.3	5.024	A
3	767.73	183.36	1901.87	0.404	769.02	0.7	3.183	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	287.59	333.88	1828.50	0.157	287.80	0.2	2.338	A
2	780.71	264.44	1693.44	0.461	782.46	0.9	3.959	A
3	642.94	153.17	1923.27	0.334	643.64	0.5	2.816	A

2031 Base Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	5.35	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D2	2031 Base Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	394.00	100.000
2		✓	608.00	100.000
3		✓	1263.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		1	2	3
	1	0.000	23.000	371.000
	2	134.000	0.000	474.000
	3	601.000	662.000	0.000

Vehicle Mix

Heavy Vehicle proportion

From	To			
		1	2	3
	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.28	3.27	0.4	A
2	0.42	3.90	0.7	A
3	0.72	6.70	2.6	A

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	296.62	496.43	1707.90	0.174	295.79	0.2	2.548	A
2	457.73	278.52	1683.66	0.272	456.25	0.4	2.929	A
3	950.85	100.55	1960.58	0.485	947.11	0.9	3.539	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	354.20	594.18	1635.38	0.217	353.93	0.3	2.809	A
2	546.58	333.27	1645.61	0.332	546.09	0.5	3.272	A
3	1135.41	120.35	1946.54	0.583	1133.61	1.4	4.418	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	433.80	726.48	1537.23	0.282	433.34	0.4	3.259	A
2	669.42	408.04	1593.65	0.420	668.52	0.7	3.887	A
3	1390.59	147.34	1927.41	0.721	1386.02	2.5	6.595	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	433.80	728.81	1535.50	0.283	433.80	0.4	3.266	A
2	669.42	408.47	1593.35	0.420	669.41	0.7	3.896	A
3	1390.59	147.53	1927.27	0.722	1390.46	2.6	6.701	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	354.20	597.52	1632.91	0.217	354.66	0.3	2.816	A
2	546.58	333.95	1645.14	0.332	547.47	0.5	3.284	A
3	1135.41	120.66	1946.32	0.583	1139.97	1.4	4.489	A

Main results: (18:15-18:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	296.62	499.37	1705.72	0.174	296.89	0.2	2.555	A
2	457.73	279.56	1682.94	0.272	458.23	0.4	2.942	A
3	950.85	100.99	1960.27	0.485	952.72	0.9	3.581	A

2031 Base Flows + Arundel Road Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	5.08	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D3	2031 Base Flows + Arundel Road Development	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	378.00	100.000
2		✓	996.00	100.000
3		✓	854.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		1	2	3
	1	0.000	27.000	351.000
	2	192.000	0.000	804.000
	3	411.000	443.000	0.000

Vehicle Mix

Heavy Vehicle proportion

From	To			
		1	2	3
	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.24	2.77	0.3	A
2	0.68	7.03	2.1	A
3	0.50	3.82	1.0	A

Main Results for each time segment

Main results: {08:00-08:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	284.58	332.48	1829.53	0.156	283.84	0.2	2.327	A
2	749.84	263.57	1694.05	0.443	746.69	0.8	3.787	A
3	642.94	143.94	1929.82	0.333	640.95	0.5	2.790	A

Main results: {08:15-08:30}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	339.81	397.89	1781.00	0.191	339.61	0.2	2.497	A
2	895.38	315.35	1658.06	0.540	893.89	1.2	4.701	A
3	767.73	172.32	1909.70	0.402	767.04	0.7	3.149	A

Main results: {08:30-08:45}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	416.19	487.09	1714.83	0.243	415.85	0.3	2.771	A
2	1096.62	386.15	1608.87	0.682	1092.90	2.1	6.928	A
3	940.27	210.68	1882.50	0.499	938.99	1.0	3.810	A

Main results: {08:45-09:00}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	416.19	487.74	1714.35	0.243	416.18	0.3	2.772	A
2	1096.62	386.46	1608.65	0.682	1096.52	2.1	7.027	A
3	940.27	211.38	1882.00	0.500	940.25	1.0	3.821	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	339.81	398.91	1780.25	0.191	340.15	0.2	2.501	A
2	895.38	315.85	1657.72	0.540	899.10	1.2	4.767	A
3	767.73	173.32	1908.99	0.402	769.00	0.7	3.163	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	284.58	333.88	1828.50	0.156	284.79	0.2	2.331	A
2	749.84	264.44	1693.44	0.443	751.39	0.8	3.829	A
3	642.94	144.85	1929.17	0.333	643.63	0.5	2.803	A

2031 Base Flows + Arundel Road Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	5.31	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D4	2031 Base Flows + Arundel Road Development	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	384.00	100.000
2		✓	586.00	100.000
3		✓	1263.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		1	2	3
	1	0.000	13.000	371.000
	2	128.000	0.000	458.000
	3	601.000	662.000	0.000

Vehicle Mix

Heavy Vehicle proportion

From	To			
		1	2	3
	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.28	3.23	0.4	A
2	0.40	3.80	0.7	A
3	0.72	6.64	2.5	A

Main Results for each time segment

Main results: {17:00-17:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	289.10	496.44	1707.90	0.169	288.28	0.2	2.534	A
2	441.17	278.52	1683.66	0.262	439.76	0.4	2.892	A
3	950.85	96.06	1963.77	0.484	947.13	0.9	3.528	A

Main results: {17:15-17:30}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	345.21	594.19	1635.37	0.211	344.95	0.3	2.789	A
2	526.80	333.28	1645.61	0.320	526.34	0.5	3.214	A
3	1135.41	114.97	1950.36	0.582	1133.63	1.4	4.398	A

Main results: {17:30-17:45}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	422.79	726.51	1537.20	0.275	422.35	0.4	3.227	A
2	645.20	408.05	1593.64	0.405	644.37	0.7	3.788	A
3	1390.59	140.75	1932.08	0.720	1386.08	2.5	6.538	A

Main results: {17:45-18:00}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	422.79	728.81	1535.50	0.275	422.79	0.4	3.234	A
2	645.20	408.47	1593.35	0.405	645.19	0.7	3.795	A
3	1390.59	140.93	1931.95	0.720	1390.46	2.5	6.643	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	345.21	597.49	1632.93	0.211	345.65	0.3	2.796	A
2	526.80	333.95	1645.14	0.320	527.62	0.5	3.225	A
3	1135.41	115.25	1950.16	0.582	1139.92	1.4	4.467	A

Main results: (18:15-18:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	289.10	499.36	1705.73	0.169	289.35	0.2	2.541	A
2	441.17	279.56	1682.94	0.262	441.64	0.4	2.900	A
3	950.85	96.47	1963.48	0.484	952.71	0.9	3.567	A

APPENDIX 6

ARCADY Output for A529 New Road/Station Road/Roundstone Bypass Road/B2140

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.0.0.4211 [] © Copyright TBL Limited, 2018
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Station Road_Roundstone Bypass Road_B2140_A529 New Road - WSCC2031.j9
Path: \\CADWORKSTATION\Shared Storage\projects\2020 Arundel Road, Angmering\Arcady\WSCC2031
Report generation date: 05/07/2018 15:44:20

- »2031 Base Flows, AM
- »2031 Base Flows, PM
- »2031 Assessment Flows, AM
- »2031 Assessment Flows, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2031 Base Flows								
Arm 1	153.2	731.97	1.61	F	75.4	365.07	1.29	F
Arm 2	246.5	829.63	1.30	F	350.9	1049.53	1.41	F
Arm 3	6.4	45.35	0.89	E	4.7	39.33	0.84	E
Arm 4	32.3	44.08	0.98	E	6.5	10.06	0.87	B
2031 Assessment Flows								
Arm 1	182.6	957.34	1.69	F	86.6	431.18	1.34	F
Arm 2	250.3	831.13	1.30	F	395.4	1133.86	1.42	F
Arm 3	6.4	45.78	0.89	E	4.9	40.50	0.85	E
Arm 4	35.2	47.66	1.00	E	7.1	10.94	0.88	B

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

File summary

File Description

Title	Station Road_Roundstone Bypass Road_B2140_A529 New Road
Location	Angmering
Site number	
Date	12/12/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	2020
Enumerator	Croft Transport Solutions
Description	



Units

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

Analysis Options

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

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
2031 Base Flows	AM	ONE HOUR	07:45	09:15	15
2031 Base Flows	PM	ONE HOUR	16:45	18:15	15
2031 Assessment Flows	AM	ONE HOUR	07:45	09:15	15
2031 Assessment Flows	PM	ONE HOUR	16:45	18:15	15

2031 Base Flows, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	364.94	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Station Road	
2	Roundstone Bypass Road	
3	B2140	
4	A529 New Road	

Capacity Options

Arm	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	4.54	7.92	9.5	16.8	45.5	33.0	
2	4.30	8.63	7.4	20.5	45.5	36.0	
3	3.43	7.40	5.9	19.9	45.5	6.0	
4	9.60	9.89	0.2	26.2	45.5	27.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.643	1818.332
2	0.625	1724.284
3	0.619	1536.352
4	0.884	2988.704

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D1	2031 Base Flows	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	729.00	100.000
2		✓	1414.00	100.000
3		✓	490.00	100.000
4		✓	2403.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		1	2	3	4
	1	0.000	116.000	132.000	481.000
	2	30.000	0.000	64.000	1320.000
	3	224.000	91.000	1.000	174.000
	4	608.000	1410.000	367.000	18.000

Vehicle Mix

Heavy Vehicle proportion

From	To				
		1	2	3	4
	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	1.61	731.97	153.2	F
2	1.30	829.63	246.5	F
3	0.89	45.35	6.4	E
4	0.99	44.08	32.3	E

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	548.83	1414.18	908.48	0.604	542.89	1.5	9.698	A
2	1064.53	745.89	1258.06	0.846	1044.92	4.9	15.693	C
3	368.90	1369.33	689.07	0.535	364.41	1.1	10.944	B
4	1809.10	257.18	2761.46	0.655	1801.60	1.9	3.723	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	655.36	1689.60	731.28	0.898	636.16	6.3	32.882	D
2	1271.16	880.73	1173.77	1.083	1151.90	34.7	75.953	F
3	440.50	1535.63	586.16	0.751	433.99	2.8	22.741	C
4	2160.25	304.32	2719.81	0.794	2152.81	3.7	6.266	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	802.64	2017.27	520.46	1.542	518.42	77.5	309.104	F
2	1556.84	848.45	1193.96	1.304	1192.94	125.7	249.584	F
3	539.50	1500.24	608.06	0.887	527.28	5.8	39.234	E
4	2645.75	365.35	2665.88	0.992	2568.03	23.2	26.197	D

Main results: {08:30-08:45}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	802.64	2049.97	499.42	1.607	499.31	153.2	731.966	F
2	1556.84	839.01	1199.85	1.298	1199.67	215.0	525.210	F
3	539.50	1494.37	611.70	0.882	537.31	6.4	48.848	E
4	2645.75	371.96	2660.04	0.995	2609.29	32.3	44.075	E

Main results: {08:45-09:00}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	655.36	1782.70	671.38	0.976	667.03	150.3	724.811	F
2	1271.16	925.98	1145.49	1.110	1145.29	246.5	750.898	F
3	440.50	1550.59	576.91	0.764	451.67	3.6	30.765	D
4	2160.25	315.58	2709.86	0.797	2273.00	4.1	10.406	S

Main results: {09:00-09:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	548.83	1427.92	899.64	0.610	893.69	64.0	433.946	F
2	1064.53	1043.48	1072.05	0.999	1072.05	244.6	829.627	F
3	368.90	1626.80	529.75	0.696	373.33	2.5	23.650	C
4	1809.10	263.50	2755.87	0.656	1817.75	1.9	3.871	A

2031 Base Flows, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	408.28	F

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D2	2031 Base Flows	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	587.00	100.000
2		✓	1618.00	100.000
3		✓	414.00	100.000
4		✓	2185.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0.000	65.000	87.000	435.000
	2	28.000	0.000	75.000	1515.000
	3	110.000	106.000	0.000	198.000
	4	429.000	1492.000	237.000	27.000

Vehicle Mix

Heavy Vehicle proportion

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	1.29	983.07	75.4	F
2	1.41	1049.53	380.9	F
3	0.84	39.33	4.7	E
4	0.87	10.06	6.5	B

Main Results for each time segment

Main results: {16:45-17:00}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	441.92	1396.37	919.93	0.480	438.28	0.9	7.421	A
2	1218.12	587.84	1356.85	0.598	1189.65	7.1	19.113	C
3	311.68	1479.56	620.86	0.502	307.75	1.0	11.357	B
4	1644.98	181.15	2828.64	0.582	1639.47	1.4	3.014	A

Main results: {17:00-17:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	527.70	1669.66	744.10	0.709	522.14	2.3	15.837	C
2	1454.55	701.20	1285.99	1.181	1273.59	52.4	95.154	F
3	372.18	1625.71	530.43	0.702	367.38	2.2	21.468	C
4	1964.27	213.72	2799.86	0.702	1960.53	2.3	4.270	A

Main results: {17:15-17:30}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	646.30	2035.31	508.86	1.270	500.52	38.7	164.593	F
2	1781.45	733.87	1265.57	1.406	1265.15	181.4	339.926	F
3	455.82	1606.95	542.04	0.841	447.27	4.3	34.987	D
4	2405.73	255.25	2763.16	0.871	2390.05	6.2	9.280	A

Main results: {17:30-17:45}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	646.30	2048.86	500.13	1.262	499.49	75.4	383.970	F
2	1781.45	734.72	1265.04	1.406	1264.97	310.6	728.893	F
3	455.82	1606.19	542.50	0.840	454.38	4.7	39.930	E
4	2405.73	258.96	2759.89	0.872	2404.65	6.5	10.057	B

Main results: {17:45-18:00}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	527.70	1688.56	731.95	0.721	722.37	26.8	256.966	F
2	1454.55	881.70	1173.17	1.240	1173.12	980.9	1049.595	F
3	372.18	1678.54	497.74	0.748	377.87	3.3	31.360	D
4	1964.27	217.45	2796.57	0.702	1980.70	2.4	4.500	A

Main results: {18:00-18:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	441.92	1406.65	913.32	0.484	545.22	1.0	13.058	B
2	1218.12	684.08	1296.69	0.539	1293.30	962.1	1034.291	F
3	311.68	1657.77	510.59	0.610	318.15	1.6	19.281	C
4	1644.98	188.37	2822.26	0.583	1648.94	1.4	3.080	A

2031 Assessment Flows, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	403.65	F

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D3	2031 Assessment Flows	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	769.00	100.000
2		✓	1422.00	100.000
3		✓	491.00	100.000
4		✓	2408.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1	2	3	4
	1	0.000	139.000	135.000	495.000
	2	38.000	0.000	64.000	1320.000
	3	225.000	91.000	1.000	174.000
	4	613.000	1410.000	367.000	18.000

Vehicle Mix

Heavy Vehicle proportion

	To				
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	1.89	957.34	182.6	F
2	1.30	831.18	250.3	F
3	0.89	45.78	6.4	E
4	1.00	47.96	35.2	E

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	578.94	1414.10	908.53	0.637	572.14	1.7	10.501	B
2	1070.56	758.10	1250.43	0.558	1049.64	5.2	16.529	C
3	369.65	1384.18	679.88	0.544	365.01	1.2	11.277	B
4	1812.87	263.71	2755.69	0.658	1805.27	1.9	3.757	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	691.32	1689.42	731.39	0.945	662.79	8.8	41.728	E
2	1278.35	888.76	1168.76	0.694	1149.43	37.5	73.738	F
3	441.40	1540.46	583.18	0.757	434.76	2.8	23.275	C
4	2164.74	311.40	2713.55	0.798	2157.09	3.8	6.382	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	846.68	2013.19	523.08	1.619	521.79	90.1	360.471	F
2	1565.65	839.11	1199.79	1.305	1198.86	129.2	257.524	F
3	540.60	1499.97	608.23	0.899	528.40	5.9	39.687	E
4	2651.26	373.18	2658.96	0.997	2567.89	24.7	27.429	D

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	846.68	2045.77	502.13	1.666	502.05	178.2	633.228	F
2	1565.65	829.55	1205.77	1.238	1205.59	219.2	533.783	F
3	540.60	1494.00	611.92	0.893	538.37	6.4	45.785	E
4	2651.26	379.80	2653.11	0.999	2609.08	35.2	47.355	E

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	691.32	1790.97	666.06	1.038	665.62	182.6	957.399	F
2	1278.35	912.16	1154.13	1.106	1153.93	250.3	757.199	F
3	441.40	1547.56	578.78	0.763	452.95	3.5	30.661	D
4	2164.74	323.27	2703.06	0.801	2288.74	4.2	11.358	B

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	578.94	1428.17	899.48	0.644	894.58	103.7	577.791	F
2	1070.56	1024.92	1083.65	0.955	1079.33	248.1	831.128	F
3	369.65	1620.21	533.83	0.692	374.19	2.4	23.174	C
4	1812.87	270.43	2749.75	0.659	1821.84	2.0	3.916	A

2031 Assessment Flows, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	444.51	F

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D4	2031 Assessment Flows	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	608.00	100.000
2		✓	1638.00	100.000
3		✓	417.00	100.000
4		✓	2197.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1	2	3	4
	1	0.000	77.000	88.000	443.000
	2	48.000	0.000	75.000	1515.000
	3	113.000	106.000	0.000	198.000
	4	441.000	1492.000	237.000	27.000

Vehicle Mix

Heavy Vehicle proportion

	To				
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	1.34	431.18	88.6	F
2	1.42	1133.86	333.4	F
3	0.85	40.50	4.9	E
4	0.86	10.94	7.1	B

Main Results for each time segment

Main results: {16:45-17:00}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	457.73	1396.24	920.02	0.498	453.84	1.0	7.660	A
2	1233.17	594.44	1352.73	0.512	1201.41	7.9	20.712	C
3	313.94	1497.34	609.86	0.515	309.81	1.0	11.843	B
4	1654.02	197.91	2813.83	0.588	1648.36	1.4	3.074	A

Main results: {17:00-17:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	546.58	1669.48	744.22	0.734	540.14	2.6	17.129	C
2	1472.53	708.59	1281.37	1.149	1271.30	53.2	104.497	F
3	374.87	1630.87	527.23	0.711	369.91	2.3	22.206	C
4	1975.06	231.53	2784.13	0.709	1971.11	2.4	4.407	A

Main results: {17:15-17:30}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	669.42	2033.96	509.72	1.313	502.93	44.2	134.425	F
2	1803.47	727.81	1269.36	1.421	1269.00	191.9	380.870	F
3	459.13	1606.85	542.10	0.847	450.33	4.5	35.960	E
4	2418.94	273.69	2746.87	0.881	2401.54	6.8	9.958	A

Main results: {17:30-17:45}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	669.42	2048.64	500.28	1.338	499.82	86.6	431.182	F
2	1803.47	727.03	1269.85	1.420	1269.78	325.3	762.893	F
3	459.13	1605.53	542.91	0.846	457.60	4.9	40.501	E
4	2418.94	277.53	2743.48	0.882	2417.60	7.1	10.936	B

Main results: {17:45-18:00}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	546.58	1690.13	730.94	0.748	722.60	42.6	318.009	F
2	1472.53	870.62	1180.09	1.248	1180.05	998.4	1095.083	F
3	374.87	1677.01	498.68	0.752	380.92	3.3	32.010	D
4	1975.06	234.63	2781.38	0.710	1993.44	2.5	4.673	A

Main results: {18:00-18:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	457.73	1406.75	913.26	0.501	624.01	1.0	23.358	C
2	1233.17	744.24	1259.09	0.979	1255.94	992.7	1133.862	F
3	313.94	1673.48	500.87	0.627	320.23	1.8	20.559	C
4	1654.02	204.98	2807.58	0.589	1658.20	1.4	3.142	A

APPENDIX 7

ARCADY Output for A280/Chips Away/Roundstone Bypass Road/A529/B2140 Old Worthing Road

Junctions 9	
ARCADY 9 - Roundabout Module	
Version: 9.0.0.4211 []	
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Filename: A280 Chips Away+A529 (E)_B2140 Old Worthing Road_Roundstone Bypass Road - WSCC.j9
Path: \\CADWORKSTATION\Shared Storage\projects\2020 Arundel Road, Angmering\Arcady\WSCC2031
Report generation date: 05/07/2018 15:35:35

- »2031 Base Flows, AM
- »2031 Base Flows, PM
- »2031 Assessment Flows, AM
- »2031 Assessment Flows, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2031 Base Flows								
Arm 1	2.3	16.51	0.70	C	2.4	15.28	0.72	C
Arm 2	0.8	970.74	0.60	F	0.2	74.87	0.17	F
Arm 3	1.4	3.61	0.59	A	3.5	7.10	0.78	A
Arm 4	3.3	18.66	0.78	C	0.7	9.08	0.41	A
Arm 5	222.1	517.13	1.25	F	152.7	307.38	1.18	F
2031 Assessment Flows								
Arm 1	2.3	16.58	0.70	C	2.4	15.33	0.72	C
Arm 2	0.9	991.55	0.63	F	0.2	75.68	0.17	F
Arm 3	1.4	3.64	0.59	A	3.6	7.35	0.79	A
Arm 4	3.4	18.96	0.78	C	0.7	9.27	0.42	A
Arm 5	256.3	543.94	1.29	F	158.0	320.86	1.18	F

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

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

File summary

File Description

Title	Roundstone Bypass/A280/Chips Away/A529 (E)/B2140 Old Worthing Road
Location	
Site number	
Date	12/12/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	Cadworkstation4"Kyle
Description	

Units

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

Analysis Options

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

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
2031 Base Flows	AM	ONE HOUR	07:45	09:15	15
2031 Base Flows	PM	ONE HOUR	16:45	18:15	15
2031 Assessment Flows	AM	ONE HOUR	07:45	09:15	15
2031 Assessment Flows	PM	ONE HOUR	16:45	18:15	15

2031 Base Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	222.43	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A280	
2	Chips Away	
3	A529 (E)	
4	B2140 Old Worthing Road	
5	Roundstone Bypass Road	

Capacity Options

Arm	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00
5	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.69	7.08	14.0	20.4	70.0	41.0	
2	3.00	7.00	0.1	20.0	70.1	40.0	
3	8.59	10.31	4.1	37.8	70.1	45.0	
4	4.29	6.62	10.8	18.4	70.1	37.0	
5	3.41	7.49	35.4	20.4	70.1	38.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.486	1633.544
2	0.369	886.527
3	0.663	2744.384
4	0.494	1668.659
5	0.528	1884.255

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D1	2031 Base Flows	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	463.00	100.000
2		✓	8.00	100.000
3		✓	1298.00	100.000
4		✓	604.00	100.000
5		✓	1701.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
From		1	2	3	4	5
	1	0.000	4.000	38.000	74.000	347.000
	2	0.000	0.000	8.000	0.000	0.000
	3	119.000	0.000	20.000	157.000	1002.000
	4	73.000	0.000	511.000	1.000	19.000
	5	214.000	10.000	1457.000	10.000	10.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.70	16.51	2.3	C
2	0.60	370.74	0.8	F
3	0.59	3.61	1.4	A
4	0.78	18.66	3.3	C
5	1.28	517.18	222.1	F

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	348.57	1504.36	902.06	0.386	346.08	0.6	6.447	A
2	6.02	1840.01	207.21	0.029	5.91	0.0	17.873	C
3	977.20	330.31	2525.54	0.387	974.69	0.6	2.317	A
4	454.72	1123.61	1114.06	0.408	451.99	0.7	5.416	A
5	1280.60	542.15	1598.17	0.801	1265.39	3.8	10.390	B

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	416.23	1763.84	775.90	0.536	414.19	1.1	9.897	A
2	7.19	2165.80	86.94	0.083	6.97	0.1	44.879	E
3	1166.88	394.83	2482.79	0.470	1165.86	0.9	2.733	A
4	542.98	1343.92	1005.31	0.540	541.10	1.2	7.724	A
5	1529.16	648.93	1541.82	0.992	1472.44	18.0	36.447	E

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	509.77	1859.93	729.17	0.699	505.50	2.2	15.794	C
2	8.81	2352.45	18.03	0.489	6.84	0.6	283.048	F
3	1429.12	477.96	2427.72	0.589	1426.98	1.4	3.590	A
4	665.02	1641.85	858.26	0.775	656.94	3.2	17.235	C
5	1872.84	789.08	1467.86	1.278	1465.44	119.8	177.064	F

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	509.77	1864.77	726.82	0.701	509.47	2.3	16.506	C
2	8.81	2361.24	14.78	0.596	7.72	0.8	370.740	F
3	1429.12	481.56	2425.33	0.589	1429.09	1.4	3.612	A
4	665.02	1646.66	855.88	0.777	664.41	3.3	18.656	C
5	1872.84	796.55	1463.93	1.279	1463.69	222.1	419.234	F

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	416.23	1822.27	747.48	0.557	420.17	1.3	11.128	B
2	7.19	2229.82	63.30	0.114	10.03	0.1	70.805	F
3	1166.88	400.95	2478.74	0.471	1169.00	0.9	2.754	A
4	542.98	1351.50	1001.57	0.542	551.46	1.2	8.142	A
5	1529.16	659.30	1536.35	0.995	1529.18	222.1	517.125	F

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	348.57	1790.80	762.78	0.457	350.30	0.9	8.763	A
2	6.02	2128.74	100.62	0.060	6.31	0.1	38.279	E
3	977.20	337.96	2520.47	0.388	978.24	0.6	2.337	A
4	454.72	1131.79	1110.02	0.410	456.74	0.7	5.527	A
5	1280.60	547.13	1595.54	0.803	1588.39	145.2	417.031	F

2031 Base Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	132.97	F

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D2	2031 Base Flows	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	536.00	100.000
2		✓	9.00	100.000
3		✓	1634.00	100.000
4		✓	254.00	100.000
5		✓	1703.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	0.000	33.000	157.000	346.000
	2	0.000	0.000	5.000	0.000	4.000
	3	159.000	8.000	101.000	205.000	1161.000
	4	40.000	0.000	194.000	0.000	20.000
	5	280.000	0.000	1310.000	57.000	56.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.72	15.28	2.4	C
2	0.17	74.87	0.2	F
3	0.78	7.10	3.5	A
4	0.41	9.08	0.7	A
5	1.18	907.38	152.7	F

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	403.53	1288.22	1007.16	0.401	400.88	0.7	5.910	A
2	6.78	1683.10	265.14	0.026	6.67	0.0	13.917	B
3	1230.16	463.43	2437.34	0.505	1226.11	1.0	2.962	A
4	191.22	1375.79	989.58	0.193	190.27	0.2	4.498	A
5	1282.11	376.39	1685.64	0.761	1269.89	3.1	8.429	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	481.85	1528.70	890.23	0.541	479.87	1.2	8.730	A
2	8.09	2001.40	147.63	0.055	7.97	0.1	25.755	B
3	1468.93	553.68	2377.55	0.618	1466.59	1.6	3.941	A
4	228.34	1645.36	856.52	0.267	227.85	0.4	5.717	A
5	1530.96	450.45	1646.56	0.830	1504.15	9.8	21.999	C

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	590.15	1657.67	827.52	0.713	585.34	2.4	14.578	B
2	9.91	2234.24	61.67	0.161	9.43	0.2	68.360	F
3	1799.07	658.76	2307.93	0.780	1791.79	3.4	6.880	A
4	279.66	2001.20	680.89	0.411	278.36	0.7	8.914	A
5	1875.04	550.32	1593.86	1.176	1586.36	81.9	112.717	F

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	590.15	1663.71	824.58	0.716	589.82	2.4	15.283	C
2	9.91	2244.72	57.80	0.171	9.84	0.2	74.866	F
3	1799.07	663.50	2304.79	0.781	1798.78	3.5	7.103	A
4	279.66	2010.56	676.27	0.414	279.61	0.7	9.075	A
5	1875.04	552.62	1592.64	1.177	1591.89	152.7	269.151	F

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	481.85	1639.34	836.43	0.576	486.04	1.4	10.394	B
2	8.09	2118.15	104.53	0.077	8.52	0.1	37.646	E
3	1468.93	568.33	2367.84	0.620	1476.28	1.7	4.070	A
4	228.34	1662.34	848.14	0.269	229.64	0.4	5.834	A
5	1530.96	453.69	1644.84	0.831	1634.14	126.6	307.382	F

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	403.53	1625.09	843.36	0.478	405.37	0.9	8.253	A
2	6.78	2024.43	139.13	0.049	6.91	0.1	27.258	D
3	1230.16	494.38	2416.84	0.509	1232.60	1.0	3.045	A
4	191.22	1397.66	978.79	0.195	191.73	0.2	4.578	A
5	1282.11	378.80	1684.37	0.761	1671.20	29.6	171.540	F

2031 Assessment Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	236.86	F

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D3	2031 Assessment Flows	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	463.00	100.000
2		✓	8.00	100.000
3		✓	1304.00	100.000
4		✓	604.00	100.000
5		✓	1719.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	4.000	38.000	74.000	347.000
	2	0.000	0.000	8.000	0.000	0.000
	3	119.000	0.000	20.000	157.000	1008.000
	4	73.000	0.000	511.000	1.000	19.000
	5	214.000	10.000	1475.000	10.000	10.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.70	16.58	2.3	C
2	0.63	391.55	0.9	F
3	0.59	3.64	1.4	A
4	0.78	18.96	3.4	C
5	1.29	548.94	236.8	F

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	348.57	1517.21	895.82	0.389	346.05	0.6	6.518	A
2	6.02	1852.84	202.48	0.030	5.90	0.0	18.302	C
3	981.72	330.28	2525.56	0.389	979.19	0.6	2.324	A
4	454.72	1128.08	1111.85	0.409	451.98	0.7	5.435	A
5	1294.15	542.14	1598.17	0.810	1278.18	4.0	10.769	B

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	416.23	1773.14	771.37	0.540	414.17	1.1	10.021	B
2	7.19	2175.12	83.50	0.086	6.95	0.1	46.895	E
3	1172.27	394.72	2482.87	0.472	1171.24	0.9	2.740	A
4	542.98	1349.24	1002.69	0.542	541.08	1.2	7.766	A
5	1545.35	648.91	1541.83	1.002	1480.87	20.1	89.443	E

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	509.77	1862.14	728.10	0.700	505.51	2.2	15.870	C
2	8.81	2354.76	17.17	0.513	6.74	0.6	311.718	F
3	1435.73	477.80	2427.82	0.591	1433.56	1.4	3.613	A
4	665.02	1648.35	855.05	0.778	656.78	3.2	17.478	C
5	1892.65	788.93	1467.95	1.289	1465.91	126.8	187.868	F

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	509.77	1866.72	725.87	0.702	509.47	2.3	16.577	C
2	8.81	2363.27	14.03	0.628	7.62	0.9	391.552	F
3	1435.73	481.39	2425.45	0.592	1435.69	1.4	3.636	A
4	665.02	1653.18	852.67	0.780	664.39	3.4	18.965	C
5	1892.65	796.52	1463.94	1.293	1463.73	234.0	441.728	F

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	416.23	1828.95	744.24	0.559	420.16	1.3	11.238	B
2	7.19	2236.55	60.82	0.118	10.23	0.1	74.944	F
3	1172.27	400.81	2478.83	0.473	1174.43	0.9	2.766	A
4	542.98	1356.85	998.93	0.544	551.64	1.2	8.197	A
5	1545.35	659.48	1536.26	1.006	1534.33	256.8	548.941	F

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	348.57	1793.29	761.58	0.458	350.35	0.9	8.791	A
2	6.02	2131.36	99.65	0.060	6.34	0.1	33.697	E
3	981.72	337.81	2520.57	0.389	982.77	0.6	2.344	A
4	454.72	1136.26	1107.81	0.410	456.76	0.7	5.546	A
5	1294.15	547.15	1595.53	0.811	1588.82	163.1	459.755	F

2031 Assessment Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	137.53	F

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D4	2031 Assessment Flows	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	536.00	100.000
2		✓	9.00	100.000
3		✓	1650.00	100.000
4		✓	254.00	100.000
5		✓	1712.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	0.000	33.000	157.000	346.000
	2	0.000	0.000	5.000	0.000	4.000
	3	159.000	8.000	101.000	205.000	1177.000
	4	40.000	0.000	194.000	0.000	20.000
	5	280.000	0.000	1319.000	57.000	56.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.72	15.33	2.4	C
2	0.17	75.68	0.2	F
3	0.79	7.35	3.6	A
4	0.42	9.27	0.7	A
5	1.18	920.86	158.0	F

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	403.53	1294.76	1003.98	0.402	400.87	0.7	5.943	A
2	6.78	1689.63	262.73	0.026	6.67	0.0	14.048	B
3	1242.21	463.40	2437.36	0.510	1238.08	1.0	2.992	A
4	191.22	1387.74	983.68	0.194	190.27	0.2	4.531	A
5	1288.88	376.38	1685.64	0.765	1276.41	3.1	8.555	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	481.85	1535.42	886.96	0.543	479.85	1.2	8.799	A
2	8.09	2008.09	145.16	0.056	7.97	0.1	26.217	B
3	1483.32	553.56	2377.63	0.624	1480.89	1.6	4.004	A
4	228.34	1659.61	849.49	0.269	227.84	0.4	5.785	A
5	1539.05	450.43	1646.57	0.935	1510.64	10.2	22.791	C

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	590.15	1659.49	826.63	0.714	585.35	2.4	14.633	B
2	9.91	2236.07	60.99	0.162	9.43	0.2	69.226	F
3	1816.68	658.25	2308.27	0.787	1808.98	3.6	7.102	A
4	279.66	2018.18	672.50	0.416	278.32	0.7	9.102	A
5	1884.95	550.22	1593.91	1.183	1586.97	84.7	118.272	F

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	590.15	1665.14	823.89	0.716	589.82	2.4	15.327	C
2	9.91	2246.15	57.27	0.173	9.84	0.2	75.681	F
3	1816.68	662.95	2305.15	0.788	1816.37	3.6	7.354	A
4	279.66	2027.88	667.72	0.419	279.61	0.7	9.272	A
5	1884.95	552.61	1592.65	1.184	1591.96	158.0	278.019	F

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	481.85	1641.06	835.59	0.577	486.05	1.4	10.420	B
2	8.09	2119.89	103.89	0.078	8.52	0.1	37.904	E
3	1483.32	567.80	2368.20	0.626	1491.11	1.7	4.141	A
4	228.34	1676.86	840.98	0.272	229.69	0.4	5.901	A
5	1539.05	453.79	1644.79	0.936	1634.45	194.1	320.855	F

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	403.53	1627.13	842.37	0.479	405.38	0.9	8.272	A
2	6.78	2026.47	138.38	0.049	6.92	0.1	27.415	D
3	1242.21	493.85	2417.19	0.514	1244.73	1.1	3.078	A
4	191.22	1409.53	972.93	0.197	191.74	0.2	4.611	A
5	1288.88	378.82	1684.35	0.765	1671.89	38.4	159.239	F

APPENDIX 8

ARCADY Output for A27 Southern Roundabout (Existing & Proposed)



Junctions 9	
ARCADY 9 - Roundabout Module	
Version: 9.0.0.4211 []	
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Filename: A27 South Roundabout + Existing.j9

Path: \\CADWORKSTATION\Shared Storage\projects\2020 Arundel Road, Angmering\Arcady\HE

Report generation date: 06/07/2018 16:41:42

»2022 Base Flows, AM
»2022 Base Flows, PM
»2027 Base Flows, AM
»2027 Base Flows, PM
»2031 Base Flows, AM
»2031 Base Flows, PM
»2022 Assessment Flows, AM
»2022 Assessment Flows, PM
»2027 Assessment Flows, AM
»2027 Assessment Flows, PM
»2031 Assessment Flows, AM
»2031 Assessment Flows, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2022 Base Flows								
Arm 1	1.0	9.24	0.51	A	1.1	10.37	0.54	B
Arm 2	1.0	5.43	0.50	A	1.5	7.95	0.61	A
Arm 3	33.1	95.87	1.03	F	1.6	8.14	0.62	A
Arm 5	2.4	6.52	0.71	A	3.6	8.44	0.78	A
2027 Base Flows								
Arm 1	1.3	10.85	0.57	B	1.5	12.92	0.60	B
Arm 2	1.2	6.06	0.54	A	1.9	9.66	0.67	A
Arm 3	66.6	173.77	1.10	F	1.9	9.36	0.66	A
Arm 5	2.9	7.44	0.75	A	4.7	10.58	0.83	B
2031 Base Flows								
Arm 1	2.1	16.79	0.69	C	0.5	4.19	0.35	A
Arm 2	1.7	7.99	0.63	A	1.3	5.70	0.57	A
Arm 3	150.8	455.76	1.26	F	1.9	8.29	0.66	A
Arm 5	4.5	10.53	0.82	B	0.3	2.42	0.24	A
2022 Assessment Flows								
Arm 1	1.0	8.97	0.50	A	1.2	10.55	0.54	B
Arm 2	1.0	5.45	0.50	A	1.6	8.07	0.61	A
Arm 3	46.4	125.76	1.06	F	1.8	8.62	0.64	A
Arm 5	2.4	6.53	0.71	A	3.7	8.66	0.79	A
2027 Assessment Flows								
Arm 1	1.3	10.80	0.56	B	1.5	13.18	0.61	B
Arm 2	1.2	6.08	0.54	A	2.0	9.82	0.67	A
Arm 3	83.3	212.19	1.19	F	2.1	9.98	0.68	A
Arm 5	2.9	7.44	0.75	A	4.8	10.89	0.83	B
2031 Assessment Flows								
Arm 1	2.1	16.70	0.69	C	3.9	31.52	0.81	B
Arm 2	1.7	8.04	0.63	A	4.4	20.05	0.83	C
Arm 3	170.5	505.14	1.30	F	3.8	16.48	0.80	C
Arm 5	4.5	10.54	0.82	B	12.6	26.35	0.94	D

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	A27 South Roundabout + Mitigation
Location	Angmering
Site number	
Date	22/05/2018
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	Croft Transport Solutions
Description	



Units

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

Analysis Options

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

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
2022 Base Flows	AM	ONE HOUR	08:00	09:30	15
2022 Base Flows	PM	ONE HOUR	17:00	18:30	15
2027 Base Flows	AM	ONE HOUR	08:00	09:30	15
2027 Base Flows	PM	ONE HOUR	17:00	18:30	15
2031 Base Flows	AM	ONE HOUR	08:00	09:30	15
2031 Base Flows	PM	ONE HOUR	17:00	18:30	15
2022 Assessment Flows	AM	ONE HOUR	08:00	09:30	15
2022 Assessment Flows	PM	ONE HOUR	17:00	18:30	15
2027 Assessment Flows	AM	ONE HOUR	08:00	09:30	15
2027 Assessment Flows	PM	ONE HOUR	17:00	18:30	15
2031 Assessment Flows	AM	ONE HOUR	08:00	09:30	15
2031 Assessment Flows	PM	ONE HOUR	17:00	18:30	15

2022 Base Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	98.02	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A27 WB Off-Slip	
2	Titnore Lane	
3	Water Lane	
4	A27 On Slip	
5	A280 North	

Capacity Options

Arm	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00
5	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	4.00	6.00	35.0	25.0	60.0	38.0	
2	3.40	7.80	30.0	25.0	60.0	24.0	
3	3.65	6.00	36.0	14.0	60.0	33.0	
4							✓
5	3.70	7.80	22.0	42.0	60.0	10.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.551	1693.316
2	0.617	1996.839
3	0.539	1641.796
4		
5	0.648	2079.767

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D1	2022 Base Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	372.00	100.000
2		✓	599.00	100.000
3		✓	1079.00	100.000
4				
5		✓	1230.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
From		1	2	3	4	5
	1	0.000	30.000	288.000	0.000	54.000
	2	0.000	0.000	115.000	247.000	237.000
	3	0.000	254.000	0.000	79.000	746.000
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0.000	578.000	372.000	280.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.51	9.24	1.0	A
2	0.50	5.43	1.0	A
3	1.03	95.87	33.1	F
4				
5	0.71	6.52	2.4	A

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	280.06	1112.16	1080.31	0.259	278.67	0.3	4.484	A
2	450.96	745.17	1537.43	0.293	449.31	0.4	3.304	A
3	812.33	613.48	1311.29	0.619	805.95	1.6	7.039	A
4		965.16						
5	926.01	189.72	1956.86	0.473	922.44	0.9	3.469	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	334.42	1330.75	959.83	0.348	333.69	0.5	5.745	A
2	538.49	892.00	1446.90	0.372	537.79	0.6	3.960	A
3	970.00	734.30	1246.20	0.778	963.13	3.3	12.422	B
4		1153.84						
5	1105.74	226.72	1932.90	0.572	1104.02	1.3	4.334	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	409.58	1612.68	804.44	0.509	407.63	1.0	9.027	A
2	659.51	1090.38	1324.60	0.498	657.95	1.0	5.386	A
3	1188.00	898.12	1157.94	0.626	1115.78	21.4	51.998	F
4		1353.59						
5	1354.26	262.66	1909.62	0.709	1350.02	2.4	6.385	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	409.58	1622.70	798.92	0.513	409.49	1.0	9.240	A
2	659.51	1094.25	1322.21	0.499	659.48	1.0	5.431	A
3	1188.00	900.56	1156.63	0.627	1141.03	33.1	95.867	F
4		1377.86						
5	1354.26	268.60	1905.77	0.711	1354.09	2.4	6.521	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	334.42	1365.76	940.54	0.356	336.34	0.6	5.978	A
2	538.49	897.56	1443.48	0.373	540.05	0.6	3.992	A
3	970.00	737.85	1244.29	0.780	1086.90	3.9	35.827	B
4		1269.82						
5	1105.74	255.86	1914.02	0.578	1109.90	1.4	4.501	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	280.06	1121.23	1075.32	0.260	280.87	0.4	4.537	A
2	450.96	750.09	1534.39	0.294	451.68	0.4	3.329	A
3	812.33	616.97	1309.41	0.620	821.19	1.7	7.501	A
4		980.55						
5	926.01	193.31	1954.54	0.474	927.92	0.9	3.515	A

2022 Base Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	8.50	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D2	2022 Base Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	366.00	100.000
2		✓	637.00	100.000
3		✓	662.00	100.000
4				
5		✓	1406.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	29.000	304.000	6.000	27.000
	2	0.000	0.000	187.000	183.000	267.000
	3	0.000	149.000	0.000	50.000	463.000
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0.000	501.000	594.000	311.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.54	10.37	1.1	B
2	0.61	7.95	1.5	A
3	0.62	8.14	1.6	A
4				
5	0.78	8.44	3.6	A

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	275.54	1165.72	1050.79	0.262	274.13	0.4	4.626	A
2	479.57	930.90	1422.92	0.337	477.55	0.5	3.800	A
3	498.39	595.23	1321.12	0.377	495.98	0.6	4.351	A
4		678.91						
5	1058.51	111.63	2007.45	0.527	1054.09	1.1	3.760	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	329.03	1395.24	924.29	0.356	328.25	0.5	6.032	A
2	572.65	1114.27	1309.87	0.437	571.59	0.8	4.869	A
3	595.12	712.44	1257.98	0.473	593.98	0.9	5.413	A
4		812.91						
5	1263.97	133.69	1993.16	0.634	1261.55	1.7	4.903	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	402.97	1704.31	753.93	0.535	400.68	1.1	10.124	B
2	701.35	1360.76	1157.90	0.606	698.41	1.5	7.784	A
3	728.88	870.35	1172.90	0.621	726.01	1.6	8.004	A
4		993.47						
5	1548.03	163.41	1973.91	0.784	1540.91	3.5	8.180	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	402.97	1711.78	749.82	0.537	402.88	1.1	10.370	B
2	701.35	1367.20	1153.93	0.608	701.25	1.5	7.951	A
3	728.88	874.07	1170.90	0.622	728.78	1.6	8.139	A
4		997.39						
5	1548.03	164.03	1973.51	0.784	1547.75	3.6	8.439	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	329.03	1405.76	918.49	0.358	331.35	0.6	6.154	A
2	572.65	1123.31	1304.30	0.439	575.61	0.8	4.961	A
3	595.12	717.68	1255.15	0.474	597.99	0.9	5.503	A
4		818.54						
5	1263.97	134.59	1992.58	0.634	1271.17	1.8	5.038	A

Main results: (18:15-18:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	275.54	1173.49	1046.51	0.263	276.36	0.4	4.678	A
2	479.57	937.43	1418.90	0.338	480.67	0.5	3.841	A
3	498.39	599.18	1318.99	0.378	499.59	0.6	4.401	A
4		683.72						
5	1058.51	112.44	2006.93	0.527	1061.05	1.1	3.815	A

2027 Base Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	62.08	F

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D3	2027 Base Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	391.00	100.000
2		✓	631.00	100.000
3		✓	1129.00	100.000
4				
5		✓	1294.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	32.000	301.000	0.000	58.000
	2	0.000	0.000	120.000	261.000	250.000
	3	0.000	266.000	0.000	82.000	781.000
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0.000	610.000	389.000	295.000	0.000

Vehicle Mix

Heavy Vehicle proportion

	To				
	1	2	3	4	5
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	Exit-only	Exit-only	Exit-only	Exit-only
	5	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.57	10.85	1.3	B
2	0.54	6.06	1.2	A
3	1.10	173.77	66.6	F
4				
5	0.75	7.44	2.9	A

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	294.37	1168.73	1049.13	0.281	292.82	0.4	4.750	A
2	475.05	781.71	1514.90	0.314	473.23	0.5	3.450	A
3	849.97	647.86	1292.77	0.657	842.49	1.9	7.871	A
4		1012.22						
5	974.19	198.50	1951.18	0.499	970.23	1.0	3.655	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	351.50	1397.95	922.79	0.381	350.62	0.6	6.292	A
2	567.26	935.73	1419.94	0.399	566.43	0.7	4.215	A
3	1014.95	775.45	1224.03	0.829	1004.78	4.4	15.727	C
4		1208.23						
5	1163.28	236.73	1926.41	0.604	1161.22	1.5	4.693	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	430.50	1681.20	766.67	0.562	427.94	1.2	10.549	B
2	694.74	1143.18	1292.05	0.538	692.80	1.1	5.988	A
3	1243.05	948.10	1131.02	0.769	1111.38	37.3	78.775	F
4		1368.62						
5	1424.72	261.85	1910.14	0.746	1419.35	2.8	7.255	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	430.50	1689.80	761.93	0.565	430.38	1.3	10.851	B
2	694.74	1148.14	1288.99	0.539	694.69	1.2	6.057	A
3	1243.05	951.18	1129.36	0.841	1125.96	88.6	173.771	F
4		1383.26						
5	1424.72	265.28	1907.92	0.747	1424.51	2.9	7.437	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	351.50	1452.01	892.99	0.394	353.98	0.7	6.710	A
2	567.26	942.64	1415.68	0.401	569.20	0.7	4.263	A
3	1014.95	779.84	1221.67	0.631	1203.60	19.4	132.894	F
4		1394.20						
5	1163.28	283.58	1896.07	0.614	1168.44	1.6	4.983	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	294.37	1193.27	1035.61	0.284	295.39	0.4	4.869	A
2	475.05	787.42	1511.38	0.314	475.90	0.5	3.478	A
3	849.97	651.85	1290.62	0.659	919.79	2.0	11.598	B
4		1085.35						
5	974.19	216.71	1939.38	0.502	976.56	1.0	3.750	A

2027 Base Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	10.41	S

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D4	2027 Base Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	384.00	100.000
2		✓	671.00	100.000
3		✓	690.00	100.000
4				
5		✓	1482.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	30.000	319.000	7.000	28.000
	2	0.000	0.000	195.000	194.000	282.000
	3	0.000	154.000	0.000	51.000	485.000
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0.000	530.000	623.000	329.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.60	12.92	1.5	B
2	0.67	9.66	1.9	A
3	0.66	9.36	1.9	A
4				
5	0.83	10.58	4.7	B

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	289.10	1226.11	1017.51	0.284	287.52	0.4	4.922	A
2	505.16	978.58	1393.52	0.363	502.91	0.6	4.033	A
3	519.47	629.55	1302.63	0.399	516.84	0.7	4.567	A
4		710.96						
5	1115.73	115.35	2005.04	0.556	1110.76	1.2	4.001	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	345.21	1467.44	884.49	0.390	344.25	0.6	6.651	A
2	603.22	1171.27	1274.73	0.473	601.92	0.9	5.341	A
3	620.30	753.47	1235.87	0.502	618.95	1.0	5.822	A
4		851.27						
5	1332.29	138.14	1990.28	0.669	1329.30	2.0	5.421	A

Main results: {17:30-17:45}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	422.79	1790.30	706.54	0.598	419.56	1.4	12.406	B
2	738.78	1428.43	1116.19	0.662	734.74	1.9	9.339	A
3	759.70	919.44	1146.46	0.663	756.05	1.9	9.135	A
4		1039.55						
5	1631.71	168.74	1970.46	0.828	1621.56	4.5	10.035	B

Main results: {17:45-18:00}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	422.79	1800.68	700.82	0.603	422.60	1.5	12.922	B
2	738.78	1437.40	1110.65	0.665	738.59	1.9	9.665	A
3	759.70	924.57	1143.69	0.664	759.55	1.9	9.362	A
4		1044.63						
5	1631.71	169.52	1969.95	0.828	1631.16	4.7	10.578	B

Main results: {18:00-18:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	345.21	1481.97	876.48	0.394	348.53	0.7	6.862	A
2	603.22	1183.82	1266.99	0.476	607.34	0.9	5.490	A
3	620.30	760.68	1231.99	0.503	623.97	1.0	5.957	A
4		858.51						
5	1332.29	139.26	1989.55	0.670	1342.70	2.1	5.653	A

Main results: {18:15-18:30}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	289.10	1235.17	1012.52	0.286	290.12	0.4	4.991	A
2	505.16	986.21	1388.82	0.364	506.54	0.6	4.087	A
3	519.47	634.17	1300.14	0.400	520.89	0.7	4.627	A
4		716.43						
5	1115.73	116.26	2004.46	0.557	1118.91	1.3	4.081	A

2031 Base Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	148.85	F

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D5	2031 Base Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	429.00	100.000
2		✓	697.00	100.000
3		✓	1230.00	100.000
4				
5		✓	1432.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	35.000	330.000	0.000	64.000
	2	0.000	0.000	130.000	289.000	278.000
	3	0.000	289.000	0.000	87.000	854.000
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0.000	677.000	427.000	328.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.69	16.79	2.1	C
2	0.63	7.99	1.7	A
3	1.26	435.76	150.8	F
4				
5	0.82	10.53	4.5	B

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	322.97	1288.18	983.30	0.328	321.03	0.5	5.421	A
2	524.74	860.64	1466.24	0.358	522.52	0.6	3.807	A
3	926.01	718.76	1254.57	0.738	915.22	2.7	10.307	B
4		1106.79						
5	1078.08	215.04	1940.46	0.556	1073.14	1.2	4.128	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	385.66	1537.44	845.91	0.456	384.30	0.8	7.775	A
2	626.59	1030.05	1361.80	0.460	625.43	0.8	4.880	A
3	1105.74	860.27	1178.34	0.936	1077.63	9.7	29.764	D
4		1308.19						
5	1287.34	253.20	1915.74	0.672	1284.24	2.0	5.672	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	472.34	1819.02	690.71	0.684	467.44	2.1	15.790	C
2	767.41	1255.60	1222.74	0.628	764.20	1.6	7.796	A
3	1354.26	1050.37	1075.92	0.769	1071.65	80.4	161.708	F
4		1370.38						
5	1576.66	251.79	1916.66	0.823	1567.23	4.4	10.037	B

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	472.34	1828.20	685.65	0.689	471.98	2.1	16.785	C
2	767.41	1264.47	1217.27	0.630	767.27	1.7	7.994	A
3	1354.26	1055.60	1073.10	0.762	1072.71	159.8	384.787	F
4		1373.28						
5	1576.66	252.04	1916.49	0.823	1576.15	4.5	10.535	B

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	385.66	1570.89	827.47	0.466	390.68	0.9	8.334	A
2	626.59	1042.51	1354.11	0.463	629.84	0.9	4.993	A
3	1105.74	867.67	1174.35	0.742	1166.61	135.5	435.756	F
4		1393.59						
5	1287.34	274.11	1902.20	0.677	1296.78	2.1	6.037	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	322.97	1373.22	936.42	0.345	324.40	0.5	5.897	A
2	524.74	868.01	1461.70	0.359	525.96	0.6	3.852	A
3	926.01	723.92	1251.79	0.740	1242.62	56.4	280.201	F
4		1412.91						
5	1078.08	291.97	1890.63	0.570	1081.26	1.3	4.464	A

2031 Base Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	5.67	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D6	2031 Base Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	428.00	100.000
2		✓	754.00	100.000
3		✓	764.00	100.000
4				
5		✓	428.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	34.000	354.000	8.000	32.000
	2	0.000	0.000	216.000	219.000	319.000
	3	0.000	169.000	0.000	56.000	539.000
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0.000	34.000	354.000	8.000	32.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.35	4.19	0.5	A
2	0.57	5.70	1.3	A
3	0.66	8.29	1.9	A
4				
5	0.24	2.42	0.3	A

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	322.22	448.07	1446.35	0.223	321.08	0.3	3.196	A
2	567.65	591.49	1632.17	0.348	565.53	0.5	3.367	A
3	575.18	463.57	1392.05	0.413	572.39	0.7	4.377	A
4		817.73						
5	322.22	126.61	1997.75	0.161	321.45	0.2	2.146	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	384.76	536.20	1397.77	0.275	384.39	0.4	3.552	A
2	677.83	707.88	1560.42	0.434	676.90	0.8	4.070	A
3	686.82	554.86	1342.87	0.511	685.48	1.0	5.465	A
4		979.11						
5	384.76	151.63	1981.54	0.194	384.57	0.2	2.254	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	471.24	656.26	1331.60	0.354	470.57	0.5	4.181	A
2	830.17	866.72	1462.49	0.568	828.04	1.3	5.654	A
3	841.18	678.82	1276.09	0.659	837.78	1.9	8.149	A
4		1197.09						
5	471.24	185.32	1959.72	0.240	470.94	0.3	2.418	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	471.24	657.28	1331.03	0.354	471.23	0.5	4.186	A
2	830.17	867.59	1461.95	0.568	830.13	1.3	5.697	A
3	841.18	680.40	1275.24	0.660	841.07	1.9	8.287	A
4		1201.10						
5	471.24	186.05	1959.24	0.241	471.23	0.3	2.418	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	384.76	537.74	1396.92	0.275	385.42	0.4	3.563	A
2	677.83	709.27	1559.56	0.435	679.95	0.8	4.103	A
3	686.82	557.17	1341.63	0.512	690.22	1.1	5.556	A
4		984.90						
5	384.76	152.68	1980.86	0.194	385.06	0.2	2.257	A

Main results: (18:15-18:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	322.22	449.96	1445.31	0.223	322.60	0.3	3.206	A
2	567.65	593.77	1630.77	0.348	568.60	0.5	3.391	A
3	575.18	466.00	1390.75	0.414	576.58	0.7	4.430	A
4		823.11						
5	322.22	127.54	1997.15	0.161	322.42	0.2	2.149	A

2022 Assessment Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	48.82	E

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D7	2022 Assessment Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	362.00	100.000
2		✓	599.00	100.000
3		✓	1109.00	100.000
4				
5		✓	1234.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	20.000	288.000	0.000	54.000
	2	0.000	0.000	115.000	247.000	237.000
	3	0.000	254.000	0.000	79.000	776.000
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0.000	578.000	372.000	284.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.50	8.97	1.0	A
2	0.50	5.45	1.0	A
3	1.06	125.76	46.4	F
4				
5	0.71	6.53	2.4	A

Main Results for each time segment

Main results: (06:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	272.53	1115.08	1078.71	0.253	271.19	0.3	4.451	A
2	450.96	748.17	1535.58	0.294	449.30	0.4	3.310	A
3	834.91	616.48	1309.67	0.638	828.04	1.7	7.374	A
4		987.28						
5	929.02	189.65	1956.91	0.475	925.43	0.9	3.479	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	325.43	1334.08	958.00	0.340	324.74	0.5	5.679	A
2	538.49	895.60	1444.68	0.373	537.78	0.6	3.963	A
3	996.97	737.89	1244.27	0.801	988.84	3.8	13.672	B
4		1179.62						
5	1109.34	226.48	1933.05	0.574	1107.60	1.3	4.353	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	398.57	1612.12	804.75	0.495	396.76	1.0	8.784	A
2	659.51	1094.85	1321.84	0.499	657.94	1.0	5.409	A
3	1221.03	902.52	1155.57	0.657	1125.19	27.7	62.671	F
4		1364.54						
5	1358.66	257.71	1912.82	0.710	1354.41	2.4	6.399	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	398.57	1621.05	799.82	0.498	398.50	1.0	8.967	A
2	659.51	1098.67	1319.49	0.500	659.48	1.0	5.454	A
3	1221.03	904.97	1154.25	0.658	1146.32	46.4	125.784	F
4		1385.03						
5	1358.66	262.55	1909.69	0.711	1358.51	2.4	6.527	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	325.43	1379.86	932.76	0.349	327.19	0.5	5.961	A
2	538.49	901.03	1441.34	0.374	540.06	0.6	4.002	A
3	996.97	741.43	1242.36	0.802	1163.22	4.8	67.701	F
4		1342.84						
5	1109.34	266.42	1907.18	0.582	1113.44	1.4	4.560	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	272.53	1124.99	1073.24	0.254	273.33	0.3	4.504	A
2	450.96	753.15	1532.51	0.294	451.68	0.4	3.334	A
3	834.91	620.00	1307.77	0.638	847.00	1.8	8.008	A
4		1006.15						
5	929.02	193.99	1954.10	0.475	931.00	0.9	3.527	A

2022 Assessment Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	8.75	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D8	2022 Assessment Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	366.00	100.000
2		✓	637.00	100.000
3		✓	679.00	100.000
4				
5		✓	1416.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	29.000	304.000	6.000	27.000
	2	0.000	0.000	187.000	183.000	267.000
	3	0.000	149.000	0.000	50.000	480.000
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0.000	501.000	594.000	321.000	0.000

Vehicle Mix

Heavy Vehicle proportion

	To				
	1	2	3	4	5
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	Exit-only	Exit-only	Exit-only	Exit-only
	5	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.54	10.55	1.2	B
2	0.61	8.07	1.6	A
3	0.64	8.62	1.8	A
4				
5	0.79	8.66	3.7	A

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	275.54	1173.17	1046.69	0.263	274.12	0.4	4.651	A
2	479.57	938.36	1418.32	0.338	477.54	0.5	3.818	A
3	511.19	602.71	1317.09	0.388	508.67	0.6	4.440	A
4		691.60						
5	1066.04	111.62	2007.46	0.531	1061.55	1.1	3.790	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	329.03	1404.15	919.37	0.358	328.24	0.6	6.083	A
2	572.65	1123.20	1304.37	0.439	571.58	0.8	4.906	A
3	610.41	721.39	1253.15	0.487	609.17	0.9	5.580	A
4		828.10						
5	1272.95	133.68	1993.17	0.639	1270.48	1.7	4.964	A

Main results: {17:30-17:45}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	402.97	1714.96	748.07	0.539	400.62	1.1	10.292	B
2	701.35	1371.50	1151.28	0.609	698.35	1.5	7.896	A
3	747.59	881.20	1167.06	0.641	744.40	1.7	8.452	A
4		1011.85						
5	1559.05	163.35	1973.95	0.790	1551.61	3.6	8.378	A

Main results: {17:45-18:00}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	402.97	1722.76	743.76	0.542	402.87	1.2	10.554	B
2	701.35	1378.19	1147.16	0.611	701.24	1.6	8.068	A
3	747.59	885.06	1164.98	0.642	747.48	1.8	8.618	A
4		1016.08						
5	1559.05	164.03	1973.51	0.790	1558.74	3.7	8.661	A

Main results: {18:00-18:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	329.03	1415.14	913.32	0.360	331.41	0.6	6.213	A
2	572.65	1132.58	1298.58	0.441	575.67	0.8	4.999	A
3	610.41	726.84	1250.22	0.488	613.61	1.0	5.682	A
4		834.17						
5	1272.95	134.65	1992.54	0.639	1280.49	1.8	5.107	A

Main results: {18:15-18:30}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	275.54	1181.11	1042.31	0.264	276.37	0.4	4.704	A
2	479.57	945.02	1414.22	0.339	480.69	0.5	3.860	A
3	511.19	606.75	1314.91	0.389	512.48	0.6	4.493	A
4		696.62						
5	1066.04	112.46	2006.92	0.531	1068.65	1.1	3.847	A

2027 Assessment Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	75.76	F

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D9	2027 Assessment Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	391.00	100.000
2		✓	631.00	100.000
3		✓	1159.00	100.000
4				
5		✓	1298.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	32.000	301.000	0.000	58.000
	2	0.000	0.000	120.000	261.000	250.000
	3	0.000	266.000	0.000	82.000	811.000
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0.000	610.000	389.000	299.000	0.000

Vehicle Mix

Heavy Vehicle proportion

	To				
	1	2	3	4	5
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	Exit-only	Exit-only	Exit-only	Exit-only
	5	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.56	10.80	1.3	B
2	0.54	6.08	1.2	A
3	1.13	212.13	83.3	F
4				
5	0.75	7.44	2.9	A

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	294.37	1171.62	1047.54	0.281	292.81	0.4	4.760	A
2	475.05	784.70	1513.05	0.314	473.23	0.5	3.456	A
3	872.56	650.85	1291.15	0.676	864.45	2.0	8.289	A
4		1034.22						
5	977.20	198.40	1951.24	0.501	973.22	1.0	3.666	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	351.50	1401.09	921.06	0.382	350.61	0.6	6.291	A
2	567.26	939.31	1417.74	0.400	566.43	0.7	4.224	A
3	1041.92	779.03	1222.10	0.359	1029.57	5.1	17.662	C
4		1233.15						
5	1166.88	236.29	1926.70	0.606	1164.79	1.5	4.711	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	430.50	1679.50	767.61	0.561	427.96	1.2	10.521	B
2	694.74	1147.59	1289.32	0.539	692.78	1.2	6.016	A
3	1276.08	952.49	1128.65	0.751	1114.29	45.6	93.629	F
4		1373.42						
5	1429.12	255.74	1914.10	0.747	1423.76	2.9	7.262	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	430.50	1687.13	763.41	0.564	430.39	1.3	10.802	B
2	694.74	1152.56	1286.26	0.540	694.69	1.2	6.085	A
3	1276.08	955.58	1126.99	0.852	1125.02	83.3	212.128	F
4		1384.50						
5	1429.12	258.20	1912.50	0.747	1428.93	2.9	7.437	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	351.50	1448.67	894.84	0.393	353.97	0.7	6.687	A
2	567.26	946.25	1413.46	0.401	569.21	0.7	4.273	A
3	1041.92	783.46	1219.72	0.654	1205.25	42.5	189.699	F
4		1398.01						
5	1166.88	276.61	1900.58	0.614	1172.06	1.6	4.975	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	294.37	1216.76	1022.66	0.288	295.35	0.4	4.955	A
2	475.05	790.36	1509.57	0.315	475.91	0.5	3.487	A
3	872.56	654.84	1289.01	0.677	1033.76	2.2	25.454	D
4		1192.99						
5	977.20	237.26	1926.07	0.507	979.50	1.0	3.811	A

2027 Assessment Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	10.74	S

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D10	2027 Assessment Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	384.00	100.000
2		✓	671.00	100.000
3		✓	707.00	100.000
4				
5		✓	1491.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	30.000	319.000	7.000	28.000
	2	0.000	0.000	195.000	194.000	282.000
	3	0.000	154.000	0.000	51.000	502.000
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0.000	530.000	623.000	338.000	0.000

Vehicle Mix

Heavy Vehicle proportion

	To				
	1	2	3	4	5
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	Exit-only	Exit-only	Exit-only	Exit-only
	5	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.61	13.18	1.5	B
2	0.67	9.82	2.0	A
3	0.68	9.98	2.1	A
4				
5	0.83	10.89	4.8	B

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	289.10	1232.81	1013.82	0.285	287.51	0.4	4.945	A
2	505.16	985.30	1389.39	0.364	502.89	0.6	4.052	A
3	532.27	636.28	1299.01	0.410	529.51	0.7	4.661	A
4		723.63						
5	1122.50	115.34	2005.05	0.560	1117.47	1.3	4.034	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	345.21	1475.44	880.08	0.392	344.24	0.6	6.706	A
2	603.22	1179.29	1269.78	0.475	601.90	0.9	5.379	A
3	635.58	761.52	1231.53	0.516	634.12	1.1	6.011	A
4		866.44						
5	1340.38	138.13	1990.29	0.673	1337.31	2.0	5.486	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	422.79	1799.68	701.37	0.603	419.48	1.5	12.624	B
2	738.78	1437.95	1110.31	0.665	734.65	1.9	9.481	A
3	778.42	929.13	1141.24	0.682	774.32	2.1	9.702	A
4		1057.80						
5	1641.62	168.66	1970.51	0.833	1631.02	4.7	10.293	B

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	422.79	1810.53	695.39	0.608	422.59	1.5	13.177	B
2	738.78	1447.27	1104.57	0.669	738.57	2.0	9.824	A
3	778.42	934.46	1138.36	0.684	778.24	2.1	9.983	A
4		1063.31						
5	1641.62	169.52	1969.95	0.833	1641.01	4.8	10.891	B

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	345.21	1490.62	871.71	0.396	348.62	0.7	6.925	A
2	603.22	1192.33	1261.74	0.478	607.43	0.9	5.538	A
3	635.58	769.01	1227.50	0.518	639.71	1.1	6.166	A
4		874.27						
5	1340.38	139.34	1989.50	0.674	1351.28	2.1	5.735	A

Main results: (18:15-18:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	289.10	1242.05	1008.72	0.287	290.13	0.4	5.016	A
2	505.16	993.06	1384.60	0.365	506.56	0.6	4.106	A
3	532.27	640.99	1296.47	0.411	533.81	0.7	4.731	A
4		729.35						
5	1122.50	116.28	2004.44	0.560	1125.77	1.3	4.111	A

2031 Assessment Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	173.83	F

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D11	2031 Assessment Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	429.00	100.000
2		✓	697.00	100.000
3		✓	1260.00	100.000
4				
5		✓	1436.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	35.000	330.000	0.000	64.000
	2	0.000	0.000	130.000	289.000	278.000
	3	0.000	289.000	0.000	87.000	884.000
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0.000	677.000	427.000	332.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.69	16.70	2.1	C
2	0.63	8.04	1.7	A
3	1.30	505.14	170.5	F
4				
5	0.82	10.54	4.5	B

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	322.97	1290.97	981.76	0.329	321.03	0.5	5.434	A
2	524.74	863.62	1464.40	0.358	522.52	0.6	3.815	A
3	948.59	721.75	1252.96	0.757	936.74	3.0	11.009	B
4		1128.37						
5	1081.10	214.86	1940.58	0.557	1076.12	1.2	4.140	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	385.66	1539.25	844.91	0.456	384.30	0.8	7.792	A
2	626.59	1033.62	1359.59	0.461	625.42	0.8	4.895	A
3	1132.71	863.84	1176.41	0.963	1096.21	12.1	34.886	D
4		1327.30						
5	1290.93	251.43	1916.89	0.673	1287.82	2.0	5.694	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	472.34	1817.17	691.73	0.683	467.48	2.0	15.724	C
2	767.41	1260.02	1220.01	0.629	764.17	1.7	7.841	A
3	1387.29	1054.74	1073.57	0.762	1070.53	91.3	183.719	F
4		1371.15						
5	1581.07	245.54	1920.70	0.823	1571.62	4.4	10.046	B

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	472.34	1826.08	686.81	0.688	471.99	2.1	16.696	C
2	767.41	1268.89	1214.55	0.632	767.27	1.7	8.043	A
3	1387.29	1060.00	1070.73	0.996	1070.45	179.5	434.200	F
4		1372.98						
5	1581.07	245.52	1920.72	0.823	1580.56	4.5	10.540	B

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	385.66	1567.76	829.20	0.465	390.65	0.9	8.298	A
2	626.59	1046.12	1351.89	0.463	629.87	0.9	5.009	A
3	1132.71	871.32	1172.38	0.746	1165.54	162.3	505.141	F
4		1394.57						
5	1290.93	267.34	1906.59	0.677	1300.43	2.1	6.030	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	322.97	1369.26	938.61	0.344	324.39	0.5	5.876	A
2	524.74	871.02	1459.84	0.359	525.97	0.6	3.861	A
3	948.59	726.95	1250.16	0.759	1242.50	88.8	365.178	F
4		1414.89						
5	1081.10	284.99	1895.15	0.570	1084.28	1.3	4.456	A

2031 Assessment Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	23.53	C

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D12	2031 Assessment Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	428.00	100.000
2		✓	754.00	100.000
3		✓	780.00	100.000
4				
5		✓	1672.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	34.000	354.000	8.000	32.000
	2	0.000	0.000	216.000	219.000	319.000
	3	0.000	169.000	0.000	56.000	555.000
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0.000	599.000	692.000	381.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.81	31.52	3.9	C
2	0.83	20.05	4.4	C
3	0.80	16.48	3.8	C
4				
5	0.94	26.35	12.6	D

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	322.22	1378.53	933.50	0.345	320.13	0.5	5.849	A
2	567.65	1098.20	1319.78	0.430	564.66	0.7	4.745	A
3	587.22	718.13	1254.91	0.468	583.75	0.9	5.336	A
4		804.67						
5	1258.77	126.48	1997.83	0.630	1252.05	1.7	4.784	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	384.76	1649.08	784.38	0.491	383.07	0.9	8.932	A
2	677.83	1313.75	1186.89	0.571	675.59	1.3	7.010	A
3	701.20	859.12	1178.95	0.595	698.93	1.4	7.463	A
4		963.21						
5	1503.09	151.43	1981.67	0.759	1497.65	3.0	7.353	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	471.24	1993.00	594.81	0.792	461.61	3.4	25.421	D
2	830.17	1585.72	1019.21	0.815	819.48	4.0	17.185	D
3	858.80	1040.03	1081.49	0.794	850.27	3.6	15.042	D
4		1170.44						
5	1840.91	184.22	1960.43	0.939	1808.78	11.1	20.430	D

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	471.24	2020.51	579.65	0.813	469.08	3.9	31.520	D
2	830.17	1609.18	1004.75	0.826	828.45	4.4	20.054	D
3	858.80	1053.02	1074.49	0.799	857.93	3.8	16.477	D
4		1181.90						
5	1840.91	185.88	1959.35	0.940	1834.62	12.6	26.353	D

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	384.76	1694.50	759.34	0.507	396.13	1.0	10.209	B
2	677.83	1353.35	1162.47	0.583	689.77	1.4	7.801	A
3	701.20	880.25	1167.57	0.601	710.21	1.5	8.019	A
4		980.67						
5	1503.09	153.88	1980.08	0.759	1540.62	3.3	8.849	A

Main results: (18:15-18:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	322.22	1392.69	925.69	0.348	324.26	0.5	6.005	A
2	567.65	1110.25	1312.35	0.433	570.28	0.8	4.869	A
3	587.22	725.45	1250.97	0.469	589.79	0.9	5.465	A
4		812.96						
5	1258.77	127.79	1996.99	0.630	1264.90	1.7	4.959	A



Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.0.0.4211 [] © Copyright TRL Limited, 2018
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Filename: A27 South Roundabout + IMPS.j9

Path: \\CADWORKSTATION\Shared Storage\projects\2020 Arundel Road, Angmering\Arcady\HE

Report generation date: 09/07/2018 09:45:50

»2022 Base Flows, AM
»2022 Base Flows, PM
»2027 Base Flows, AM
»2027 Base Flows, PM
»2031 Base Flows, AM
»2031 Base Flows, PM
»2022 Assessment Flows, AM
»2022 Assessment Flows, PM
»2027 Assessment Flows, AM
»2027 Assessment Flows, PM
»2031 Assessment Flows, AM
»2031 Assessment Flows, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2022 Base Flows								
Arm 1	1.1	9.39	0.52	A	1.1	10.37	0.54	B
Arm 2	1.0	5.43	0.50	A	1.5	7.95	0.61	A
Arm 3	4.0	12.62	0.81	B	1.0	4.74	0.49	A
Arm 5	2.5	6.61	0.71	A	3.6	8.44	0.78	A
2027 Base Flows								
Arm 1	1.3	11.36	0.58	B	1.5	12.92	0.60	B
Arm 2	1.2	6.06	0.54	A	1.9	9.66	0.67	A
Arm 3	5.9	17.80	0.88	C	1.1	5.16	0.52	A
Arm 5	3.0	7.72	0.75	A	4.7	10.58	0.83	B
2031 Base Flows								
Arm 1	2.5	19.80	0.72	C	3.8	30.36	0.81	D
Arm 2	1.7	7.99	0.63	A	4.3	19.48	0.82	C
Arm 3	20.5	55.56	0.95	F	1.5	6.63	0.61	A
Arm 5	5.0	11.87	0.84	B	11.9	24.94	0.93	C
2022 Assessment Flows								
Arm 1	1.0	9.18	0.50	A	1.2	10.55	0.54	B
Arm 2	1.0	5.45	0.50	A	1.6	8.07	0.61	A
Arm 3	4.7	14.37	0.83	B	1.0	4.91	0.50	A
Arm 5	2.5	6.66	0.72	A	3.7	8.66	0.79	A
2027 Assessment Flows								
Arm 1	1.3	11.44	0.58	B	1.5	13.18	0.61	B
Arm 2	1.2	6.08	0.54	A	2.0	9.82	0.67	A
Arm 3	7.2	21.30	0.89	C	1.1	5.35	0.54	A
Arm 5	3.0	7.79	0.76	A	4.8	10.89	0.83	B
2031 Assessment Flows								
Arm 1	2.5	19.84	0.72	C	3.9	31.57	0.81	D
Arm 2	1.7	8.04	0.63	A	4.4	20.06	0.83	C
Arm 3	29.2	74.02	1.01	F	1.6	6.92	0.62	A
Arm 5	5.1	11.95	0.84	B	12.7	26.40	0.94	D

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	A27 South Roundabout + Mitigation
Location	Angmering
Site number	
Date	22/05/2018
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	Croft Transport Solutions
Description	



Units

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

Analysis Options

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

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
2022 Base Flows	AM	ONE HOUR	08:00	09:30	15
2022 Base Flows	PM	ONE HOUR	17:00	18:30	15
2027 Base Flows	AM	ONE HOUR	08:00	09:30	15
2027 Base Flows	PM	ONE HOUR	17:00	18:30	15
2031 Base Flows	AM	ONE HOUR	08:00	09:30	15
2031 Base Flows	PM	ONE HOUR	17:00	18:30	15
2022 Assessment Flows	AM	ONE HOUR	08:00	09:30	15
2022 Assessment Flows	PM	ONE HOUR	17:00	18:30	15
2027 Assessment Flows	AM	ONE HOUR	08:00	09:30	15
2027 Assessment Flows	PM	ONE HOUR	17:00	18:30	15
2031 Assessment Flows	AM	ONE HOUR	08:00	09:30	15
2031 Assessment Flows	PM	ONE HOUR	17:00	18:30	15

2022 Base Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	8.68	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A27 WB Off-Slip	
2	Titnore Lane	
3	Water Lane	
4	A27 On Slip	
5	A280 North	

Capacity Options

Arm	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00
5	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	4.00	6.00	35.0	25.0	60.0	38.0	
2	3.40	7.80	30.0	25.0	60.0	24.0	
3	3.65	7.50	50.0	20.0	60.0	33.0	
4							✓
5	3.70	7.80	22.0	42.0	60.0	10.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.551	1693.316
2	0.617	1996.839
3	0.610	2020.629
4		
5	0.648	2079.767

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D1	2022 Base Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	372.00	100.000
2		✓	599.00	100.000
3		✓	1079.00	100.000
4				
5		✓	1230.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
From		1	2	3	4	5
	1	0.000	30.000	288.000	0.000	54.000
	2	0.000	0.000	115.000	247.000	237.000
	3	0.000	254.000	0.000	79.000	746.000
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0.000	578.000	372.000	280.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.52	9.39	1.1	A
2	0.50	5.43	1.0	A
3	0.81	12.62	4.0	B
4				
5	0.71	6.61	2.5	A

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	280.06	1112.76	1079.99	0.259	278.67	0.3	4.485	A
2	450.96	745.16	1537.43	0.293	449.31	0.4	3.304	A
3	812.33	613.48	1646.48	0.493	808.47	1.0	4.276	A
4		967.50						
5	926.01	190.32	1956.48	0.473	922.44	0.9	3.470	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	334.42	1331.78	959.27	0.349	333.69	0.5	5.746	A
2	538.49	892.00	1446.90	0.372	537.79	0.6	3.960	A
3	970.00	734.30	1572.80	0.617	967.53	1.6	5.924	A
4		1157.91						
5	1105.74	227.76	1932.23	0.572	1104.02	1.3	4.338	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	409.58	1627.33	796.36	0.514	407.55	1.0	9.210	A
2	659.51	1090.22	1324.70	0.498	657.95	1.0	5.386	A
3	1188.00	898.08	1472.91	0.807	1178.71	3.9	11.877	B
4		1411.89						
5	1354.26	277.47	1900.02	0.713	1349.86	2.4	6.492	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	409.58	1633.65	792.88	0.517	409.51	1.1	9.386	A
2	659.51	1094.28	1322.20	0.499	659.48	1.0	5.431	A
3	1188.00	900.57	1471.39	0.807	1187.45	4.0	12.615	B
4		1420.88						
5	1354.26	279.53	1898.69	0.713	1354.12	2.5	6.606	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	334.42	1340.74	954.32	0.350	336.46	0.5	5.847	A
2	538.49	897.79	1443.33	0.373	540.05	0.6	3.992	A
3	970.00	737.92	1570.59	0.618	979.60	1.6	6.186	A
4		1170.40						
5	1105.74	230.60	1930.38	0.573	1110.14	1.4	4.413	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	280.06	1119.65	1076.19	0.260	280.82	0.4	4.531	A
2	450.96	749.99	1534.46	0.294	451.68	0.4	3.328	A
3	812.33	616.94	1644.37	0.494	814.96	1.0	4.355	A
4		974.77						
5	926.01	191.84	1955.49	0.474	927.81	0.9	3.511	A

2022 Base Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	7.77	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D2	2022 Base Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	366.00	100.000
2		✓	637.00	100.000
3		✓	662.00	100.000
4				
5		✓	1406.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	29.000	304.000	6.000	27.000
	2	0.000	0.000	187.000	183.000	267.000
	3	0.000	149.000	0.000	50.000	463.000
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0.000	501.000	594.000	311.000	0.000

Vehicle Mix

Heavy Vehicle proportion

	To				
	1	2	3	4	5
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	Exit-only	Exit-only	Exit-only	Exit-only
	5	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.54	10.37	1.1	B
2	0.61	7.95	1.5	A
3	0.49	4.74	1.0	A
4				
5	0.78	8.44	3.6	A

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	275.54	1165.88	1050.71	0.262	274.13	0.4	4.627	A
2	479.57	930.90	1422.92	0.337	477.55	0.5	3.800	A
3	498.39	595.23	1657.61	0.301	496.68	0.4	3.097	A
4		679.55						
5	1058.51	111.79	2007.35	0.527	1054.09	1.1	3.760	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	329.03	1395.35	924.23	0.356	328.25	0.5	6.033	A
2	572.65	1114.27	1309.87	0.437	571.59	0.8	4.869	A
3	595.12	712.44	1586.13	0.375	594.45	0.6	3.628	A
4		813.35						
5	1263.97	133.80	1993.09	0.634	1261.55	1.7	4.904	A

Main results: {17:30-17:45}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	402.97	1704.63	753.76	0.535	400.67	1.1	10.130	B
2	701.35	1360.76	1157.91	0.606	698.41	1.5	7.784	A
3	728.88	870.35	1489.82	0.489	727.47	0.9	4.713	A
4		994.82						
5	1548.03	163.74	1973.70	0.784	1540.90	3.5	8.184	A

Main results: {17:45-18:00}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	402.97	1711.80	749.81	0.537	402.88	1.1	10.371	B
2	701.35	1367.20	1153.93	0.608	701.25	1.5	7.951	A
3	728.88	874.07	1487.55	0.490	728.85	1.0	4.744	A
4		997.45						
5	1548.03	164.05	1973.50	0.784	1547.76	3.6	8.441	A

Main results: {18:00-18:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	329.03	1405.44	918.67	0.358	331.35	0.6	6.152	A
2	572.65	1123.32	1304.29	0.439	575.61	0.8	4.961	A
3	595.12	717.68	1582.93	0.376	596.52	0.6	3.653	A
4		817.18						
5	1263.97	134.26	1992.79	0.634	1271.18	1.8	5.039	A

Main results: {18:15-18:30}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	275.54	1173.38	1046.57	0.263	276.36	0.4	4.678	A
2	479.57	937.43	1418.90	0.338	480.67	0.5	3.841	A
3	498.39	599.18	1655.20	0.301	499.08	0.4	3.117	A
4		683.25						
5	1058.51	112.33	2007.00	0.527	1061.05	1.1	3.814	A

2027 Base Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	11.13	S

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D3	2027 Base Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	391.00	100.000
2		✓	631.00	100.000
3		✓	1129.00	100.000
4				
5		✓	1294.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	32.000	301.000	0.000	58.000
	2	0.000	0.000	120.000	261.000	250.000
	3	0.000	266.000	0.000	82.000	781.000
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0.000	610.000	389.000	295.000	0.000

Vehicle Mix

Heavy Vehicle proportion

	To				
	1	2	3	4	5
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	Exit-only	Exit-only	Exit-only	Exit-only
	5	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.58	11.36	1.3	B
2	0.54	6.06	1.2	A
3	0.86	17.80	5.9	C
4				
5	0.75	7.72	3.0	A

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	294.37	1169.47	1048.73	0.281	292.82	0.4	4.753	A
2	475.05	781.71	1514.90	0.314	473.23	0.5	3.450	A
3	849.97	647.86	1625.51	0.523	845.63	1.1	4.588	A
4		1015.14						
5	974.19	199.24	1950.70	0.499	970.23	1.0	3.656	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	351.50	1399.60	921.88	0.381	350.61	0.6	6.282	A
2	567.26	935.73	1419.95	0.399	566.43	0.7	4.215	A
3	1014.95	775.45	1547.70	0.656	1011.82	1.9	6.680	A
4		1214.76						
5	1163.28	238.39	1925.34	0.604	1161.21	1.5	4.700	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	430.50	1708.37	751.70	0.573	427.72	1.3	11.019	B
2	694.74	1142.77	1292.30	0.538	692.80	1.1	5.986	A
3	1243.05	947.98	1442.48	0.662	1228.41	5.5	15.840	C
4		1477.12						
5	1424.72	289.42	1892.28	0.753	1418.95	2.9	7.514	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	430.50	1717.04	746.92	0.576	430.37	1.3	11.363	B
2	694.74	1148.12	1289.00	0.539	694.69	1.2	6.057	A
3	1243.05	951.17	1440.53	0.663	1241.66	5.9	17.800	C
4		1490.55						
5	1424.72	292.54	1890.26	0.754	1424.49	3.0	7.719	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	351.50	1411.92	915.10	0.384	354.33	0.6	6.450	A
2	567.26	943.30	1415.27	0.401	569.20	0.7	4.264	A
3	1014.95	780.03	1544.90	0.657	1030.62	2.0	7.203	A
4		1233.84						
5	1163.28	242.82	1922.47	0.605	1169.09	1.6	4.816	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	294.37	1177.43	1044.34	0.282	295.31	0.4	4.813	A
2	475.05	787.24	1511.49	0.314	475.90	0.5	3.481	A
3	849.97	651.79	1623.11	0.524	853.35	1.1	4.696	A
4		1023.73						
5	974.19	201.06	1949.52	0.500	976.37	1.0	3.706	A

2027 Base Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	9.51	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D4	2027 Base Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	384.00	100.000
2		✓	671.00	100.000
3		✓	690.00	100.000
4				
5		✓	1482.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	30.000	319.000	7.000	28.000
	2	0.000	0.000	195.000	194.000	282.000
	3	0.000	154.000	0.000	51.000	485.000
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0.000	530.000	623.000	329.000	0.000

Vehicle Mix

Heavy Vehicle proportion

	To				
	1	2	3	4	5
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	Exit-only	Exit-only	Exit-only	Exit-only
	5	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.60	12.92	1.5	B
2	0.67	9.66	1.9	A
3	0.52	5.16	1.1	A
4				
5	0.83	10.58	4.7	B

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	289.10	1226.28	1017.41	0.284	287.52	0.4	4.923	A
2	505.16	978.58	1393.52	0.363	502.91	0.6	4.033	A
3	519.47	629.55	1636.68	0.317	517.62	0.5	3.211	A
4		711.68						
5	1115.73	115.53	2004.93	0.556	1110.76	1.2	4.001	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	345.21	1467.57	884.42	0.390	344.25	0.6	6.652	A
2	603.22	1171.27	1274.73	0.473	601.92	0.9	5.341	A
3	620.30	753.47	1561.10	0.397	619.53	0.7	3.819	A
4		851.81						
5	1332.29	138.27	1990.20	0.669	1329.30	2.0	5.422	A

Main results: {17:30-17:45}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	422.79	1790.73	706.30	0.599	419.55	1.4	12.416	B
2	738.78	1428.41	1116.19	0.662	734.74	1.9	9.338	A
3	759.70	919.43	1459.89	0.520	758.03	1.1	5.116	A
4		1041.38						
5	1631.71	169.18	1970.17	0.828	1621.54	4.5	10.041	B

Main results: {17:45-18:00}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	422.79	1800.71	700.80	0.603	422.61	1.5	12.923	B
2	738.78	1437.41	1110.65	0.665	738.59	1.9	9.665	A
3	759.70	924.58	1456.75	0.522	759.66	1.1	5.164	A
4		1044.73						
5	1631.71	169.55	1969.93	0.828	1631.16	4.7	10.581	B

Main results: {18:00-18:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	345.21	1481.53	876.73	0.394	348.53	0.7	6.856	A
2	603.22	1183.83	1266.99	0.476	607.34	0.9	5.490	A
3	620.30	760.69	1556.70	0.398	621.96	0.7	3.859	A
4		856.65						
5	1332.29	138.81	1989.84	0.670	1342.71	2.1	5.649	A

Main results: {18:15-18:30}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	289.10	1235.02	1012.60	0.286	290.11	0.4	4.989	A
2	505.16	986.21	1388.82	0.364	506.54	0.6	4.086	A
3	519.47	634.17	1633.86	0.318	520.26	0.5	3.236	A
4		715.84						
5	1115.73	116.12	2004.55	0.557	1118.91	1.3	4.080	A

2031 Base Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	26.34	D

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D5	2031 Base Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	429.00	100.000
2		✓	697.00	100.000
3		✓	1230.00	100.000
4				
5		✓	1432.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	35.000	330.000	0.000	64.000
	2	0.000	0.000	130.000	289.000	278.000
	3	0.000	289.000	0.000	87.000	854.000
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0.000	677.000	427.000	328.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.72	19.80	2.5	C
2	0.63	7.99	1.7	A
3	0.98	55.88	20.5	F
4				
5	0.84	11.87	5.0	B

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	322.97	1289.40	982.63	0.329	321.03	0.5	5.427	A
2	524.74	860.63	1466.24	0.358	522.52	0.6	3.807	A
3	926.01	718.76	1582.27	0.585	920.45	1.4	5.395	A
4		1111.64						
5	1078.08	216.27	1939.67	0.556	1073.13	1.2	4.132	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	385.66	1542.75	842.98	0.458	384.28	0.8	7.825	A
2	626.59	1030.01	1361.82	0.460	625.43	0.8	4.880	A
3	1105.74	860.25	1495.98	0.739	1100.38	2.7	8.979	A
4		1329.33						
5	1287.34	258.55	1912.28	0.673	1284.21	2.0	5.703	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	472.34	1871.94	661.54	0.714	466.32	2.3	17.919	C
2	767.41	1253.65	1223.94	0.627	764.21	1.6	7.777	A
3	1354.26	1049.82	1380.37	0.981	1304.31	15.2	34.872	D
4		1586.43						
5	1576.66	306.46	1881.24	0.838	1565.48	4.8	11.027	B

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	472.34	1889.04	652.11	0.724	471.66	2.5	19.803	C
2	767.41	1263.99	1217.56	0.630	767.26	1.7	7.989	A
3	1354.26	1055.46	1376.93	0.984	1333.19	20.5	55.857	F
4		1615.28						
5	1576.66	313.25	1876.85	0.840	1575.79	5.0	11.874	B

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	385.66	1575.15	825.12	0.467	392.11	0.9	8.434	A
2	626.59	1044.96	1352.60	0.463	629.82	0.9	5.002	A
3	1105.74	868.37	1491.03	0.742	1175.68	3.0	13.877	B
4		1402.22						
5	1287.34	276.24	1900.82	0.677	1298.92	2.1	6.091	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	322.97	1300.62	976.44	0.331	324.55	0.5	5.537	A
2	524.74	868.32	1461.51	0.359	525.97	0.6	3.852	A
3	926.01	724.02	1579.06	0.586	932.26	1.4	5.617	A
4		1124.52						
5	1078.08	219.04	1937.87	0.556	1081.58	1.3	4.220	A

2031 Base Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	20.56	C

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D6	2031 Base Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	428.00	100.000
2		✓	754.00	100.000
3		✓	764.00	100.000
4				
5		✓	1663.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	34.000	354.000	8.000	32.000
	2	0.000	0.000	216.000	219.000	319.000
	3	0.000	169.000	0.000	56.000	539.000
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0.000	599.000	692.000	372.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.81	30.36	3.8	C
2	0.82	19.48	4.3	C
3	0.61	6.63	1.5	A
4				
5	0.93	24.94	11.9	C

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	322.22	1372.10	937.04	0.344	320.14	0.5	5.815	A
2	567.65	1091.51	1323.90	0.429	564.68	0.7	4.724	A
3	575.18	711.41	1586.75	0.362	572.92	0.6	3.544	A
4		793.76						
5	1251.99	126.73	1997.67	0.627	1245.37	1.7	4.744	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	384.76	1641.40	788.61	0.488	383.10	0.9	8.839	A
2	677.83	1305.79	1191.79	0.569	675.62	1.3	6.946	A
3	686.82	851.12	1501.55	0.457	685.74	0.8	4.407	A
4		949.96						
5	1495.00	151.69	1981.50	0.754	1489.71	3.0	7.242	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	471.24	1986.15	598.59	0.787	461.90	3.3	24.841	C
2	830.17	1577.28	1024.41	0.810	819.79	3.9	16.811	C
3	841.18	1030.91	1391.90	0.604	838.52	1.5	6.474	A
4		1158.43						
5	1831.00	185.48	1959.61	0.934	1800.67	10.6	19.712	C

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	471.24	2011.65	584.53	0.806	469.30	3.8	30.360	C
2	830.17	1600.06	1010.37	0.822	828.57	4.3	19.479	C
3	841.18	1043.44	1384.26	0.608	841.06	1.5	6.625	A
4		1165.05						
5	1831.00	186.05	1959.25	0.935	1825.60	11.9	24.938	C

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	384.76	1682.43	765.99	0.502	395.66	1.0	9.995	A
2	677.83	1343.08	1168.81	0.580	689.36	1.4	7.682	A
3	686.82	871.09	1489.37	0.461	689.49	0.9	4.515	A
4		960.19						
5	1495.00	152.52	1980.97	0.755	1529.91	3.2	8.563	A

Main results: (18:15-18:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	322.22	1385.39	929.72	0.347	324.20	0.5	5.963	A
2	567.65	1103.26	1316.66	0.431	570.22	0.8	4.838	A
3	575.18	718.55	1582.40	0.363	576.34	0.6	3.584	A
4		799.58						
5	1251.99	127.49	1997.18	0.627	1257.90	1.7	4.907	A

2022 Assessment Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	9.31	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D7	2022 Assessment Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	362.00	100.000
2		✓	599.00	100.000
3		✓	1109.00	100.000
4				
5		✓	1234.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	20.000	288.000	0.000	54.000
	2	0.000	0.000	115.000	247.000	237.000
	3	0.000	254.000	0.000	79.000	776.000
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0.000	578.000	372.000	284.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.50	9.18	1.0	A
2	0.50	5.45	1.0	A
3	0.83	14.37	4.7	B
4				
5	0.72	6.66	2.5	A

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	272.53	1115.72	1078.35	0.253	271.19	0.3	4.453	A
2	450.96	748.17	1535.58	0.294	449.30	0.4	3.310	A
3	834.91	616.48	1644.65	0.508	830.83	1.0	4.402	A
4		989.87						
5	929.02	190.29	1956.50	0.475	925.43	0.9	3.480	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	325.43	1335.31	957.32	0.340	324.73	0.5	5.685	A
2	538.49	895.60	1444.69	0.373	537.78	0.6	3.963	A
3	996.97	737.89	1570.61	0.635	994.23	1.7	6.216	A
4		1184.62						
5	1109.34	227.71	1932.26	0.574	1107.60	1.3	4.357	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	398.57	1631.29	794.18	0.502	396.66	1.0	9.012	A
2	659.51	1094.64	1321.97	0.499	657.94	1.0	5.408	A
3	1221.03	902.46	1470.24	0.831	1209.82	4.5	13.285	B
4		1443.12						
5	1358.66	277.09	1900.27	0.715	1354.20	2.4	6.539	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	398.57	1638.00	790.48	0.504	398.50	1.0	9.181	A
2	659.51	1098.68	1319.48	0.500	659.48	1.0	5.454	A
3	1221.03	904.97	1468.71	0.831	1220.24	4.7	14.372	B
4		1453.69						
5	1358.66	279.48	1898.72	0.716	1358.52	2.5	6.659	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	325.43	1344.83	952.07	0.342	327.35	0.5	5.781	A
2	538.49	901.37	1441.13	0.374	540.06	0.6	4.001	A
3	996.97	741.54	1568.38	0.636	1008.69	1.8	6.561	A
4		1199.34						
5	1109.34	231.03	1930.11	0.575	1113.80	1.4	4.433	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	272.53	1122.74	1074.49	0.254	273.26	0.3	4.498	A
2	450.96	753.00	1532.60	0.294	451.69	0.4	3.334	A
3	834.91	619.96	1642.53	0.508	837.85	1.0	4.489	A
4		997.64						
5	929.02	191.90	1955.46	0.475	930.84	0.9	3.521	A

2022 Assessment Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	7.94	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D8	2022 Assessment Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	366.00	100.000
2		✓	637.00	100.000
3		✓	679.00	100.000
4				
5		✓	1416.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	29.000	304.000	6.000	27.000
	2	0.000	0.000	187.000	183.000	267.000
	3	0.000	149.000	0.000	50.000	480.000
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0.000	501.000	594.000	321.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.54	10.55	1.2	B
2	0.61	8.07	1.6	A
3	0.50	4.91	1.0	A
4				
5	0.79	8.66	3.7	A

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	275.54	1173.33	1046.60	0.263	274.12	0.4	4.652	A
2	479.57	938.36	1418.32	0.338	477.54	0.5	3.818	A
3	511.19	602.71	1653.05	0.309	509.41	0.4	3.144	A
4		692.28						
5	1066.04	111.78	2007.35	0.531	1061.55	1.1	3.795	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	329.03	1404.27	919.31	0.358	328.24	0.6	6.083	A
2	572.65	1123.20	1304.37	0.439	571.58	0.8	4.906	A
3	610.41	721.39	1580.67	0.386	609.69	0.6	3.706	A
4		828.59						
5	1272.95	133.79	1993.10	0.639	1270.48	1.7	4.965	A

Main results: {17:30-17:45}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	402.97	1715.32	747.87	0.539	400.62	1.1	10.298	B
2	701.35	1371.50	1151.28	0.609	698.35	1.5	7.896	A
3	747.59	881.20	1483.20	0.504	746.07	1.0	4.874	A
4		1013.40						
5	1559.05	163.72	1973.71	0.790	1551.60	3.6	8.382	A

Main results: {17:45-18:00}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	402.97	1722.79	743.75	0.542	402.88	1.2	10.555	B
2	701.35	1378.19	1147.16	0.611	701.24	1.6	8.068	A
3	747.59	885.07	1480.85	0.505	747.56	1.0	4.909	A
4		1016.16						
5	1559.05	164.05	1973.50	0.790	1558.74	3.7	8.662	A

Main results: {18:00-18:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	329.03	1414.77	913.52	0.360	331.41	0.6	6.208	A
2	572.65	1132.59	1298.58	0.441	575.67	0.8	4.999	A
3	610.41	726.84	1577.34	0.387	611.92	0.6	3.736	A
4		832.60						
5	1272.95	134.28	1992.78	0.639	1280.49	1.8	5.105	A

Main results: {18:15-18:30}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	275.54	1180.98	1042.38	0.264	276.37	0.4	4.704	A
2	479.57	945.02	1414.22	0.339	480.69	0.5	3.862	A
3	511.19	606.75	1650.58	0.310	511.93	0.5	3.165	A
4		696.10						
5	1066.04	112.34	2007.00	0.531	1068.65	1.1	3.846	A

2027 Assessment Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	12.39	S

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D9	2027 Assessment Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	391.00	100.000
2		✓	631.00	100.000
3		✓	1159.00	100.000
4				
5		✓	1298.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	32.000	301.000	0.000	58.000
	2	0.000	0.000	120.000	261.000	250.000
	3	0.000	266.000	0.000	82.000	811.000
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0.000	610.000	389.000	299.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.58	11.44	1.3	B
2	0.54	6.08	1.2	A
3	0.89	21.30	7.2	C
4				
5	0.76	7.79	3.0	A

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	294.37	1172.42	1047.10	0.281	292.81	0.4	4.763	A
2	475.05	784.70	1513.06	0.314	473.23	0.5	3.456	A
3	872.56	650.85	1623.69	0.537	867.96	1.1	4.736	A
4		1037.48						
5	977.20	199.20	1950.72	0.501	973.22	1.0	3.668	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	351.50	1403.11	919.95	0.382	350.61	0.6	6.312	A
2	567.26	939.30	1417.74	0.400	566.43	0.7	4.224	A
3	1041.92	779.03	1545.51	0.674	1038.43	2.0	7.049	A
4		1241.38						
5	1166.88	238.33	1925.38	0.606	1164.78	1.5	4.719	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	430.50	1711.94	749.73	0.574	427.70	1.3	11.084	B
2	694.74	1147.10	1289.63	0.539	692.79	1.2	6.013	A
3	1276.08	952.34	1439.82	0.666	1257.77	6.6	18.200	C
4		1506.71						
5	1429.12	288.67	1892.77	0.755	1423.27	3.0	7.573	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	430.50	1721.25	744.60	0.578	430.36	1.3	11.445	B
2	694.74	1152.51	1286.29	0.540	694.69	1.2	6.085	A
3	1276.08	955.57	1437.85	0.667	1273.87	7.2	21.299	C
4		1522.81						
5	1429.12	292.36	1890.37	0.756	1428.89	3.0	7.790	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	351.50	1416.52	912.56	0.385	354.35	0.6	6.480	A
2	567.26	946.98	1413.01	0.401	569.21	0.7	4.275	A
3	1041.92	783.68	1542.68	0.675	1062.00	2.1	7.788	A
4		1264.95						
5	1166.88	243.74	1921.87	0.607	1172.78	1.6	4.844	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	294.37	1180.55	1042.62	0.282	295.31	0.4	4.824	A
2	475.05	790.28	1509.62	0.315	475.91	0.5	3.484	A
3	872.56	654.82	1621.27	0.538	876.37	1.2	4.856	A
4		1046.72						
5	977.20	201.13	1949.47	0.501	979.41	1.0	3.721	A

2027 Assessment Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	9.74	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D10	2027 Assessment Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	384.00	100.000
2		✓	671.00	100.000
3		✓	707.00	100.000
4				
5		✓	1491.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	30.000	319.000	7.000	28.000
	2	0.000	0.000	195.000	194.000	282.000
	3	0.000	154.000	0.000	51.000	502.000
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0.000	530.000	623.000	338.000	0.000

Vehicle Mix

Heavy Vehicle proportion

	To				
	1	2	3	4	5
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	Exit-only	Exit-only	Exit-only	Exit-only
	5	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.61	13.18	1.5	B
2	0.67	9.82	2.0	A
3	0.54	5.35	1.1	A
4				
5	0.83	10.89	4.8	B

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	289.10	1232.99	1013.72	0.285	287.51	0.4	4.946	A
2	505.16	985.29	1389.39	0.364	502.89	0.6	4.052	A
3	532.27	636.28	1632.58	0.326	530.34	0.5	3.260	A
4		724.40						
5	1122.50	115.52	2004.93	0.560	1117.47	1.3	4.034	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	345.21	1475.58	880.01	0.392	344.24	0.6	6.707	A
2	603.22	1179.29	1269.78	0.475	601.90	0.9	5.379	A
3	635.58	761.52	1556.19	0.408	634.76	0.7	3.904	A
4		867.03						
5	1340.38	138.26	1990.20	0.673	1337.31	2.0	5.487	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	422.79	1800.16	701.10	0.603	419.47	1.5	12.636	B
2	738.78	1437.94	1110.32	0.665	734.65	1.9	9.480	A
3	778.42	929.12	1453.98	0.535	776.61	1.1	5.301	A
4		1059.93						
5	1641.62	169.16	1970.18	0.833	1631.00	4.7	10.301	B

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	422.79	1810.57	695.36	0.608	422.60	1.5	13.178	B
2	738.78	1447.28	1104.56	0.669	738.57	2.0	9.824	A
3	778.42	934.46	1450.72	0.537	778.38	1.1	5.354	A
4		1063.44						
5	1641.62	169.55	1969.93	0.833	1641.02	4.8	10.891	B

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	345.21	1490.13	871.99	0.396	348.62	0.7	6.924	A
2	603.22	1192.34	1261.74	0.478	607.43	0.9	5.536	A
3	635.58	769.01	1551.62	0.410	637.38	0.7	3.945	A
4		872.11						
5	1340.38	138.84	1989.83	0.674	1351.29	2.1	5.732	A

Main results: (18:15-18:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	289.10	1241.89	1008.81	0.287	290.13	0.4	5.017	A
2	505.16	993.06	1384.60	0.365	506.56	0.6	4.107	A
3	532.27	640.99	1629.70	0.327	533.11	0.5	3.287	A
4		728.70						
5	1122.50	116.12	2004.54	0.560	1125.77	1.3	4.113	A

2031 Assessment Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	32.59	D

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D11	2031 Assessment Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	429.00	100.000
2		✓	697.00	100.000
3		✓	1260.00	100.000
4				
5		✓	1436.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	35.000	330.000	0.000	64.000
	2	0.000	0.000	130.000	289.000	278.000
	3	0.000	289.000	0.000	87.000	884.000
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0.000	677.000	427.000	332.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.72	19.84	2.5	C
2	0.63	8.04	1.7	A
3	1.01	74.02	29.2	F
4				
5	0.84	11.95	5.1	B

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	322.97	1292.33	981.01	0.329	321.03	0.5	5.440	A
2	524.74	863.62	1464.40	0.358	522.52	0.6	3.815	A
3	948.59	721.75	1580.45	0.600	942.68	1.5	5.594	A
4		1133.89						
5	1081.10	216.22	1939.70	0.557	1076.11	1.2	4.145	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	385.66	1546.17	841.10	0.459	384.27	0.8	7.856	A
2	626.59	1033.57	1359.62	0.461	625.42	0.8	4.895	A
3	1132.71	863.83	1493.80	0.758	1126.60	3.0	9.644	A
4		1355.59						
5	1290.93	258.40	1912.37	0.675	1287.77	2.0	5.733	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	472.34	1872.67	661.14	0.714	466.31	2.3	17.952	C
2	767.41	1257.98	1221.27	0.628	764.19	1.7	7.821	A
3	1387.29	1054.15	1377.72	0.607	1320.56	19.7	41.759	E
4		1603.74						
5	1581.07	302.89	1883.55	0.839	1569.78	4.9	11.091	B

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	472.34	1889.68	651.76	0.725	471.66	2.5	19.840	C
2	767.41	1268.39	1214.85	0.632	767.26	1.7	8.037	A
3	1387.29	1059.86	1374.24	0.609	1349.37	29.2	74.623	F
4		1632.59						
5	1581.07	309.50	1879.27	0.841	1580.19	5.1	11.951	B

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	385.66	1586.02	819.13	0.471	392.08	0.9	8.551	A
2	626.59	1048.56	1350.38	0.464	629.85	0.9	5.020	A
3	1132.71	872.01	1488.81	0.761	1235.89	3.4	19.925	C
4		1460.27						
5	1290.93	283.47	1896.14	0.681	1302.55	2.2	6.180	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	322.97	1303.96	974.60	0.331	324.59	0.5	5.551	A
2	524.74	871.43	1459.58	0.360	525.98	0.6	3.860	A
3	948.59	727.08	1577.20	0.601	955.95	1.5	5.860	A
4		1148.16						
5	1081.10	219.26	1937.73	0.558	1084.70	1.3	4.237	A

2031 Assessment Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	21.51	C

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D12	2031 Assessment Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	428.00	100.000
2		✓	754.00	100.000
3		✓	780.00	100.000
4				
5		✓	1672.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	34.000	354.000	8.000	32.000
	2	0.000	0.000	216.000	219.000	319.000
	3	0.000	169.000	0.000	56.000	555.000
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0.000	599.000	692.000	381.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.81	31.57	3.9	C
2	0.83	20.06	4.4	C
3	0.62	6.92	1.6	A
4				
5	0.94	26.40	12.7	C

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	322.22	1378.78	933.36	0.345	320.13	0.5	5.850	A
2	567.65	1098.20	1319.78	0.430	564.66	0.7	4.745	A
3	587.22	718.13	1582.66	0.371	584.88	0.6	3.601	A
4		805.72						
5	1258.77	126.72	1997.68	0.630	1252.05	1.7	4.785	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	384.76	1649.32	784.24	0.491	383.07	0.9	8.935	A
2	677.83	1313.75	1186.89	0.571	675.59	1.3	7.010	A
3	701.20	859.12	1496.67	0.469	700.06	0.9	4.512	A
4		964.26						
5	1503.09	151.68	1981.51	0.759	1497.64	3.0	7.356	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	471.24	1994.06	594.23	0.793	461.56	3.4	25.510	D
2	830.17	1585.57	1019.31	0.814	819.49	4.0	17.178	D
3	858.80	1039.99	1386.36	0.619	855.90	1.6	6.751	A
4		1175.67						
5	1840.91	185.45	1959.64	0.939	1808.61	11.1	20.495	D

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	471.24	2020.74	579.52	0.813	469.10	3.9	31.569	D
2	830.17	1609.25	1004.70	0.826	828.44	4.4	20.057	D
3	858.80	1053.03	1378.41	0.623	858.66	1.6	6.922	A
4		1182.58						
5	1840.91	186.04	1959.25	0.940	1834.70	12.7	26.399	D

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	384.76	1693.29	760.01	0.506	396.16	1.0	10.189	B
2	677.83	1353.45	1162.41	0.583	689.77	1.4	7.802	A
3	701.20	880.28	1483.76	0.473	704.11	0.9	4.634	A
4		975.01						
5	1503.09	152.56	1980.94	0.759	1540.73	3.3	8.835	A

Main results: (18:15-18:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	322.22	1392.38	925.86	0.348	324.25	0.5	6.003	A
2	567.65	1110.23	1312.36	0.433	570.28	0.8	4.869	A
3	587.22	725.44	1578.20	0.372	588.46	0.6	3.643	A
4		811.72						
5	1258.77	127.50	1997.17	0.630	1264.88	1.7	4.957	A

APPENDIX 9

ARCADY Output for A27 Northern Roundabout Existing & Proposed



Junctions 9	
ARCADY 9 - Roundabout Module	
Version: 9.0.0.4211 []	
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Filename: A27 North Roundabout + Existing.j9

Path: \\CADWORKSTATION\Shared Storage\projects\2020 Arundel Road, Angmering\Arcady\HE

Report generation date: 06/07/2018 17:09:31

»2022 Base Flows, AM
»2022 Base Flows, PM
»2027 Base Flows, AM
»2027 Base Flows, PM
»2031 Base Flows, AM
»2031 Base Flows, PM
»2022 Assessment Flows, AM
»2022 Assessment Flows, PM
»2027 Assessment Flows, AM
»2027 Assessment Flows, PM
»2031 Assessment Flows, AM
»2031 Assessment Flows, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2022 Base Flows								
Arm 1	1.9	7.47	0.65	A	3.9	11.44	0.80	B
Arm 3	1.5	4.64	0.60	A	0.8	3.33	0.44	A
Arm 4	2.9	13.57	0.75	B	0.6	4.86	0.39	A
Arm 5	0.1	9.09	0.12	A	0.1	5.17	0.08	A
2027 Base Flows								
Arm 1	2.3	8.86	0.70	A	5.5	15.46	0.85	C
Arm 3	1.7	5.00	0.63	A	0.8	3.47	0.46	A
Arm 4	4.1	18.52	0.81	C	0.7	5.20	0.42	A
Arm 5	0.2	10.46	0.15	B	0.1	5.45	0.09	A
2031 Base Flows								
Arm 1	4.0	14.06	0.81	B	21.2	52.66	0.98	F
Arm 3	2.2	5.99	0.69	A	1.1	3.86	0.51	A
Arm 4	13.7	54.21	0.96	F	1.0	6.26	0.49	A
Arm 5	0.3	14.96	0.22	B	0.1	6.27	0.11	A
2022 Assessment Flows								
Arm 1	1.9	7.83	0.66	A	4.1	12.08	0.81	B
Arm 3	1.6	4.84	0.61	A	0.8	3.39	0.45	A
Arm 4	3.2	14.78	0.77	B	0.7	5.00	0.40	A
Arm 5	0.1	9.53	0.13	A	0.1	5.28	0.08	A
2027 Assessment Flows								
Arm 1	2.4	9.38	0.71	A	5.9	16.58	0.86	C
Arm 3	1.8	5.25	0.64	A	0.9	3.53	0.47	A
Arm 4	4.6	20.85	0.83	C	0.8	5.35	0.43	A
Arm 5	0.1	10.70	0.13	B	0.1	5.56	0.09	A
2031 Assessment Flows								
Arm 1	4.3	15.18	0.82	C	24.7	60.23	0.99	F
Arm 3	2.4	6.34	0.70	A	1.1	3.93	0.52	A
Arm 4	17.5	69.77	0.98	F	1.0	6.49	0.51	A
Arm 5	0.3	15.96	0.23	C	0.1	6.43	0.11	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	A27 North Roundabout + Mitigation
Location	Angmering
Site number	
Date	22/05/2018
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	Croft Transport Solutions
Description	



Units

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

Analysis Options

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

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
2022 Base Flows	AM	ONE HOUR	08:00	09:30	15
2022 Base Flows	PM	ONE HOUR	17:00	18:30	15
2027 Base Flows	AM	ONE HOUR	08:00	09:30	15
2027 Base Flows	PM	ONE HOUR	17:00	18:30	15
2031 Base Flows	AM	ONE HOUR	08:00	09:30	15
2031 Base Flows	PM	ONE HOUR	17:00	18:30	15
2022 Assessment Flows	AM	ONE HOUR	08:00	09:30	15
2022 Assessment Flows	PM	ONE HOUR	17:00	18:30	15
2027 Assessment Flows	AM	ONE HOUR	08:00	09:30	15
2027 Assessment Flows	PM	ONE HOUR	17:00	18:30	15
2031 Assessment Flows	AM	ONE HOUR	08:00	09:30	15
2031 Assessment Flows	PM	ONE HOUR	17:00	18:30	15

2022 Base Flows, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	8.04	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A280 Long Furlong	
2	A27 On Slip	
3	A280 South	
4	A27 Off-Slip	
5	Arundel Road	

Capacity Options

Arm	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00
5	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.65	7.30	29.0	35.0	60.0	35.0	
2							✓
3	3.65	8.10	14.0	37.0	60.0	12.0	
4	3.65	6.60	30.0	15.0	60.0	44.0	
5	3.65	6.30	6.5	25.0	60.0	45.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.593	1901.194
2		
3	0.618	1925.091
4	0.535	1669.990
5	0.493	1392.884

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D1	2022 Base Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	822.00	100.000
2				
3		✓	1041.00	100.000
4		✓	718.00	100.000
5		✓	51.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
From		1	2	3	4	5
	1	0.000	19.000	799.000	0.000	4.000
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	756.000	260.000	0.000	0.000	25.000
	4	221.000	36.000	461.000	0.000	0.000
	5	19.000	6.000	26.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.65	7.47	1.9	A
2				
3	0.60	4.64	1.5	A
4	0.75	13.57	2.9	B
5	0.12	9.09	0.1	A

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	618.84	591.10	1550.76	0.399	616.21	0.7	3.841	A
2		966.56						
3	783.72	3.00	1923.24	0.408	780.98	0.7	3.143	A
4	540.55	783.98	1250.70	0.432	537.53	0.8	5.027	A
5	38.40	1299.76	752.43	0.051	38.18	0.1	5.039	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	738.96	707.70	1481.63	0.499	737.66	1.0	4.829	A
2		1157.18						
3	935.84	3.59	1922.87	0.487	934.81	0.9	3.640	A
4	645.47	938.40	1168.12	0.553	643.62	1.2	6.838	A
5	45.85	1555.98	626.17	0.073	45.75	0.1	6.202	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	905.04	863.59	1389.21	0.651	901.67	1.8	7.332	A
2		1412.77						
3	1146.16	4.39	1922.38	0.596	1144.09	1.5	4.613	A
4	790.53	1148.48	1055.76	0.749	784.11	2.8	12.954	B
5	56.15	1900.72	456.30	0.123	55.91	0.1	8.985	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	905.04	868.46	1386.32	0.653	904.92	1.9	7.473	A
2		1419.99						
3	1146.16	4.40	1922.37	0.596	1146.13	1.5	4.637	A
4	790.53	1150.53	1054.66	0.750	790.20	2.9	13.567	B
5	56.15	1908.80	452.32	0.124	56.14	0.1	9.086	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	738.96	714.51	1477.59	0.500	742.34	1.0	4.918	A
2		1167.33						
3	935.84	3.61	1922.86	0.487	937.89	1.0	3.664	A
4	645.47	941.50	1166.46	0.553	652.05	1.3	7.084	A
5	45.85	1567.41	620.54	0.074	46.09	0.1	6.271	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	618.84	595.68	1548.04	0.400	620.21	0.7	3.885	A
2		973.82						
3	783.72	3.02	1923.22	0.408	784.77	0.7	3.164	A
4	540.55	787.79	1248.66	0.433	542.50	0.8	5.111	A
5	38.40	1308.43	748.15	0.051	38.50	0.1	5.075	A

2022 Base Flows, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	7.52	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D2	2022 Base Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1143.00	100.000
2				
3		✓	765.00	100.000
4		✓	432.00	100.000
5		✓	57.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	35.000	1103.000	0.000	5.000
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	529.000	208.000	0.000	0.000	28.000
	4	183.000	16.000	233.000	0.000	0.000
	5	9.000	9.000	39.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.80	11.44	3.9	B
2				
3	0.44	3.33	0.8	A
4	0.39	4.86	0.6	A
5	0.08	5.17	0.1	A

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	860.51	378.85	1676.59	0.513	856.33	1.0	4.367	A
2		1034.09						
3	575.93	3.75	1922.77	0.300	574.23	0.4	2.666	A
4	325.23	577.97	1360.88	0.239	323.98	0.3	3.467	A
5	42.91	877.19	960.65	0.045	42.73	0.0	3.920	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1027.53	453.54	1632.31	0.630	1025.03	1.7	5.903	A
2		1237.88						
3	687.72	4.48	1922.32	0.358	687.21	0.6	2.913	A
4	388.36	691.69	1300.06	0.299	387.92	0.4	3.945	A
5	51.24	1049.97	875.51	0.059	51.18	0.1	4.367	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1258.47	555.19	1572.04	0.801	1250.00	3.8	10.899	B
2		1510.66						
3	842.28	5.47	1921.71	0.438	841.40	0.8	3.329	A
4	475.64	846.86	1217.07	0.391	474.79	0.6	4.845	A
5	62.76	1285.39	759.51	0.083	62.65	0.1	5.166	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1258.47	556.00	1571.56	0.801	1258.03	3.9	11.439	B
2		1518.97						
3	842.28	5.50	1921.69	0.438	842.27	0.8	3.334	A
4	475.64	847.77	1216.58	0.391	475.63	0.6	4.858	A
5	62.76	1287.07	758.68	0.083	62.76	0.1	5.172	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1027.53	454.80	1631.56	0.630	1036.20	1.7	6.133	A
2		1249.52						
3	687.72	4.53	1922.29	0.358	688.59	0.6	2.921	A
4	388.36	693.12	1299.29	0.299	389.20	0.4	3.959	A
5	51.24	1052.59	874.22	0.059	51.35	0.1	4.375	A

Main results: (18:15-18:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	860.51	380.65	1675.52	0.514	863.17	1.1	4.447	A
2		1041.80						
3	575.93	3.78	1922.76	0.300	576.45	0.4	2.674	A
4	325.23	580.23	1359.67	0.239	325.68	0.3	3.482	A
5	42.91	881.04	958.75	0.045	42.97	0.0	3.932	A

2027 Base Flows, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	10.01	E

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D3	2027 Base Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	867.00	100.000
2				
3		✓	1092.00	100.000
4		✓	756.00	100.000
5		✓	55.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	20.000	842.000	0.000	5.000
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	795.000	271.000	0.000	0.000	26.000
	4	233.000	38.000	485.000	0.000	0.000
	5	20.000	7.000	28.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.70	8.86	2.3	A
2				
3	0.63	5.00	1.7	A
4	0.81	18.52	4.1	C
5	0.15	10.46	0.2	B

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	652.72	620.87	1533.11	0.426	649.78	0.7	4.063	A
2		1018.70						
3	822.11	3.75	1922.77	0.428	819.15	0.7	3.254	A
4	569.16	822.89	1229.89	0.463	565.75	0.9	5.394	A
5	41.41	1365.39	720.09	0.058	41.16	0.1	5.301	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	779.42	743.27	1460.54	0.534	777.84	1.1	5.262	A
2		1219.51						
3	981.69	4.49	1922.32	0.511	980.52	1.0	3.817	A
4	679.63	985.00	1143.19	0.595	677.29	1.4	7.688	A
5	49.44	1634.46	587.50	0.084	49.32	0.1	6.687	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	954.58	905.05	1364.62	0.700	950.08	2.3	8.590	A
2		1486.44						
3	1202.31	5.48	1921.70	0.626	1199.86	1.6	4.970	A
4	832.37	1205.34	1025.35	0.812	822.43	3.9	16.969	C
5	60.56	1993.72	410.48	0.148	60.24	0.2	10.269	B

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	954.58	912.19	1360.40	0.702	954.38	2.3	8.856	A
2		1496.68						
3	1202.31	5.50	1921.69	0.626	1202.27	1.7	5.003	A
4	832.37	1207.77	1024.05	0.813	831.59	4.1	18.516	C
5	60.56	2005.23	404.81	0.150	60.54	0.2	10.457	B

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	779.42	753.30	1454.59	0.536	783.98	1.2	5.405	A
2		1233.94						
3	981.69	4.52	1922.29	0.511	984.11	1.1	3.848	A
4	679.63	988.63	1141.25	0.596	690.09	1.5	8.157	A
5	49.44	1650.77	579.47	0.085	49.76	0.1	6.802	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	652.72	626.24	1529.92	0.427	654.40	0.7	4.120	A
2		1027.20						
3	822.11	3.77	1922.76	0.428	823.32	0.8	3.279	A
4	569.16	827.09	1227.64	0.464	571.67	0.9	5.510	A
5	41.41	1375.39	715.16	0.058	41.54	0.1	5.344	A

2027 Base Flows, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	9.56	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D4	2027 Base Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1205.00	100.000
2				
3		✓	803.00	100.000
4		✓	456.00	100.000
5		✓	59.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	37.000	1162.000	0.000	6.000
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	557.000	217.000	0.000	0.000	29.000
	4	194.000	17.000	245.000	0.000	0.000
	5	9.000	9.000	41.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.35	15.46	5.5	C
2				
3	0.46	3.47	0.8	A
4	0.42	5.20	0.7	A
5	0.09	5.45	0.1	A

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	907.19	396.81	1665.94	0.545	902.46	1.2	4.686	A
2		1089.19						
3	604.54	4.49	1922.31	0.314	602.71	0.5	2.724	A
4	343.30	607.21	1345.24	0.255	341.94	0.3	3.583	A
5	44.42	922.88	938.13	0.047	44.22	0.0	4.026	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1083.27	475.06	1619.55	0.669	1080.09	2.0	6.633	A
2		1303.71						
3	721.88	5.38	1921.77	0.376	721.31	0.6	2.997	A
4	409.93	726.69	1281.34	0.320	409.43	0.5	4.126	A
5	53.04	1104.69	848.55	0.063	52.97	0.1	4.525	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1326.73	581.49	1556.45	0.852	1313.74	5.2	14.129	B
2		1587.67						
3	884.12	6.54	1921.05	0.460	883.13	0.8	3.465	A
4	502.07	889.67	1194.18	0.420	501.06	0.7	5.186	A
5	64.96	1352.29	726.54	0.089	64.84	0.1	5.440	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1326.73	582.43	1555.90	0.853	1325.71	5.5	15.461	C
2		1599.88						
3	884.12	6.60	1921.01	0.460	884.11	0.8	3.471	A
4	502.07	890.71	1193.62	0.421	502.05	0.7	5.205	A
5	64.96	1354.23	725.59	0.090	64.96	0.1	5.448	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1083.27	476.50	1618.70	0.669	1096.92	2.1	7.074	A
2		1320.96						
3	721.88	5.46	1921.71	0.376	722.86	0.6	3.007	A
4	409.93	728.32	1280.47	0.320	410.93	0.5	4.144	A
5	53.04	1107.68	847.07	0.063	53.16	0.1	4.534	A

Main results: (18:15-18:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	907.19	398.77	1664.78	0.545	910.62	1.2	4.796	A
2		1098.30						
3	604.54	4.53	1922.29	0.314	605.12	0.5	2.735	A
4	343.30	609.65	1343.94	0.255	343.82	0.3	3.600	A
5	44.42	927.08	936.06	0.047	44.49	0.1	4.037	A

2031 Base Flows, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	22.46	C

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D5	2031 Base Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	960.00	100.000
2				
3		✓	1200.00	100.000
4		✓	838.00	100.000
5		✓	62.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	23.000	932.000	0.000	5.000
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	876.000	295.000	0.000	0.000	29.000
	4	259.000	43.000	536.000	0.000	0.000
	5	23.000	8.000	31.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.81	14.06	4.0	B
2				
3	0.69	5.99	2.2	A
4	0.96	55.21	13.7	F
5	0.22	14.96	0.3	B

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	722.74	683.21	1496.15	0.483	719.04	0.9	4.610	A
2		1125.66						
3	903.42	3.74	1922.77	0.470	899.90	0.9	3.508	A
4	630.89	903.65	1186.70	0.532	626.42	1.1	6.377	A
5	46.68	1504.57	651.50	0.072	46.37	0.1	5.946	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	863.02	817.42	1416.58	0.609	860.60	1.5	6.446	A
2		1346.97						
3	1078.78	4.48	1922.32	0.561	1077.23	1.3	4.252	A
4	753.34	1081.71	1091.47	0.690	749.22	2.1	10.392	B
5	55.74	1800.42	505.73	0.110	55.55	0.1	7.993	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1056.98	980.09	1320.14	0.801	1048.10	3.8	12.832	B
2		1624.85						
3	1321.22	5.46	1921.72	0.688	1317.66	2.2	5.924	A
4	922.66	1323.12	962.36	0.959	888.05	10.8	37.779	E
5	68.26	2173.87	321.71	0.212	67.70	0.3	14.142	B

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1056.98	997.16	1310.02	0.807	1056.03	4.0	14.065	B
2		1647.56						
3	1321.22	5.50	1921.69	0.688	1321.14	2.2	5.992	A
4	922.66	1326.64	960.48	0.961	911.06	13.7	56.213	F
5	68.26	2200.27	308.70	0.221	68.20	0.3	14.962	B

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	863.02	853.40	1395.25	0.619	872.36	1.7	7.005	A
2		1390.54						
3	1078.78	4.54	1922.28	0.561	1082.32	1.3	4.305	A
4	753.34	1086.86	1088.72	0.692	798.78	2.3	14.268	B
5	55.74	1854.94	478.86	0.116	56.32	0.1	8.532	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	722.74	691.15	1491.44	0.485	725.55	0.9	4.718	A
2		1138.17						
3	903.42	3.78	1922.75	0.470	905.02	0.9	3.544	A
4	630.89	908.80	1183.95	0.533	635.62	1.2	6.619	A
5	46.68	1518.77	644.51	0.072	46.89	0.1	6.027	A

2031 Base Flows, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	27.71	D

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D6	2031 Base Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1354.00	100.000
2				
3		✓	898.00	100.000
4		✓	511.00	100.000
5		✓	66.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	42.000	1306.000	0.000	6.000
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	625.000	240.000	0.000	0.000	33.000
	4	219.000	19.000	273.000	0.000	0.000
	5	10.000	10.000	46.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.98	52.56	21.2	F
2				
3	0.51	3.86	1.1	A
4	0.49	6.26	1.0	A
5	0.11	6.27	0.1	A

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1019.36	440.95	1639.77	0.622	1012.90	1.6	5.686	A
2		1220.59						
3	676.06	4.49	1922.32	0.352	673.90	0.5	2.879	A
4	384.71	678.39	1307.17	0.294	383.05	0.4	3.888	A
5	49.69	1032.19	884.27	0.056	49.45	0.1	4.311	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1217.22	527.94	1588.20	0.766	1211.10	3.1	9.394	A
2		1459.88						
3	807.28	5.37	1921.77	0.420	806.56	0.7	3.226	A
4	459.38	811.93	1235.75	0.372	458.69	0.6	4.629	A
5	59.33	1235.61	784.04	0.076	59.24	0.1	4.967	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1490.78	646.03	1518.19	0.982	1439.28	16.0	33.529	D
2		1744.93						
3	988.72	6.38	1921.15	0.515	987.39	1.1	3.850	A
4	562.62	993.77	1138.50	0.494	561.11	1.0	6.218	A
5	72.67	1512.22	647.74	0.112	72.49	0.1	6.256	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1490.78	647.38	1517.39	0.982	1470.18	21.2	52.683	F
2		1775.78						
3	988.72	6.51	1921.06	0.515	988.70	1.1	3.860	A
4	562.62	995.21	1137.73	0.495	562.59	1.0	6.258	A
5	72.67	1514.96	646.39	0.112	72.66	0.1	6.274	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1217.22	529.95	1587.01	0.767	1288.05	3.5	14.733	B
2		1535.79						
3	807.28	5.71	1921.56	0.420	808.59	0.7	3.237	A
4	459.38	814.30	1234.49	0.372	460.87	0.6	4.663	A
5	59.33	1239.75	782.00	0.076	59.51	0.1	4.985	A

Main results: (18:15-18:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1019.36	443.36	1638.35	0.622	1026.52	1.7	5.950	A
2		1235.28						
3	676.06	4.55	1922.28	0.352	676.80	0.5	2.893	A
4	384.71	681.35	1305.59	0.295	385.42	0.4	3.915	A
5	49.69	1037.34	881.73	0.056	49.78	0.1	4.327	A

2022 Assessment Flows, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	8.55	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D7	2022 Assessment Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	822.00	100.000
2				
3		✓	1071.00	100.000
4		✓	722.00	100.000
5		✓	51.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	19.000	799.000	0.000	4.000
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	756.000	290.000	0.000	0.000	25.000
	4	221.000	36.000	465.000	0.000	0.000
	5	19.000	6.000	26.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.66	7.83	1.9	A
2				
3	0.61	4.84	1.6	A
4	0.77	14.78	3.2	B
5	0.13	9.53	0.1	A

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	618.84	616.54	1535.67	0.403	616.16	0.7	3.904	A
2		969.47						
3	806.30	3.00	1923.24	0.419	803.44	0.7	3.207	A
4	543.56	806.43	1238.69	0.439	540.46	0.8	5.133	A
5	38.40	1325.14	739.92	0.052	38.18	0.1	5.129	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	738.96	738.13	1463.58	0.505	737.61	1.0	4.950	A
2		1160.64						
3	962.81	3.59	1922.87	0.501	961.70	1.0	3.742	A
4	649.06	965.29	1153.73	0.563	647.10	1.3	7.079	A
5	45.85	1586.35	611.21	0.075	45.74	0.1	6.366	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	905.04	900.35	1367.41	0.662	901.43	1.9	7.667	A
2		1416.42						
3	1179.19	4.39	1922.38	0.613	1176.91	1.6	4.815	A
4	794.94	1181.30	1038.21	0.766	787.72	3.1	13.985	B
5	56.15	1937.16	438.35	0.128	55.89	0.1	9.407	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	905.04	905.83	1364.16	0.663	904.91	1.9	7.833	A
2		1424.32						
3	1179.19	4.40	1922.37	0.613	1179.15	1.6	4.843	A
4	794.94	1183.55	1037.00	0.767	794.52	3.2	14.781	B
5	56.15	1946.14	433.92	0.129	56.14	0.1	9.529	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	738.96	745.79	1459.04	0.506	742.58	1.0	5.049	A
2		1171.74						
3	962.81	3.61	1922.86	0.501	965.07	1.0	3.769	A
4	649.06	968.68	1151.92	0.563	656.50	1.3	7.373	A
5	45.85	1599.03	604.96	0.076	46.11	0.1	6.443	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	618.84	621.42	1532.78	0.404	620.27	0.7	3.952	A
2		976.98						
3	806.30	3.02	1923.22	0.419	807.44	0.7	3.231	A
4	543.56	810.46	1236.54	0.440	545.65	0.8	5.227	A
5	38.40	1334.24	735.44	0.052	38.50	0.1	5.165	A

2022 Assessment Flows, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	7.83	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D8	2022 Assessment Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1143.00	100.000
2				
3		✓	781.00	100.000
4		✓	442.00	100.000
5		✓	57.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	35.000	1103.000	0.000	5.000
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	529.000	224.000	0.000	0.000	28.000
	4	183.000	16.000	243.000	0.000	0.000
	5	9.000	9.000	39.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.81	12.08	4.1	B
2				
3	0.45	3.39	0.8	A
4	0.40	5.00	0.7	A
5	0.08	5.28	0.1	A

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	860.51	398.34	1665.03	0.517	856.28	1.1	4.428	A
2		1041.52						
3	587.98	3.75	1922.77	0.306	586.22	0.4	2.690	A
4	332.76	589.97	1354.46	0.246	331.46	0.3	3.514	A
5	42.91	896.67	951.05	0.045	42.72	0.0	3.962	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1027.53	476.88	1618.47	0.635	1024.94	1.7	6.038	A
2		1246.76						
3	702.10	4.48	1922.32	0.365	701.57	0.6	2.947	A
4	397.35	706.05	1292.38	0.307	396.88	0.4	4.018	A
5	51.24	1073.30	864.02	0.059	51.18	0.1	4.428	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1258.47	583.75	1555.11	0.809	1249.37	4.0	11.445	B
2		1521.03						
3	859.90	5.47	1921.71	0.447	858.97	0.8	3.384	A
4	486.65	864.43	1207.67	0.403	485.74	0.7	4.980	A
5	62.76	1313.91	745.45	0.084	62.64	0.1	5.272	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1258.47	584.63	1554.59	0.810	1257.96	4.1	12.080	B
2		1529.92						
3	859.90	5.50	1921.69	0.447	859.89	0.8	3.389	A
4	486.65	865.39	1207.16	0.403	486.64	0.7	4.995	A
5	62.76	1315.70	744.57	0.084	62.76	0.1	5.279	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1027.53	478.24	1617.66	0.635	1036.87	1.8	6.294	A
2		1259.21						
3	702.10	4.54	1922.29	0.365	703.02	0.6	2.954	A
4	397.35	707.55	1291.58	0.308	398.25	0.4	4.035	A
5	51.24	1076.06	862.65	0.059	51.35	0.1	4.437	A

Main results: (18:15-18:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	860.51	400.25	1663.90	0.517	863.27	1.1	4.511	A
2		1049.45						
3	587.98	3.78	1922.76	0.306	588.52	0.4	2.698	A
4	332.76	592.30	1353.22	0.246	333.24	0.3	3.533	A
5	42.91	900.66	949.08	0.045	42.98	0.0	3.974	A

2027 Assessment Flows, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	10.86	B

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D9	2027 Assessment Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	867.00	100.000
2				
3		✓	1123.00	100.000
4		✓	760.00	100.000
5		✓	45.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	20.000	842.000	0.000	5.000
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	795.000	302.000	0.000	0.000	26.000
	4	233.000	38.000	489.000	0.000	0.000
	5	10.000	7.000	28.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.71	9.38	2.4	A
2				
3	0.64	5.25	1.8	A
4	0.83	20.85	4.6	C
5	0.13	10.70	0.1	B

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	652.72	647.04	1517.59	0.430	649.73	0.7	4.134	A
2		1021.59						
3	845.45	3.75	1922.77	0.440	842.33	0.8	3.322	A
4	572.17	846.08	1217.49	0.470	568.66	0.9	5.519	A
5	33.88	1391.49	707.22	0.048	33.68	0.1	5.343	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	779.42	774.56	1441.99	0.541	777.76	1.2	5.407	A
2		1222.92						
3	1009.55	4.49	1922.32	0.525	1008.29	1.1	3.933	A
4	683.22	1012.77	1128.34	0.606	680.72	1.5	7.997	A
5	40.45	1665.67	572.13	0.071	40.35	0.1	6.770	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	954.58	942.38	1342.49	0.711	949.71	2.4	9.053	A
2		1489.48						
3	1236.45	5.48	1921.70	0.643	1233.73	1.8	5.211	A
4	836.78	1239.20	1007.24	0.831	825.30	4.4	18.717	C
5	49.55	2030.46	392.37	0.126	49.28	0.1	10.476	B

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	954.58	950.53	1337.67	0.714	954.34	2.4	9.376	A
2		1500.86						
3	1236.45	5.50	1921.69	0.643	1236.39	1.8	5.253	A
4	836.78	1241.89	1005.80	0.832	835.72	4.6	20.850	C
5	49.55	2043.49	385.96	0.128	49.53	0.1	10.700	B

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	779.42	786.14	1435.13	0.543	784.36	1.2	5.572	A
2		1239.08						
3	1009.55	4.52	1922.29	0.525	1012.25	1.1	3.968	A
4	683.22	1016.77	1126.20	0.607	695.46	1.6	8.585	A
5	40.45	1684.27	562.96	0.072	40.73	0.1	6.896	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	652.72	652.78	1514.19	0.431	654.48	0.8	4.197	A
2		1030.42						
3	845.45	3.77	1922.76	0.440	846.76	0.8	3.349	A
4	572.17	850.53	1215.11	0.471	574.88	0.9	5.645	A
5	33.88	1402.03	702.03	0.048	33.99	0.1	5.391	A

2027 Assessment Flows, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	10.08	B

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D10	2027 Assessment Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1205.00	100.000
2				
3		✓	819.00	100.000
4		✓	465.00	100.000
5		✓	59.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	37.000	1162.000	0.000	6.000
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	557.000	233.000	0.000	0.000	29.000
	4	194.000	17.000	254.000	0.000	0.000
	5	9.000	9.000	41.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.86	16.58	5.9	C
2				
3	0.47	3.53	0.9	A
4	0.43	5.35	0.8	A
5	0.09	5.56	0.1	A

Main Results for each time segment

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	907.19	415.55	1654.83	0.548	902.39	1.2	4.754	A
2		1095.86						
3	616.59	4.49	1922.31	0.321	614.71	0.5	2.750	A
4	350.08	619.20	1338.83	0.261	348.67	0.4	3.631	A
5	44.42	941.61	928.91	0.048	44.22	0.0	4.068	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1083.27	497.50	1606.25	0.674	1079.97	2.0	6.796	A
2		1311.66						
3	736.26	5.38	1921.77	0.383	735.67	0.6	3.033	A
4	418.03	741.05	1273.66	0.328	417.49	0.5	4.202	A
5	53.04	1127.12	837.50	0.063	52.97	0.1	4.588	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1326.73	608.93	1540.18	0.361	1312.62	5.6	14.969	B
2		1596.44						
3	901.74	6.54	1921.05	0.469	900.69	0.9	3.525	A
4	511.97	907.23	1184.79	0.432	510.90	0.8	5.333	A
5	64.96	1379.70	713.03	0.091	64.83	0.1	5.552	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1326.73	609.95	1539.58	0.362	1325.51	5.9	16.579	C
2		1609.60						
3	901.74	6.60	1921.01	0.469	901.72	0.9	3.531	A
4	511.97	908.32	1184.20	0.432	511.96	0.8	5.354	A
5	64.96	1381.75	712.03	0.091	64.96	0.1	5.562	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1083.27	499.05	1605.33	0.675	1098.20	2.1	7.300	A
2		1330.35						
3	736.26	5.47	1921.71	0.383	737.29	0.6	3.041	A
4	418.03	742.76	1272.75	0.328	419.09	0.5	4.223	A
5	53.04	1130.27	835.94	0.063	53.17	0.1	4.601	A

Main results: (18:15-18:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	907.19	417.63	1653.60	0.549	910.76	1.2	4.870	A
2		1105.23						
3	616.59	4.53	1922.29	0.321	617.19	0.5	2.761	A
4	350.08	621.72	1337.48	0.262	350.62	0.4	3.651	A
5	44.42	945.95	926.77	0.048	44.49	0.1	4.080	A

2031 Assessment Flows, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	26.54	D

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D11	2031 Assessment Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	960.00	100.000
2				
3		✓	1230.00	100.000
4		✓	842.00	100.000
5		✓	62.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	23.000	932.000	0.000	5.000
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	876.000	325.000	0.000	0.000	29.000
	4	259.000	43.000	540.000	0.000	0.000
	5	23.000	8.000	31.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.82	15.18	4.3	C
2				
3	0.70	6.34	2.4	A
4	0.98	69.77	17.5	F
5	0.23	15.96	0.3	C

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	722.74	708.58	1481.10	0.488	718.96	0.9	4.702	A
2		1128.50						
3	926.01	3.74	1922.78	0.482	922.32	0.9	3.585	A
4	633.90	926.07	1174.71	0.540	629.29	1.2	6.546	A
5	46.68	1529.86	639.04	0.073	46.36	0.1	6.071	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	863.02	847.67	1398.64	0.617	860.47	1.6	6.657	A
2		1350.20						
3	1105.74	4.48	1922.32	0.575	1104.08	1.3	4.391	A
4	756.94	1108.56	1077.11	0.703	752.46	2.3	10.938	B
5	55.74	1830.51	490.90	0.114	55.54	0.1	8.265	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1056.98	1011.74	1301.38	0.812	1047.29	4.0	13.673	B
2		1623.25						
3	1354.26	5.45	1921.72	0.705	1350.28	2.3	6.256	A
4	927.06	1355.73	944.92	0.981	884.46	12.9	43.438	E
5	68.26	2202.91	307.40	0.222	67.65	0.3	14.981	B

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1056.98	1029.85	1290.64	0.819	1055.84	4.3	15.179	C
2		1647.39						
3	1354.26	5.50	1921.69	0.705	1354.15	2.4	6.341	A
4	927.06	1359.65	942.82	0.983	908.66	17.5	69.787	F
5	68.26	2230.88	293.62	0.232	68.19	0.3	15.956	C

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	863.02	894.37	1370.96	0.630	873.24	1.7	7.377	A
2		1404.48						
3	1105.74	4.55	1922.28	0.575	1109.70	1.4	4.451	A
4	756.94	1114.25	1074.07	0.705	817.02	2.5	17.152	C
5	55.74	1900.56	456.38	0.122	56.36	0.1	9.014	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	722.74	717.18	1476.01	0.490	725.80	1.0	4.819	A
2		1141.76						
3	926.01	3.78	1922.75	0.482	927.74	0.9	3.626	A
4	633.90	931.52	1171.79	0.541	639.13	1.2	6.824	A
5	46.68	1545.00	631.59	0.074	46.92	0.1	6.161	A

2031 Assessment Flows, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	31.16	D

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D12	2031 Assessment Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1354.00	100.000
2				
3		✓	914.00	100.000
4		✓	521.00	100.000
5		✓	66.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	42.000	1306.000	0.000	6.000
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	625.000	256.000	0.000	0.000	33.000
	4	219.000	19.000	283.000	0.000	0.000
	5	10.000	10.000	46.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.99	60.23	24.7	F
2				
3	0.52	3.93	1.1	A
4	0.51	6.49	1.0	A
5	0.11	6.43	0.1	A

Main Results for each time segment

Main results: {17:00-17:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1019.36	460.43	1628.22	0.626	1012.78	1.6	5.789	A
2		1227.95						
3	688.11	4.49	1922.32	0.358	685.89	0.6	2.907	A
4	392.24	690.38	1300.76	0.302	390.52	0.4	3.948	A
5	49.69	1051.64	874.69	0.057	49.45	0.1	4.361	A

Main results: {17:15-17:30}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1217.22	551.26	1574.37	0.773	1210.77	3.3	9.728	A
2		1468.52						
3	821.67	5.37	1921.77	0.428	820.92	0.7	3.269	A
4	468.37	826.28	1228.08	0.381	467.64	0.6	4.730	A
5	59.33	1258.92	772.55	0.077	59.24	0.1	5.047	A

Main results: {17:30-17:45}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1490.78	674.54	1501.29	0.993	1432.23	17.9	38.569	E
2		1749.03						
3	1006.33	6.35	1921.17	0.524	1004.94	1.1	3.924	A
4	573.63	1011.29	1129.13	0.508	572.00	1.0	6.441	A
5	72.67	1540.66	633.72	0.115	72.48	0.1	6.413	A

Main results: {17:45-18:00}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1490.78	676.00	1500.42	0.994	1463.58	24.7	60.228	F
2		1780.40						
3	1006.33	6.49	1921.08	0.524	1006.31	1.1	3.935	A
4	573.63	1012.80	1128.32	0.508	573.60	1.0	6.489	A
5	72.67	1543.58	632.29	0.115	72.66	0.1	6.432	A

Main results: {18:00-18:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1217.22	553.45	1573.08	0.774	1301.51	3.6	17.129	C
2		1557.90						
3	821.67	5.77	1921.52	0.428	823.04	0.8	3.283	A
4	468.37	828.81	1226.73	0.382	469.98	0.6	4.768	A
5	59.33	1263.31	770.39	0.077	59.51	0.1	5.064	A

Main results: (18:15-18:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1019.36	462.98	1626.71	0.627	1027.02	1.7	6.076	A
2		1243.32						
3	688.11	4.55	1922.28	0.358	688.87	0.6	2.922	A
4	392.24	693.42	1299.13	0.302	392.99	0.4	3.977	A
5	49.69	1056.99	872.05	0.057	49.78	0.1	4.379	A



Junctions 9	
ARCADY 9 - Roundabout Module	
Version: 9.0.0.4211 []	
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Filename: A27 North Roundabout + IMPS.j9

Path: \\CADWORKSTATION\Shared Storage\projects\2020 Arundel Road, Angmering\Arcady\HE

Report generation date: 06/07/2018 17:11:15

»2022 Base Flows, AM
»2022 Base Flows, PM
»2027 Base Flows, AM
»2027 Base Flows, PM
»2031 Base Flows, AM
»2031 Base Flows, PM
»2022 Assessment Flows, AM
»2022 Assessment Flows, PM
»2027 Assessment Flows, AM
»2027 Assessment Flows, PM
»2031 Assessment Flows, AM
»2031 Assessment Flows, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2022 Base Flows								
Arm 1	1.0	4.03	0.50	A	1.7	4.76	0.62	A
Arm 3	1.5	4.64	0.60	A	0.8	3.33	0.44	A
Arm 4	2.9	13.57	0.75	B	0.6	4.86	0.39	A
Arm 5	0.1	9.09	0.12	A	0.1	5.17	0.08	A
2027 Base Flows								
Arm 1	1.2	4.43	0.54	A	2.0	5.37	0.66	A
Arm 3	1.7	5.00	0.63	A	0.8	3.47	0.46	A
Arm 4	4.1	18.52	0.81	C	0.7	5.20	0.42	A
Arm 5	0.2	10.46	0.15	B	0.1	5.45	0.09	A
2031 Base Flows								
Arm 1	1.6	5.52	0.62	A	3.2	7.79	0.76	A
Arm 3	2.2	5.99	0.69	A	1.1	3.86	0.51	A
Arm 4	13.7	54.22	0.96	F	1.0	6.26	0.49	A
Arm 5	0.3	14.96	0.22	B	0.1	6.27	0.11	A
2022 Assessment Flows								
Arm 1	1.0	4.15	0.51	A	1.7	4.88	0.63	A
Arm 3	1.6	4.84	0.61	A	0.8	3.39	0.45	A
Arm 4	3.2	14.78	0.77	B	0.7	5.00	0.40	A
Arm 5	0.1	9.53	0.13	A	0.1	5.28	0.08	A
2027 Assessment Flows								
Arm 1	1.2	4.58	0.55	A	2.0	5.53	0.67	A
Arm 3	1.8	5.25	0.64	A	0.9	3.53	0.47	A
Arm 4	4.6	20.85	0.83	C	0.8	5.35	0.43	A
Arm 5	0.1	10.70	0.13	B	0.1	5.56	0.09	A
2031 Assessment Flows								
Arm 1	1.7	5.72	0.63	A	3.3	8.14	0.77	A
Arm 3	2.4	6.34	0.70	A	1.1	3.94	0.52	A
Arm 4	17.5	69.78	0.98	F	1.0	6.49	0.51	A
Arm 5	0.3	15.96	0.23	C	0.1	6.43	0.11	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	A27 North Roundabout + Mitigation
Location	Angmering
Site number	
Date	22/05/2018
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	Croft Transport Solutions
Description	



Units

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

Analysis Options

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

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
2022 Base Flows	AM	ONE HOUR	08:00	09:30	15
2022 Base Flows	PM	ONE HOUR	17:00	18:30	15
2027 Base Flows	AM	ONE HOUR	08:00	09:30	15
2027 Base Flows	PM	ONE HOUR	17:00	18:30	15
2031 Base Flows	AM	ONE HOUR	08:00	09:30	15
2031 Base Flows	PM	ONE HOUR	17:00	18:30	15
2022 Assessment Flows	AM	ONE HOUR	08:00	09:30	15
2022 Assessment Flows	PM	ONE HOUR	17:00	18:30	15
2027 Assessment Flows	AM	ONE HOUR	08:00	09:30	15
2027 Assessment Flows	PM	ONE HOUR	17:00	18:30	15
2031 Assessment Flows	AM	ONE HOUR	08:00	09:30	15
2031 Assessment Flows	PM	ONE HOUR	17:00	18:30	15

2022 Base Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	6.97	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A280 Long Furlong	
2	A27 On Slip	
3	A280 South	
4	A27 Off-Slip	
5	Arundel Road	

Capacity Options

Arm	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00
5	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.65	8.40	62.0	45.0	60.0	20.0	
2							✓
3	3.65	8.10	14.0	37.0	60.0	12.0	
4	3.65	6.60	30.0	15.0	60.0	44.0	
5	3.65	6.30	6.5	25.0	60.0	45.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.695	2401.756
2		
3	0.618	1925.091
4	0.535	1669.990
5	0.493	1392.884

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D1	2022 Base Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	822.00	100.000
2				
3		✓	1041.00	100.000
4		✓	718.00	100.000
5		✓	51.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
From		1	2	3	4	5
	1	0.000	19.000	799.000	0.000	4.000
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	756.000	260.000	0.000	0.000	25.000
	4	221.000	36.000	461.000	0.000	0.000
	5	19.000	6.000	26.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.50	4.03	1.0	A
2				
3	0.60	4.64	1.5	A
4	0.75	13.57	2.9	B
5	0.12	9.09	0.1	A

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	618.84	591.10	1991.01	0.311	617.05	0.4	2.616	A
2		967.38						
3	783.72	3.00	1923.23	0.408	780.98	0.7	3.143	A
4	540.55	783.99	1250.70	0.432	537.53	0.8	5.027	A
5	38.40	1299.76	752.43	0.051	38.18	0.1	5.039	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	738.96	707.70	1909.98	0.387	738.25	0.6	3.071	A
2		1157.75						
3	935.84	3.59	1922.87	0.487	934.81	0.9	3.640	A
4	645.47	938.40	1168.11	0.553	643.62	1.2	6.838	A
5	45.85	1555.98	626.17	0.073	45.75	0.1	6.202	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	905.04	863.59	1801.66	0.502	903.55	1.0	4.002	A
2		1414.61						
3	1146.16	4.40	1922.37	0.596	1144.09	1.5	4.613	A
4	790.53	1148.49	1055.76	0.749	784.11	2.8	12.954	B
5	56.15	1900.72	456.30	0.123	55.91	0.1	8.985	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	905.04	868.46	1798.27	0.503	905.01	1.0	4.030	A
2		1420.07						
3	1146.16	4.40	1922.37	0.596	1146.13	1.5	4.637	A
4	790.53	1150.53	1054.66	0.750	790.20	2.9	13.567	B
5	56.15	1908.80	452.32	0.124	56.14	0.1	9.086	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	738.96	714.51	1905.25	0.388	740.44	0.6	3.093	A
2		1165.48						
3	935.84	3.60	1922.86	0.487	937.89	1.0	3.664	A
4	645.47	941.49	1166.46	0.553	652.05	1.3	7.086	A
5	45.85	1567.41	620.54	0.074	46.09	0.1	6.271	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	618.84	595.68	1987.82	0.311	619.58	0.5	2.634	A
2		973.20						
3	783.72	3.01	1923.23	0.408	784.77	0.7	3.164	A
4	540.55	787.79	1248.66	0.433	542.50	0.8	5.113	A
5	38.40	1308.43	748.15	0.051	38.50	0.1	5.073	A

2022 Base Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	4.33	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D2	2022 Base Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1143.00	100.000
2				
3		✓	765.00	100.000
4		✓	432.00	100.000
5		✓	57.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	35.000	1103.000	0.000	5.000
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	529.000	208.000	0.000	0.000	28.000
	4	183.000	16.000	233.000	0.000	0.000
	5	9.000	9.000	39.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.62	4.76	1.7	A
2				
3	0.44	3.33	0.8	A
4	0.39	4.86	0.6	A
5	0.08	5.17	0.1	A

Main Results for each time segment

Main results: {17:00-17:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	860.51	378.85	2138.50	0.402	857.83	0.7	2.805	A
2		1035.54						
3	575.93	3.75	1922.77	0.300	574.23	0.4	2.666	A
4	325.23	577.98	1360.87	0.239	323.98	0.3	3.467	A
5	42.91	877.19	960.65	0.045	42.73	0.0	3.920	A

Main results: {17:15-17:30}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1027.53	453.54	2086.60	0.492	1026.36	1.0	3.393	A
2		1239.17						
3	687.72	4.49	1922.31	0.358	687.21	0.6	2.913	A
4	388.36	691.70	1300.06	0.299	387.92	0.4	3.945	A
5	51.24	1049.97	875.51	0.059	51.18	0.1	4.367	A

Main results: {17:30-17:45}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1258.47	555.19	2015.96	0.624	1255.76	1.6	4.718	A
2		1516.25						
3	842.28	5.49	1921.69	0.438	841.40	0.8	3.329	A
4	475.64	846.89	1217.06	0.391	474.79	0.6	4.845	A
5	62.76	1285.39	759.51	0.083	62.65	0.1	5.166	A

Main results: {17:45-18:00}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1258.47	556.00	2015.39	0.624	1258.42	1.7	4.755	A
2		1519.35						
3	842.28	5.50	1921.69	0.438	842.27	0.8	3.334	A
4	475.64	847.78	1216.58	0.391	475.63	0.6	4.858	A
5	62.76	1287.07	758.68	0.083	62.76	0.1	5.172	A

Main results: {18:00-18:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1027.53	454.80	2085.72	0.493	1030.22	1.0	3.421	A
2		1243.73						
3	687.72	4.51	1922.30	0.358	688.59	0.6	2.921	A
4	388.36	693.10	1299.31	0.299	389.20	0.4	3.960	A
5	51.24	1052.59	874.22	0.059	51.35	0.1	4.375	A

Main results: (18:15-18:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	860.51	380.65	2137.25	0.403	861.71	0.7	2.826	A
2		1040.39						
3	575.93	3.77	1922.76	0.300	576.45	0.4	2.674	A
4	325.23	580.22	1359.67	0.239	325.68	0.3	3.482	A
5	42.91	881.04	958.75	0.045	42.97	0.0	3.931	A

2027 Base Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	8.62	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D3	2027 Base Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	867.00	100.000
2				
3		✓	1092.00	100.000
4		✓	756.00	100.000
5		✓	55.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	20.000	842.000	0.000	5.000
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	795.000	271.000	0.000	0.000	26.000
	4	233.000	38.000	485.000	0.000	0.000
	5	20.000	7.000	28.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.54	4.43	1.2	A
2				
3	0.63	5.00	1.7	A
4	0.81	18.52	4.1	C
5	0.15	10.46	0.2	B

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	652.72	620.87	1970.32	0.331	650.75	0.5	2.725	A
2		1019.64						
3	822.11	3.75	1922.77	0.428	819.15	0.7	3.254	A
4	569.16	822.90	1229.89	0.463	565.75	0.9	5.394	A
5	41.41	1365.39	720.09	0.058	41.16	0.1	5.301	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	779.42	743.27	1885.27	0.413	778.59	0.7	3.252	A
2		1220.24						
3	981.69	4.49	1922.31	0.511	980.52	1.0	3.817	A
4	679.63	985.01	1143.19	0.595	677.29	1.4	7.688	A
5	49.44	1634.46	587.50	0.084	49.32	0.1	6.687	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	954.58	905.05	1772.84	0.538	952.77	1.2	4.380	A
2		1489.07						
3	1202.31	5.49	1921.69	0.626	1199.86	1.6	4.970	A
4	832.37	1205.36	1025.34	0.812	822.43	3.9	16.970	C
5	60.56	1993.72	410.48	0.148	60.24	0.2	10.269	B

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	954.58	912.19	1767.89	0.540	954.54	1.2	4.426	A
2		1496.83						
3	1202.31	5.50	1921.69	0.626	1202.27	1.7	5.003	A
4	832.37	1207.77	1024.05	0.813	831.59	4.1	18.517	C
5	60.56	2005.23	404.81	0.150	60.54	0.2	10.457	B

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	779.42	753.30	1878.30	0.415	781.23	0.7	3.286	A
2		1231.25						
3	981.69	4.51	1922.30	0.511	984.11	1.1	3.848	A
4	679.63	988.62	1141.26	0.596	690.09	1.5	8.156	A
5	49.44	1650.77	579.47	0.085	49.76	0.1	6.802	A

Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	652.72	626.24	1966.59	0.332	653.58	0.5	2.745	A
2		1026.40						
3	822.11	3.77	1922.76	0.428	823.32	0.8	3.279	A
4	569.16	827.09	1227.65	0.464	571.67	0.9	5.508	A
5	41.41	1375.39	715.16	0.058	41.54	0.1	5.346	A

2027 Base Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	4.74	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D4	2027 Base Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1205.00	100.000
2				
3		✓	803.00	100.000
4		✓	456.00	100.000
5		✓	59.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	37.000	1162.000	0.000	6.000
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	557.000	217.000	0.000	0.000	29.000
	4	194.000	17.000	245.000	0.000	0.000
	5	9.000	9.000	41.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.66	5.37	2.0	A
2				
3	0.46	3.47	0.8	A
4	0.42	5.20	0.7	A
5	0.09	5.45	0.1	A

Main Results for each time segment

Main results: {17:00-17:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	907.19	396.81	2126.01	0.427	904.23	0.7	2.939	A
2		1090.91						
3	604.54	4.50	1922.31	0.314	602.71	0.5	2.724	A
4	343.30	607.22	1345.24	0.255	341.94	0.3	3.583	A
5	44.42	922.88	938.13	0.047	44.22	0.0	4.026	A

Main results: {17:15-17:30}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1083.27	475.06	2071.64	0.523	1081.88	1.1	3.632	A
2		1305.45						
3	721.88	5.39	1921.76	0.376	721.31	0.6	2.997	A
4	409.93	726.70	1281.34	0.320	409.43	0.5	4.126	A
5	53.04	1104.69	848.55	0.063	52.97	0.1	4.525	A

Main results: {17:30-17:45}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1326.73	581.49	1997.69	0.664	1323.30	1.9	5.313	A
2		1596.94						
3	884.12	6.59	1921.02	0.460	883.13	0.8	3.465	A
4	502.07	889.72	1194.15	0.420	501.06	0.7	5.186	A
5	64.96	1352.29	726.54	0.089	64.84	0.1	5.440	A

Main results: {17:45-18:00}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1326.73	582.43	1997.03	0.664	1326.66	2.0	5.368	A
2		1600.81						
3	884.12	6.61	1921.01	0.460	884.11	0.8	3.471	A
4	502.07	890.71	1193.62	0.421	502.05	0.7	5.205	A
5	64.96	1354.23	725.59	0.090	64.96	0.1	5.448	A

Main results: {18:00-18:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1083.27	476.50	2070.64	0.523	1086.69	1.1	3.670	A
2		1311.05						
3	721.88	5.41	1921.74	0.376	722.86	0.6	3.004	A
4	409.93	728.27	1280.50	0.320	410.93	0.5	4.144	A
5	53.04	1107.68	847.07	0.063	53.16	0.1	4.536	A

Main results: (18:15-18:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	907.19	398.77	2124.66	0.427	908.62	0.7	2.965	A
2		1096.36						
3	604.54	4.52	1922.29	0.314	605.12	0.5	2.735	A
4	343.30	609.64	1343.94	0.255	343.82	0.3	3.603	A
5	44.42	927.08	936.06	0.047	44.49	0.1	4.039	A

2031 Base Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	19.78	C

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D5	2031 Base Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	960.00	100.000
2				
3		✓	1200.00	100.000
4		✓	838.00	100.000
5		✓	62.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	23.000	932.000	0.000	5.000
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	876.000	295.000	0.000	0.000	29.000
	4	259.000	43.000	536.000	0.000	0.000
	5	23.000	8.000	31.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.62	5.52	1.6	A
2				
3	0.69	5.99	2.2	A
4	0.96	56.22	13.7	F
5	0.22	14.96	0.3	B

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	722.74	683.21	1927.00	0.375	720.35	0.6	2.977	A
2		1126.95						
3	903.42	3.75	1922.77	0.470	899.90	0.9	3.508	A
4	630.89	903.66	1186.70	0.532	626.42	1.1	6.377	A
5	46.68	1504.57	651.50	0.072	46.37	0.1	5.946	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	863.02	817.42	1833.74	0.471	861.88	0.9	3.698	A
2		1348.22						
3	1078.78	4.49	1922.31	0.561	1077.23	1.3	4.252	A
4	753.34	1081.72	1091.46	0.690	749.22	2.1	10.392	B
5	55.74	1800.42	505.73	0.110	55.55	0.1	7.993	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1056.98	980.09	1720.70	0.614	1054.23	1.6	5.378	A
2		1630.84						
3	1321.22	5.49	1921.70	0.688	1317.66	2.2	5.924	A
4	922.66	1323.15	962.34	0.859	888.05	10.8	37.781	E
5	68.26	2173.87	321.71	0.212	67.70	0.3	14.142	B

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1056.98	997.16	1708.84	0.619	1056.84	1.6	5.519	A
2		1648.35						
3	1321.22	5.50	1921.69	0.688	1321.14	2.2	5.992	A
4	922.66	1326.64	960.47	0.861	911.06	13.7	58.217	F
5	68.26	2200.27	308.70	0.221	68.20	0.3	14.962	B

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	863.02	853.40	1808.73	0.477	865.76	0.9	3.830	A
2		1384.09						
3	1078.78	4.51	1922.30	0.561	1082.32	1.3	4.303	A
4	753.34	1086.82	1088.73	0.692	798.79	2.3	14.267	B
5	55.74	1854.95	478.86	0.116	56.32	0.1	8.532	A



Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	722.74	691.15	1921.48	0.376	723.99	0.6	3.011	A
2		1136.65						
3	903.42	3.77	1922.76	0.470	905.02	0.9	3.544	A
4	630.89	908.79	1183.95	0.533	635.62	1.2	6.622	A
5	46.68	1518.77	644.51	0.072	46.89	0.1	6.027	A

2031 Base Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	6.23	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D6	2031 Base Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1354.00	100.000
2				
3		✓	898.00	100.000
4		✓	511.00	100.000
5		✓	66.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	42.000	1306.000	0.000	6.000
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	625.000	240.000	0.000	0.000	33.000
	4	219.000	19.000	273.000	0.000	0.000
	5	10.000	10.000	46.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.76	7.79	3.2	A
2				
3	0.51	3.86	1.1	A
4	0.49	6.26	1.0	A
5	0.11	6.27	0.1	A

Main Results for each time segment

Main results: {17:00-17:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1019.36	440.95	2095.34	0.486	1015.60	0.9	3.324	A
2		1223.21						
3	676.06	4.50	1922.31	0.352	673.90	0.5	2.879	A
4	384.71	678.40	1307.17	0.294	383.05	0.4	3.888	A
5	49.69	1032.19	884.27	0.056	49.45	0.1	4.311	A

Main results: {17:15-17:30}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1217.22	527.94	2034.90	0.598	1215.10	1.5	4.379	A
2		1463.75						
3	807.28	5.38	1921.76	0.420	806.56	0.7	3.226	A
4	459.38	811.95	1235.74	0.372	458.69	0.6	4.629	A
5	59.33	1235.61	784.04	0.076	59.24	0.1	4.967	A

Main results: {17:30-17:45}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1490.78	646.03	1952.83	0.763	1484.20	3.1	7.576	A
2		1788.46						
3	988.72	6.58	1921.02	0.515	987.39	1.1	3.850	A
4	562.62	993.97	1138.40	0.494	561.11	1.0	6.219	A
5	72.67	1512.22	647.74	0.112	72.49	0.1	6.256	A

Main results: {17:45-18:00}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1490.78	647.38	1951.90	0.764	1490.55	3.2	7.793	A
2		1795.53						
3	988.72	6.61	1921.01	0.515	988.70	1.1	3.861	A
4	562.62	995.30	1137.68	0.495	562.59	1.0	6.259	A
5	72.67	1514.96	646.39	0.112	72.66	0.1	6.274	A

Main results: {18:00-18:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1217.22	529.95	2033.50	0.599	1223.88	1.5	4.483	A
2		1473.61						
3	807.28	5.42	1921.74	0.420	808.59	0.7	3.237	A
4	459.38	814.02	1234.64	0.372	460.88	0.6	4.661	A
5	59.33	1239.75	782.00	0.076	59.51	0.1	4.983	A



Main results: (18:15-18:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1019.36	443.35	2093.67	0.487	1021.58	1.0	3.366	A
2		1230.49						
3	676.06	4.53	1922.29	0.352	676.80	0.5	2.891	A
4	384.71	681.32	1305.60	0.295	385.42	0.4	3.916	A
5	49.69	1037.34	881.73	0.056	49.78	0.1	4.328	A

2022 Assessment Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	7.41	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D7	2022 Assessment Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	822.00	100.000
2				
3		✓	1071.00	100.000
4		✓	722.00	100.000
5		✓	51.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	19.000	799.000	0.000	4.000
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	756.000	290.000	0.000	0.000	25.000
	4	221.000	36.000	465.000	0.000	0.000
	5	19.000	6.000	26.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.51	4.15	1.0	A
2				
3	0.61	4.84	1.6	A
4	0.77	14.78	3.2	B
5	0.13	9.53	0.1	A

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	618.84	616.54	1973.33	0.314	617.02	0.5	2.651	A
2		970.31						
3	806.30	3.00	1923.23	0.419	803.44	0.7	3.207	A
4	543.56	806.44	1238.69	0.439	540.46	0.8	5.133	A
5	38.40	1325.14	739.92	0.052	38.18	0.1	5.129	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	738.96	738.13	1888.83	0.391	738.22	0.6	3.127	A
2		1161.24						
3	962.81	3.59	1922.87	0.501	961.70	1.0	3.742	A
4	649.06	965.29	1153.73	0.563	647.10	1.3	7.079	A
5	45.85	1586.35	611.21	0.075	45.74	0.1	6.366	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	905.04	900.35	1776.11	0.510	903.48	1.0	4.118	A
2		1418.42						
3	1179.19	4.40	1922.37	0.613	1176.91	1.6	4.815	A
4	794.94	1181.31	1038.20	0.766	787.72	3.1	13.985	B
5	56.15	1937.16	438.35	0.128	55.89	0.1	9.407	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	905.04	905.83	1772.30	0.511	905.01	1.0	4.150	A
2		1424.41						
3	1179.19	4.40	1922.37	0.613	1179.15	1.6	4.843	A
4	794.94	1183.56	1037.00	0.767	794.52	3.2	14.781	B
5	56.15	1946.15	433.92	0.129	56.14	0.1	9.529	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	738.96	745.79	1883.51	0.392	740.52	0.6	3.155	A
2		1169.72						
3	962.81	3.60	1922.86	0.501	965.07	1.0	3.766	A
4	649.06	968.67	1151.93	0.563	656.50	1.3	7.373	A
5	45.85	1599.03	604.96	0.076	46.11	0.1	6.446	A



Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	618.84	621.42	1969.94	0.314	619.60	0.5	2.666	A
2		976.33						
3	806.30	3.02	1923.23	0.419	807.44	0.7	3.228	A
4	543.56	810.46	1236.54	0.440	545.65	0.8	5.227	A
5	38.40	1334.24	735.44	0.052	38.50	0.1	5.167	A

2022 Assessment Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	4.43	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D8	2022 Assessment Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1143.00	100.000
2				
3		✓	781.00	100.000
4		✓	442.00	100.000
5		✓	57.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	35.000	1103.000	0.000	5.000
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	529.000	224.000	0.000	0.000	28.000
	4	183.000	16.000	243.000	0.000	0.000
	5	9.000	9.000	39.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.63	4.88	1.7	A
2				
3	0.45	3.39	0.8	A
4	0.40	5.00	0.7	A
5	0.08	5.28	0.1	A

Main Results for each time segment

Main results: {17:00-17:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	860.51	398.34	2124.95	0.405	857.80	0.7	2.835	A
2		1043.00						
3	587.98	3.75	1922.77	0.306	586.22	0.4	2.690	A
4	332.76	589.98	1354.46	0.246	331.46	0.3	3.514	A
5	42.91	896.67	951.05	0.045	42.72	0.0	3.962	A

Main results: {17:15-17:30}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1027.53	476.88	2070.38	0.496	1026.33	1.0	3.445	A
2		1248.11						
3	702.10	4.49	1922.31	0.365	701.57	0.6	2.947	A
4	397.35	706.06	1292.38	0.307	396.88	0.4	4.018	A
5	51.24	1073.30	864.02	0.059	51.18	0.1	4.428	A

Main results: {17:30-17:45}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1258.47	583.75	1996.12	0.630	1255.65	1.7	4.843	A
2		1527.11						
3	859.90	5.49	1921.69	0.447	858.97	0.8	3.384	A
4	486.65	864.46	1207.66	0.403	485.74	0.7	4.980	A
5	62.76	1313.91	745.45	0.084	62.64	0.1	5.272	A

Main results: {17:45-18:00}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1258.47	584.63	1995.50	0.631	1258.41	1.7	4.883	A
2		1530.36						
3	859.90	5.50	1921.69	0.447	859.89	0.8	3.389	A
4	486.65	865.39	1207.16	0.403	486.64	0.7	4.995	A
5	62.76	1315.70	744.57	0.084	62.76	0.1	5.279	A

Main results: {18:00-18:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1027.53	478.24	2069.43	0.497	1030.34	1.0	3.473	A
2		1252.87						
3	702.10	4.51	1922.30	0.365	703.02	0.6	2.956	A
4	397.35	707.53	1291.59	0.308	398.25	0.4	4.033	A
5	51.24	1076.06	862.65	0.059	51.35	0.1	4.437	A



Main results: (18:15-18:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	860.51	400.25	2123.62	0.405	861.75	0.7	2.855	A
2		1047.97						
3	587.98	3.77	1922.76	0.306	588.52	0.4	2.698	A
4	332.76	592.29	1353.22	0.246	333.24	0.3	3.530	A
5	42.91	900.66	949.08	0.045	42.98	0.0	3.973	A

2027 Assessment Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	9.37	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D9	2027 Assessment Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	867.00	100.000
2				
3		✓	1123.00	100.000
4		✓	760.00	100.000
5		✓	45.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	20.000	842.000	0.000	5.000
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	795.000	302.000	0.000	0.000	26.000
	4	233.000	38.000	489.000	0.000	0.000
	5	10.000	7.000	28.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.55	4.58	1.2	A
2				
3	0.64	5.25	1.8	A
4	0.83	20.85	4.6	C
5	0.13	10.70	0.1	B

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	652.72	647.04	1952.13	0.334	650.72	0.5	2.763	A
2		1022.56						
3	845.45	3.75	1922.77	0.440	842.33	0.8	3.322	A
4	572.17	846.09	1217.49	0.470	568.66	0.9	5.519	A
5	33.88	1391.49	707.22	0.048	33.68	0.1	5.343	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	779.42	774.56	1863.52	0.418	778.56	0.7	3.314	A
2		1223.70						
3	1009.55	4.49	1922.31	0.525	1008.29	1.1	3.933	A
4	683.22	1012.78	1128.34	0.606	680.72	1.5	7.997	A
5	40.45	1665.67	572.13	0.071	40.35	0.1	6.770	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	954.58	942.38	1746.90	0.546	952.68	1.2	4.521	A
2		1492.37						
3	1236.45	5.49	1921.69	0.643	1233.73	1.8	5.212	A
4	836.78	1239.22	1007.23	0.831	825.30	4.4	18.718	C
5	49.55	2030.46	392.38	0.126	49.28	0.1	10.476	B

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	954.58	950.53	1741.24	0.548	954.53	1.2	4.575	A
2		1501.05						
3	1236.45	5.50	1921.69	0.643	1236.39	1.8	5.253	A
4	836.78	1241.90	1005.80	0.832	835.72	4.6	20.851	C
5	49.55	2043.49	385.96	0.128	49.53	0.1	10.700	B

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	779.42	786.14	1855.48	0.420	781.32	0.7	3.356	A
2		1236.11						
3	1009.55	4.51	1922.30	0.525	1012.25	1.1	3.967	A
4	683.22	1016.76	1126.21	0.607	695.46	1.6	8.583	A
5	40.45	1684.27	562.96	0.072	40.73	0.1	6.896	A



Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	652.72	652.78	1948.15	0.335	653.61	0.5	2.784	A
2		1029.57						
3	845.45	3.77	1922.76	0.440	846.76	0.8	3.351	A
4	572.17	850.53	1215.11	0.471	574.88	0.9	5.648	A
5	33.88	1402.03	702.03	0.048	33.99	0.1	5.391	A

2027 Assessment Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	4.85	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D10	2027 Assessment Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1205.00	100.000
2				
3		✓	819.00	100.000
4		✓	465.00	100.000
5		✓	59.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	37.000	1162.000	0.000	6.000
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	557.000	233.000	0.000	0.000	29.000
	4	194.000	17.000	254.000	0.000	0.000
	5	9.000	9.000	41.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.67	5.53	2.0	A
2				
3	0.47	3.53	0.9	A
4	0.43	5.35	0.8	A
5	0.09	5.56	0.1	A

Main Results for each time segment

Main results: {17:00-17:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	907.19	415.55	2112.99	0.429	904.20	0.7	2.970	A
2		1097.61						
3	616.59	4.50	1922.31	0.321	614.71	0.5	2.750	A
4	350.08	619.21	1338.83	0.261	348.67	0.4	3.631	A
5	44.42	941.61	928.91	0.048	44.22	0.0	4.068	A

Main results: {17:15-17:30}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1083.27	497.50	2056.05	0.527	1081.85	1.1	3.691	A
2		1313.49						
3	736.26	5.39	1921.76	0.383	735.67	0.6	3.033	A
4	418.03	741.06	1273.66	0.328	417.49	0.5	4.202	A
5	53.04	1127.12	837.50	0.063	52.97	0.1	4.588	A

Main results: {17:30-17:45}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1326.73	608.93	1978.61	0.671	1323.15	2.0	5.463	A
2		1606.65						
3	901.74	6.59	1921.02	0.469	900.69	0.9	3.525	A
4	511.97	907.28	1184.76	0.432	510.90	0.8	5.333	A
5	64.96	1379.70	713.03	0.091	64.83	0.1	5.552	A

Main results: {17:45-18:00}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1326.73	609.95	1977.91	0.671	1326.65	2.0	5.525	A
2		1610.71						
3	901.74	6.61	1921.01	0.469	901.72	0.9	3.531	A
4	511.97	908.33	1184.20	0.432	511.96	0.8	5.354	A
5	64.96	1381.75	712.03	0.091	64.96	0.1	5.562	A

Main results: {18:00-18:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1083.27	499.05	2054.97	0.527	1086.85	1.1	3.731	A
2		1319.34						
3	736.26	5.41	1921.74	0.383	737.29	0.6	3.041	A
4	418.03	742.70	1272.78	0.328	419.09	0.5	4.223	A
5	53.04	1130.27	835.94	0.063	53.17	0.1	4.601	A

Main results: (18:15-18:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	907.19	417.63	2111.55	0.430	908.65	0.8	2.998	A
2		1103.19						
3	616.59	4.52	1922.29	0.321	617.19	0.5	2.761	A
4	350.08	621.71	1337.49	0.262	350.62	0.4	3.649	A
5	44.42	945.95	926.77	0.048	44.49	0.1	4.080	A

2031 Assessment Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	23.60	C

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D11	2031 Assessment Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	960.00	100.000
2				
3		✓	1230.00	100.000
4		✓	842.00	100.000
5		✓	62.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	23.000	932.000	0.000	5.000
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	876.000	325.000	0.000	0.000	29.000
	4	259.000	43.000	540.000	0.000	0.000
	5	23.000	8.000	31.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.63	5.72	1.7	A
2				
3	0.70	6.34	2.4	A
4	0.98	88.78	17.5	F
5	0.23	15.96	0.3	C

Main Results for each time segment

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	722.74	708.58	1909.37	0.379	720.32	0.6	3.021	A
2		1129.82						
3	926.01	3.75	1922.77	0.482	922.32	0.9	3.585	A
4	633.90	926.07	1174.71	0.540	629.29	1.2	6.546	A
5	46.68	1529.86	639.04	0.073	46.36	0.1	6.071	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	863.02	847.67	1812.72	0.476	861.84	0.9	3.780	A
2		1351.54						
3	1105.74	4.49	1922.31	0.575	1104.08	1.3	4.391	A
4	756.94	1108.56	1077.11	0.703	752.46	2.3	10.938	B
5	55.74	1830.51	490.90	0.114	55.54	0.1	8.265	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1056.98	1011.73	1698.71	0.622	1054.10	1.6	5.561	A
2		1629.90						
3	1354.26	5.49	1921.70	0.705	1350.28	2.3	6.256	A
4	927.06	1355.77	944.90	0.981	884.45	12.9	43.442	E
5	68.26	2202.90	307.41	0.222	67.65	0.3	14.980	B

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1056.98	1029.85	1686.12	0.627	1056.82	1.7	5.719	A
2		1648.35						
3	1354.26	5.50	1921.69	0.705	1354.15	2.4	6.341	A
4	927.06	1359.66	942.82	0.983	908.66	17.5	89.775	F
5	68.26	2230.88	293.62	0.232	68.19	0.3	15.956	C

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	863.02	894.38	1780.26	0.485	865.87	0.9	3.948	A
2		1397.29						
3	1105.74	4.51	1922.30	0.575	1109.70	1.4	4.451	A
4	756.94	1114.21	1074.09	0.705	817.03	2.5	17.151	C
5	55.74	1900.57	456.38	0.122	56.36	0.1	9.013	A



Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	722.74	717.18	1903.40	0.380	724.07	0.6	3.057	A
2		1140.07						
3	926.01	3.77	1922.76	0.482	927.74	0.9	3.626	A
4	633.90	931.51	1171.80	0.541	639.13	1.2	6.822	A
5	46.68	1544.99	631.59	0.074	46.92	0.1	6.161	A

2031 Assessment Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	6.45	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D12	2031 Assessment Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1354.00	100.000
2				
3		✓	914.00	100.000
4		✓	521.00	100.000
5		✓	66.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	42.000	1306.000	0.000	6.000
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	625.000	256.000	0.000	0.000	33.000
	4	219.000	19.000	283.000	0.000	0.000
	5	10.000	10.000	46.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To				
From		1	2	3	4	5
	1	0	0	0	0	0
	2	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.77	8.14	3.3	A
2				
3	0.52	3.94	1.1	A
4	0.51	6.49	1.0	A
5	0.11	6.43	0.1	A

Main Results for each time segment

Main results: {17:00-17:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1019.36	460.43	2081.81	0.490	1015.55	1.0	3.363	A
2		1230.64						
3	688.11	4.50	1922.31	0.358	685.89	0.6	2.907	A
4	392.24	690.39	1300.76	0.302	390.52	0.4	3.948	A
5	49.69	1051.64	874.69	0.057	49.45	0.1	4.361	A

Main results: {17:15-17:30}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1217.22	551.26	2018.69	0.603	1215.03	1.5	4.466	A
2		1472.64						
3	821.67	5.38	1921.76	0.428	820.92	0.7	3.269	A
4	468.37	826.30	1228.07	0.381	467.64	0.6	4.730	A
5	59.33	1258.92	772.55	0.077	59.24	0.1	5.047	A

Main results: {17:30-17:45}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1490.78	674.54	1933.03	0.771	1483.79	3.2	7.889	A
2		1798.99						
3	1006.33	6.58	1921.02	0.524	1004.94	1.1	3.924	A
4	573.63	1011.52	1129.01	0.508	572.00	1.0	6.443	A
5	72.67	1540.66	633.72	0.115	72.48	0.1	6.413	A

Main results: {17:45-18:00}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1490.78	676.00	1932.01	0.772	1490.52	3.3	8.141	A
2		1806.51						
3	1006.33	6.60	1921.01	0.524	1006.31	1.1	3.935	A
4	573.63	1012.92	1128.26	0.508	573.60	1.0	6.490	A
5	72.67	1543.58	632.29	0.115	72.66	0.1	6.432	A

Main results: {18:00-18:15}

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1217.22	553.45	2017.17	0.603	1224.31	1.5	4.579	A
2		1483.10						
3	821.67	5.43	1921.74	0.428	823.04	0.8	3.282	A
4	468.37	828.47	1226.91	0.382	469.98	0.6	4.765	A
5	59.33	1263.31	770.39	0.077	59.51	0.1	5.066	A



Main results: (18:15-18:30)

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1019.36	462.98	2080.04	0.490	1021.65	1.0	3.407	A
2		1238.12						
3	688.11	4.53	1922.29	0.358	688.87	0.6	2.922	A
4	392.24	693.40	1299.15	0.302	392.99	0.4	3.975	A
5	49.69	1056.99	872.05	0.057	49.78	0.1	4.379	A

APPENDIX 10

PICADY Output for A27/Arundel Road

(Left in/Left out)

Junctions 9	
PICADY 9 - Priority Intersection Module	
Version: 9.0.0.4211 [] © Copyright TRL Limited, 2018	
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution	

Filename: A27 - Arundel Road - HE Base and Ass.j9

Path: \\CADWORKSTATION\Shared Storage\projects\2020 Arundel Road, Angmering\Picady\WSCC2031

Report generation date: 06/07/2018 16:03:29

»2022 Base Flows, AM
»2022 Base Flows, PM
»2027 Base Flows, AM
»2027 Base Flows, PM
»2031 Base Flows, AM
»2031 Base Flows, PM
»2022 Assessment Flows, AM
»2022 Assessment Flows, PM
»2027 Assessment Flows, AM
»2027 Assessment Flows, PM
»2031 Assessment Flows, AM
»2031 Assessment Flows, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2022 Base Flows								
Stream B-AC	1.9	35.94	0.66	E	0.4	16.95	0.28	C
Stream C-A								
Stream C-B	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream A-B								
Stream A-C								
2027 Base Flows								
Stream B-AC	2.9	53.98	0.76	F	0.5	19.75	0.32	C
Stream C-A								
Stream C-B	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream A-B								
Stream A-C								
2031 Base Flows								
Stream B-AC	12.9	202.25	1.04	F	0.9	33.05	0.47	D
Stream C-A								
Stream C-B	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream A-B								
Stream A-C								
2022 Assessment Flows								
Stream B-AC	2.3	42.22	0.71	E	0.4	18.00	0.31	C
Stream C-A								
Stream C-B	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream A-B								
Stream A-C								
2027 Assessment Flows								
Stream B-AC	3.9	68.98	0.82	F	0.5	21.19	0.36	C
Stream C-A								
Stream C-B	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream A-B								
Stream A-C								
2031 Assessment Flows								
Stream B-AC	19.0	279.47	1.12	F	1.0	37.24	0.52	E
Stream C-A								
Stream C-B	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream A-B								
Stream A-C								

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	06/07/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	Cadworkstation4"Kyle
Description	

Units

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

Analysis Options

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

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
2022 Base Flows	AM	ONE HOUR	08:00	09:30	15
2022 Base Flows	PM	ONE HOUR	17:00	18:30	15
2027 Base Flows	AM	ONE HOUR	08:00	09:30	15
2027 Base Flows	PM	ONE HOUR	17:00	18:30	15
2031 Base Flows	AM	ONE HOUR	08:00	09:30	15
2031 Base Flows	PM	ONE HOUR	17:00	18:30	15
2022 Assessment Flows	AM	ONE HOUR	08:00	09:30	15
2022 Assessment Flows	PM	ONE HOUR	17:00	18:30	15
2027 Assessment Flows	AM	ONE HOUR	08:00	09:30	15
2027 Assessment Flows	PM	ONE HOUR	17:00	18:30	15
2031 Assessment Flows	AM	ONE HOUR	08:00	09:30	15
2031 Assessment Flows	PM	ONE HOUR	17:00	18:30	15

2022 Base Flows, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.03	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A27 (E)		Major
B	Arundel Road		Minor
C	A27 (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.85			0.0		-

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	4.50	0	43

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	573.459	0.096	0.243	0.153	0.347
1	B-C	748.772	0.106	0.267	-	-
1	C-B	573.963	0.204	0.204	-	-

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	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D1	2022 Base Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1590.00	100.000
B		✓	178.00	100.000
C		✓	1387.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		A	B	C
	A	0.000	74.000	1516.000
	B	0.000	0.000	178.000
	C	1387.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-A	0.66	35.94	1.9	E
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	134.01	438.43	0.306	132.28	0.4	11.695	B
C-A	1044.21			1044.21			
C-B	0.00	329.19	0.000	0.00	0.0	0.000	A
A-B	55.71			55.71			
A-C	1141.32			1141.32			

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	160.02	378.19	0.423	158.90	0.7	16.331	C
C-A	1246.88			1246.88			
C-B	0.00	281.68	0.000	0.00	0.0	0.000	A
A-B	66.52			66.52			
A-C	1362.85			1362.85			

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	195.98	294.91	0.665	191.68	1.8	33.572	D
C-A	1527.12			1527.12			
C-B	0.00	215.99	0.000	0.00	0.0	0.000	A
A-B	81.48			81.48			
A-C	1669.15			1669.15			

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A-C	195.98	294.91	0.665	195.63	1.9	35.936	E
C-A	1527.12			1527.12			
C-B	0.00	215.99	0.000	0.00	0.0	0.000	A
A-B	81.48			81.48			
A-C	1669.15			1669.15			

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A-C	160.02	378.19	0.423	164.49	0.8	17.174	C
C-A	1246.88			1246.88			
C-B	0.00	281.68	0.000	0.00	0.0	0.000	A
A-B	66.52			66.52			
A-C	1362.85			1362.85			

Main results: (09:15-09:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A-C	134.01	438.43	0.306	135.24	0.4	11.922	B
C-A	1044.21			1044.21			
C-B	0.00	329.19	0.000	0.00	0.0	0.000	A
A-B	55.71			55.71			
A-C	1141.32			1141.32			

2022 Base Flows, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.42	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D2	2022 Base Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1622.00	100.000
B		✓	75.00	100.000
C		✓	1342.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
From	A	0.000	127.000	1495.000
	B	0.000	0.000	75.000
	C	1342.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-A	0.28	16.95	0.4	C
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	56.46	438.44	0.129	55.88	0.1	9.396	A
C-A	1010.33			1010.33			
C-B	0.00	324.26	0.000	0.00	0.0	0.000	A
A-B	95.61			95.61			
A-C	1125.51			1125.51			

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	67.42	378.20	0.178	67.15	0.2	11.562	B
C-A	1206.43			1206.43			
C-B	0.00	275.79	0.000	0.00	0.0	0.000	A
A-B	114.17			114.17			
A-C	1343.97			1343.97			

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	82.58	294.92	0.280	81.91	0.4	16.849	C
C-A	1477.57			1477.57			
C-B	0.00	208.78	0.000	0.00	0.0	0.000	A
A-B	139.83			139.83			
A-C	1646.03			1646.03			

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	82.58	294.92	0.280	82.56	0.4	16.948	C
C-A	1477.57			1477.57			
C-B	0.00	208.78	0.000	0.00	0.0	0.000	A
A-B	139.83			139.83			
A-C	1646.03			1646.03			

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	67.42	378.20	0.178	68.08	0.2	11.634	B
C-A	1206.43			1206.43			
C-B	0.00	275.79	0.000	0.00	0.0	0.000	A
A-B	114.17			114.17			
A-C	1343.97			1343.97			

Main results: (18:15-18:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	56.46	438.44	0.129	56.75	0.1	9.440	A
C-A	1010.33			1010.33			
C-B	0.00	324.26	0.000	0.00	0.0	0.000	A
A-B	95.61			95.61			
A-C	1125.51			1125.51			



2027 Base Flows, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	3.03	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D3	2027 Base Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1679.00	100.000
B		✓	187.00	100.000
C		✓	1464.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		A	B	C
	A	0.000	78.000	1601.000
	B	0.000	0.000	187.000
	C	1464.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-A	0.76	53.98	2.9	F
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	140.78	421.04	0.334	138.82	0.5	12.671	B
C-A	1102.18			1102.18			
C-B	0.00	315.49	0.000	0.00	0.0	0.000	A
A-B	58.72			58.72			
A-C	1205.32			1205.32			

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	168.11	357.43	0.470	166.65	0.9	18.725	C
C-A	1316.11			1316.11			
C-B	0.00	265.32	0.000	0.00	0.0	0.000	A
A-B	70.12			70.12			
A-C	1439.27			1439.27			

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	205.89	269.48	0.764	198.70	2.7	48.871	E
C-A	1611.89			1611.89			
C-B	0.00	195.95	0.000	0.00	0.0	0.000	A
A-B	85.88			85.88			
A-C	1762.73			1762.73			

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	205.89	269.48	0.764	204.94	2.9	53.984	F
C-A	1611.89			1611.89			
C-B	0.00	195.95	0.000	0.00	0.0	0.000	A
A-B	85.88			85.88			
A-C	1762.73			1762.73			

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	168.11	357.43	0.470	175.98	0.9	20.623	C
C-A	1316.11			1316.11			
C-B	0.00	265.32	0.000	0.00	0.0	0.000	A
A-B	70.12			70.12			
A-C	1439.27			1439.27			

Main results: (09:15-09:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	140.78	421.04	0.334	142.42	0.5	12.996	B
C-A	1102.18			1102.18			
C-B	0.00	315.49	0.000	0.00	0.0	0.000	A
A-B	58.72			58.72			
A-C	1205.32			1205.32			



2027 Base Flows, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.49	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D4	2027 Base Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1714.00	100.000
B		✓	79.00	100.000
C		✓	1418.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
From	A	0.000	134.000	1580.000
	B	0.000	0.000	79.000
	C	1418.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-A	0.32	19.75	0.5	C
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

Main results: {17:00-17:15}

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	59.48	420.81	0.141	58.83	0.2	9.927	A
C-A	1067.54			1067.54			
C-B	0.00	310.10	0.000	0.00	0.0	0.000	A
A-B	100.88			100.88			
A-C	1189.51			1189.51			

Main results: {17:15-17:30}

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	71.02	357.15	0.199	70.69	0.2	12.553	B
C-A	1274.75			1274.75			
C-B	0.00	258.88	0.000	0.00	0.0	0.000	A
A-B	120.46			120.46			
A-C	1420.39			1420.39			

Main results: {17:30-17:45}

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	86.98	269.14	0.323	86.10	0.5	19.575	C
C-A	1561.25			1561.25			
C-B	0.00	188.07	0.000	0.00	0.0	0.000	A
A-B	147.54			147.54			
A-C	1739.61			1739.61			

Main results: {17:45-18:00}

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	86.98	269.14	0.323	86.95	0.5	19.750	C
C-A	1561.25			1561.25			
C-B	0.00	188.07	0.000	0.00	0.0	0.000	A
A-B	147.54			147.54			
A-C	1739.61			1739.61			

Main results: {18:00-18:15}

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	71.02	357.15	0.199	71.89	0.3	12.659	B
C-A	1274.75			1274.75			
C-B	0.00	258.88	0.000	0.00	0.0	0.000	A
A-B	120.46			120.46			
A-C	1420.39			1420.39			

Main results: {18:15-18:30}

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	59.48	420.81	0.141	59.82	0.2	9.983	A
C-A	1067.54			1067.54			
C-B	0.00	310.10	0.000	0.00	0.0	0.000	A
A-B	100.88			100.88			
A-C	1189.51			1189.51			



2031 Base Flows, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	11.28	B

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D5	2031 Base Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1861.00	100.000
B		✓	206.00	100.000
C		✓	1625.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		A	B	C
	A	0.000	86.000	1775.000
	B	0.000	0.000	206.000
	C	1625.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-A	1.04	202.25	12.9	F
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	155.09	385.46	0.402	152.47	0.7	15.289	C
C-A	1223.39			1223.39			
C-B	0.00	287.47	0.000	0.00	0.0	0.000	A
A-B	64.75			64.75			
A-C	1336.31			1336.31			

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	185.19	314.94	0.588	182.47	1.3	26.636	C
C-A	1460.84			1460.84			
C-B	0.00	231.86	0.000	0.00	0.0	0.000	A
A-B	77.31			77.31			
A-C	1595.69			1595.69			

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	226.81	217.44	1.043	198.19	8.5	120.690	F
C-A	1789.16			1789.16			
C-B	0.00	154.97	0.000	0.00	0.0	0.000	A
A-B	94.69			94.69			
A-C	1954.31			1954.31			

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	226.81	217.44	1.043	209.34	12.9	202.248	F
C-A	1789.16			1789.16			
C-B	0.00	154.97	0.000	0.00	0.0	0.000	A
A-B	94.69			94.69			
A-C	1954.31			1954.31			

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	185.19	314.94	0.588	230.33	1.6	59.480	F
C-A	1460.84			1460.84			
C-B	0.00	231.86	0.000	0.00	0.0	0.000	A
A-B	77.31			77.31			
A-C	1595.69			1595.69			

Main results: (09:15-09:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	155.09	385.46	0.402	158.60	0.7	16.102	C
C-A	1223.39			1223.39			
C-B	0.00	287.47	0.000	0.00	0.0	0.000	A
A-B	64.75			64.75			
A-C	1336.31			1336.31			



2031 Base Flows, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.81	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D6	2031 Base Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1938.00	100.000
B		✓	89.00	100.000
C		✓	1604.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
From	A	0.000	152.000	1786.000
	B	0.000	0.000	89.000
	C	1604.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-A	0.47	33.05	0.9	D
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	67.00	378.01	0.177	66.16	0.2	11.513	B
C-A	1207.58			1207.58			
C-B	0.00	275.61	0.000	0.00	0.0	0.000	A
A-B	114.43			114.43			
A-C	1344.59			1344.59			

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	80.01	306.04	0.261	79.47	0.3	15.851	C
C-A	1441.96			1441.96			
C-B	0.00	217.71	0.000	0.00	0.0	0.000	A
A-B	136.64			136.64			
A-C	1605.58			1605.58			

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	97.99	206.54	0.474	95.99	0.8	32.007	D
C-A	1766.04			1766.04			
C-B	0.00	137.64	0.000	0.00	0.0	0.000	A
A-B	167.36			167.36			
A-C	1966.42			1966.42			

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	97.99	206.54	0.474	97.89	0.9	33.045	D
C-A	1766.04			1766.04			
C-B	0.00	137.64	0.000	0.00	0.0	0.000	A
A-B	167.36			167.36			
A-C	1966.42			1966.42			

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	80.01	306.04	0.261	82.05	0.4	16.212	C
C-A	1441.96			1441.96			
C-B	0.00	217.71	0.000	0.00	0.0	0.000	A
A-B	136.64			136.64			
A-C	1605.58			1605.58			

Main results: (18:15-18:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	67.00	378.01	0.177	67.58	0.2	11.619	B
C-A	1207.58			1207.58			
C-B	0.00	275.61	0.000	0.00	0.0	0.000	A
A-B	114.43			114.43			
A-C	1344.59			1344.59			



2022 Assessment Flows, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.49	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D7	2022 Assessment Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1614.00	100.000
B		✓	188.00	100.000
C		✓	1390.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		A	B	C
	A	0.000	88.000	1526.000
	B	0.000	0.000	188.000
	C	1390.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-A	0.71	42.22	2.3	E
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	141.54	435.31	0.325	139.65	0.5	12.102	B
C-A	1046.46			1046.46			
C-B	0.00	325.49	0.000	0.00	0.0	0.000	A
A-B	66.25			66.25			
A-C	1148.85			1148.85			

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	169.01	374.47	0.451	167.71	0.8	17.302	C
C-A	1249.58			1249.58			
C-B	0.00	277.27	0.000	0.00	0.0	0.000	A
A-B	79.11			79.11			
A-C	1371.84			1371.84			

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	206.99	290.34	0.713	201.51	2.2	38.597	E
C-A	1530.42			1530.42			
C-B	0.00	210.58	0.000	0.00	0.0	0.000	A
A-B	96.89			96.89			
A-C	1680.16			1680.16			

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	206.99	290.34	0.713	206.44	2.3	42.224	E
C-A	1530.42			1530.42			
C-B	0.00	210.58	0.000	0.00	0.0	0.000	A
A-B	96.89			96.89			
A-C	1680.16			1680.16			

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	169.01	374.47	0.451	174.82	0.9	18.515	C
C-A	1249.58			1249.58			
C-B	0.00	277.27	0.000	0.00	0.0	0.000	A
A-B	79.11			79.11			
A-C	1371.84			1371.84			

Main results: (09:15-09:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	141.54	435.31	0.325	142.98	0.5	12.373	B
C-A	1046.46			1046.46			
C-B	0.00	325.49	0.000	0.00	0.0	0.000	A
A-B	66.25			66.25			
A-C	1148.85			1148.85			



2022 Assessment Flows, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.47	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D8	2022 Assessment Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1663.00	100.000
B		✓	81.00	100.000
C		✓	1351.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
From	A	0.000	162.000	1501.000
	B	0.000	0.000	81.000
	C	1351.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-A-C	0.31	18.00	0.4	C
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	60.98	434.45	0.140	60.34	0.2	9.606	A
C-A	1017.10			1017.10			
C-B	0.00	317.95	0.000	0.00	0.0	0.000	A
A-B	121.96			121.96			
A-C	1130.03			1130.03			

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	72.82	373.44	0.195	72.51	0.2	11.951	B
C-A	1214.52			1214.52			
C-B	0.00	268.26	0.000	0.00	0.0	0.000	A
A-B	145.63			145.63			
A-C	1349.37			1349.37			

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	89.18	289.09	0.309	88.40	0.4	17.882	C
C-A	1487.48			1487.48			
C-B	0.00	199.55	0.000	0.00	0.0	0.000	A
A-B	178.37			178.37			
A-C	1652.63			1652.63			

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	89.18	289.09	0.309	89.16	0.4	18.001	C
C-A	1487.48			1487.48			
C-B	0.00	199.55	0.000	0.00	0.0	0.000	A
A-B	178.37			178.37			
A-C	1652.63			1652.63			

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	72.82	373.44	0.195	73.59	0.2	12.038	B
C-A	1214.52			1214.52			
C-B	0.00	268.26	0.000	0.00	0.0	0.000	A
A-B	145.63			145.63			
A-C	1349.37			1349.37			

Main results: (18:15-18:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	60.98	434.45	0.140	61.30	0.2	9.657	A
C-A	1017.10			1017.10			
C-B	0.00	317.95	0.000	0.00	0.0	0.000	A
A-B	121.96			121.96			
A-C	1130.03			1130.03			



2027 Assessment Flows, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	4.05	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D9	2027 Assessment Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1703.00	100.000
B		✓	198.00	100.000
C		✓	1468.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		A	B	C
	A	0.000	92.000	1611.000
	B	0.000	0.000	198.000
	C	1468.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-A	0.82	68.98	3.9	F
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	149.06	417.92	0.357	146.90	0.5	13.182	B
C-A	1105.19			1105.19			
C-B	0.00	311.79	0.000	0.00	0.0	0.000	A
A-B	69.26			69.26			
A-C	1212.85			1212.85			

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	178.00	353.70	0.503	176.28	1.0	20.094	C
C-A	1319.70			1319.70			
C-B	0.00	260.90	0.000	0.00	0.0	0.000	A
A-B	82.71			82.71			
A-C	1448.26			1448.26			

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	218.00	264.91	0.823	208.22	3.4	55.102	F
C-A	1616.30			1616.30			
C-B	0.00	190.55	0.000	0.00	0.0	0.000	A
A-B	101.29			101.29			
A-C	1773.74			1773.74			

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	218.00	264.91	0.823	216.21	3.9	55.978	F
C-A	1616.30			1616.30			
C-B	0.00	190.55	0.000	0.00	0.0	0.000	A
A-B	101.29			101.29			
A-C	1773.74			1773.74			

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	178.00	353.70	0.503	189.21	1.1	23.220	C
C-A	1319.70			1319.70			
C-B	0.00	260.90	0.000	0.00	0.0	0.000	A
A-B	82.71			82.71			
A-C	1448.26			1448.26			

Main results: (09:15-09:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	149.06	417.92	0.357	151.04	0.6	13.584	B
C-A	1105.19			1105.19			
C-B	0.00	311.79	0.000	0.00	0.0	0.000	A
A-B	69.26			69.26			
A-C	1212.85			1212.85			



2027 Assessment Flows, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.55	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D10	2027 Assessment Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1755.00	100.000
B		✓	85.00	100.000
C		✓	1427.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
From	A	0.000	169.000	1586.000
	B	0.000	0.000	85.000
	C	1427.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-A	0.36	21.19	0.5	C
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	63.99	416.82	0.154	63.28	0.2	10.162	B
C-A	1074.32			1074.32			
C-B	0.00	303.79	0.000	0.00	0.0	0.000	A
A-B	127.23			127.23			
A-C	1194.02			1194.02			

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	76.41	352.39	0.217	76.04	0.3	13.011	B
C-A	1282.84			1282.84			
C-B	0.00	251.35	0.000	0.00	0.0	0.000	A
A-B	151.93			151.93			
A-C	1425.78			1425.78			

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	93.59	263.31	0.355	92.54	0.5	20.953	C
C-A	1571.16			1571.16			
C-B	0.00	178.84	0.000	0.00	0.0	0.000	A
A-B	186.07			186.07			
A-C	1746.22			1746.22			

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	93.59	263.31	0.355	93.55	0.5	21.194	C
C-A	1571.16			1571.16			
C-B	0.00	178.84	0.000	0.00	0.0	0.000	A
A-B	186.07			186.07			
A-C	1746.22			1746.22			

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	76.41	352.39	0.217	77.45	0.3	13.143	B
C-A	1282.84			1282.84			
C-B	0.00	251.35	0.000	0.00	0.0	0.000	A
A-B	151.93			151.93			
A-C	1425.78			1425.78			

Main results: (18:15-18:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	63.99	416.82	0.154	64.39	0.2	10.225	B
C-A	1074.32			1074.32			
C-B	0.00	303.79	0.000	0.00	0.0	0.000	A
A-B	127.23			127.23			
A-C	1194.02			1194.02			



2031 Assessment Flows, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	15.90	D

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D11	2031 Assessment Flows	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1886.00	100.000
B		✓	217.00	100.000
C		✓	1629.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		A	B	C
	A	0.000	100.000	1786.000
	B	0.000	0.000	217.000
	C	1629.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-A-C	1.12	273.47	19.0	F
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	163.37	382.14	0.428	160.47	0.7	16.044	C
C-A	1226.40			1226.40			
C-B	0.00	283.62	0.000	0.00	0.0	0.000	A
A-B	75.29			75.29			
A-C	1344.59			1344.59			

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	195.08	310.98	0.627	191.76	1.6	29.405	C
C-A	1464.44			1464.44			
C-B	0.00	227.26	0.000	0.00	0.0	0.000	A
A-B	89.90			89.90			
A-C	1605.58			1605.58			

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	238.92	212.58	1.124	199.28	11.5	149.837	F
C-A	1793.56			1793.56			
C-B	0.00	149.35	0.000	0.00	0.0	0.000	A
A-B	110.10			110.10			
A-C	1966.42			1966.42			

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	238.92	212.58	1.124	208.75	19.0	273.488	F
C-A	1793.56			1793.56			
C-B	0.00	149.35	0.000	0.00	0.0	0.000	A
A-B	110.10			110.10			
A-C	1966.42			1966.42			

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	195.08	310.98	0.627	263.16	2.0	110.872	F
C-A	1464.44			1464.44			
C-B	0.00	227.26	0.000	0.00	0.0	0.000	A
A-B	89.90			89.90			
A-C	1605.58			1605.58			

Main results: (09:15-09:30)

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	163.37	382.14	0.428	168.23	0.8	17.186	C
C-A	1226.40			1226.40			
C-B	0.00	283.62	0.000	0.00	0.0	0.000	A
A-B	75.29			75.29			
A-C	1344.59			1344.59			



2031 Assessment Flows, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.96	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D12	2031 Assessment Flows	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1979.00	100.000
B		✓	95.00	100.000
C		✓	1613.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		A	B	C
	A	0.000	187.000	1792.000
	B	0.000	0.000	95.000
	C	1613.000	0.000	0.000

Vehicle Mix

Heavy Vehicle proportion

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-A	0.52	37.24	1.0	E
C-A				
C-B	0.00	0.00	0.0	A
A-B				
A-C				

Main Results for each time segment

Main results: {17:00-17:15}

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	71.52	374.02	0.191	70.59	0.2	11.830	B
C-A	1214.35			1214.35			
C-B	0.00	269.30	0.000	0.00	0.0	0.000	A
A-B	140.78			140.78			
A-C	1349.11			1349.11			

Main results: {17:15-17:30}

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	85.40	301.28	0.283	84.79	0.4	16.581	C
C-A	1450.05			1450.05			
C-B	0.00	210.17	0.000	0.00	0.0	0.000	A
A-B	168.11			168.11			
A-C	1610.97			1610.97			

Main results: {17:30-17:45}

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	104.60	200.71	0.521	102.11	1.0	35.665	E
C-A	1775.95			1775.95			
C-B	0.00	128.41	0.000	0.00	0.0	0.000	A
A-B	205.89			205.89			
A-C	1973.03			1973.03			

Main results: {17:45-18:00}

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	104.60	200.71	0.521	104.45	1.0	37.240	E
C-A	1775.95			1775.95			
C-B	0.00	128.41	0.000	0.00	0.0	0.000	A
A-B	205.89			205.89			
A-C	1973.03			1973.03			

Main results: {18:00-18:15}

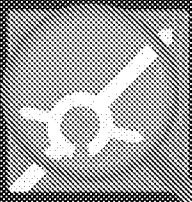
Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	85.40	301.28	0.283	87.96	0.4	17.065	C
C-A	1450.05			1450.05			
C-B	0.00	210.17	0.000	0.00	0.0	0.000	A
A-B	168.11			168.11			
A-C	1610.97			1610.97			

Main results: {18:15-18:30}

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-A	71.52	374.02	0.191	72.18	0.2	11.954	B
C-A	1214.35			1214.35			
C-B	0.00	269.30	0.000	0.00	0.0	0.000	A
A-B	140.78			140.78			
A-C	1349.11			1349.11			

APPENDIX 11

Personal Injury Accident Data



Crash Date: Saturday, February 28, 2015 **Time of Crash:** 4:06:00 PM **Crash Reference:** 2015471501197

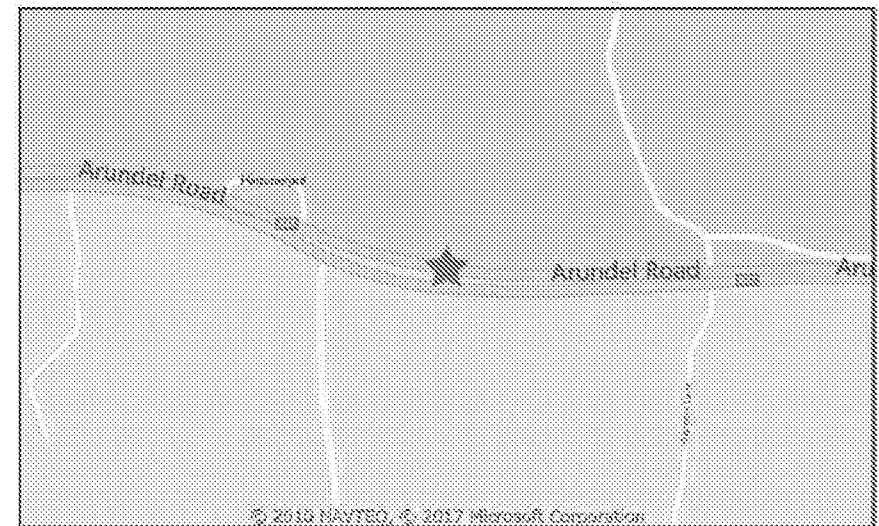
Highest Injury Severity: Slight
Highway Authority: West Sussex
Local Authority: Arun District
Weather Description: Fine without high winds
Road Surface Description: Wet or Damp
Speed Limit: 70
Light Conditions: Daylight: regardless of presence of streetlights
Carriageway Hazards: None
Junction Detail: Not at or within 20 metres of junction
Junction Pedestrian Crossing: No physical crossing facility within 50 metres
Road Type: Dual carriageway
Junction Control: Not Applicable

Road Number: A27

Number of Casualties: 1

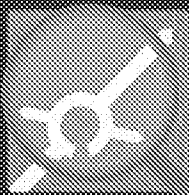
Number of Vehicles: 1

OS Grid Reference: 506917 105634



For more information about the data please visit: [REDACTED]





Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	-1	Male	56 - 65	Vehicle proceeding normally along the carriageway, not on a bend	Nearside	Other	None	Tree

Casualties

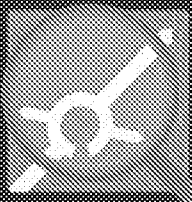
Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Male	56 - 65	Unknown or other	Unknown or other

Accident Description:

Accident description text currently unavailable for this highway authority / police force

For more information about the data please visit:





Crash Date: Thursday, October 08, 2015 **Time of Crash:** 10:10:00 AM **Crash Reference:** 2015471505890

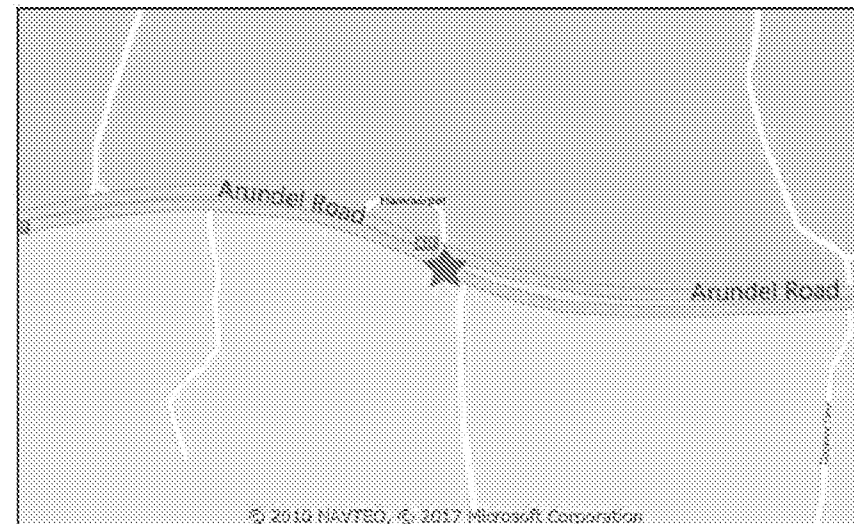
Highest Injury Severity: Slight
Highway Authority: West Sussex
Local Authority: Arun District
Weather Description: Fine without high winds
Road Surface Description: Dry
Speed Limit: 70
Light Conditions: Daylight: regardless of presence of streetlights
Carriageway Hazards: None
Junction Detail: T or staggered junction
Junction Pedestrian Crossing: No physical crossing facility within 50 metres
Road Type: Dual carriageway
Junction Control: Give way or uncontrolled

Road Number: A27

Number of Casualties: 2

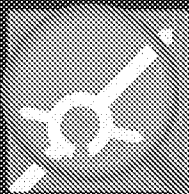
Number of Vehicles: 2

OS Grid Reference: 506709 105658



For more information about the data please visit: [\[REDACTED\]](#)





Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Van or goods vehicle 3.5 tonnes mgw and under		1 Male	26 - 35	Vehicle is in the act of turning left	Back	Commuting to/from work	None	None
2	Car (excluding private hire)		6 Female	26 - 35	Vehicle proceeding normally along the carriageway, not on a bend	Front	Journey as part of work	None	None

Casualties

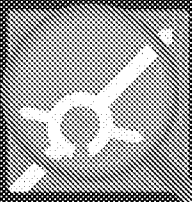
Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	2	Slight	Vehicle or pillion passenger	Male	46 - 55	Unknown or other	Unknown or other
2	1	Slight	Driver or rider	Female	26 - 35	Unknown or other	Unknown or other

Accident Description:

Accident description text currently unavailable for this highway authority / police force

For more information about the data please visit: [www.crashmap.co.uk](#)





crashmap.co.uk

Crash Date: Tuesday, December 06, 2016 **Time of Crash:** 12:20:00 PM **Crash Reference:** 2016471607337

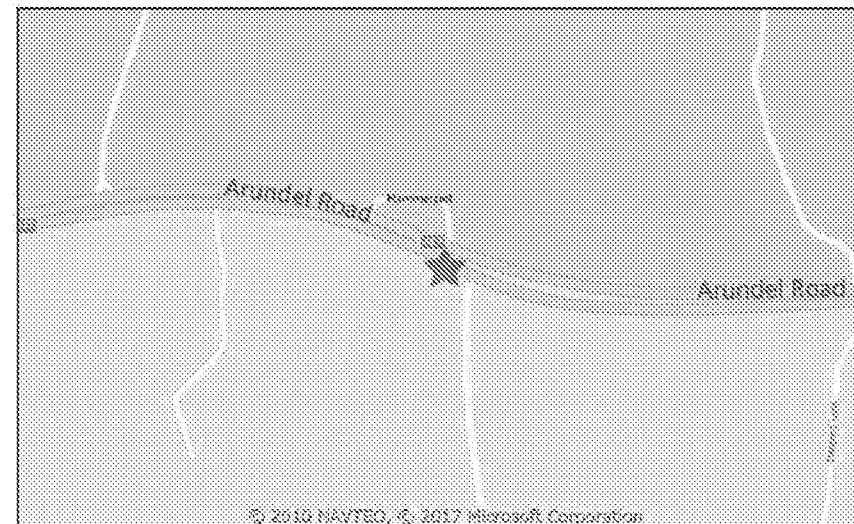
Highest Injury Severity: Slight
Highway Authority: West Sussex
Local Authority: Arun District
Weather Description: Fine without high winds
Road Surface Description: Dry
Speed Limit: 70
Light Conditions: Daylight: regardless of presence of streetlights
Carriageway Hazards: None
Junction Detail: Not at or within 20 metres of junction
Junction Pedestrian Crossing: No physical crossing facility within 50 metres
Road Type: Dual carriageway
Junction Control: Not Applicable

Road Number: A27

Number of Casualties: 1

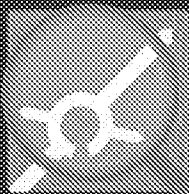
Number of Vehicles: 2

OS Grid Reference: 506699 105654



For more information about the data please visit: [REDACTED]





Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Van or goods vehicle 3.5 tonnes mgw and under	11	Male	26 - 35	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	Other permanent object
2	Car (excluding private hire)	10	Unknown	Unknown	Vehicle is parked in the carriageway	Offside	Other	None	None

Casualties

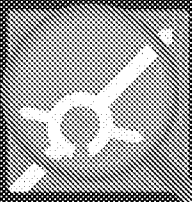
Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Male	26 - 35	Unknown or other	Unknown or other

Accident Description:

Not Available

For more information about the data please visit [\[REDACTED\]](#)

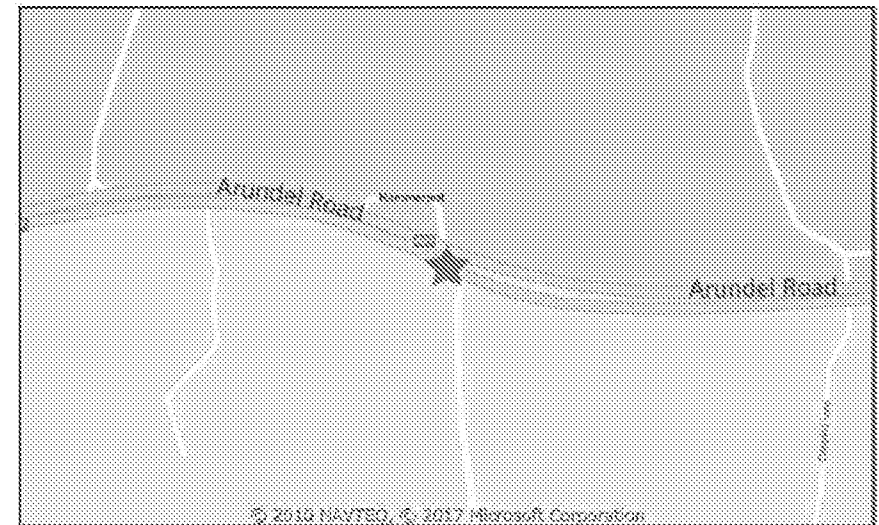




crashmap.co.uk

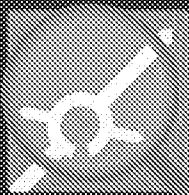
Crash Date: Friday, March 11, 2016 **Time of Crash:** 7:12:00 PM **Crash Reference:** 2016471601476

Highest Injury Severity:	Fatal	Road Number:	A27	Number of Casualties:	1
Highway Authority:	West Sussex			Number of Vehicles:	1
Local Authority:	Arun District			OS Grid Reference:	506714 105654
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	70				
Light Conditions:	Darkness: no street lighting				
Carriageway Hazards:	None				
Junction Detail:	T or staggered junction				
Junction Pedestrian Crossing:	Central refuge - no other controls				
Road Type:	Dual carriageway				
Junction Control:	Stop sign				



For more information about the data please visit: [www.crashmap.co.uk](#)





Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	-1	Male	36 - 45	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None

Casualties

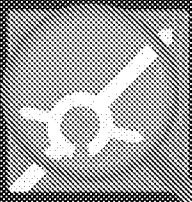
Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Fatal	Pedestrian	Female	66 - 75	In centre of carriageway, not on refuge, central island or central reservation	Crossing from driver's nearside

Accident Description:

Not Available

For more information about the data please visit: [www.crashmap.co.uk](#)





Crash Date: Tuesday, December 06, 2016 **Time of Crash:** 12:20:00 PM **Crash Reference:** 2016471607337

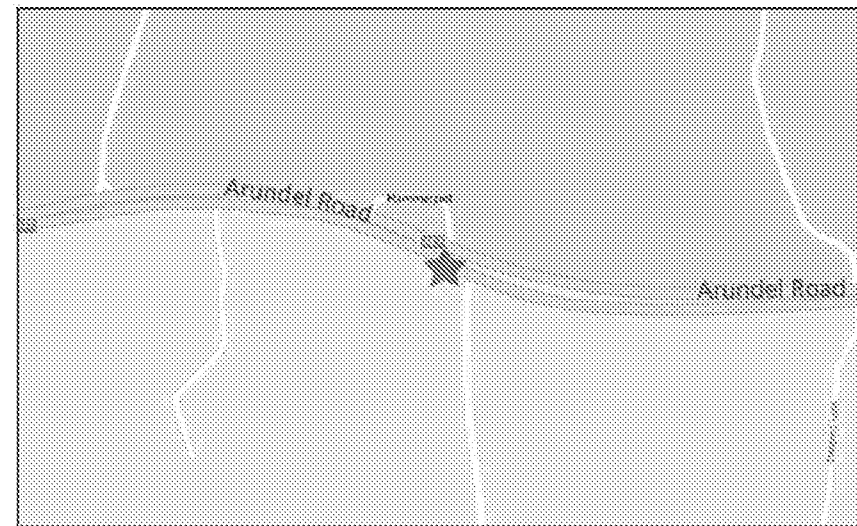
Highest Injury Severity: Slight
Highway Authority: West Sussex
Local Authority: Arun District
Weather Description: Fine without high winds
Road Surface Description: Dry
Speed Limit: 70
Light Conditions: Daylight: regardless of presence of streetlights
Carriageway Hazards: None
Junction Detail: Not at or within 20 metres of junction
Junction Pedestrian Crossing: No physical crossing facility within 50 metres
Road Type: Dual carriageway
Junction Control: Not Applicable

Road Number: A27

Number of Casualties: 1

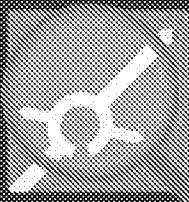
Number of Vehicles: 2

OS Grid Reference: 506699 105654



For more information about the data please visit: [www](#)





Vehicles involved

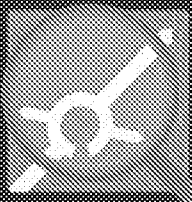
Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Van or goods vehicle 3.5 tonnes mgw and under	11	Male	26 - 35	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	Other permanent object
2	Car (excluding private hire)	10	Unknown	Unknown	Vehicle is parked in the carriageway	Offside	Other	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	26 - 35	Unknown or other	Unknown or other

For more information about the data please visit: www.crashmap.co.uk





Crash Date: Thursday, October 08, 2015 **Time of Crash:** 10:10:00 AM **Crash Reference:** 2015471505890

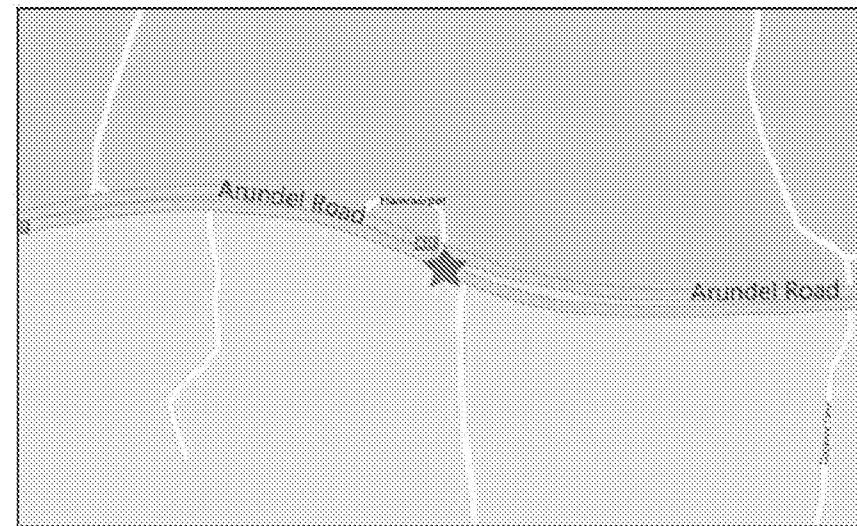
Highest Injury Severity: Slight
Highway Authority: West Sussex
Local Authority: Arun District
Weather Description: Fine without high winds
Road Surface Description: Dry
Speed Limit: 70
Light Conditions: Daylight: regardless of presence of streetlights
Carriageway Hazards: None
Junction Detail: T or staggered junction
Junction Pedestrian Crossing: No physical crossing facility within 50 metres
Road Type: Dual carriageway
Junction Control: Give way or uncontrolled

Road Number: A27

Number of Casualties: 2

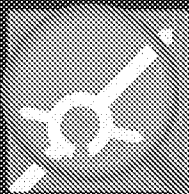
Number of Vehicles: 2

OS Grid Reference: 506709 105658



For more information about the data please visit: www.crashmap.co.uk





Vehicles involved

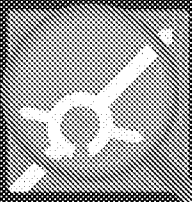
Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Van or goods vehicle 3.5 tonnes mgw and under		1 Male	26 - 35	Vehicle is in the act of turning left	Back	Commuting to/from work	None	None
2	Car (excluding private hire)		6 Female	26 - 35	Vehicle proceeding normally along the carriageway, not on a bend	Front	Journey as part of work	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	2	Slight	Vehicle or pillion passenger	Male	46 - 55	Unknown or other	Unknown or other
2	1	Slight	Driver or rider	Female	26 - 35	Unknown or other	Unknown or other

For more information about the data please visit: [www.crashmap.co.uk](#)





Crash Date: Friday, March 11, 2016 **Time of Crash:** 7:12:00 PM **Crash Reference:** 2016471601476

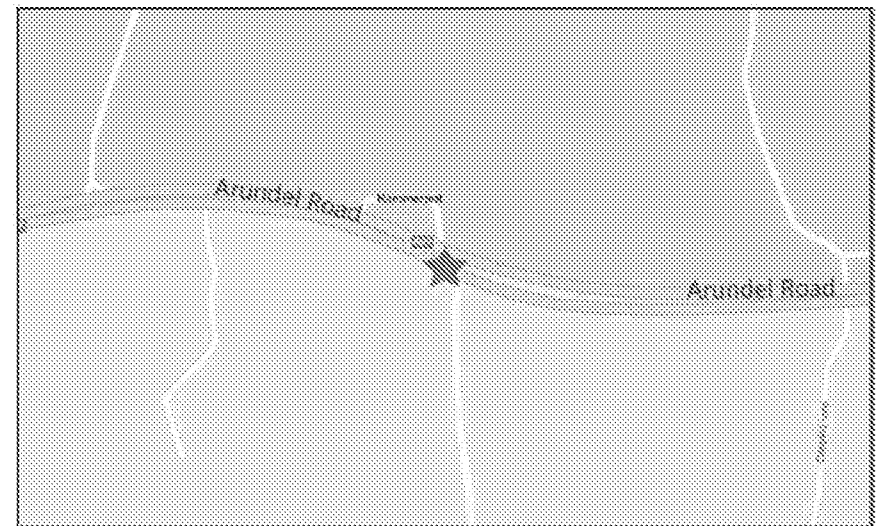
Highest Injury Severity: Fatal
Highway Authority: West Sussex
Local Authority: Arun District
Weather Description: Fine without high winds
Road Surface Description: Dry
Speed Limit: 70
Light Conditions: Darkness: no street lighting
Carriageway Hazards: None
Junction Detail: T or staggered junction
Junction Pedestrian Crossing: Central refuge - no other controls
Road Type: Dual carriageway
Junction Control: Stop sign

Road Number: A27

Number of Casualties: 1

Number of Vehicles: 1

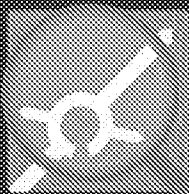
OS Grid Reference: 506714 105654



For more information about the data please visit:

Page 1 of 2 7/6/2018 3:50:00 PM





Vehicles involved

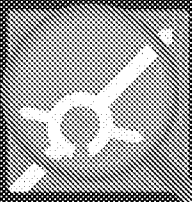
Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	-1	Male	36 - 45	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Fatal	Pedestrian	Female	66 - 75	In centre of carriageway, not on refuge, central island or central reservation	Crossing from driver's nearside

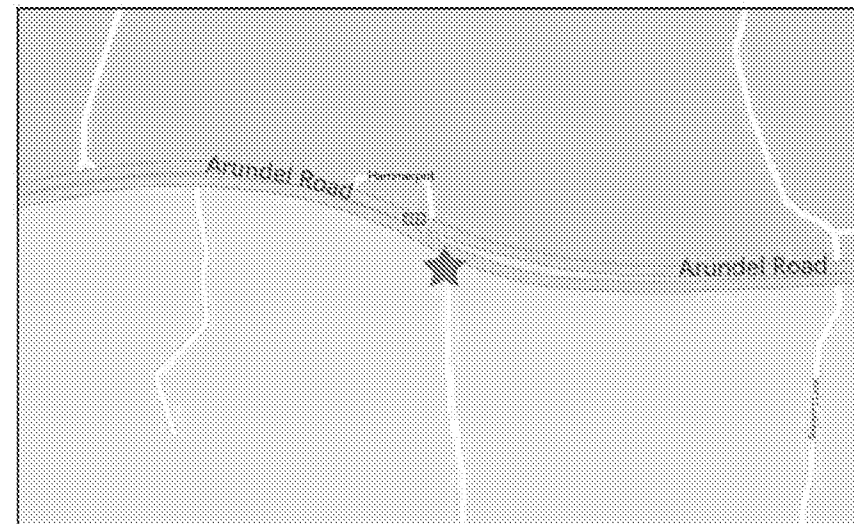
For more information about the data please visit





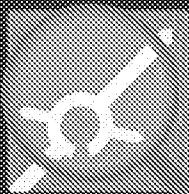
Crash Date: Sunday, November 23, 2014 **Time of Crash:** 9:45:00 AM **Crash Reference:** 2014471406929

Highest Injury Severity:	Slight	Road Number:	A27	Number of Casualties:	1
Highway Authority:	West Sussex			Number of Vehicles:	1
Local Authority:	Arun District			OS Grid Reference:	506726 105630
Weather Description:	Raining without high winds				
Road Surface Description:	Wet or Damp				
Speed Limit:	70				
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:	Slip Road				
Junction Control:	Give way or uncontrolled				



For more information about the data please visit: [\[REDACTED\]](#)





crashmap.co.uk

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	13	Female	16 - 20	Vehicle is in the act of turning left	Offside	Other	None	Wall or fence

Casualties

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

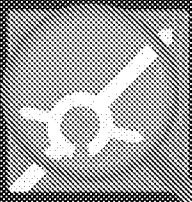
For more information about the data please visit:

Page 2 of 2

7/6/2018 3:48:00 PM



INSIGHTwarehouse



2017 data is provisional and is subject to change

Crash Date: Saturday, April 01, 2017

Time of Crash: 2:25:00 PM

Crash Reference: 2017471701871

Highest Injury Severity: Slight
Highway Authority: West Sussex
Local Authority: Arun District
Weather Description: Fine without high winds
Road Surface Description: Dry
Speed Limit: 70
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: Dual carriageway
Junction Control: Unknown

Road Number: A27

Number of Casualties: 1

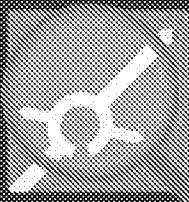
Number of Vehicles: 2

OS Grid Reference: 504783 105835



For more information about the data please visit: [www.crashmap.co.uk](#)





2017 data is provisional and is subject to change

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	-1	Male	16-24	Vehicle is performing a U turn	Unknown	Other	None	Central crash barrier
2	Car (excluding private hire)	-1	Female	35-44	Vehicle proceeding normally along the carriageway, not on a bend	Unknown	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Vehicle or pillion passenger	Female	16-24	Unknown or other	Unknown or other

For more information about the data please visit: [\[REDACTED\]](#)



APPENDIX 12

Road Safety Audit & Designers Response (Main Access)



Croft TS

PROPOSED ACCESS ARRANGEMENTS, ARUNDEL ROAD, ANGMERING

**STAGE 1 - ROAD SAFETY AUDIT
JANUARY 2018**

Transport Planning /Traffic Surveys/ Road Safety Audits

Tel: +44 (0)2920 667663 Email: admin@go-surveys.co.uk Web: www.go-surveys.co.uk
go-surveys Ltd registered in England and Wales No:08611452
Registered office: go-surveys Ltd, 72 Marlburton Avenue, Cardiff, CF11 9HG

REPORT CONTROL

Document: Proposed Access Arrangements, Arundel Road, Angmering – S1 RSA

Project: Proposed Access Arrangements, Arundel Road, Angmering – S1 RSA

Client: Croft TS

Job Number: gs-545-2017

File Origin: /go-surveys/Road Safety Audits/GS545 - Arundel Road - Angmering - Stage 1 RSA/GS545-2017 - Proposed Access, Arundel Road, Angmering - Stage 1 RSA - Final.docx

Document Checking:

Primary Author	T Brooks	Initialled:	TB
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Contributor	R Lister	Initialled:	RL
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Review By	Initialled:
-----------	-------------

Issue	Date	Status	Checked for Issue
1	03/01/2018	Final	Tristan Brooks
2			
3			
4			



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	PROBLEM 2	5
3	OBSERVATIONS/NOTES.....	7
4	AUDIT STATEMENT	8

Appendices

Appendix A – List of drawings and documents supplied for audit.

Appendix B – Location plan of identified problems.



1 INTRODUCTION

- 1.1 This report presents the findings from a Stage 1 Road Safety Audit undertaken on the proposed access arrangements to a residential development of up to 215 dwellings to the north of Angmering, West Sussex.
- 1.2 The audit was carried out by the following:
- | | |
|---|---------------------------------|
| Tristan Brooks
BSc (Hons), MBA, CMILT, MCIHT, MSoRSA,
HE RSA Cert of Competency | - Road Safety Audit Team Leader |
| R Lister
BSc (Hons), MSc, MRTPI, CMILT, MCIHT,
MSoRSA | - Road Safety Audit Team Member |
- 1.3 The RSA was commissioned by Croft Transport Solutions (the designers of the scheme).
- 1.4 The site visit was undertaken on Saturday 9th December 2017 between 13:15-13:40 and comprised a walk and drive through of the area in the vicinity of the scheme. During the site visit both the weather and road surface were dry. Traffic in the vicinity of the scheme was light/moderate.
- 1.5 Arundel Road in the vicinity of the proposed access is subject to a 60 mph speed limit.
- 1.6 The drawings and documents supplied for audit are listed at **Appendix A**. An annotated drawing showing the locations of the problems identified is provided at **Appendix B**.
- 1.7 The terms of reference of the audit are as that described in DMRB HD19/15 Guidelines on Road Safety Audits. This standard has been used for guidance only. The team has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the designs to any other criteria.
- 1.8 The scope of the RSA is limited to the proposed access arrangements to the site that will include:



- The introduction of a priority controlled 'ghost island' right turn lane with lane widths of 3.0 metres;
- Visibility splays of 2.4 metres by 59 metres from the site access (which it is noted accords with MfS guidance on vehicle speeds of 37mph); and
- Access road with a 5.5 metre width, 6.0 metre kerb radii and 2.0 metre wide footways on either side of the access road.

- 1.9 Junction capacity assessments provided for review as part of the RSA has forecast that the proposed junction would operate within capacity with no forecast queuing during the 2027 assessment year.
- 1.10 A review of the Personal Injury Collisions (PIC) data between 01/01/2012 and 31/12/2016 in the immediate vicinity of the proposed site access junction has indicated that during this period there have been no PIC's recorded.
- 1.11 The Audit Team have not been made aware of any previous RSA's undertaken on the scheme nor have they been made aware of any departures or relaxations from standard within the design of the scheme. Although, it is noted that the proposed junction visibility splays do not accord with the that set out within DMRB for carriageways subject to a 60 mph speed limit.

2 ROAD SAFETY AUDIT FINDINGS FROM RSA 1

PROBLEM 1

LOCATION: Site Access.

SUMMARY: Vertical carriageway alignment may potentially result in restrictions to the achievable inter-visibility splays to/from the site access increasing the risk of a number of collision types.

- 2.1 It is considered that the inter-visibility splays at the proposed site access junction will be restricted by the crest in the carriageway alignment to the south of the proposed site access (Ref: **Photograph 1**).

Photograph 1 – View south from approximate location of site access junction.



- 2.2 Insufficient visibility in the vertical plane for vehicles accessing or egressing the site access could result in an increased risk of number of collision types, including shunt or side-swipe type collisions associated with vehicles accessing/egressing the site.



- 2.3 This issue would be exacerbated if the speed limit is to be retained at 60 mph.

RECOMMENDATION

- 2.4 It is recommended that details of the proposed vertical cross sections throughout the scheme are provided for review as part of the Stage 2 RSA and that the conspicuity /inter-visibility for drivers using the site access are appropriate.

CROFT RESPONSE

Comment noted. Our revised drawing now incorporates a vertical cross section illustrating the southbound visibility splay in respect of the existing crest in the carriageway to the south of the site access junction. As can be seen by the cross section, a visibility splay of 59m can be achieved despite the vertical alignment of Arundel Road.

PROBLEM 2

LOCATION: Proposed site access.

SUMMARY: Vehicle encroachment into adjoining lanes may result in vehicle/vehicle collisions.

- 2.5 The vehicle swept path analysis provided for review as part of the RSA indicate that a refuse vehicle would have to encroach into adjoining lanes accessing/egressing the site. Encroachment into adjoining lanes to manoeuvre to/from the site could potentially result in head-on type or side swipe type collisions.
- 2.6 It is acknowledged that refuse vehicle movements to/from the site will be minimal, and that it is not atypical for some minor encroachment into adjoin lanes for this or similar types of vehicles at residential accesses although not to the extent as shown in the vehicle swept path drawing provided for review.

RECOMMENDATION

- 2.7 It is recommended that the proposed junction arrangement is revised to remove this problem.



CROFT RESPONSE

As noted above, the left turn exit for the large waste vehicle shows only minimal encroachment into the right turn pocket. Speeds in the right turn pocket will be low with good intervisibility between vehicles. Waste vehicles will be arriving in the morning peak where right turning vehicles into the site should be minimal. Infrequent encroachment into adjacent lanes by large service vehicles is considered acceptable and Manual for Streets advises further in para 6.8.1

"The design of local roads should accommodate service vehicles without allowing their requirements to dominate the layout. On streets with low traffic flows and speeds, it may be assumed that they will be able to use the full width of the carriageway to manoeuvre. Larger vehicles which are only expected to use a street infrequently, such as pantechnicons, need not be fully accommodated."

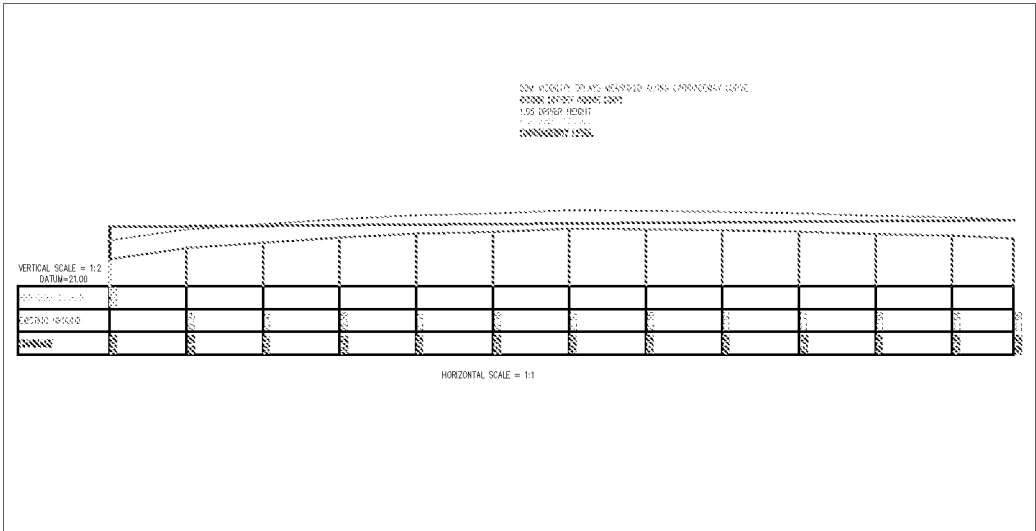
And further in para 6.5.8

"It would be acceptable for the occasional lorry to have to negotiate a particular junction with care."



NORTH SOUTH AERIAL VIEW

Wilmington



NOTES

PLAN 2

DRAWING IS INDICATIVE ONLY AND WILL BE SUBJECT TO
CHANGE AS DESIGN IS PROGRESSED WITH LOCAL AUTHORITY



SITE LAYOUT NTS

INDICATIVE SITE BOUNDARY

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REV.	DETAILS	DRAWN	CHECKED	DATE
------	---------	-------	---------	------

CLIENT:

GLADMAN

PROJECT:

ARUNDEL ROAD, ANGMERING

DRAWING TITLE:

PROPOSED ACCESS
ARRANGEMENT

SCALES:

1:500 @ A3

DRAWN:	MC	CHECKED:	MC	DATE:	OCT 2017
--------	----	----------	----	-------	----------

9 Jordan St
Manchester
M15 4PY

Email: info@crofts.co.uk
Tel: 0161 667 3746
Web: www.crofts.co.uk

crofts
Transport Solutions

DRAWING NUMBER:	2020-F01	REVISION:	A
-----------------	----------	-----------	---



3 OBSERVATIONS/NOTES

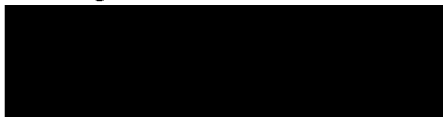
- 3.1 The recommendations included within this report should not be regarded as being prescriptive design solutions to the problems raised. They are intended only to indicate a proportionate and viable means of eliminating or mitigating the identified problem, in accordance with HD19/15. There may be alternative methods of addressing a problem which would be equally acceptable in achieving the desired elimination or mitigation and these should be considered when responding to this report.
- 3.2 It should be noted that although not necessarily expected at a Stage 1 RSA, there was limited information provided as part of the Audit Brief to indicate details of cross-section dimension details, drainage provision, street furniture details (including signage and lighting), landscaping and kerb details. As a result, it is not possible to ascertain any potential road safety issues arising from these elements of the scheme.
- 3.3 However, like many Stage 1 RSA's it is envisaged that this information would be provided and addressed accordingly as part of the Stage 2 RSA that would be undertaken as part of the detailed design of the team.



4 AUDIT STATEMENT

4.1 We certify that this audit has been carried out broadly in accordance with HD 19/15.

Signed:

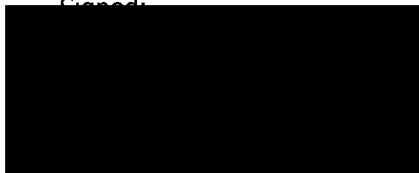


Date: 03 January 2018

T Brooks – BSc (Hons), MBA, CMILT, MCIHT, MSoRSA,
HE RSA Cert of Competency.

Audit Team Leader
go-surveys Ltd
72 Plasturton Avenue
Cardiff
CF11 9HJ

Signed:



Date: 03 January 2018

R Lister - BSc (Hons), MSc, MRTPI, MILT, MCIHT,
MSoRSA

Audit Team Member
go-surveys Ltd
72 Plasturton Avenue
Cardiff
CF11 9HJ



APPENDIX A

List of Drawings and Documents Provided for Audit

2020-F01

Proposed Access Arrangement

2020-SP01

Vehicle Swept Path Analysis

Junction Capacity Assessments

PIC Data

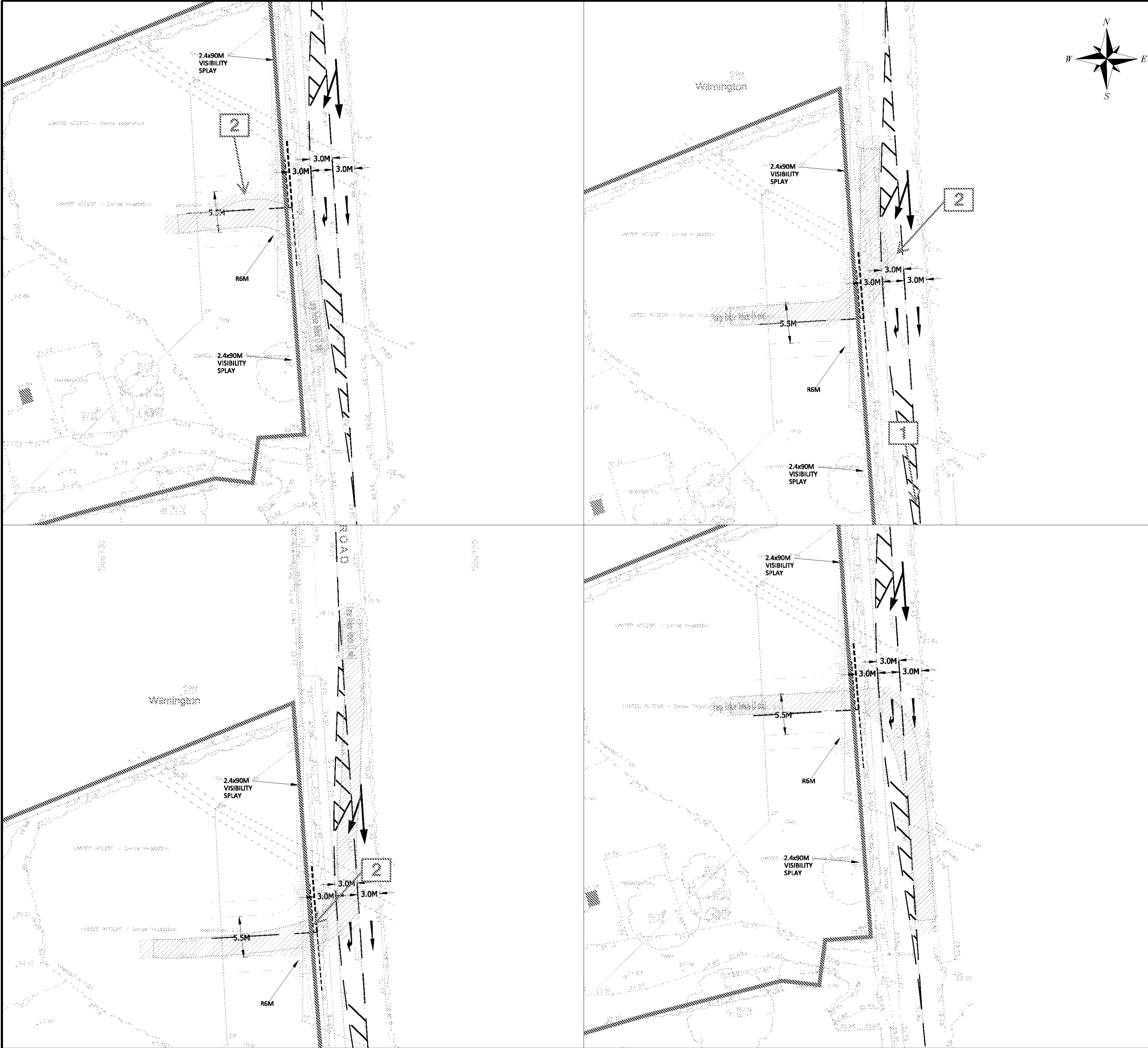
(Jan 2012- Dec 2016)



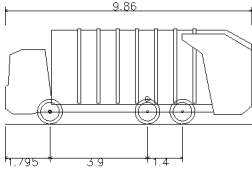
APPENDIX B

Location of Identified Problems

Z:\projects\2020 Arundel Road, Angmering\CAD\Croft Drawings\2020-SP01.dwg



NOTES



Large Refuse Vehicle (3 axle)
Overall Length 9.86m
Overall Width 2.45m
Overall Body Height 2.81m
Min Body Ground Clearance 0.36m
Track Width 2.45m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 9.50m



REV.	DETAILS	DRAWN	CHECKED	DATE
CLIENT:				
GLADMAN				
PROJECT:				
ARUNDEL ROAD, ANGMERING				
DRAWING TITLE:				
SWEPT PATH ANALYSIS				
SCALES:				
1:500 @ A3				
DRAWN: GM		CHECKED: MR		DATE: JAN 2018
9 Jordan Street, Manchester, M15 4PY Email: info@crofts.co.uk Tel: 0161 667 3746 Web: www.crofts.co.uk 				
DRAWING NUMBER:				REVISION:
2020-SP01				.

Site No: 22422001

Grid Reference: TQ06733,05483

Arundel Road, Angmering (Direction Sign)

Speed Report-Limit 60 Mph

Fri 01-Dec-17

Channel: Northbound

AVE

NB 85%ile=

37.6

AVE

SB 85%ile=

35.7

Time	Total	85th	Mean	Std.	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10	Bin 11	Bin 12
Begin	Vol.	%ile	Ave.	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
00:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
01:00	2	-	43.5	7.1	0	0	0	0	0	0	1	0	1	0	0	0
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	1	-	38.5	-	0	0	0	0	0	0	1	0	0	0	0	0
04:00	1	-	38.5	-	0	0	0	0	0	0	1	0	0	0	0	0
05:00	17	44.6	40.9	4.6	0	0	0	0	1	1	4	11	0	0	0	0
06:00	63	42.7	36.7	6.9	0	1	1	1	6	17	25	6	6	0	0	0
07:00	136	40.4	36	4.9	0	0	0	0	14	61	46	10	4	1	0	0
08:00	120	38.7	33.1	5.1	0	0	1	2	43	41	27	5	1	0	0	0
09:00	101	37.4	32.7	5.5	1	0	1	5	24	50	16	3	1	0	0	0
10:00	59	38.7	32.1	6.6	0	0	3	8	12	19	14	2	1	0	0	0
11:00	82	38.6	32.8	5.7	1	0	1	1	27	30	18	4	0	0	0	0
12:00	68	37.8	32.4	5.4	0	1	0	4	21	27	12	3	0	0	0	0
13:00	67	40.2	35.4	4.8	0	0	0	0	11	27	22	6	1	0	0	0
14:00	65	39.2	33	5.7	0	0	1	3	21	24	9	7	0	0	0	0
15:00	111	35.6	31.7	4.2	0	0	0	3	50	44	13	0	1	0	0	0
16:00	70	37.7	33.2	4.6	0	0	0	0	23	32	12	2	1	0	0	0
17:00	68	39.6	33.8	5.9	0	0	3	2	12	28	17	6	0	0	0	0
18:00	72	40.7	35.2	5.8	0	0	1	1	13	26	21	8	2	0	0	0
19:00	51	40.9	35.5	6	0	0	0	1	12	14	16	7	0	1	0	0
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22:00	16	41.3	34.4	7.7	0	0	1	1	2	6	3	2	1	0	0	0
23:00	4	-	37.3	4.9	0	0	0	0	0	2	1	1	0	0	0	0

12H,7-19	1019	39.1	33.5	5.5	2	1	11	29	271	409	227	56	12	1	0	0
16H,6-22	1171	39.5	33.9	5.7	2	2	14	31	290	457	282	69	21	3	0	0
18H,6-24	1191	39.6	33.9	5.7	2	2	15	32	292	465	286	72	22	3	0	0
24H,0-24	1212	39.7	34	5.8	2	2	15	32	293	466	293	83	23	3	0	0

Am	07:00 -	-	-		11:00	06:00	10:00	10:00	08:00	07:00	07:00	05:00	06:00	07:00 -	-
Peak	136 -	-	-		1	1	3	8	43	61	46	11	6	1 -	-

Pm	15:00 -		20:00	22:00 -		12:00	17:00	12:00	15:00	15:00	13:00	18:00	21:00	20:00 -	-
Peak	111 -		37.3	7.7 -		1	3	4	50	44	22	8	2	1 -	-

K & M TRAFFIC SURVEYS

Created at 11:37:47 on 13 Dec 2017

Site No: 22422001

Grid Reference: TQ06733,05483

Arundel Road, Angmering (Direction Sign)

Speed Report-Limit 60 Mph

Sat 02-Dec-17

Channel: Northbound

Time	Total	85th	Mean	Std.	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10	Bin 11	Bin 12
Begin	Vol.	%ile	Ave.	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
00:00	6 -		37.7		4	0	0	0	0	0	2	3	1	0	0	0
01:00	3 -		38.5		5	0	0	0	0	0	1	1	1	0	0	0
02:00	1 -		38.5 -			0	0	0	0	0	0	1	0	0	0	0
03:00	1 -		33.5 -			0	0	0	0	0	1	0	0	0	0	0
04:00	4 -		43.5		6	0	0	0	0	0	0	2	0	2	0	0
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06:00	15	42.6	34.5	8.6		0	1	0	1	2	4	3	4	0	0	0
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22:00	15	39.6	36.8	2.9		0	0	0	0	0	5	10	0	0	0	0
23:00	14	44.5	37.8	9		0	0	0	1	2	3	4	2	1	0	1

12H,7-19	900	40	34.6	5.9	2	6	9	15	168	366	247	65	16	4	1	1
16H,6-22	974	40.1	34.7	6	2	7	9	16	178	392	272	74	16	6	1	1
18H,6-24	1003	40.1	34.7	6	2	7	9	17	180	400	286	76	17	6	2	1
24H,0-24	1024	40.2	34.8	6	2	7	9	17	182	404	296	79	19	6	2	1

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Peak	95 -		43.5 -		1	2	2	5	23	40	31	6	2	1	1 -	

Pm	15:00	23:00	23:00	23:00	14:00 -		13:00	18:00	15:00	16:00	13:00	15:00	18:00	20:00	23:00	17:00
Peak	84	44.5	37.8	9	1 -		2	2	18	39	24	11	2	1	1	1

K & M TRAFFIC SURVEYS

Created at 11:37:47 on 13 Dec 2017

Site No: 22422001

Grid Reference: TQ06733,05483

Arundel Road, Angmering (Direction Sign)

Speed Report-Limit 60 Mph

Sun 03-Dec-17

Channel: Northbound

Time	Total	85th	Mean	Std.	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10	Bin 11	Bin 12
Begin	Vol.	%ile	Ave.	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
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02:00	3 -		35.2	7.6	0	0	0	0	1	1	0	1	0	0	0	0
03:00	0 -	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
04:00	2 -		26	3.5	0	0	0	1	1	0	0	0	0	0	0	0
05:00	3 -		36.8	3.1	0	0	0	0	0	1	2	0	0	0	0	0
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12:00	95	39.1	34.2	5.1	0	0	1	2	15	51	18	6	2	0	0	0
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22:00	5 -		34.5	4.4	0	0	0	0	1	2	2	0	0	0	0	0
23:00	5 -		40.5	6.8	0	0	0	0	0	2	0	2	1	0	0	0

12H,7-19	731	39.3	34	5.3	2	2	5	19	142	340	169	42	9	1	0	0
16H,6-22	787	39.6	34.2	5.5	2	3	5	21	146	356	188	52	13	1	0	0
18H,6-24	797	39.7	34.2	5.5	2	3	5	21	147	360	190	54	14	1	0	0
24H,0-24	818	39.7	34.3	5.6	2	3	5	22	149	367	198	55	15	2	0	0

Am	09:00 -	-	-		10:00 -		07:00	11:00	10:00	09:00	10:00	08:00	09:00	09:00 -	-	
Peak	93 -	-	-		1 -		1	4	25	45	18	5	1	1 -	-	

Pm	12:00 -		23:00	20:00	18:00	20:00	15:00	16:00	13:00	12:00	13:00	12:00	21:00 -	-	-	
Peak	95 -		40.5	8.6	1	1	2	3	15	51	27	6	2 -	-	-	

K & M TRAFFIC SURVEYS

Created at 11:37:47 on 13 Dec 2017

Site No: 22422001

Grid Reference: TQ06733,05483

Arundel Road, Angmering (Direction Sign)

Speed Report-Limit 60 Mph

Mon 04-Dec-17

Channel: Northbound

Time	Total	85th	Mean	Std.	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10	Bin 11	Bin 12
Begin	Vol.	%ile	Ave.	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
00:00		2 -		41	3.5	0	0	0	0	0	0	1	1	0	0	0
01:00		2 -		36	3.5	0	0	0	0	0	1	1	0	0	0	0
02:00		1 -		33.5 -		0	0	0	0	0	1	0	0	0	0	0
03:00		1 -		48.5 -		0	0	0	0	0	0	0	0	1	0	0
04:00		5 -		39.5	4.4	0	0	0	0	0	1	2	2	0	0	0
05:00	35	44	38.6	5.3	0	0	0	0	0	2	8	15	7	3	0	0
06:00	67	41.9	36.8	5.3	0	0	0	0	0	4	32	19	8	3	1	0
07:00	160	39.5	34.2	5.6	1	1	0	5	28	69	45	9	2	0	0	0
08:00	128	37.9	33.1	4.4	0	0	0	1	42	56	25	4	0	0	0	0
09:00	89	38.1	32.8	5.4	0	0	2	4	24	38	17	3	1	0	0	0
10:00	82	39.1	33.6	5.9	0	1	1	4	16	34	21	3	2	0	0	0
11:00	73	37.6	32.5	5.7	0	1	0	3	26	29	8	5	1	0	0	0
12:00	73	37.8	32.7	5.6	0	0	1	5	20	31	13	2	0	1	0	0
13:00	64	39.3	33.9	6.2	0	0	2	2	14	24	18	2	1	1	0	0
14:00	65	35.4	30.9	6.3	1	1	0	7	22	27	5	1	0	1	0	0
15:00	98	36.6	31.9	4.8	0	0	1	5	38	37	15	2	0	0	0	0
16:00	71	37.8	33	6.1	0	0	2	5	13	36	11	3	0	0	1	0
17:00	48	39.3	33.6	6.6	0	2	1	1	6	21	14	3	0	0	0	0
18:00	36	37.8	34.1	5.1	0	0	0	1	6	21	6	0	2	0	0	0
19:00	39	40.3	34.8	7.2	0	0	0	2	10	13	9	2	2	0	1	0
20:00	21	40.5	36.1	4.6	0	0	0	0	2	9	7	3	0	0	0	0
21:00	12	40.1	36.8	5.5	0	0	0	0	2	2	7	0	1	0	0	0
22:00	9 -		34.1	4.2	0	0	0	0	2	4	3	0	0	0	0	0
23:00	3 -		35.2	7.6	0	0	0	0	1	1	0	1	0	0	0	0

12H,7-19	987	38.5	33	5.6	2	6	10	43	255	423	198	37	9	3	1	0
16H,6-22	1126	39	33.4	5.7	2	6	10	45	273	479	240	50	15	4	2	0
18H,6-24	1138	39	33.4	5.7	2	6	10	45	276	484	243	51	15	4	2	0
24H,0-24	1184	39.2	33.6	5.8	2	6	10	45	278	495	262	61	19	4	2	0

Am	07:00 -		03:00 -		07:00	11:00	09:00	07:00	08:00	07:00	07:00	07:00	06:00	06:00 -	-	
Peak	160 -		48.5 -		1	1	2	5	42	69	45	9	3	1 -	-	
Pm	15:00 -		21:00	23:00	14:00	17:00	16:00	14:00	15:00	15:00	13:00	20:00	19:00	14:00	19:00 -	
Peak	98 -		36.8	7.6	1	2	2	7	38	37	18	3	2	1	1 -	

K & M TRAFFIC SURVEYS

Created at 11:37:47 on 13 Dec 2017

Site No: 22422001

Grid Reference: TQ06733,05483

Arundel Road, Angmering (Direction Sign)

Speed Report-Limit 60 Mph

Tue 05-Dec-17

Channel: Northbound

Time	Total	85th	Mean	Std.	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10	Bin 11	Bin 12
Begin	Vol.	%ile	Ave.	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
00:00		2 -		36	3.5	0	0	0	0	0	1	1	0	0	0	0
01:00		2 -		36	10.6	0	0	0	0	1	0	0	1	0	0	0
02:00		1 -		33.5 -		0	0	0	0	0	1	0	0	0	0	0
03:00		1 -		43.5 -		0	0	0	0	0	0	0	1	0	0	0
04:00		4 -		39.8	2.8	0	0	0	0	0	0	3	1	0	0	0
05:00	30	44		38	5.8	0	0	0	0	3	8	11	5	3	0	0
06:00	73	42.5		36.2	6.2	0	1	0	1	10	24	22	12	3	0	0
07:00	142	40.8		35.5	5.8	1	0	0	2	17	64	38	15	4	1	0
08:00	147	37.9		32.6	5.8	1	0	0	7	53	56	20	6	3	1	0
09:00	102	36.6		32.2	5.1	0	2	0	3	33	46	17	0	1	0	0
10:00	73	38.9		33.5	6.5	0	2	0	3	15	33	15	2	2	1	0
11:00	49	40.1		33.1	8.1	0	3	1	1	12	16	10	4	1	1	0
12:00	87	37.2		32.6	5.2	0	1	1	4	21	43	14	3	0	0	0
13:00	76	36.6		31.3	6	1	0	3	3	29	27	10	3	0	0	0
14:00	54	38.3		32.3	6.2	0	2	0	3	15	20	12	2	0	0	0
15:00	110	37.2		32.5	5.5	0	2	1	5	26	55	17	3	1	0	0
16:00	84	39.7		34.7	6.1	0	0	2	1	16	31	28	5	0	0	1
17:00	61	40.2		34.9	6	0	1	0	2	7	28	16	6	0	1	0
18:00	44	39.8		34.8	5.6	0	0	1	1	6	19	13	3	1	0	0
19:00	32	40.3		35.7	6	0	0	0	0	6	13	9	2	1	1	0
20:00	17	45.9		39.7	8.3	0	0	0	0	8	3	3	2	0	0	1
21:00	17	40.3		36.4	4.6	0	0	0	0	2	5	8	2	0	0	0
22:00	7 -			39.2	7.4	0	0	0	0	3	2	1	0	0	1	0
23:00	6 -			37.7	4	0	0	0	0	0	2	3	1	0	0	0

12H,7-19	1029	39	33.3	6	3	13	9	35	250	438	210	52	13	5	0	1
16H,6-22	1168	39.5	33.7	6.1	3	14	9	36	268	488	252	71	19	6	0	2
18H,6-24	1181	39.5	33.8	6.2	3	14	9	36	268	493	257	73	19	7	0	2
24H,0-24	1221	39.7	33.9	6.2	3	14	9	36	272	503	272	81	22	7	0	2

Am	08:00 -		03:00 -		08:00	11:00	11:00	08:00	08:00	07:00	07:00	07:00	07:00	11:00 -	-	
Peak	147 -		43.5 -		1	3	1	7	53	64	38	15	4	1 -	-	
Pm	15:00 -		20:00	20:00	13:00	15:00	13:00	15:00	13:00	15:00	16:00	17:00	20:00	22:00 -		20:00
Peak	110 -		39.7	8.3	1	2	3	5	29	55	28	6	2	1 -		1

K & M TRAFFIC SURVEYS

Created at 11:37:47 on 13 Dec 2017

Site No: 22422001

Grid Reference: TQ06733,05483

Arundel Road, Angmering (Direction Sign)

Speed Report-Limit 60 Mph

Wed 06-Dec-17

Channel: Northbound

Time	Total	85th	Mean	Std.	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10	Bin 11	Bin 12
Begin	Vol.	%ile	Ave.	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
00:00	3	-	33.5		5	0	0	0	0	1	1	1	0	0	0	0
01:00	1	-	48.5	-		0	0	0	0	0	0	0	0	1	0	0
02:00	0	-	-	-		0	0	0	0	0	0	0	0	0	0	0
03:00	1	-	48.5	-		0	0	0	0	0	0	0	0	1	0	0
04:00	5	-	41.5		3.1	0	0	0	0	0	0	2	3	0	0	0
05:00	25	45.7	39.7		6	0	0	0	0	2	4	9	6	4	0	0
06:00	84	42.3	36.5		5.9	0	1	0	0	14	20	32	15	2	0	0
07:00	147	39.5	34.9		5	1	0	0	0	21	72	44	6	2	1	0
08:00	128	39.5	34.3		5.1	0	0	0	1	30	59	26	9	3	0	0
09:00	99	40.3	35		6	0	2	0	3	11	42	30	8	3	0	0
10:00	87	39.7	33.6		6.3	0	2	0	6	16	34	21	7	1	0	0
11:00	73	39.4	34.5		4.9	0	0	1	1	13	30	24	4	0	0	0
12:00	69	40.2	35		5.5	0	0	1	1	13	23	24	6	1	0	0
13:00	64	39.4	33.8		5.3	0	0	1	1	17	24	16	5	0	0	0
14:00	57	38.3	33.1		4.9	0	0	0	3	15	25	11	3	0	0	0
15:00	102	36.4	31.3		5.4	0	0	4	8	36	37	14	3	0	0	0
16:00	71	40.6	35.4		6.3	0	0	0	0	17	28	16	4	4	2	0
17:00	41	42.3	35.7		6.8	0	1	0	3	2	14	12	9	0	0	0
18:00	44	40	34.8		7	0	0	1	1	10	16	11	2	1	2	0
19:00	40	39.5	33.4		7.1	1	0	2	0	8	14	12	3	0	0	0
20:00	27	42.5	36.1		6	0	0	0	0	6	8	7	5	1	0	0
21:00	18	43	37.4		6.5	0	0	0	1	1	5	7	2	2	0	0
22:00	6	-	44.3		8.1	0	0	0	0	0	1	1	2	0	2	0
23:00	4	-	38.5		4.2	0	0	0	0	0	1	2	1	0	0	0

12H,7-19	982	39.8	34.2	5.7	1	5	8	28	201	404	249	66	15	5	0	0
16H,6-22	1151	40.1	34.4	5.8	2	6	10	29	230	451	307	91	20	5	0	0
18H,6-24	1161	40.1	34.5	5.9	2	6	10	29	230	453	310	94	20	7	0	0
24H,0-24	1196	40.3	34.7	6	2	6	10	29	233	458	322	103	26	7	0	0

Am	07:00	-	-	-	07:00	10:00	11:00	10:00	08:00	07:00	07:00	06:00	05:00	07:00	-	-
Peak	147	-	-	-	1	2	1	6	30	72	44	15	4	1	-	-
Pm	15:00	-	22:00	22:00	19:00	17:00	15:00	15:00	15:00	15:00	12:00	17:00	16:00	22:00	-	-
Peak	102	-	44.3	8.1	1	1	4	8	36	37	24	9	4	2	-	-

K & M TRAFFIC SURVEYS

Created at 11:37:47 on 13 Dec 2017

Site No: 22422001

Grid Reference: TQ06733,05483

Arundel Road, Angmering (Direction Sign)

Speed Report-Limit 60 Mph

Thu 07-Dec-17

Channel: Northbound

Time	Total	85th	Mean	Std.	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10	Bin 11	Bin 12
Begin	Vol.	%ile	Ave.	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
00:00	4 -		36		6.5	0	0	0	0	1	1	1	1	0	0	0
01:00	0 -	-	-	-		0	0	0	0	0	0	0	0	0	0	0
02:00	1 -		38.5	-		0	0	0	0	0	0	1	0	0	0	0
03:00	0 -	-	-	-		0	0	0	0	0	0	0	0	0	0	0
04:00	4 -		39.8	4.9		0	0	0	0	0	1	1	2	0	0	0
05:00	24	43.4	39.1	4.7		0	0	0	0	2	1	14	6	1	0	0
06:00	85	41.9	36.4	6		0	1	0	0	8	36	25	10	4	1	0
07:00	129	39.7	34.5	5.4		1	0	0	3	24	50	42	8	1	0	0
08:00	144	39.5	34.5	5		0	0	0	2	29	65	37	9	1	1	0
09:00	101	38.7	33.4	5.2		0	0	1	4	25	45	19	6	1	0	0
10:00	61	37.2	32.8	4.4		0	0	0	1	20	28	10	2	0	0	0
11:00	63	37.5	31.8	6.1		0	1	2	6	16	25	10	3	0	0	0
12:00	74	36.9	32.6	4.6		0	0	1	3	20	36	13	1	0	0	0
13:00	73	38.7	33.1	5		0	0	0	3	24	25	18	3	0	0	0
14:00	69	35.2	30.6	5.6		1	0	2	7	22	31	5	1	0	0	0
15:00	85	37.4	32.4	4.6		0	0	0	5	28	34	17	1	0	0	0
16:00	76	38.3	32.8	5.9		0	0	2	5	20	31	13	3	2	0	0
17:00	40	39.9	34.1	6.3		0	1	0	3	4	17	11	4	0	0	0
18:00	51	39.7	34.2	6		0	0	0	2	14	18	12	2	3	0	0
19:00	54	38.8	33.4	4.8		0	0	0	1	18	18	15	2	0	0	0
20:00	16	40.4	37.3	4.8		0	0	0	0	1	5	8	1	1	0	0
21:00	21	39.1	33.8	7.1		1	0	0	0	3	9	7	1	0	0	0
22:00	13	38.8	38.5	4.3		0	0	0	0	0	3	8	1	1	0	0
23:00	5 -		35.5	3.1		0	0	0	0	0	3	2	0	0	0	0

12H,7-19	966	38.7	33.2	5.4	2	2	8	44	246	405	207	43	8	1	0	0
16H,6-22	1142	39.1	33.5	5.5	3	3	8	45	276	473	262	57	13	2	0	0
18H,6-24	1160	39.2	33.6	5.5	3	3	8	45	276	479	272	58	14	2	0	0
24H,0-24	1193	39.3	33.7	5.6	3	3	8	45	279	482	289	67	15	2	0	0

Am	08:00 -	-	-		07:00	11:00	11:00	11:00	08:00	08:00	07:00	06:00	06:00	08:00 -	-	
Peak	144 -	-	-		1	1	2	6	29	65	42	10	4	1 -	-	
Pm	15:00 -		22:00	21:00	21:00	17:00	16:00	14:00	15:00	12:00	13:00	17:00	18:00 -	-	-	
Peak	85 -		38.5	7.1	1	1	2	7	28	36	18	4	3 -	-	-	

K & M TRAFFIC SURVEYS

Created at 11:37:48 on 13 Dec 2017

Site No: 22422001

Grid Reference: TQ06733,05483

Arundel Road, Angmering (Direction Sign)

Speed Report-Limit 60 Mph

Fri 01-Dec-17

Channel: Southbound

Time	Total	85th	Mean	Std.	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10	Bin 11	Bin 12
Begin	Vol.	%ile	Ave.	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
00:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	3	-	31.8	3.1	0	0	0	0	1	2	0	0	0	0	0	0
04:00	1	-	28.5	-	0	0	0	0	1	0	0	0	0	0	0	0
05:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
06:00	13	38.8	33.5	8.3	0	0	0	2	3	5	1	1	0	1	0	0
07:00	45	37.9	31.9	5.3	0	0	0	5	16	13	10	1	0	0	0	0
08:00	55	38.2	32.2	5.4	0	0	1	4	19	16	14	1	0	0	0	0
09:00	39	35.6	30.9	5.5	1	0	0	2	16	15	5	0	0	0	0	0
10:00	36	35	30.6	4.4	0	0	0	5	14	14	3	0	0	0	0	0
11:00	34	35.7	30.9	5.2	0	0	0	5	14	10	4	1	0	0	0	0
12:00	41	35.6	31.4	5.2	0	1	0	4	10	21	5	0	0	0	0	0
13:00	44	37.5	33.3	4.4	0	0	1	1	7	25	10	0	0	0	0	0
14:00	59	37.7	32.5	5.5	0	0	2	5	11	28	11	2	0	0	0	0
15:00	67	38.8	33.3	5.3	0	0	1	3	17	27	15	4	0	0	0	0
16:00	105	38.6	32.5	5.6	0	0	0	10	34	34	21	5	1	0	0	0
17:00	109	38.3	32.6	5.7	0	0	2	11	25	45	20	5	1	0	0	0
18:00	44	38	32.5	5.3	0	0	1	3	12	17	10	1	0	0	0	0
19:00	27	38	32.2	6.3	0	0	1	2	9	8	6	0	1	0	0	0
20:00	25	37.8	32.9	5.1	0	0	0	2	6	11	5	1	0	0	0	0
21:00	13	37.4	33.5	5.2	0	0	0	1	2	7	2	1	0	0	0	0
22:00	11	38.1	34	6.6	0	0	0	1	2	5	2	0	1	0	0	0
23:00	7	-	32.1	4.9	0	0	0	0	4	1	2	0	0	0	0	0

12H,7-19	678	37.9	32.2	5.4	1	1	8	58	195	265	128	20	2	0	0	0
16H,6-22	756	37.9	32.3	5.4	1	1	9	65	215	296	142	23	3	1	0	0
18H,6-24	774	38	32.3	5.4	1	1	9	66	221	302	146	23	4	1	0	0
24H,0-24	778	37.9	32.3	5.4	1	1	9	66	223	304	146	23	4	1	0	0

Am	08:00	-	-	-	09:00	-	08:00	11:00	08:00	08:00	08:00	11:00	-	06:00	-	-
Peak	55	-	-	-	1	-	1	5	19	16	14	1	-	1	-	-

Pm	17:00	-	22:00	22:00	-	12:00	17:00	17:00	16:00	17:00	16:00	17:00	22:00	-	-	-
Peak	109	-	34	6.6	-	1	2	11	34	45	21	5	1	-	-	-

K & M TRAFFIC SURVEYS

Created at 11:37:48 on 13 Dec 2017

Site No: 22422001

Grid Reference: TQ06733,05483

Arundel Road, Angmering (Direction Sign)

Speed Report-Limit 60 Mph

Sat 02-Dec-17

Channel: Southbound

Time	Total	85th	Mean	Std.	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10	Bin 11	Bin 12
Begin	Vol.	%ile	Ave.	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
00:00		7 -	27.8	5.5	0	0	1	1	3	2	0	0	0	0	0	0
01:00		5 -	29.5	4.4	0	0	0	1	2	2	0	0	0	0	0	0
02:00		1 -	33.5 -		0	0	0	0	0	1	0	0	0	0	0	0
03:00		1 -	33.5 -		0	0	0	0	0	1	0	0	0	0	0	0
04:00		2 -	31	10.6	0	0	0	1	0	0	1	0	0	0	0	0
05:00		3 -	25.2	10.4	0	1	0	0	1	1	0	0	0	0	0	0
06:00		6 -	34.3	8.1	0	0	0	1	0	4	0	0	1	0	0	0
07:00		9 -	31.8	5.2	0	0	0	1	3	3	2	0	0	0	0	0
08:00	13	34.9	30.4	5.8	0	0	1	1	5	4	2	0	0	0	0	0
09:00	41	35.9	32.4	4.2	0	0	0	3	9	23	6	0	0	0	0	0
10:00	35	37.6	32.6	6.2	0	2	0	0	7	18	7	1	0	0	0	0
11:00	57	37.1	32.2	5.1	0	0	0	6	16	24	9	2	0	0	0	0
12:00	63	37.8	33.2	4.9	0	0	0	2	18	29	11	2	1	0	0	0
13:00	48	37.3	33	4.3	0	0	0	1	14	23	9	1	0	0	0	0
14:00	37	38.5	33.2	5.6	0	0	1	0	12	14	8	1	1	0	0	0
15:00	42	38.6	32.7	5.5	0	0	0	4	13	13	10	2	0	0	0	0
16:00	48	39.3	34.3	5.6	0	0	0	3	8	20	14	1	2	0	0	0
17:00	41	35.8	30.7	5.9	0	0	2	7	10	16	5	1	0	0	0	0
18:00	31	38.3	32.2	7	0	1	0	3	9	11	4	2	1	0	0	0
19:00	20	34.8	31.5	5.2	0	0	0	2	8	7	2	1	0	0	0	0
20:00	10	37.7	33.5	4.3	0	0	0	0	3	4	3	0	0	0	0	0
21:00	9 -		32.4	5.6	0	0	0	1	3	2	3	0	0	0	0	0
22:00	8 -		34.8	3.8	0	0	0	0	0	7	0	1	0	0	0	0
23:00	9 -		31.8	5.7	0	0	0	1	4	1	3	0	0	0	0	0

12H,7-19	465	38	32.6	5.4	0	3	4	31	124	198	87	13	5	0	0	0
16H,6-22	510	38	32.6	5.4	0	3	4	35	138	215	95	14	6	0	0	0
18H,6-24	527	38	32.6	5.4	0	3	4	36	142	223	98	15	6	0	0	0
24H,0-24	546	37.9	32.5	5.5	0	4	5	39	148	230	99	15	6	0	0	0

Am	11:00 -	06:00 -	-	10:00	08:00	11:00	11:00	11:00	11:00	11:00	06:00 -	-	-
Peak	57 -	34.3 -	-	2	1	6	16	24	9	2	1 -	-	-
Pm	12:00 -	22:00	18:00 -	18:00	17:00	17:00	12:00	12:00	16:00	18:00	16:00 -	-	-
Peak	63 -	34.8	7 -	1	2	7	18	29	14	2	2 -	-	-

K & M TRAFFIC SURVEYS

Created at 11:37:48 on 13 Dec 2017

Site No: 22422001

Grid Reference: TQ06733,05483

Arundel Road, Angmering (Direction Sign)

Speed Report-Limit 60 Mph

Sun 03-Dec-17

Channel: Southbound

Time	Total	85th	Mean	Std.	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10	Bin 11	Bin 12
Begin	Vol.	%ile	Ave.	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
00:00		7 -		30.6	4.2	0	0	0	1	2	4	0	0	0	0	0
01:00		3 -		26.8	3.1	0	0	0	1	2	0	0	0	0	0	0
02:00		1 -		33.5 -		0	0	0	0	0	1	0	0	0	0	0
03:00		3 -		31.8	7.6	0	0	0	1	0	1	1	0	0	0	0
04:00		3 -		31.8	3.1	0	0	0	0	1	2	0	0	0	0	0
05:00		1 -		23.5 -		0	0	0	1	0	0	0	0	0	0	0
06:00		2 -		26	3.5	0	0	0	1	1	0	0	0	0	0	0
07:00		0 -	-	-		0	0	0	0	0	0	0	0	0	0	0
08:00	14	36.7		31	6.9	0	1	0	1	4	5	3	0	0	0	0
09:00	42	39.8		34.2	5.8	0	0	1	2	7	16	12	4	0	0	0
10:00	45	35.8		31.2	5.1	0	0	0	8	12	18	7	0	0	0	0
11:00	47	35.6		32.2	4.9	1	0	0	1	10	30	5	0	0	0	0
12:00	44	37.8		32.9	7.1	0	0	1	2	15	16	8	0	1	0	1
13:00	58	37.7		32.6	4.9	0	0	1	1	20	23	11	2	0	0	0
14:00	51	38.3		32.4	5.3	0	0	1	3	17	16	13	1	0	0	0
15:00	39	39		33.8	5.9	0	0	0	2	10	17	6	2	2	0	0
16:00	41	35.4		32	3.7	0	0	0	1	14	22	4	0	0	0	0
17:00	32	38.7		33.8	5	0	0	0	1	7	16	5	3	0	0	0
18:00	27	35.8		31.6	4.6	0	0	1	0	11	11	4	0	0	0	0
19:00	19	35.2		30.9	5	0	0	1	1	7	8	2	0	0	0	0
20:00	6 -			36	5.4	0	0	0	0	1	2	2	1	0	0	0
21:00	11	34.8		32.1	3.5	0	0	0	1	1	9	0	0	0	0	0
22:00	4 -			36	9.6	0	0	0	0	2	0	1	0	1	0	0
23:00	4 -			29.8	4.9	0	0	0	1	1	2	0	0	0	0	0

12H,7-19	440	37.8		32.6	5.4	1	1	5	22	127	190	78	12	3	0	1
16H,6-22	478	37.6		32.5	5.4	1	1	6	25	137	209	82	13	3	0	1
18H,6-24	486	37.7		32.6	5.4	1	1	6	26	140	211	83	13	4	0	1
24H,0-24	504	37.5		32.5	5.4	1	1	6	30	145	219	84	13	4	0	1

Am	11:00 -	-	-			11:00	08:00	09:00	10:00	10:00	11:00	09:00	09:00 -	-	-	-
Peak	47 -	-	-			1	1	1	8	12	30	12	4 -	-	-	-

Pm	13:00 -		20:00	22:00 -	-		19:00	14:00	13:00	13:00	14:00	17:00	15:00 -	-		12:00
Peak	58 -		36	9.6 -	-		1	3	20	23	13	3	2 -	-		1

K & M TRAFFIC SURVEYS

Created at 11:37:48 on 13 Dec 2017

Site No: 22422001

Grid Reference: TQ06733,05483

Arundel Road, Angmering (Direction Sign)

Speed Report-Limit 60 Mph

Mon 04-Dec-17

Channel: Southbound

Time	Total	85th	Mean	Std.	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10	Bin 11	Bin 12
Begin	Vol.	%ile	Ave.	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
00:00		2 -		38.5	1.8	0	0	0	0	0	0	2	0	0	0	0
01:00		1 -		33.5 -		0	0	0	0	0	1	0	0	0	0	0
02:00		0 -	-	-		0	0	0	0	0	0	0	0	0	0	0
03:00		0 -	-	-		0	0	0	0	0	0	0	0	0	0	0
04:00		0 -	-	-		0	0	0	0	0	0	0	0	0	0	0
05:00		3 -		26.8	7.6	0	0	1	0	1	1	0	0	0	0	0
06:00		10	36	32.5	5.8	0	0	0	1	3	4	1	1	0	0	0
07:00		41	35.5	31.9	5.2	0	1	1	1	9	25	3	1	0	0	0
08:00		51	38	32.5	5.7	0	1	0	5	10	22	12	1	0	0	0
09:00		38	35.1	30.5	5.7	0	0	3	4	10	18	2	1	0	0	0
10:00		32	35.6	32.3	4.3	0	0	0	0	14	13	4	1	0	0	0
11:00		30	39	31.8	7	0	1	1	2	11	4	10	1	0	0	0
12:00		42	36.2	32.3	5.5	0	0	1	2	13	19	5	1	1	0	0
13:00		57	38.3	32.1	6	0	0	1	6	19	17	11	2	1	0	0
14:00		48	35.7	31.7	5	0	0	1	5	11	25	5	1	0	0	0
15:00		52	37.9	32.3	4.9	0	0	0	2	22	16	10	2	0	0	0
16:00		100	37.6	32.3	5.2	0	0	3	6	27	42	20	2	0	0	0
17:00		125	38.3	33	4.9	0	0	0	8	33	52	28	4	0	0	0
18:00		72	38.6	32.9	5.7	0	0	1	5	20	28	13	4	1	0	0
19:00		33	37.9	31.8	6.7	0	0	1	5	9	11	4	2	1	0	0
20:00		17	38	33.5	4.2	0	0	0	0	5	7	5	0	0	0	0
21:00		13	37.4	33.1	5.4	0	0	0	1	3	6	2	1	0	0	0
22:00		11	35.6	32.1	4.7	0	0	0	1	3	5	2	0	0	0	0
23:00		2 -		36	3.5	0	0	0	0	0	1	1	0	0	0	0

12H,7-19	688	37.8	32.3	5.4	0	3	12	46	199	281	123	21	3	0	0	0
16H,6-22	761	37.8	32.3	5.4	0	3	13	53	219	309	135	25	4	0	0	0
18H,6-24	774	37.8	32.3	5.4	0	3	13	54	222	315	138	25	4	0	0	0
24H,0-24	780	37.8	32.3	5.4	0	3	14	54	223	317	140	25	4	0	0	0

Am	08:00 -	-	-	-	-	11:00	09:00	08:00	10:00	07:00	08:00	11:00 -	-	-	-	-
Peak	51 -	-	-	-	-	1	3	5	14	25	12	1 -	-	-	-	-

Pm	17:00 -		23:00	19:00 -	-	16:00	17:00	17:00	17:00	17:00	17:00	18:00	19:00 -	-	-	-
Peak	125 -		36	6.7 -	-	3	8	33	52	28	4	1 -	-	-	-	-

K & M TRAFFIC SURVEYS

Created at 11:37:48 on 13 Dec 2017

Site No: 22422001

Grid Reference: TQ06733,05483

Arundel Road, Angmering (Direction Sign)

Speed Report-Limit 60 Mph

Tue 05-Dec-17

Channel: Southbound

Time	Total	85th	Mean	Std.	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10	Bin 11	Bin 12
Begin	Vol.	%ile	Ave.	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
00:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
01:00	2	-	28.5	1.8	0	0	0	0	2	0	0	0	0	0	0	0
02:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
04:00	1	-	28.5	-	0	0	0	0	1	0	0	0	0	0	0	0
05:00	3	-	28.5	8.8	0	0	1	0	0	2	0	0	0	0	0	0
06:00	8	-	31.6	6.6	0	0	1	0	2	3	2	0	0	0	0	0
07:00	43	37.5	32.1	6	0	1	0	5	9	19	7	2	0	0	0	0
08:00	46	37.3	32.3	5.3	0	0	1	1	18	17	6	3	0	0	0	0
09:00	46	35.7	32.2	5.1	0	0	1	2	14	22	6	0	1	0	0	0
10:00	32	34.6	30.4	4.4	0	0	1	3	12	15	1	0	0	0	0	0
11:00	43	35.2	31.5	4.5	0	0	0	2	19	18	2	2	0	0	0	0
12:00	26	35.3	31.2	5.7	0	0	0	6	5	11	3	1	0	0	0	0
13:00	74	37.2	31.8	5.3	0	0	2	7	21	29	14	1	0	0	0	0
14:00	32	37.9	32.9	4.7	0	0	0	1	11	12	7	1	0	0	0	0
15:00	50	37.1	32	5.5	0	0	1	7	9	23	9	1	0	0	0	0
16:00	107	38.3	32.8	5.3	0	0	1	8	29	42	23	3	1	0	0	0
17:00	102	39	33.7	6.8	0	0	1	6	26	40	22	4	1	0	0	2
18:00	71	37.5	32.5	4.9	0	0	0	6	19	31	13	2	0	0	0	0
19:00	47	38.9	33	5.3	0	0	0	1	19	16	6	5	0	0	0	0
20:00	17	39.5	35.9	3.8	0	0	0	0	1	8	7	1	0	0	0	0
21:00	14	38.8	34.9	4.4	0	0	0	1	0	7	6	0	0	0	0	0
22:00	12	49.5	36	12.2	0	1	0	1	1	4	2	1	0	1	1	0
23:00	7	-	34.9	4	0	0	0	0	1	3	3	0	0	0	0	0

12H,7-19	672	37.6	32.4	5.5	0	1	8	54	192	279	113	20	3	0	0	2
16H,6-22	758	37.9	32.5	5.5	0	1	9	56	214	313	134	26	3	0	0	2
18H,6-24	777	38	32.6	5.6	0	2	9	57	216	320	139	27	3	1	1	2
24H,0-24	783	38	32.6	5.6	0	2	10	57	219	322	139	27	3	1	1	2

Am	09:00	-	-	-	-	07:00	10:00	07:00	11:00	09:00	07:00	08:00	09:00	-	-	-
Peak	46	-	-	-	-	1	1	5	19	22	7	3	1	-	-	-

Pm	16:00	-	22:00	22:00	-	22:00	13:00	16:00	16:00	16:00	16:00	19:00	17:00	22:00	22:00	17:00
Peak	107	-	36	12.2	-	1	2	8	29	42	23	5	1	1	1	2

K & M TRAFFIC SURVEYS

Created at 11:37:48 on 13 Dec 2017

Site No: 22422001

Grid Reference: TQ06733,05483

Arundel Road, Angmering (Direction Sign)

Speed Report-Limit 60 Mph

Wed 06-Dec-17

Channel: Southbound

Time	Total	85th	Mean	Std.	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10	Bin 11	Bin 12
Begin	Vol.	%ile	Ave.	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
00:00	1	-	38.5	-	0	0	0	0	0	0	1	0	0	0	0	0
01:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
02:00	1	-	33.5	-	0	0	0	0	0	1	0	0	0	0	0	0
03:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
05:00	4	-	33.5	7.1	0	0	0	1	0	1	2	0	0	0	0	0
06:00	12	34.5	31.4	6.3	0	0	0	3	2	5	1	1	0	0	0	0
07:00	42	36.3	32.3	6	0	1	0	2	13	19	4	2	1	0	0	0
08:00	66	36.3	31.7	4.9	0	0	0	6	25	24	9	2	0	0	0	0
09:00	38	36.7	31.8	5.8	0	1	1	1	12	16	6	1	0	0	0	0
10:00	33	36.6	30.6	6.6	0	1	2	3	10	11	5	1	0	0	0	0
11:00	43	35.4	31.3	5	0	0	1	2	19	16	3	2	0	0	0	0
12:00	37	35.5	31.6	5.6	0	1	1	2	8	21	3	1	0	0	0	0
13:00	32	35.7	30.5	4.4	0	0	0	2	20	5	5	0	0	0	0	0
14:00	66	35.5	31.8	4.8	0	0	0	6	21	32	5	1	1	0	0	0
15:00	57	35.8	31.3	4.9	0	0	0	8	18	23	7	1	0	0	0	0
16:00	93	37.6	32.6	5	0	0	1	7	22	43	17	3	0	0	0	0
17:00	130	38.9	33.5	5.2	0	0	1	6	33	50	35	3	2	0	0	0
18:00	87	38.3	32.6	5.1	0	0	1	4	30	29	21	2	0	0	0	0
19:00	49	36.8	31.4	5.4	0	0	1	4	21	14	7	2	0	0	0	0
20:00	31	38.9	33.8	4.9	0	0	0	1	8	11	10	1	0	0	0	0
21:00	16	37.4	32.9	4.6	0	0	0	1	4	7	4	0	0	0	0	0
22:00	14	35	32.4	4.3	0	0	0	0	5	8	0	1	0	0	0	0
23:00	8	-	31.6	5.5	0	0	0	1	3	2	2	0	0	0	0	0

12H,7-19	724	37.4	32.1	5.3	0	4	8	49	231	289	120	19	4	0	0	0
16H,6-22	832	37.5	32.1	5.3	0	4	9	58	266	326	142	23	4	0	0	0
18H,6-24	854	37.5	32.1	5.2	0	4	9	59	274	336	144	24	4	0	0	0
24H,0-24	860	37.5	32.2	5.3	0	4	9	60	274	338	147	24	4	0	0	0

Am	08:00	-	-	-	-	10:00	10:00	08:00	08:00	08:00	08:00	11:00	07:00	-	-	-
Peak	66	-	-	-	-	1	2	6	25	24	9	2	1	-	-	-

Pm	17:00	-	20:00	12:00	-	12:00	19:00	15:00	17:00	17:00	17:00	17:00	17:00	-	-	-
Peak	130	-	33.8	5.6	-	1	1	8	33	50	35	3	2	-	-	-

K & M TRAFFIC SURVEYS

Created at 11:37:48 on 13 Dec 2017

Site No: 22422001

Grid Reference: TQ06733,05483

Arundel Road, Angmering (Direction Sign)

Speed Report-Limit 60 Mph

Thu 07-Dec-17

Channel: Southbound

Time	Total	85th	Mean	Std.	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10	Bin 11	Bin 12
Begin	Vol.	%ile	Ave.	Dev.	<11Mph	11-<16	16-<21	21-<26	26-<31	31-<36	36-<41	41-<46	46-<51	51-<56	56-<61	=>61
00:00		2 -		33.5	1.8	0	0	0	0	0	2	0	0	0	0	0
01:00		0 -	-	-		0	0	0	0	0	0	0	0	0	0	0
02:00		2 -		28.5	1.8	0	0	0	0	2	0	0	0	0	0	0
03:00		1 -		28.5 -		0	0	0	0	1	0	0	0	0	0	0
04:00		1 -		33.5 -		0	0	0	0	0	1	0	0	0	0	0
05:00		3 -		36.8	5.9	0	0	0	0	0	2	0	1	0	0	0
06:00	10	36		28	8.1	0	1	0	4	1	2	2	0	0	0	0
07:00	41	35.5		31.4	4.8	0	0	0	3	18	15	3	2	0	0	0
08:00	49	38		32.3	5.4	0	0	0	4	18	16	8	3	0	0	0
09:00	38	35.3		30.1	5	0	0	1	5	18	9	5	0	0	0	0
10:00	39	34.7		29.5	5	0	0	0	11	12	13	3	0	0	0	0
11:00	38	34.4		29.3	5.8	1	0	2	4	14	16	1	0	0	0	0
12:00	42	36.2		31	6.3	1	0	0	5	15	14	5	2	0	0	0
13:00	34	34.4		30	4.2	0	0	0	5	16	11	2	0	0	0	0
14:00	59	35.8		32.1	4.4	0	0	0	4	18	29	7	1	0	0	0
15:00	56	37.5		32.2	5.5	0	0	1	4	19	21	7	4	0	0	0
16:00	89	36.8		32	5.7	0	0	3	6	26	38	13	2	0	1	0
17:00	105	38.7		33.3	5.6	0	0	0	6	30	42	20	3	4	0	0
18:00	65	36.8		31.7	5.2	0	0	1	8	17	27	11	1	0	0	0
19:00	30	37.7		32.3	5.5	0	0	1	2	8	12	6	1	0	0	0
20:00	26	37.6		33.5	4.2	0	0	0	0	7	13	5	1	0	0	0
21:00	18	38.3		32.4	6.2	0	0	0	4	2	7	4	1	0	0	0
22:00	12	39.5		36.4	7	0	0	0	0	2	5	3	1	0	1	0
23:00	8 -			34.1	8.3	0	0	0	1	2	3	0	1	1	0	0

12H,7-19	655	36.5	31.6	5.4	2	0	8	65	221	251	85	18	4	1	0	0
16H,6-22	739	36.8	31.7	5.5	2	1	9	75	239	285	102	21	4	1	0	0
18H,6-24	759	37	31.8	5.6	2	1	9	76	243	293	105	23	5	2	0	0
24H,0-24	768	37	31.8	5.6	2	1	9	76	246	298	105	24	5	2	0	0

Am	08:00 -	-	-		11:00	06:00	11:00	10:00	09:00	11:00	08:00	08:00 -	-	-	-	-
Peak	49 -	-	-		1	1	2	11	18	16	8	3 -	-	-	-	-

Pm	17:00 -		22:00	23:00	12:00 -		16:00	18:00	17:00	17:00	17:00	15:00	17:00	22:00 -	-	-
Peak	105 -		36.4	8.3	1 -		3	8	30	42	20	4	4	1 -	-	-

K & M TRAFFIC SURVEYS

Created at 11:37:48 on 13 Dec 2017

Mfs

$SSD = vt + (v^2/2d)$

where:

- v = speed (m/s)
- t = driver perception-reaction time (seconds)
- d = deceleration (m/s²)

Cars

NB

- Speed (mph) = 37.6
- v = Speed (m/s) = 16.8087
- t = 1.5
- d = 0.45 x g (9.81) = 4.4145

- SSD = 57.21 m
- SSD adjusted for bonnet = 59.61 m

Mfs

$SSD = vt + (v^2/2d)$

where:

- v = speed (m/s)
- t = driver perception-reaction time (seconds)
- d = deceleration (m/s²)

Cars

SB

- Speed (mph) = 35.7
- v = Speed (m/s) = 15.95933
- t = 1.5
- d = 0.45 x g (9.81) = 4.4145

- SSD = 52.79 m
- SSD adjusted for bonnet = 55.19 m

APPENDIX 13

Road Safety Audit & Designers Response (Secondary Access)



Croft TS

PROPOSED SOUTHERN SITE ACCESS ARRANGEMENTS, ARUNDEL ROAD, ANGMERING

**STAGE 1 - ROAD SAFETY AUDIT
MAY 2018**

Transport Planning /Traffic Surveys/ Road Safety Audits

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REPORT CONTROL

Document: Proposed Southern Site Access Arrangements, Arundel Road, Angmering
– S1 RSA

Project: Proposed Southern Site Access Arrangements, Arundel Road, Angmering
– S1 RSA

Client: Croft TS

Job Number: gs-597-2017

File Origin: /go-surveys/Road Safety Audits/GS597 - Arundel Road - Angmering -
Southern Site Access - Stage 1 RSA/GS597-2018 - Proposed Southern
Site Access, Arundel Road, Angmering - Stage 1 RSA - Final.docx

Document Checking:

Primary Author	T Brooks	Initialed:	TB
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Contributor	R Lister	Initialed:	RL
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Review By	Initialed:
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Issue	Date	Status	Checked for Issue
1	09/05/2018	Final	Tristan Brooks
2			
3			
4			



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	PROBLEM 1	4
	PROBLEM 2	5
3	OBSERVATIONS/NOTES.....	6
4	AUDIT STATEMENT	7

Appendices

Appendix A – List of drawings and documents supplied for audit.

Appendix B – Location plan of identified problems.



1 INTRODUCTION

- 1.1 This report presents the findings from a Stage 1 Road Safety Audit (RSA) undertaken on the proposed southern site access arrangements to a residential development of up to 215 dwellings to the north of Angmering, West Sussex.
- 1.2 It should be noted that the northern site access to the site was subject to a Stage 1 RSA undertaken in January 2018.
- 1.3 The audit was carried out by the following:
- | | |
|---|---------------------------------|
| Tristan Brooks
BSc (Hons), MBA, CMILT, MCIHT, MSoRSA,
HE RSA Cert of Competency | - Road Safety Audit Team Leader |
| R Lister
BSc (Hons), MSc, MRTPI, CMILT, MCIHT,
MSoRSA | - Road Safety Audit Team Member |
- 1.4 The RSA was commissioned by Croft Transport Solutions (the designers of the scheme) on behalf of Gladman (the developers of the scheme).
- 1.5 The site visit was undertaken on Saturday 9th December 2017 between 13:15-13:40 and comprised a walk and drive through of the area in the vicinity of the scheme. During the site visit both the weather and road surface were dry. Traffic in the vicinity of the scheme was light/moderate.
- 1.6 Arundel Road in the vicinity of the proposed access is subject to a 30mph speed limit, although it is noted this transitions to 60mph national speed limit approximately 50 metres to the north of the proposed site access. Approximately 40 metres to the south of the site access there is a priority controlled road narrowing traffic calming feature, where priority is afforded to vehicles travelling northbound.
- 1.7 The drawings and documents supplied for audit are listed at **Appendix A**. An annotated drawing showing the locations of the problems identified is provided at **Appendix B**.



- 1.8 The terms of reference of the audit are as that described in DMRB HD19/15 Guidelines on Road Safety Audits. This standard has been used for guidance only. The team has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the designs to any other criteria.
- 1.9 The scope of the RSA is limited to the proposed access arrangements to the site that in summary will include:
- Modifications to the existing site access that takes the form of a priority controlled 'T' Junction;
 - Visibility splays of 2.4 metres by 43 and 59 metres from the site access (which it is noted accords with MfS guidance on vehicle speeds of 37mph); and
 - Access road with a width of 5.5 metres, 6.0 metre kerb radii and 2.0 metre wide footways on either side of the access road.
- 1.10 A review of the Personal Injury Collisions (PIC) data between 01/01/2013 and 31/06/2017 in the vicinity of the existing/proposed site access has indicated that there have been no PICs associated with the existing use of the junction or on the approaches to the junction.
- 1.11 The Audit Team have not been made aware of any previous RSA's undertaken on the scheme, or have they been made aware of any departures or relaxations from standard within the design of the scheme.
- 1.12 The recommendations included within this report should not be regarded as being prescriptive design solutions to the problems raised. They are intended only to indicate a proportionate and viable means of eliminating or mitigating the identified problem, in accordance with HD19/15. There may be alternative methods of addressing a problem which would be equally acceptable in achieving the desired elimination or mitigation and these should be considered when responding to this report.



2 ROAD SAFETY AUDIT FINDINGS FROM RSA 1

PROBLEM 1

LOCATION: Proposed site access.

SUMMARY: Vehicle encroachment into adjoining lanes may result in vehicle/vehicle collisions.

- 2.1 The vehicle swept path analysis provided for review as part of the RSA indicate that a refuse vehicle would have to encroach into adjoining lanes accessing/egressing the site. Encroachment into adjoining lanes to manoeuvre to/from the site could potentially result in head-on type or side swipe type collisions.
- 2.2 It is acknowledged that refuse vehicle movements to/from the site will be minimal, and that it is not atypical for some minor encroachment into adjoin lanes for this or similar types of vehicles at residential accesses although not to the extent as shown in the vehicle swept path drawing provided for review.

RECOMMENDATION

- 2.3 It is recommended that the proposed junction arrangement is revised to remove this problem.

CROFT RESPONSE

As noted above, the left in/left out movements for the large waste vehicle shows encroachment into the opposing lanes however waste vehicles will be arriving in the morning peak where vehicles turning into the site should be minimal. Infrequent encroachment into adjacent lanes by large service vehicles is considered acceptable and Manual for Streets advises further in para 6.8.1

"The design of local roads should accommodate service vehicles without allowing their requirements to dominate the layout. On streets with low traffic flows and speeds, it may be assumed that they will be able to use the full width of the carriageway to manoeuvre. Larger vehicles which are only expected to use a street infrequently, such as pantechnicons, need not be fully accommodated."

And further in para 6.5.8

"it would be acceptable for the occasional lorry to have to negotiate a particular junction with care"



PROBLEM 2

LOCATION: Proposed site access.

- 2.4 **SUMMARY:** Omission of uncontrolled pedestrian crossing including dropped kerbs and tactile paving may result in a number of trip hazards to pedestrians particularly those with mobility impairments.
- 2.5 The drawings provided for Audit do not indicate the provision of an uncontrolled crossing point (i.e. tactile paving and dropped kerbs) at the bellmouth of the site access. The omission of an uncontrolled crossing at the mouth of the site access, where pedestrian are likely to cross may result in trip hazards to pedestrians particularly those with mobility impairments.
- 2.6 It is noted that there are currently dropped kerbs at the site access.

RECOMMENDATION

- 2.7 It is recommended that uncontrolled pedestrian crossing including dropped kerbs and tactile paving is provide across the moth of the junction.

CROFT RESPONSE

Problem noted and an in line uncontrolled pedestrian crossing point is now proposed at the mouth of the access.



3 OBSERVATIONS/NOTES

- 3.1 There were no notes/observations to be made as part of this RSA.



4 AUDIT STATEMENT

4.1 We certify that this audit has been carried out broadly in accordance with HD 19/15.

Signed:



Date: 09 May 2018

T Brooks – BSc (Hons), MBA, CMILT, MCIHT, MSoRSA,
HE RSA Cert of Competency.

Audit Team Leader
go-surveys Ltd
72 Plasturton Avenue
Cardiff
CF11 9HJ

Signed:



Date: 09 May 2018

R Lister - BSc (Hons), MSc, MRTPI, MILT, MCIHT,
MSoRSA

Audit Team Member
go-surveys Ltd
72 Plasturton Avenue
Cardiff
CF11 9HJ



APPENDIX A

List of Drawings and Documents Provided for Audit

2020-F03 – Rev B

Potential Secondary Access Arrangement

2020-SP02

Vehicle Swept Path Analysis

2020-CSA/3467/116 – Rev C

Development Framework Plan

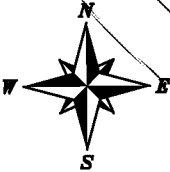
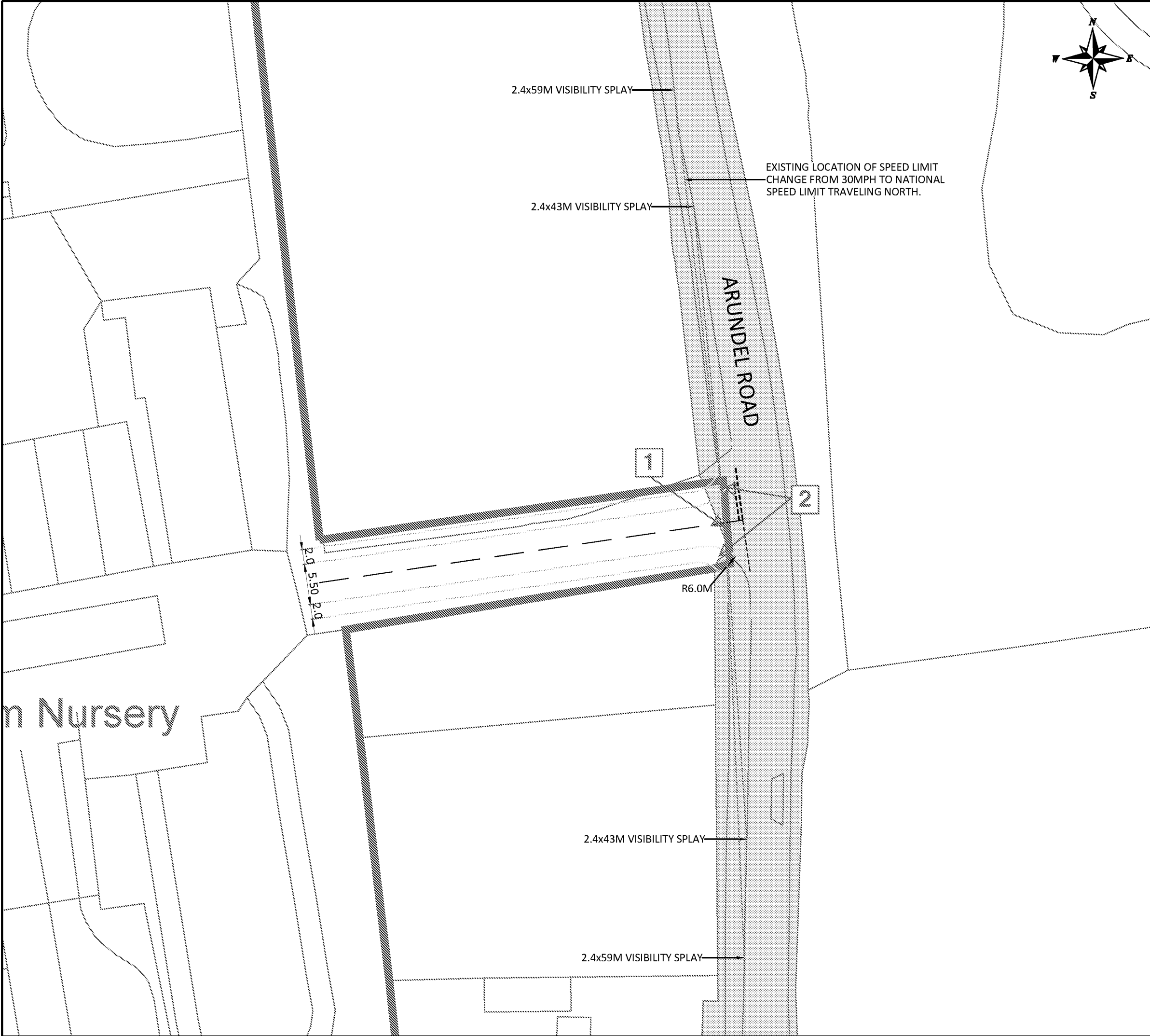
PIC Data

(Jan 2013 - June 2017)



APPENDIX B

Location of Identified Problems



NOTES

THIS IS NOT A CONSTRUCTION DRAWING AND IS FOR INDICATIVE PURPOSES ONLY. IT IS SUBJECT TO FURTHER DESIGN ANALYSIS, TOPOGRAPHICAL MAPPING & CONFIRMATION OF HIGHWAY/THIRD PARTY LAND BOUNDARIES.

- INDICATIVE SITE BOUNDARY
- DENOTES NEW KERBS
- EXISTING ADOPTED HIGHWAY

REV.	B A	WIDENED TO 5.5M ADDITIONAL VISIBILITY SPLAYS ADDED IN LINE WITH SPEED SURVEY	JC SM	MR MR	APR 18 APR 18
REV.		DETAILS	DRAWN	CHECKED	DATE

CLIENT:
GLADMAN

PROJECT:
ARUNDEL ROAD, ANGMERING

DRAWING TITLE:
**POTENTIAL SECONDARY ACCESS
ARRANGEMENT**

SCALES:
1:500 @ A3

DRAWN:	JC	CHECKED:	MR	DATE:	DEC 17
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Transport Solutions

DRAWING NUMBER:	2020-F03	REVISION:	B
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