



## TRANSPORT ASSESSMENT

## Land West of Moraunt Drive, Portchester, Hampshire

For Stone Falconer Ltd.

**OCTOBER 2014** 

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## Approvals

This document requires the following approvals:

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## Distribution

The Final Document will also be distributed to:

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### 1.0 INTRODUCTION

1.1 The Stilwell Partnership (*tsp*) has been instructed by Stone Falconer Limited, to undertake a Transport Assessment to consider the highway implications of the potential residential development of Land West of Moraunt Drive. A Site Location Plan is shown in Appendix A.

#### **Residential Development Potential**

- **1.2** The Site is being promoted for inclusion as a residential allocation within the Local Plan Part 2, on the basis of its capacity to deliver up to 200 dwellings.
- **1.3** The purpose of this report is to advise the Local Authority, Fareham Borough Council, and the Highway Authority, Hampshire County Council of the Transport Impact that the Site could have on the local highway network.
- 1.4 In Section 2 we detail the national and local Planning Policies. In Section 3 we describe the site location in relation to the highway network and describe the existing development. Section 4 describes the traffic study area and methodology and Section 5 details the sustainability of the site in relation to public transport, walking and cycling opportunities. In Section 6 we describe the proposed developments. Section 7 details the likely trips generated by the development and Section 8 will look at trip distribution. Section 9 details the likely impact of the proposals on the surrounding highway network. Section 10 will conclude the report.

## 2.0 LOCAL AND NATIONAL PLANNING POLICY CONTEXT (HIGHWAY-RELATED)

2.1 This section of the report provides a summary of the policy documents which are relevant to the proposed development. These include: The Transport White Paper – Creating Growth, Cutting Carbon, National Planning Policy Framework (NPPF) and Fareham Borough Council Local Development Framework.

# TRANSPORT WHITE PAPER – CREATING GROWTH, CUTTING CARBON (JANUARY 2011)

- 2.2 'Creating Growth, Cutting Carbon' sets out the government objectives for a greener and safer transport network that encourages economic growth and improves quality of life for communities.
- 2.3 The White Paper encourages the implementation of sustainable local transport systems and aims to remove the previous top-down approach to transport planning. Local Authorities will have the power to implement and tailor transport systems and schemes based on local needs and behaviour.
- 2.4 The economic aims of the White Paper can be achieved by increasing access to employment and services, reducing carbon emissions, increasing public transport accessibility, and as a by-product, increasing the number of people using safer transport methods with wider health benefits.
- **2.5** The White Paper notes the key role of travel planning in achieving government objectives, as set out below:

"The Government wants to encourage and enable more sustainable transport choices. [...] In transport terms, this might be exemplified by reducing unnecessary signs, posts and other street clutter to improve road safety and encourage walking, by travel planning, or by presenting information in such a way as to encourage choice"

2.6 Successful travel planning schemes are noted and used as examples within the White Paper, including Travel Planning for Schools, Cycle Journey Planning and Area-Wide Travel Planning. At Cambridge Science Park an initial investment of £70k brought about £200k benefits and a 5-6% reduction in journey times. The success shown in the White Paper Case Studies should be used to encourage the implementation of other travel planning schemes.

#### NATIONAL PLANNING POLICY FRAMEWORK (2012)

- 2.7 On the 27<sup>th</sup> March 2012 the National Planning Policy Framework was published, which sets out the Governments planning policies for England. The new document is a key part of the Governments reforms to make the planning system less complex and more accessible, to protect the environment and to promote sustainable growth.
- **2.8** The Core Planning Principles of the National Planning Policy Framework are to:
  - Be genuinely plan-led, empowering local people to shape their surroundings, with succinct local and neighbourhood plans setting out a positive vision for the future of the area;
  - Not simply be about scrutiny, but instead be a creative exercise in finding ways to enhance and improve the places in which people live their lives;
  - Proactively drive and support sustainable economic development to deliver the homes, businesses and industrial units, infrastructure and thriving local places that the country needs;
  - Always seek to secure high quality design and a good standard of amenity for all existing and future occupants of land and buildings;
  - Take account of the different roles and character of different areas, promoting the vitality of our main urban areas;
  - Support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change and encourage the reuse of existing resources;
  - Contribute to conserving and enhancing the natural environment and reducing pollution;
  - Encourage the effective use of land by reusing land that has been previously developed, provided that it is not of high environmental value;
  - Promote mixed use developments and encourage multiple benefits from the use of land in urban and rural areas, recognising that some open land can perform many functions;
  - Conserve heritage assets in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of this and future generations;
  - Actively manage patterns of growth to make the fullest possible use of public transport, walking and cycling and focus significant development in locations which are or can be made sustainable;
  - Take account of and support local strategies to improve health, social and cultural wellbeing for all and deliver sufficient community and cultural facilities and services to meet local needs.

2.9 With regards to sustainable travel the NPPF states:

#### Para 29

Transport policies have an important role to play in facilitating sustainable development but also in contributing to wider sustainability and health objectives. Smarter use of technologies can reduce the need to travel. The transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel. However, the Government recognises that different policies and measures will be required in different communities and opportunities to maximise sustainable transport solutions will vary from urban to rural areas.

#### Para 30

Encouragement should be given to solutions which support reductions in greenhouse gas emissions and reduce congestion. In preparing Local Plans, local planning authorities should therefore support a pattern of development which, where reasonable to do so, facilitates the use of sustainable modes of transport.

#### Para 32

All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Plans and decisions should take account of whether:

- the opportunities for sustainable transport modes have been taken up depending on the nature and location of the development, to reduce the need for major transport infrastructure;
- safe and suitable access to the development 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.

#### Para 36

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.

FAREHAM BOROUGH COUNCIL - LOCAL DEVELOPMENT FRAMEWORK (2011)

#### 2.10 CS5 TRANSPORT STRATEGY AND INFRASTRUCTURE

The Council will, where necessary, work with the Local Highways Authority, Highways Agency and transport operators to promote, permit, develop and/or safeguard a high quality and sustainable integrated transport system for the Borough. This will include the following measures:

- **2.11** Land will be identified and safeguarded in Local Development Documents where necessary for the following:
  - Bus Rapid Transit Gosport to Fareham to SDA to Portsmouth and towards Southampton Premium Bus Network Corridors;
  - Access to the Strategic Development Area north of Fareham, including land at Junction 10 and 11 of the M27 motorway and from Junction 11 to the A32(subject to the outcome of the sub regional transport modelling);
  - Fareham railway station public transport interchange;
  - Key junctions and links on the strategic and local road network;
  - Pedestrian and cycle corridors and access points including access to the natural environment through Countryside Access Plans and Rights of Way Improvement Plans, to improve people's health and wellbeing;
  - Wharves and depots associated with the extraction and delivery of aggregates and minerals by non-road based transport;
  - Works identified at Newgate Lane, Fareham;
  - Potential for a rail station for the SDA.

Development will not be permitted where this is prejudicial to the implementation of these schemes and associated land.

- 2.12 Development proposals which generate significant demand for travel and/or are of a high density, will be located in accessible\* areas that are or will be well areas that are or will be well served by good quality public transport, walking and cycling facilities.
- 2.13 The Council will permit development which:
  - contributes towards and/or provides necessary and appropriate transport infrastructure including reduce and manage measures\*\* and traffic management measures in a timely way;
  - does not adversely affect the safety and operation of the strategic and local road network, public transport operations or pedestrian and cycle routes;
  - is designed and implemented to prioritise and encourage safe and reliable journeys by walking, cycling and public transport.

\* Accessible includes access to shops, jobs, services and community facilities as well as public transport.

\*\* Reduce management includes policies and strategies that can lead to a reduction in vehicle, principally car, use or to redistribute use in space or time. These include such measures as car parking availability and price, congestion charge or road tolls, redistribution of road space in favour of public transport, walking or cycling, introduction of car clubs and cycle hire at transport nodes.

## 3.0 SITE LOCATION

- **3.1** The Land West of Moraunt Drive covers in the region of 8.4 hectares and is currently greenfield land. It is bound by Wicor Lake to the south, Wicor Marine Yacht Haven to the west, Tattershall Crescent to the north and Moraunt Drive to the east. There is an existing public footpath, the 'Wicor Path', which bisects the northern portion of the site and forms part of the northern boundary. A Site Location Plan is included in **Appendix A**.
- 3.2 A detailed description of the each of the roads in the residential area is included in AppendixB.

### 4.0 STUDY AREA AND METHODOLOGY

- 4.1 A detailed traffic study was undertaken including traffic volumes, speeds and accident data. The surveys were undertaken on the following links and key junctions. A Study Area Plan is included in Appendix C.
  - 1) Cornaway Lane Roundabout junction with A27
  - 2) Wicor Mill Lane / White Hart Lane T-Junction
  - 3) White Hart Lane / Cranleigh Road T-Junction
  - 4) White Hart Lane / Castle Street T-Junction
  - 5) Cranleigh Road / Wicor Marine Yacht Haven Access T-Junction
- **4.2** Surveys were carried out at all of the above junctions on Tuesday 7<sup>th</sup> October, during the extended peak periods of 7:30-9:30am and 16:30-18.30pm.

#### 4.3 Automatic Traffic Counters

Automatic Traffic Counters (ATCs) were installed on the key links in the local area in order to record the speeds and volumes of traffic using them. Locations of the ATC's are shown on the Study Area Plan in **Appendix C**. The summary results are shown in **Table 4.1** below.

| ATC Summary Data Average Flows (Weekdays Between 7th - 14th October) |            |                           |       |       |        |
|--|------------|---------------------------|-------|-------|--------|
| Location   | Direction  | 8:00-9:00AM 17:00-18:00PM |       | Daily |        |
| LOCATION   | Direction  | Flows                     | Flows | Flows | 85%ile |
| Site 1 - Cranleigh Road, West of                                     | Eastbound  | 18                        | 24.4  | 319   | 21.3   |
| Wicor Marine Yacht Haven Access                                      | Westbound  | 22                        | 37    | 318   | 21.9   |
| Site 2 - Cranleigh Road, East of                                     | Eastbound  | 24                        | 33.8  | 428   | 23.2   |
| Wicor Marine Yacht Haven Access                                      | Westbound  | 34                        | 40.8  | 437   | 23.5   |
| Site 3 - West of White Hart Lane                                     | Eastbound  | 315                       | 197.6 | 2885  | 22.4   |
| Junction with Castle Street  | Westbound  | 201                       | 297.4 | 2853  | 20.9   |
| Site 4 - White Hart Lane, West of                                    | Eastbound  | 196                       | 260.8 | 2699  | 30.0   |
| Junction with Foxbury Grove  | Westbound  | 273                       | 209.2 | 2888  | 29.8   |
| Site 5 - White Hart Lane, West of                                    | Eastbound  | 191                       | 278.8 | 2827  | 25.3   |
| Kenya Road   | Westbound  | 317                       | 191.4 | 3011  | 26.5   |
| Site 6 - Cornaway Lane, South of                                     | Northbound | 473                       | 269.6 | 4563  | 29.1   |
| Roundabout   | Southbound | 275                       | 420.8 | 4220  | 29.2   |

#### Table 4.1 – Existing Speed and Volume Results

#### 4.4 PERSONAL INJURY ACCIDENT (PIA) DATA ANALYSIS

- 4.4.1 Records of Personal Injury Accidents data (PIA) for the latest 3 year period (01/08/2011 to 31/07/2014) has been obtained from Hampshire Constabulary. The data requested was the area encompassing the junctions surveyed and the major roads which interconnect each junction, as well as the area immediately surrounding the Site. We haven't included the full accident data in this report. However, a plan showing the locations, severity and type of each PIA is included in **Appendix D**.
- 4.4.2 In total, 21 accidents occurred within the area requested. 8 resulted in serious injuries, whilst the rest resulted in slight injuries. **Appendix E** summarises the PIAs, their significance for the development in question and what remedial measures could be considered, if applicable.

### 5.0 SUSTAINABILITY OF THE SITE

#### 5.1 Local Amenities & Key Facilities

- 5.1.1 The Site is surrounded by a large number of local amenities with Portchester Town Centre located just 1.6km away and Fareham Town Centre located 4km away. Both town centres provide significant retail services, shopping and employment opportunities. A Sustainability Map showing all of the following facilities is included in **Appendix F.**
- 5.1.2 The Portchester Practise Doctors Surgery and Cameron Davies Opticians are both located 1.5km from the Site and Castle Dental Practise is located 1.7km from the site. All can be reached in less than 20 minutes by walking, or less than 10 minutes by cycle.
- 5.1.3 There are a number of industrial estates and areas of employment surrounding the Site. Portchester Town Centre is located 1.6km away to the north east and this can be reached by foot in 19 minutes and by cycle in around 5 minutes. An Industrial Estate is located 2.5km to the north east and can be accessed by foot in under 30 minutes and by cycle in just 8 minutes.
- 5.1.4 There are a number of sports and recreational facilities in vicinity of the site. Wicor Recreation Ground is located less than 500m west of the Site and both Portchester Sailing Club and Castle Shore Park are located 2.3km east of the site. South Park / Cams Hall Golf Course is also located 3km west of the site.

#### 5.2 Local Schools

There are a number of local schools in the vicinity of the Site, catering from nursery and reception years up to Sixth Form and further education. A brief summary of the nearest schools, their distance and travel time from the Site, is included in **Appendix G**.

#### 5.3 Pedestrian Access and Accessibility

5.3.1 For pedestrians without mobility impairment, the Institution of Highways and Transportation (IHT) in their publication, 'Guidelines for Providing for Journeys on Foot' (2000) make a series of suggested acceptable walking distances in relation to some common facilities (see Table 5.1).

|                   | Town Centres,<br>Retail |        |        |
|-------------------|-------------------------|--------|--------|
| Desirable         | 200m                    | 500m   | 400m   |
| Acceptable        | 400m                    | 1,000m | 800m   |
| Preferred Maximum | 800m                    | 2,000m | 1,200m |

| Table 5.1 – Suggested | Acceptable   | Walking   | Distances |
|-----------------------|--------------|-----------|-----------|
|                       | / 1000001010 | Training. | Diotanooo |

5.3.2 It is clear from the above paragraphs that the Site is within the suggested walking distances of large number of schools; retail; employment opportunities and public transport facilities.

#### Public Rights of Way

5.4 The Site is surrounded by a large number of Public Rights of Way in the form of footpaths and bridleways. The Wicor Path runs along the northern boundary of the site and bisects the site in in the eastern area. West of the site the Wicor Path terminates but begins again along the western side of Cranleigh Road and runs through the recreational ground over to South Park. Two footpaths bound the eastern and western boundary of Portchester Community School and various footpaths also surround Portchester Castle and Castle Shore Park. A Plan showing the public rights of way is included in Appendix H.

#### 5.5 Cyclist Access

- 5.5.1 Planning Policy Guidance 13 defined a distance of 5,000m, within which 'cycling could reasonably be considered as an alternative to travelling by private car'. On the basis of a relatively slow cycling speed of 15kph, Portchester, Fareham and Portsmouth could all be reached within 20 minutes.
- 5.5.2 The existing local cycle network is shown on the plan attached in **Appendix H.** There are a number of recommended cycle routes in the locality of the Site including West Street / Portchester Road. On carriageway cycle lanes run along both sides of the A27.

#### Buses

5.6 The Site is currently served by two bus routes (X4 and 3) and four dedicated school or college routes (403, SD4, SD5 SD6). The nearest bus stop in vicinity of the site serving route 3 is the Sandport Grove stop, located less than 500m from site. The nearest bus stop to the site serving route X4 is the Westlands Grove stop, located less than 1km from site. Below is a brief summary of the Monday to Friday bus services. For each service there are reduced Saturday and Sunday services. A summary of the bus services and a map of the routes in vicinity of the site is included in Appendix J.

#### 5.7 Railway

Portchester Station is located less than 1.6km (23 minute walk) north east of the closest part of the Site. Indeed the entire Site is within a 30 minute walk of the station. Alternatively the Station is within around 8 minutes by cycle. A summary of the train services is included in **Appendix J**.

### 6.0 DEVELOPMENT PROPOSALS, LAYOUT & PARKING PROVISION

#### The Proposal

**6.1** An indicative development proposal is shown in **Appendix K**. This illustrative layout consisting of 200 dwellings with a mix of houses and flats, associated car parking and amenity spaces.

#### 6.2 Proposed Site Access

6.2.1 The site could be accessed via two new access points (see **Appendix T**). Firstly, a new access could be formed by extending Moraunt Drive. Secondly, access could be provided by improving the existing access to Wicor Marine Yacht Haven.

#### Figure 2 – Wicor Marine Yacht Haven Access



#### **Eastern Access**

6.2.2 The proposed access off Moraunt Drive would be a minimum 5.5m wide, allowing even the largest of vehicles to manoeuvre safely and efficiently. Appropriate deflection will be provided on all approaches to ensure that traffic speeds are low on entry and exit from the access.

#### Figure 3 – Moraunt Drive Access



- 6.2.3 Pedestrian refuge islands will be provided near the access, allowing improved crossing facilities in vicinity of the site. 3.0m wide shared footways/cycleways will be provided, to allow cyclists to safely access the site.
- 6.2.4 A sightline and forward visibility is provided in accordance with Design Manual for Roads and Bridges (DMRB) principles.

#### Western Access

- 6.2.5 The western access road into the site will be 7.3m wide, suitable for large service vehicle access/egress.
- 6.2.6 Sightlines onto Cranleigh Road will be in excess of those required for the recorded vehicle speeds.

#### Internal Layout

6.3 The internal layout of the Site would be the subject of a detailed Planning Application. However, the access roads, footways and parking areas will all be designed to accord with Manual *for* Streets principles at detailed design / detailed Application stage.

#### Access Roads

6.4 For the most part the internal access roads will be a minimum of 5.5m wide with minimum 2m wide footways either running along the kerblines or behind landscaped buffer zones. A number of the smaller access roads, (i.e. serving low numbers of properties), will be a minimum 4.8m wide and shared surfaces where it is appropriate.

#### **Servicing Arrangements**

**6.5** Each resident will have their waste and recycling collected close to their property. Therefore, a Large Refuse Vehicle will have to enter and leave the Site in a forward gear.

#### **Footways and Cycleways**

**6.6** Footways and Cycle ways will be provided throughout the proposed development. These could be away from vehicular roads allowing safe pedestrian and cycle movement through the entire site.

#### 6.7 Car and Cycle Parking

- 6.7.1 Parking numbers and layout will be designed in accordance with Hampshire County Councils Parking Standards. In terms of cycle parking, the majority of units will be houses and will have ample space to accommodate cycling parking on site. However, it is a requirement of Hampshire's Parking Standards that those properties without garages or gardens should be provided with cycle parking spaces. The requirements for vehicular parking is shown in **Table 6.1** below, whilst the requirements for cycle parking is shown in **Table 6.2** below.
- 6.7.2 Parking will be provided on site in accordance with these standards. It should be noted that the vehicular parking requirements are maximum standards and sustainable travel will be encouraged for all elements of the development.

|  | Maximum Parking Requirement |
|--|-----------------------------|
| Mixed Housing (1 bed<br>units)         | 1 space per unit            |
| Mixed Housing (2 & 3<br>bed units)     | 2 spaces per unit           |
| Mixed Housing (4 or<br>more bed units) | 3 spaces per unit           |

#### Table 6.1 – Maximum vehicular parking requirements

#### Table 6.2 – Minimum cycle parking requirements

|  | Minimum Parking Requirement |
|--|-----------------------------|
| Mixed Housing (1 bed<br>units)         | 1 space per unit            |
| Mixed Housing (2 & 3<br>bed units)     | 2 spaces per unit           |
| Mixed Housing (4 or<br>more bed units) | 2 spaces per unit           |

#### **Travel Plan**

**6.8** A Travel Plan Framework (TPF) in accordance with *HCC's 'Guide to Development Related Travel Plans'* would be undertaken and submitted as part of any future Planning Applications.

#### **Construction Management Plan**

**6.9** A Construction Management Plan Framework would be undertaken and submitted as part of any future Planning Applications.

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### 7.0 TRIP GENERATION

7.1 When undertaking a Transport Assessment (TA) for a new site, it is normal practice to consider the likely impact of the proposed development in the peak hours (08:00 – 09:00 and 17:00 – 18:00), i.e. when the combination of the existing traffic and the proposed is at its highest.

#### 7.2 TRICS site selection

- 7.2.1 We have used the nationally recognised TRICS database to derive the likely number of trips generated by the proposed development. The TRICS sites used are included within Appendix L.
- 7.2.2 The approximate 85<sup>th</sup> percentile trip rates have been established for the two one-hour peak periods. All of the TRICS data used is based on a variety of similar size sites, throughout the UK, surveyed within the last 6 8 years.

#### Vehicular trip generation

7.2.3 **Table 7.1** below shows the average peak hour vehicular trip rates for each element of the development.

|                    | Trip rate |         | 8:00 - 09:00) | PM Peak (17:00 –<br>18:00) |           |
|--------------------|-----------|---------|---------------|----------------------------|-----------|
|                    | units     | Arrival | Departure     | Arrival                    | Departure |
| Mixed private/non- | Per 1     |         |               |                            |           |
| private housing    | dwelling  | 0.12    | 0.45          | 0.40                       | 0.19      |

#### Table 7.1 – TRICs Average vehicular trip rates for similar sites

7.2.4 Using the trip rates in **Table 7.1**, the proposed residential development could generate the following vehicular trips as shown in **Table 7.2** below:

#### Table 7.2 – Vehicular trips associated with the proposed development using TRICs data

|                                      | Size of<br>Development | AM Peak (08:00 –<br>09:00) |    |         | ık (17:00 –<br>3:00) |
|--------------------------------------|------------------------|----------------------------|----|---------|----------------------|
|                                      |                        | Arrival Departure          |    | Arrival | Departure            |
| Mixed private/non-private<br>housing | 200 units              | 24                         | 90 | 80      | 38                   |

7.2.5 From **Table 7.2**, it can be seen that the proposed development could generate 114 vehicle movements in the AM peak hour and 118 vehicle movements in the PM peak hour. The trips would be split between two access/egress points. New residents will be encouraged to use sustainable modes of transport through a Travel Plan Framework, so these figures may be lower.

## 8.0 TRIP DISTRUBITION AND ASSIGNMENT

#### 8.1 Traffic Counts

- 8.1.1 As mentioned previously, we have considered the impact of the development on the following junctions:
  - 1) Cornaway Lane Roundabout junction with A27
  - 2) Wicor Mill Lane / White Hart Lane T-Junction
  - 3) White Hart Lane / Cranleigh Road T-Junction
  - 4) White Hart Lane / Castle Street T-Junction
  - 5) Cranleigh Road / Wicor Marine Yacht Haven Access T-Junction
- 8.1.2 Surveys were carried out at all of the above junctions on Tuesday 7<sup>th</sup> October 2014. All of the junctions surveyed were undertaken during the extended peak hours of 07:30-09:30am and 16:30-18:30pm. A Study Area plan is included within **Appendix C**.
- 8.1.3 In analysing the turning movement and Automatic Traffic Counter data it was determined that the morning peak hour was 08:00 to 09:00 and the afternoon peak hour was 17:00 to 18:00. Flow diagram plans have been produced for the existing AM and PM peak hours and these are included within **Appendix M**.
- 8.1.4 Trip distribution has been determined using the existing flows on the highway network. A distribution diagram showing the split of inbound and outbound traffic through each junction within the Study Area, is shown within **Appendix N**.

#### 8.2 Proposed Development Flows

- 8.2.1 A distribution diagram for the development traffic has been produced as explained above and is included within Appendix P. The total proposed development flows as shown in Table 7.1 and 7.2 have been applied to the highway network using the distribution percentages and these are shown in Appendix Q.
- 8.2.2 Composite flow diagrams have been produced showing the following scenarios for the AM and PM peak hours and these are included within **Appendix R**.
  - A. Existing base flows (2014)
  - B. Existing flows (2014) plus Proposed Development flows

### 9.0 HIGHWAY IMPACT

- **9.1** The following junctions have been assessed using Junctions 8 (a combination of ARCADY 8 and PICADY 8), for the two scenarios shown at the end of **Section 8.0**.
  - Wicor Mill Lane / White Hart Lane T-Junction
  - White Hart Lane / Cranleigh Road T-Junction
  - White Hart Lane / Castle Street T-Junction
- 9.2 In order to create our models, we have used the geometric parameters as measured on site and the flows derived using the methods set out in the previous two sections of this report (Sections 7.0 and 8.0).
- 9.2 The Junctions 8 outputs for this analysis is provided in Appendix S. The summary results of this analysis are shown for each junction in Tables 9.1 to 9.4 below. They include the existing flows and the additional flows as a result of the possible future development.

#### 9.3 White Hart Lane / Cranleigh Road

9.3.1 **Table 9.1** below shows the summary results of the Junctions 8 modelling of the White Hart Lane junction with Cranleigh Road, for the two scenarios. The junction was modelled using the existing junction dimensions, as it stands as a priority 'T' junction.

Table 9.1 – Junctions 8 summary results of White Hart Lane / Cranleigh Road junction scenarios, with existing priority 'T-junction'

|  | AM Peak |       | PM Peak |      |
|--|---------|-------|---------|------|
|  | Max RFC | Max   | Max RFC | Max  |
|  |         | Queue | Queue   |      |
| (A) Existing (2014)                    | 0.19    | 0.24  | 0.16    | 0.33 |
| (B) Existing + Development (200 units) | 0.28    | 0.38  | 0.19    | 0.35 |

9.3.2 It can be seen from **Table 9.1** above that the junction works well and would not become oversaturated should the development go ahead.

#### 9.4 White Hart Lane / Wicor Mill Lane

9.4.1 **Table 9.2** below shows the summary results of the Junctions 8 modelling of the White Hart Lane junction with Wicor Mill Lane, for both scenarios. The junction was modelled using the existing junction dimensions, as measured on site.

Table 9.2 – Junctions 8 summary results of White Hart Lane / Wicor Mill Lane junction scenarios

|  | AM Peak |              | PM Peak |              |
|--|---------|--------------|---------|--------------|
|  | Max RFC | Max<br>Queue | Max RFC | Max<br>Queue |
| (A) Existing (2014)                    | 0.10    | 0.11         | 0.07    | 0.12         |
| (B) Existing + Development (200 units) | 0.18    | 0.23         | 0.11    | 0.19         |

9.4.2 It can be seen from **Table 9.2** above that the junction works well and would not become oversaturated should the development go ahead.

#### 9.5 White Hart Lane / Castle Street

9.5.1 **Table 9.3** below shows the summary results of the Junctions 8 modelling of the White Hart Lane junction with Castle Street, for the four scenarios. The junction was modelled using the existing junction dimensions, as measured on site.

Table 9.3 – Junctions 8 summary results of White Hart Lane / Castle Street junction scenarios

|  | AM Peak |              | PM Peak |              |
|--|---------|--------------|---------|--------------|
|  | Max RFC | Max<br>Queue | Max RFC | Max<br>Queue |
| (A) Existing (2014)                        | 0.07    | 0.08         | 0.07    | 0.07         |
| (B) Existing + Predicted Flows (200 units) | 0.08    | 0.08         | 0.07    | 0.07         |

9.5.2 It can be seen from **Table 9.3** above that the junction works well and would not become oversaturated should the development go ahead.

#### Summary

**9.6** In summary, we have shown that all of junctions within the vicinity of the site would continue to work well during the peak hours with development traffic.

#### Relative importance of transport related effects

9.7

We have assessed the relative importance of the transport related effects of the development for each of the junctions assessed above. This is done by comparing the maximum Reserve Flow Capacity (RFC) of each junction with the average percentage change in RFC from existing to proposed. Significance criteria used to judge the relative importance of the transport related effects of the proposed development are based on the Institute of Environmental Management and Assessment Guidelines, and the results are presented in **Table 9.4** below.

| Junction                          | Existing RFC /<br>DoS |      | Proposed RFC /<br>DoS |      | Relative importance  |  |
|-----------------------------------|-----------------------|------|-----------------------|------|----------------------|--|
| Junction                          | AM                    | PM   | AM                    | PM   | of impact            |  |
|                                   | peak                  | peak | peak                  | peak |                      |  |
| White Hart Lane                   | 0.19                  | 0.16 | 0.28                  | 0.19 | Neutral significance |  |
| / Cranleigh Road                  |                       |      |                       |      |                      |  |
| White Hart Lane / Wicor Mill Lane | 0.10                  | 0.07 | 0.18                  | 0.11 | Neutral significance |  |
| White Hart Lane / Castle Street   | 0.07                  | 0.07 | 0.08                  | 0.08 | Neutral significance |  |

#### Table 9.4 – Junction Assessment Summary Table

**9.8** In conclusion, we have shown that there is an insignificant highway impact created by the proposed development. Indeed, should the size of the development increase, there is adequate capacity to accommodate more houses.

### 10.0 CONCLUSIONS

- **10.1** The Stilwell Partnership has been instructed by Stone Falconer Ltd to undertake a Transport Assessment to consider the highway implications of the potential residential development of Land West of Moraunt Drive.
- **10.2** We have shown that the Site is in a sustainable location with good links to public transport, shops and employment opportunities.
- **10.3** Car Parking will be provided in line with Hampshire County Council (HCC) and Fareham Borough Council (FBC) standards for all uses on site.
- **10.4** Secure and covered cycle parking will be provided in accordance with HCC and FBC standards. All residential units will be provided with secure parking within cycle sheds or similar or within communal cycle stores for the flats.
- **10.5** A Travel Plan Framework would be prepared to support any future Planning Applications and submitted as a separate document. A Final Travel Plan would be provided for the development prior to occupation, subject to a standard Planning Condition. The Travel Plan could include measures to reduce car usage and increased use of sustainable transport i.e. cycling, buses and walking.
- **10.6** The Transport Assessment has demonstrated that the likely traffic associated with the Site would be easily accommodated on the local highway network with an insignificant impact on highway capacity, queuing and delays.
- **10.7** It is currently proposed to provide safe vehicular accesses from Moraunt Drive and Cranleigh Road (subject to third party land acquisition).
- **10.8** In summary, we conclude that the proposed development is in a sustainable location and can be accommodated without detriment to road safety or capacity on the surrounding highway network.

# APPENDIX A Site Location Plan



## **APPENDIX B**

## Detailed Local Highway Network Description

### 1.0 LOCAL HIGHWAY NETWORK



#### Figure 1 – Looking West on Moraunt Drive

#### **Moraunt Drive**

1.1 Moraunt Drive is a residential road located to the east of the Site and its general arrangement is shown in Figure 1 above. The road has a junction with Wicor Mill Lane in the east, which runs north-south.

#### Wicor Mill Lane

**1.2** Wicor Mill Lane is a residential road running north-south just east of the Site which has a junction with White Hart Lane in the north. Along its length Wicor Mill Lane is a well-lit street, with excellent footway provision on both sides of the carriageway. The majority of houses have off-street parking, however, some on-street parking still takes place.

#### **Cranleigh Road**

1.3 Cranleigh Road is located to the north west of the site and serves residential properties in the north. Where the road runs west, it serves Wicor Marine Yacht Haven, a small number of industrial businesses and the Wicor Recreational Ground/Football Club. There is a continuous footway on the southern/eastern side of Cranleigh Road from the Yacht Haven access, to White Hart Lane.

#### Cornaway Lane / White Hart Lane

1.4 White Hart Lane runs east to west, just north of the Site. In the east the road becomes Cornaway Lane and runs north, connecting to the Cornaway Lane Roundabout and the A27. There are many bus stops located along the road and along its length it is well-lit with excellent footway provision on both sides of the carriageway. There is a Public House (Wicor Mill) a new Co-op Supermarket with post office and a small number of commercial premises located on White Hart Lane, close to the Wicor Mill Lane Junction. Portchester Community School is located on White Hart Lane approximately 800m east of Wicor Mill Lane.

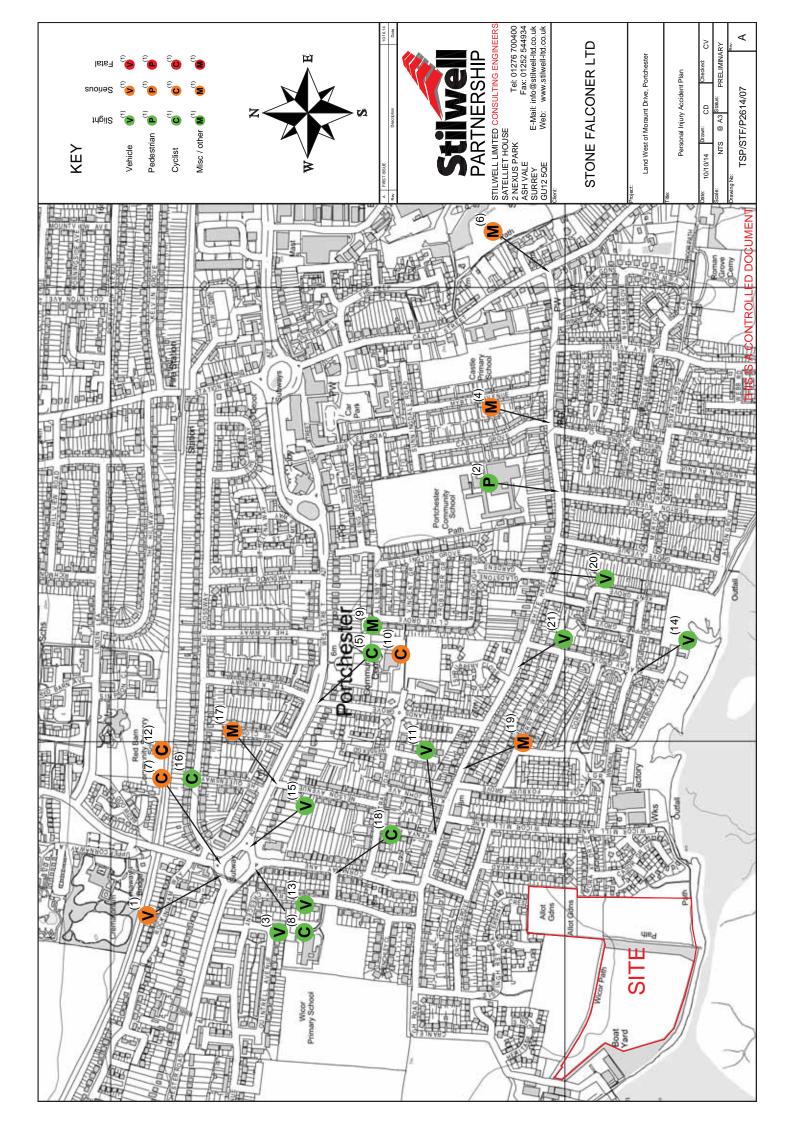
#### Portchester Road / West Street (A27)

**1.5** This road is a major A-class road running in the east-west direction, north of the Site. In vicinity of the Site, the Conaway Lane Roundabout provides access to the A27, with West Street running off the East arm of the roundabout and Portchester Road running off the west arm of the roundabout. There are cycle lanes along the length of the road and well-lit footways on both sides of the carriageway. The road operates a 40mph speed limit and numerous bus stops are located along its length.

# APPENDIX C Study Area Plan



# APPENDIX D Personal Injury Accident Plan



## APPENDIX E

## Detailed Personal Injury Accident Breakdown

#### DETAILED PERSONAL INJURY ACCIDENT BREAKDOWN

#### **Cornaway Roundabout**

**1.0** In total, 8 incidents were recorded at this roundabout, 3 of which resulted in serious injuries. Two of the serious accidents involved pedal cyclists being hit by vehicles failing to look properly. The other serious accident involved a passenger of a taxi hitting their head on the window as the taxi manoeuvred the roundabout. Five of the incidents recorded at the roundabout were of slight severity. Three of the slight accidents involved vehicles and were the result of the usual mechanics of a roundabout, where a car behind expects the car in front to move forward, but doesn't, with a resultant shunt into the back of the car in front. The remaining two slight accidents involved pedal cyclists being hit by a vehicle entering the roundabout. The 8 accidents recorded at the major roundabout is considered low for a period of 3 years.

#### **Cornaway Lane / Hatherley Drive**

1.1 In total, 1 slight accident occurred at this junction. A car travelling south along Cornaway Lane turned right into Hatherley Drive and collided with a pedal cyclist travelling along Cornaway Lane. Just one slight accident at the junction itself would suggest that it doesn't have an accident problem.

#### White Hart Lane / Kenya Road

**1.2** Just one accident occurred at this junction, resulting in slight injury. A car traveling along White Hart Lane near the Kenya Road junction collided into the rear of a vehicle pulling out of a parking space onto White Hart Lane. Just one slight accident at the junction would suggest that it doesn't have an accident problem.

#### White Hart Lane / Foxbury Grove

**1.3** One serious accident occurred just east of this junction. A motorcycle travelling west along White Hart Lane collided with a vehicle which was stationary. This only accident suggests there is not an accident problem at the junction.

#### White Hart Lane / Shrubberry Close

**1.4** There was one slight accident on White Hart Lane, just east of this junction. The accident was the result of a vehicle travelling along White Hart Lane, being dazzled by sunlight and colliding with the rear of a parked car.

#### White Hart Lane / Number 132

**1.5** There was just one accident at this location, resulting in a slight injury. This was due to a car turning right into No. 132 and a second vehicle attempting to overtake colliding into the first vehicle. This only accident suggests that there is not an accident problem along White Hart Lane in this location.

#### White Hart Lane / Merton Avenue

**1.6** One slight accident involving a motorcycle and a pedestrian occurred at this junction. A motorcycle travelling west along White Hart Lane collided with a pedestrian stepping into the carriageway, failing to look properly. This accident does not suggest that there is an accident problem at the junction.

#### White Hart Lane / Castle Grove

**1.7** There was just one serious accident at this junction. The accident was a result of a car turning right onto White Hart Lane from Castle Grove into the path of a motorcycle, subsequently causing a collision. This one accident does not suggest there is an accident problem with the junction.

#### White Hart Lane / Castle Street

**1.8** Only one accident occurred at this junction, resulting in a serious injury. The accident involved a motorcyclist losing control of the vehicle and falling off. In this instance, this one accident does not suggest an accident problem with the junction.

#### West Street / Nelson Avenue

1.9 There was just 1 serious accident at this junction. A vehicle travelling south east along West Street turned right into Nelson Avenue across the path of a motorcycle, resulting in a collision. Just one slight accident at the junction itself would suggest that it doesn't have an accident problem.

#### West Street / Westlands Grove

**1.10** In total, there were 3 accidents at this junction, 1 of which resulted in a serious injury. The serious accident involved a vehicle turning right into West Street from Westlands Grove and colliding with a pedal cyclist travelling west along West Street. The other accidents at the junction resulted in slight injuries. One involved a vehicle turning left onto West Street from Westlands Grove and colliding with a pedal cyclist. The other accident involved a vehicle pulling out of the Westlands Grove junction failing to see a motorcycle, resulting in the motorcycle colliding into the vehicle.

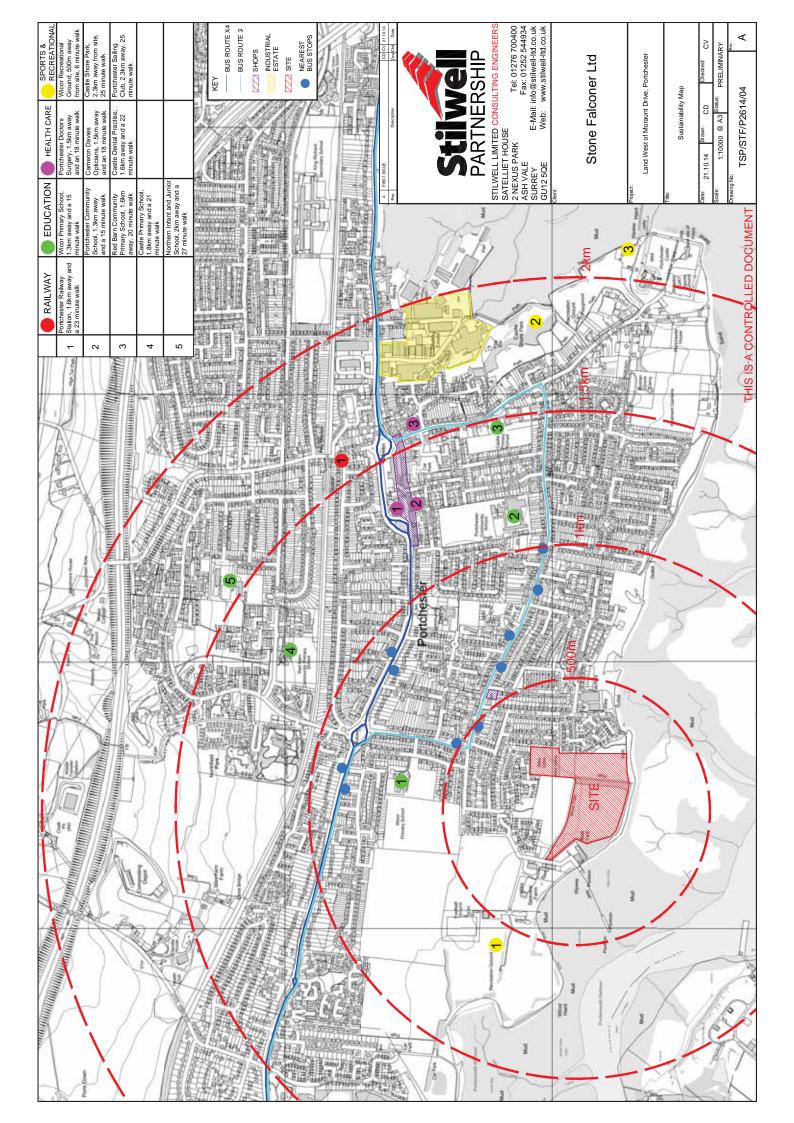
**1.11** Just 3 accidents at this junction in a 3 year period would suggest that the junction does not have a serious accident problem. A factor of two accidents at the junction included drivers failing to look properly and the accidents can therefore be put down to driver error.

#### Seaway Grove / Windmill Grove

**1.12** One slight accident occurred at this junction. This involved a vehicle turning left from Windmill Grove into Seaway Grove and hitting a second cars wing mirror. This only accident doesn't suggest there is an accident problem with the junction.

# APPENDIX F

Sustainability Map



## APPENDIX G Summary of Local Schools

#### DETAILED DESRIPTION OF LOCAL SCHOOLS

#### **Wicor Primary School**

1.1 Wicor Primary School is a primary school located in Portchester catering for pupils aged between 4 and 11. The school is situated 1.3km from the Site and could be reached in 4 minutes by cycle and 15 minutes by foot.

#### Portchester Community School

**1.2** Portchester Community School is a secondary school located in Portchester catering for pupils aged between 11 and 16. The school is situated 1.3km from the Site and could be reached in 5 minutes by cycle and 15 minutes by foot.

#### **Castle Primary School**

1.3 Castle Primary School is located in Portchester and caters for pupils aged between 4 and 11. The school is situated 1.8km away and could be reached in 7 minutes by cycle and 21 minutes by foot.

#### **Red Barn Community Primary School**

1.4 Red Barn Community Primary School is located in Portchester and caters for pupils aged between 4 and 11. The school is situated 1.6km away and could be reached in 6 minutes by cycle and 20 minutes by foot.

#### **Northern Infant and Junior School**

1.5 Northern Infant and Junior Schools are both located in Portchester and caters for pupils aged between 2 and 11. The school is situated 2km away and could be reached in 8 minutes by cycle and 27 minutes by foot.

#### **Teddy Bears Nursery School**

**1.6** Teddy Bears School is a nursery school located in Portsmouth. The school is situated 2.4km from the Site and could be reached in 29 minutes by foot.

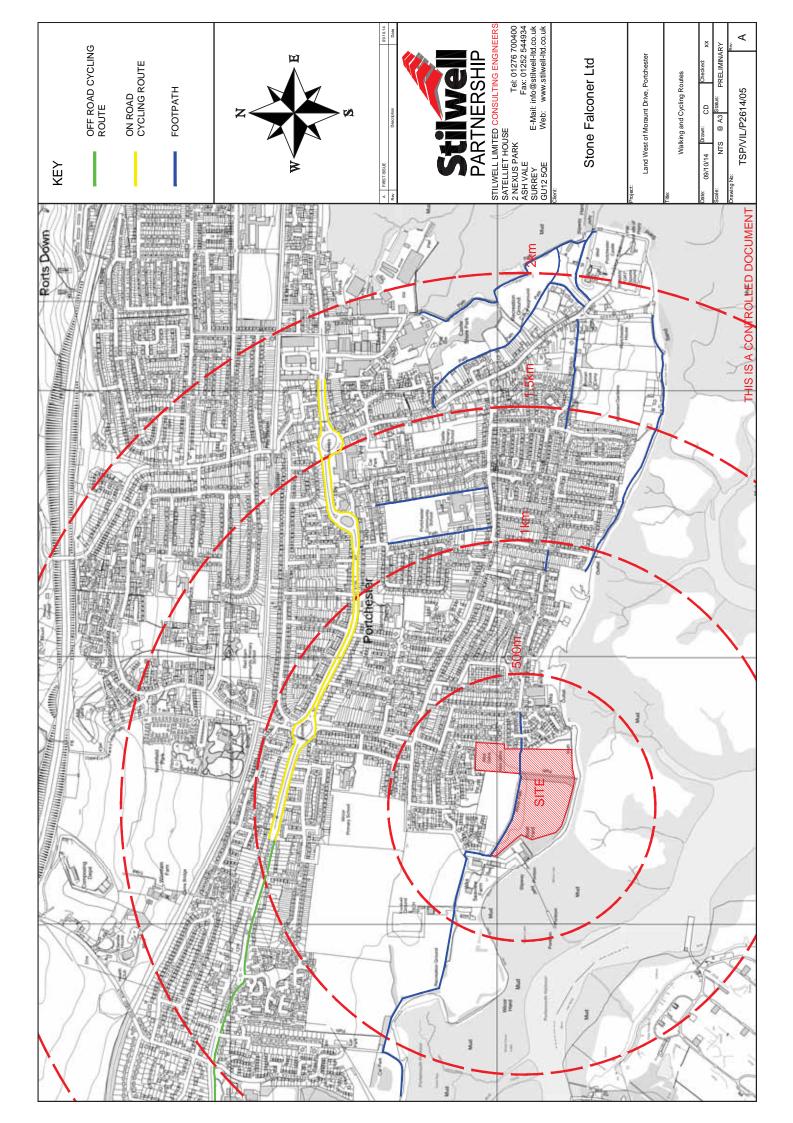
#### **The Victory Primary School**

1.7 The Victory School is a primary school located in Portsmouth catering for pupils aged between 4 and 11. The school is situated 3.4km from the Site and could be reached in 12 minutes by cycle and 43 minutes by foot.

#### Fareham College

**1.8** Fareham College is located in Fareham and offers further education in the form of full-time or part-time courses and apprenticeships. The college is situated 5.7km from the Site.

## APPENDIX H Walking and Cycling Routes Plan



### **APPENDIX J**

Public Transport Summary and Bus Routes Map

#### SUMMARY OF PUBLIC TRANSPORT

#### 1.0 Buses

#### Service 3

1.0.1 This service is operated by First Group and buses run from 04:57am to 00:08pm, with approximately 6 buses per hour. Destinations include Fareham Bus Station, Paulsgrove Shops, QA Hospital, Cosham Health Centre, North End Shops, Lake Road Health Centre Portsmouth City Centre.

#### Service X4

1.0.2 This service is operated by First Group with buses running from 06:50am to 20:55pm, approximately every 30 minutes. Destinations include: Southampton Castle Way, Woolston Link Road, Shooling Botley Road, Oakhill-Dodwell Lane, Locks Health Centre, Titchfield Coach Hill, Fareham Bus Station, Northarbour Racecourse, Portsmouth international Port and The Hard/Gunwharf.

#### 1.1 Railway

1.1.1 Portchester Railway Station is managed by South West Trains. Below is a brief summary of the train services provided from Portchester Station.

#### South West Trains – London Waterloo to Portsmouth Harbour

1.1.2 This service runs from 06:24am through to 00:53am Monday to Friday. Trains on this service depart Portchester Station every hour throughout the day.

#### South West Trains – London Victoria to Southampton

1.1.3 Trains on this line run from 05:28am through to 21:38pm Monday to Friday from Portchester Station. Trains on this service depart the station once an hour throughout the day.

#### South West Trains – Portsmouth to Southampton

1.1.4 This service runs from 05:20am through to 23:40pm Monday to Friday. Trains on this service depart Portchester Train Station three times an hour throughout the day.



Certain journeys only

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## APPENDIX K Illustrative Site Layout Plan



APPENDIX L TRICS Data JMP Consultants Ltd 16-20 Ely Place London

#### TRIP RATE CALCULATION SELECTION PARAMETERS:

| Land Use | : 03 - RESIDENTIAL          |
|----------|-----------------------------|
| Category | : K - MIXED PRIVATE HOUSING |
| VEHICLE  | S                           |

| Sele | cted re | egions and areas: |        |
|------|---------|-------------------|--------|
| 01   | GRE     | ATER LONDON       |        |
|      | GL      | GREATER LONDON    | 1 days |
| 02   |         | TH EAST           |        |
|      |         | EAST SUSSEX       | 1 days |
|      | HC      | HAMPSHIRE         | 6 days |
|      | HF      | HERTFORDSHIRE     | 1 days |
|      |         | WEST SUSSEX       | 1 days |
| 03   |         | TH WEST           |        |
|      | GS      | GLOUCESTERSHIRE   | 1 days |
| 04   | -       | T ANGLIA          |        |
|      | CA      |                   | 2 days |
|      | NF      |                   | 1 days |
|      | SF      |                   | 1 days |
| 05   |         | 「 MIDLANDS        |        |
|      |         | LINCOLNSHIRE      | 1 days |
|      | NT      |                   | 4 days |
| 06   |         | T MIDLANDS        |        |
|      |         | SHROPSHIRE        | 1 days |
|      | ST      | STAFFORDSHIRE     | 1 days |
|      |         | WARWICKSHIRE      | 1 days |
|      |         | WORCESTERSHIRE    | 4 days |
| 08   | -       | THWEST            |        |
|      | GM      |                   | 1 days |
|      | LC      |                   | 2 days |
| 09   | NOR     |                   |        |
|      | TV      | -                 | 1 days |
| 10   | WAL     | -                 |        |
|      | CF      | -                 | 1 days |
| 11   |         | TLAND             |        |
|      |         | ABERDEENSHIRE     | 1 days |
|      | GC      | GLASGOW CITY      | 1 days |
| 40   | HI      | HIGHLAND          | 1 days |
| 12   | -       |                   | E deve |
|      | NI      | NORTHERN IRELAND  | 5 days |
|      |         |                   |        |

Licence No: 500000

#### JMP Consultants Ltd 16-20 Ely Place London

#### Main parameter selection:

| Parameter:<br>Range:   | Number of households<br>11 to 1165 (units: ) |  |
|--|--|--|
| Date Range:  | 01/01/97 to 30/06/05                         |  |
| <u>Selected survey o</u><br>Tuesday<br>Wednesday<br>Thursday<br>Friday | <u>days:</u>                                 | 7 days<br>4 days<br>16 days<br>13 days |
| <u>Selected survey t</u><br>Manual count<br>Directional ATC (          |  | 32 days<br>8 days                      |

| TRICS 2000  | (a) (C) 2006 JMP Consulting on behalf of the  | e TRICS Consortium Thursday 19/01/06<br>Page 3 |
|-------------|---|--|
| JMP Consu   | tants Ltd 16-20 Ely Place London  | Licence No: 500000                             |
| <u>LIST</u> | OF SITES relevant to selection parameters   |  |
| 1           | AS-03-K-01 MIXED PRI. HOUS., PORTLETHEN<br>ALDER DRIVE  | ABERDEENSHIRE                                  |
| 2           | PORTLETHEN<br>Total Number of households: 104 ******<br>CA-03-K-01 MIXED HOUSING, CAMBRIDGE<br>FALLOWFIELD<br>CHESTERTON  | CAMBRIDGESHIRE                                 |
| 3           | CAMBRIDGE<br>Total Number of households: 124 ******<br>CA-03-K-02 MIXED HOUSING,PETERBOROUGH<br>THORPE ROAD   | CAMBRIDGESHIRE                                 |
| 4           | PETERBOROUGH<br>Total Number of households: 363 ******<br>CF-03-K-01 MIXED PRIVATE HOUS., CARDIFF<br>POWDERHAM DRIVE<br>LECKWITH  | CARDIFF  |
| 5           | CARDIFF<br>Total Number of households: 222 ******<br>ES-03-K-01 MIXED HOUSING, LEWES<br>OLD MALLING WAY<br>SOUTH MALLING  | EAST SUSSEX                                    |
| 6           | LEWES<br>Total Number of households: 491 ******<br>GC-03-K-03 MIXED GLASGOW HOUSING<br>DUNTREATH AVENUE<br>DRUMCHAPEL<br>GLASGOW  | GLASGOW CITY                                   |
| 7           | GLASGOW         Total Number of households:       56         GL-03-K-11       MIXED HOUSING, ISLE OF DOGS         FRIARS MEAD         CROSSHARBOUR         ISLE OF DOGS | GREATER LONDON                                 |
| 8           | Total Number of households:120 <b>GM-03-K-02TAMESIDE HOUSING</b> SPRINGWOOD WAYLIMEHURST  | GREATER MANCHESTER                             |
| 9           | KINGSHOLM ROAD<br>KINGSHOLM   | GLOUCESTERSHIRE                                |
| 10          | GLOUCESTER<br>Total Number of households: 73 ******<br>HC-03-K-04 PORTSMOUTH HOUSING<br>ST GEORGES ROAD   | HAMPSHIRE                                      |
| 11          | PORTSMOUTH<br>Total Number of households: 150 ******<br>HC-03-K-05 PORTSMOUTH HOUSING<br>BROAD STREET   | HAMPSHIRE                                      |
|             | PORTSMOUTH<br>Total Number of households: 58 *****  |  |

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|------------|---|------------------|-----------------------------|
| JMP Consu  | tants Ltd 16-20 Ely Place London  |                  | Licence No: 500000          |
| LIST       | OF SITES relevant to selection parameters (Cont.)   |                  |                             |
| 12         | HC-03-K-08 FLEET HOUSING<br>ANCELLS ROAD<br>ANCELLS FARM<br>FLEET   | HAMPSHIRE        |                             |
| 13         | Total Number of households: 747 *****<br>HC-03-K-09 WINCHESTER HOUSING<br>RIDGEWAY/MEADOW W.<br>BADGER FARM<br>WINCHESTER         | HAMPSHIRE        |                             |
| 14         | Total Number of households:1040******HC-03-K-10EASTLEIGH HOUSINGKNIGHTWOOD ROADBADGER'S COPSE                                     | HAMPSHIRE        |                             |
| 15         | EASTLEIGH<br>Total Number of households: 700 ******<br>HC-03-K-11 WINCHESTER HOUSING<br>RIDGEWAY/MEADOW W.<br>BADGER FARM         | HAMPSHIRE        |                             |
| 16         | WINCHESTER<br>Total Number of households: 1040 ******<br>HF-03-K-01 MIXED PRI. HOUSING,WELWYN GC<br>LONGCROFT GARDENS             | HERTFORDSHIRE    |                             |
| 17         | WELWYN GARDEN CITY<br>Total Number of households: 53 ******<br>HI-03-K-01 MIXED HOUSING, INVERNESS<br>DRUMOSSIE AVENUE<br>DRAKIES | HIGHLAND         |                             |
| 18         | INVERNESS<br>Total Number of households: 11 ******<br>LC-03-K-07 LANCASTER HOUSING<br>HERONSKYE<br>SKERTON                        | LANCASHIRE       |                             |
| 19         | LANCASTER<br>Total Number of households: 135 ******<br>LC-03-K-08 MIXED HOUSING, BLACKBURN<br>RHODES AVENUE<br>FOUR LANE ENDS     | LANCASHIRE       |                             |
| 20         | BLACKBURN<br>Total Number of households: 185 *****<br>LN-03-K-01 MIXED PRI. HOUSING, LINCOLN<br>DE WINT AVENUE                    | LINCOLNSHIRE     |                             |
| 21         | LINCOLN<br>Total Number of households: 56 ******<br>NF-03-K-01 MIXED HOUSING, NORWICH<br>ROBERT GYBSON WAY                        | NORFOLK          |                             |
| 22         | NORWICH<br>Total Number of households: 51 *****<br>NI-03-K-01 MIXED HOUSING, BELFAST<br>BROOMHILL MANOR/CT<br>MALONE<br>BELFAST   | NORTHERN IRELAND |                             |
|            | Total Number of households:21   |                  |                             |

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|--------------|--|-----------------------------|
| JMP Consu    | tants Ltd 16-20 Ely Place London   | Licence No: 500000          |
|              | OF SITES relevant to selection perameters (Cent.)  |                             |
| <u>LIS I</u> | OF SITES relevant to selection parameters (Cont.)  |                             |
| 23           | NI-03-K-02 HOUSING, BELFAST NORTHERN IRELAND<br>SAINTFIELD ROAD<br>NEWTOWNBREDA<br>BELFAST   |                             |
| 24           | Total Number of households:288******NI-03-K-03MIXED HOUSING, OMAGHNORTHERN IRELANDKELVIN GLENKELVIN GLEN   |                             |
| 25           | OMAGH<br>Total Number of households: 44 ******<br>NI-03-K-04 MIXED HOUSING, ANTRIM NORTHERN IRELAND<br>PARKLANDS                                 |                             |
| 26           | ANTRIM<br>Total Number of households: 164 *****<br>NI-03-K-05 MIXED HOUSING, LISBURN NORTHERN IRELAND<br>LIME TREE AVENUE                        |                             |
| 27           | LISBURN<br>Total Number of households: 358 *****<br>NT-03-K-02 NEWARK HOUSING NOTTINGHAMSHIRE<br>BEACON HILL ROAD<br>BEACON HILL                 |                             |
|              | NEWARK-ON-TRENT  |                             |
| 28           | Total Number of households:394******NT-03-K-03MANSFIELD HOUSINGNOTTINGHAMSHIRELOXLEY DRIVEBERRYHILLBERRYHILL                                     |                             |
| 29           | MANSFIELD<br>Total Number of households: 61 ******<br>NT-03-K-04 NOTTINGHAM HOUSING NOTTINGHAMSHIRE<br>BEAUMARIS DRIVE<br>GEDLING                |                             |
| 30           | NOTTINGHAM<br>Total Number of households: 160 ******<br>NT-03-K-05 NOTTINGHAM HOUSING NOTTINGHAMSHIRE<br>JENNY BURTON WAY<br>ASHFIELD            |                             |
| 31           | NOTTINGHAM<br>Total Number of households: 174 *****<br>SF-03-K-01 MIXED HOUSING, IPSWICH SUFFOLK<br>FINBARS WALK                                 |                             |
| 32           | IPSWICH<br>Total Number of households: 99 ******<br>SH-03-K-01 BRIDGNORTH HOUSING SHROPSHIRE<br>BRAMBLE RIDGE                                    |                             |
| 33           | BRIDGNORTH<br>Total Number of households: 52 *****<br>ST-03-K-01 MIXED HOUSING, STAFFORD STAFFORDSHIRE<br>THE MEADOWS<br>QUEENSVILLE<br>STAFFORD |                             |
|              | Total Number of households: 224 *****  |                             |

| TRICS 200  | · · · · · · · ·  | Thursday 19/01/06<br>Page 6 |
|------------|--|-----------------------------|
| JMP Consu  | Itants Ltd 16-20 Ely Place London  | Licence No: 500000          |
| 115        | OF SITES relevant to selection parameters (Cont.)                                    |                             |
| <u>L10</u> | OF SHESTERVan to selection parameters (Cont.)  |                             |
| 34         | TV-03-K-01PRIVATE CLOSE, HARTLEPOOLTEES VALLEYPOWLETT ROAD                           |                             |
|            | HARTLEPOOL   |                             |
|            | Total Number of households: 225 ******   |                             |
| 35         | WK-03-K-01 MIXED HOUSING, STRATFORD WARWICKSHIRE                                     |                             |
|            | OLD TOWN MEWS<br>OLD TOWN  |                             |
|            | STRATFORD UPON AVON  |                             |
|            | Total Number of households: 64 ******  |                             |
| 36         | WO-03-K-01 MIXED HOUSING, WORCESTER WORCESTERSHIRE                                   |                             |
|            | MALVERN ROAD   |                             |
|            | LOWER WICK<br>WORCESTER  |                             |
|            | Total Number of households: 775 ******   |                             |
| 37         | WO-03-K-02 MIXED HOUSING, BROMSGROVE WORCESTERSHIRE                                  |                             |
|            | ST GODWALDS ROAD   |                             |
|            | ASTON FIELDS   |                             |
|            | BROMSGROVE   |                             |
| 38         | Total Number of households:215******WO-03-K-03MIXED HOUSING, WORCESTERWORCESTERSHIRE |                             |
| 00         | BYFIELD RISE   |                             |
|            | WORCESTER  |                             |
|            | Total Number of households: 103 ******   |                             |
| 39         | WO-03-K-04 MIXED HOUSUNG, BROMSGROVE WORCESTERSHIRE                                  |                             |
|            | ST GODWALDS ROAD<br>ASTON FIELDS   |                             |
|            | BROMSGROVE   |                             |
|            | Total Number of households: 232 ******   |                             |
| 40         | WS-03-K-03 HOUSING, NEAR CHICHESTER WEST SUSSEX                                      |                             |
|            | LAVANT DOWN ROAD   |                             |
|            |  |                             |
|            | NEAR CHICHESTER<br>Total Number of households: 90 ******                             |                             |
|            |  |                             |

JMP Consultants Ltd 16-20 Ely Place London Thursday 19/01/06

Licence No: 500000

#### TRIP RATE for Land Use 03 - RESIDENTIAL/K - MIXED PRIVATE HOUSING **VEHICLES**

#### **Calculation factor: 1 HHOLDS** BOLD print indicates peak (busiest) period

|                  | ARRIVALS |        | DEPARTURES |      |        | TOTALS |      |        |      |
|------------------|----------|--------|------------|------|--------|--------|------|--------|------|
|                  | No.      | Ave.   | Trip       | No.  | Ave.   | Trip   | No.  | Ave.   | Trip |
| Time Range       | Days     | HHOLDS | Rate       | Days | HHOLDS | Rate   | Days | HHOLDS | Rate |
| 00:00 - 01:00    | 8        | 269    | 0.03       | 8    | 269    | 0.02   | 8    | 269    | 0.05 |
| 01:00 - 02:00    | 8        | 269    | 0.02       | 8    | 269    | 0.01   | 8    | 269    | 0.03 |
| 02:00 - 03:00    | 8        | 269    | 0.01       | 8    | 269    | 0.01   | 8    | 269    | 0.02 |
| 03:00 - 04:00    | 8        | 269    | 0.01       | 8    | 269    | 0.01   | 8    | 269    | 0.02 |
| 04:00 - 05:00    | 8        | 269    | 0.01       | 8    | 269    | 0.01   | 8    | 269    | 0.02 |
| 05:00 - 06:00    | 8        | 269    | 0.01       | 8    | 269    | 0.03   | 8    | 269    | 0.04 |
| 06:00 - 07:00    | 8        | 269    | 0.02       | 8    | 269    | 0.10   | 8    | 269    | 0.12 |
| 07:00 - 08:00    | 40       | 247    | 0.07       | 40   | 247    | 0.30   | 40   | 247    | 0.37 |
| 08:00 - 09:00    | 40       | 247    | 0.12       | 40   | 247    | 0.45   | 40   | 247    | 0.57 |
| 09:00 - 10:00    | 40       | 247    | 0.14       | 40   | 247    | 0.20   | 40   | 247    | 0.34 |
| 10:00 - 11:00    | 40       | 247    | 0.12       | 40   | 247    | 0.15   | 40   | 247    | 0.27 |
| 11:00 - 12:00    | 40       | 247    | 0.15       | 40   | 247    | 0.15   | 40   | 247    | 0.30 |
| 12:00 - 13:00    | 40       | 247    | 0.18       | 40   | 247    | 0.16   | 40   | 247    | 0.34 |
| 13:00 - 14:00    | 40       | 247    | 0.17       | 40   | 247    | 0.17   | 40   | 247    | 0.34 |
| 14:00 - 15:00    | 40       | 247    | 0.17       | 40   | 247    | 0.17   | 40   | 247    | 0.34 |
| 15:00 - 16:00    | 40       | 247    | 0.24       | 40   | 247    | 0.18   | 40   | 247    | 0.42 |
| 16:00 - 17:00    | 40       | 247    | 0.29       | 40   | 247    | 0.18   | 40   | 247    | 0.47 |
| 17:00 - 18:00    | 40       | 247    | 0.40       | 40   | 247    | 0.19   | 40   | 247    | 0.59 |
| 18:00 - 19:00    | 40       | 247    | 0.33       | 40   | 247    | 0.22   | 40   | 247    | 0.55 |
| 19:00 - 20:00    | 8        | 269    | 0.31       | 8    | 269    | 0.27   | 8    | 269    | 0.58 |
| 20:00 - 21:00    | 8        | 269    | 0.22       | 8    | 269    | 0.16   | 8    | 269    | 0.38 |
| 21:00 - 22:00    | 8        | 269    | 0.16       | 8    | 269    | 0.11   | 8    | 269    | 0.27 |
| 22:00 - 23:00    | 8        | 269    | 0.12       | 8    | 269    | 0.08   | 8    | 269    | 0.20 |
| 23:00 - 24:00    | 8        | 269    | 0.10       | 8    | 269    | 0.07   | 8    | 269    | 0.17 |
| Daily Trip Rates | :        |        | 3.39       |      |        | 3.38   |      |        | 6.80 |

#### Parameter summary

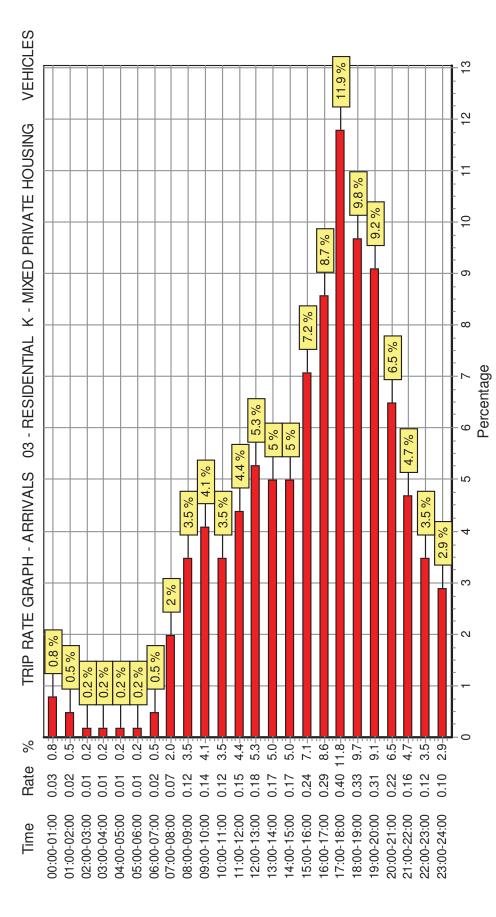
| Trip rate parameter range selected:      | 11 - 1165 (units: ) |
|--|---------------------|
| Survey date date range:                  | 01/01/97 - 30/06/05 |
| Number of weekdays (Monday-Friday):      | 40                  |
| Number of Saturdays:                     | 0                   |
| Number of Sundays:                       | 0                   |
| Optional parameters used in selection:   | NO                  |
| Surveys manually removed from selection: | 33                  |
|  |                     |

TRICS 2006(a)

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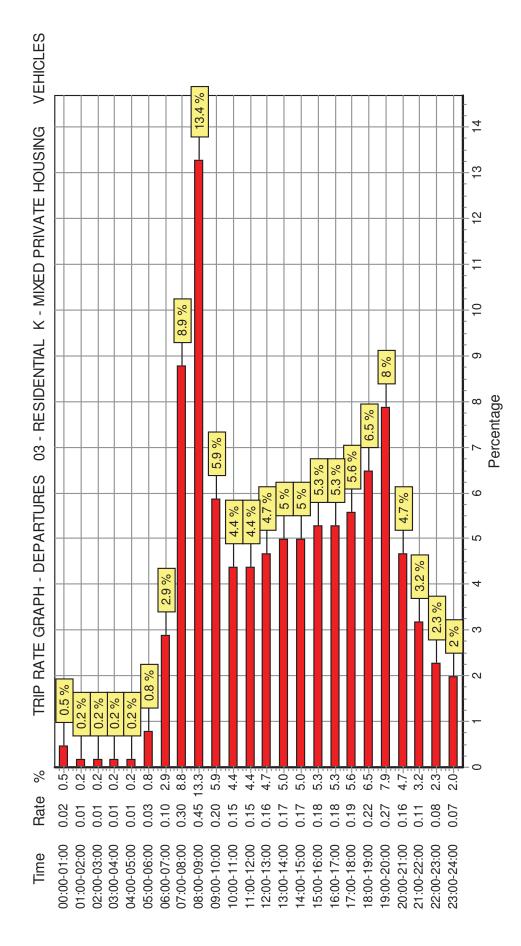
TRICS 2006(a)

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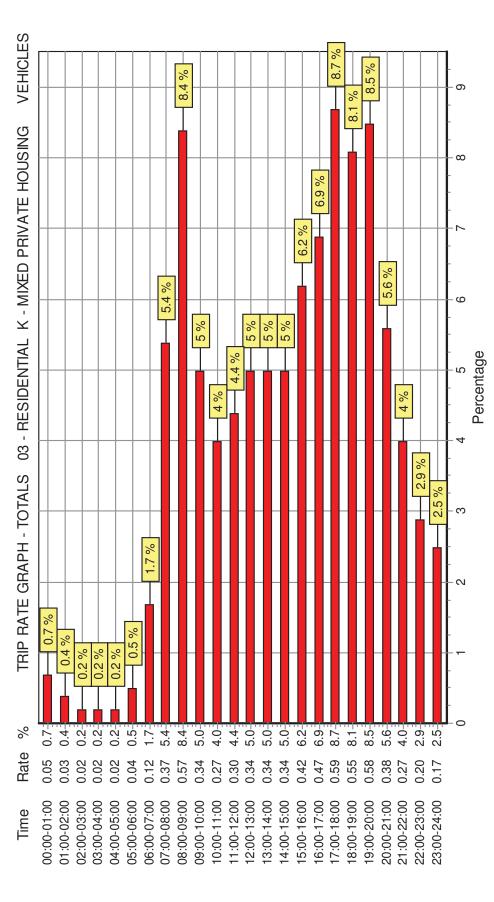
(C) 2006 JMP Consulting on behalf of the TRICS Consortium

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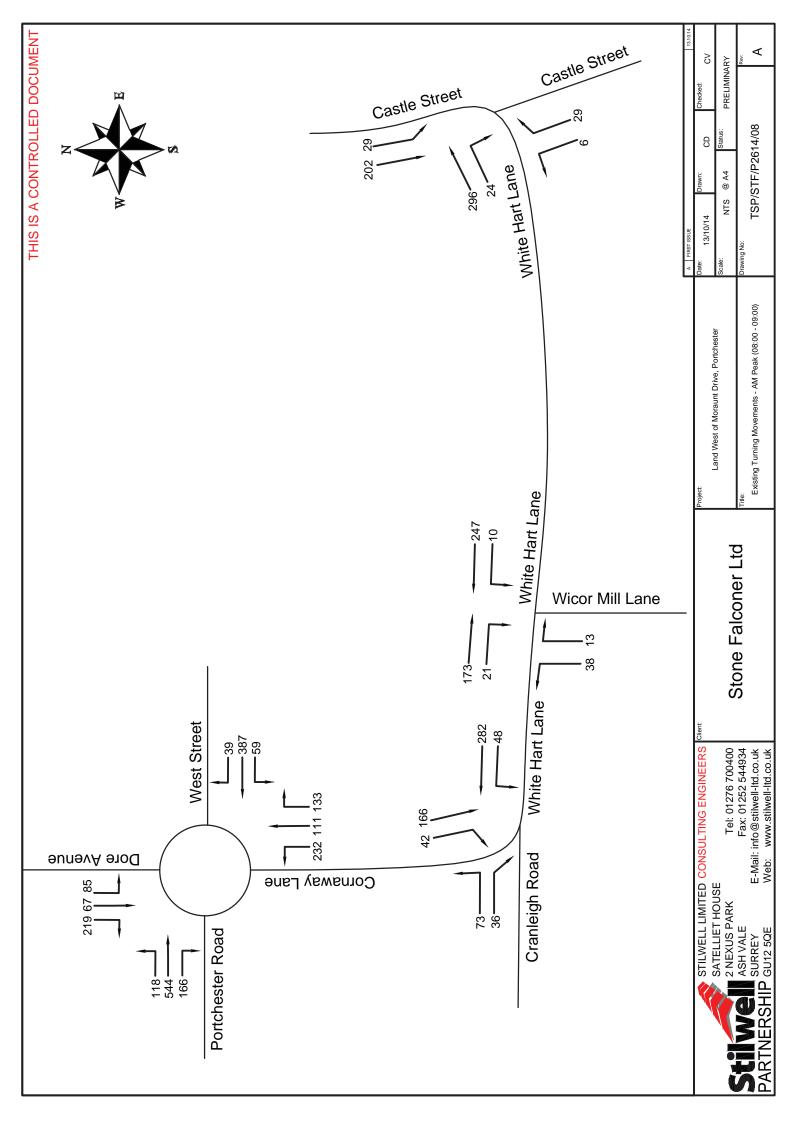
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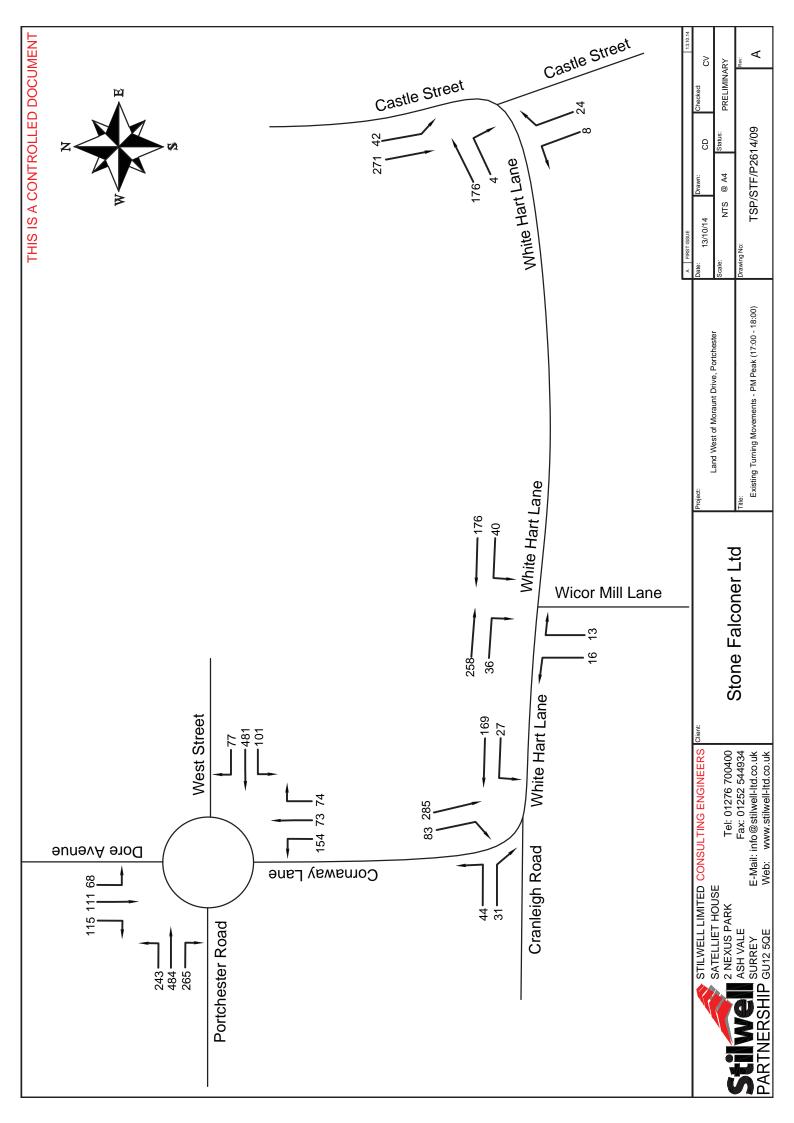
Licence No: 500000



### APPENDIX M

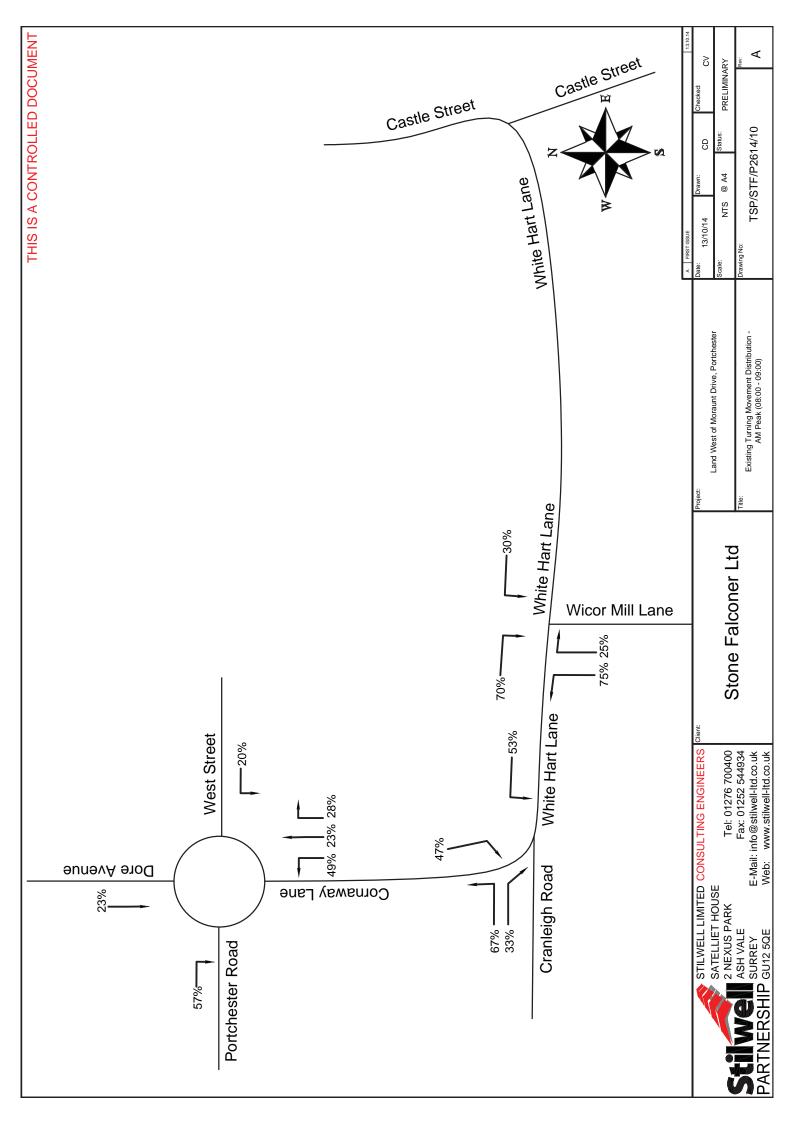
### Existing AM and PM Peak Hour Flows

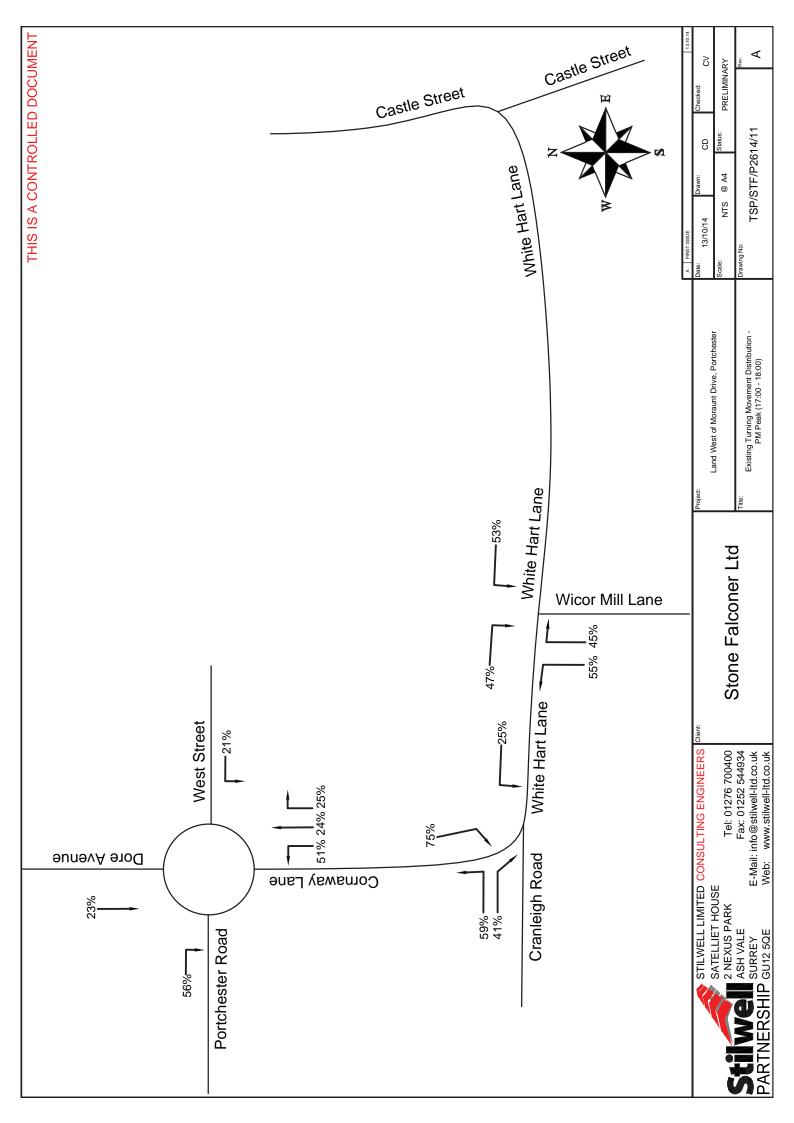




### **APPENDIX N**

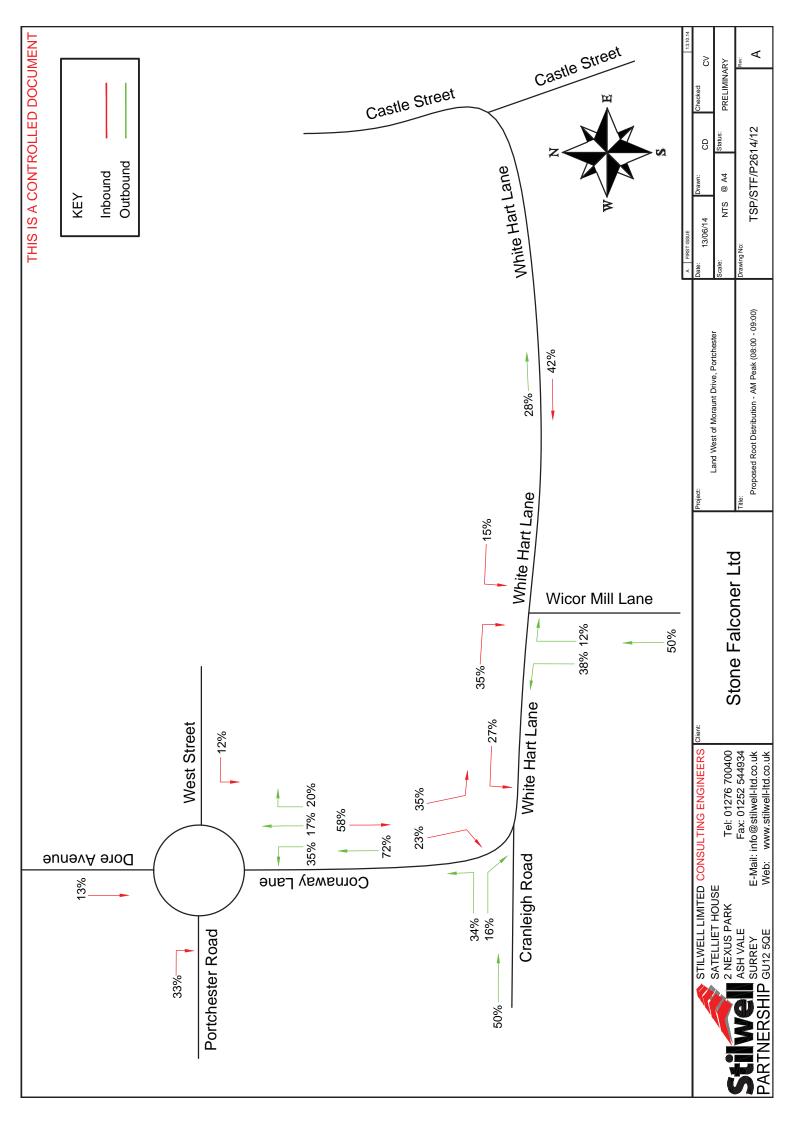
### Existing AM and PM Root Distribution Diagrams

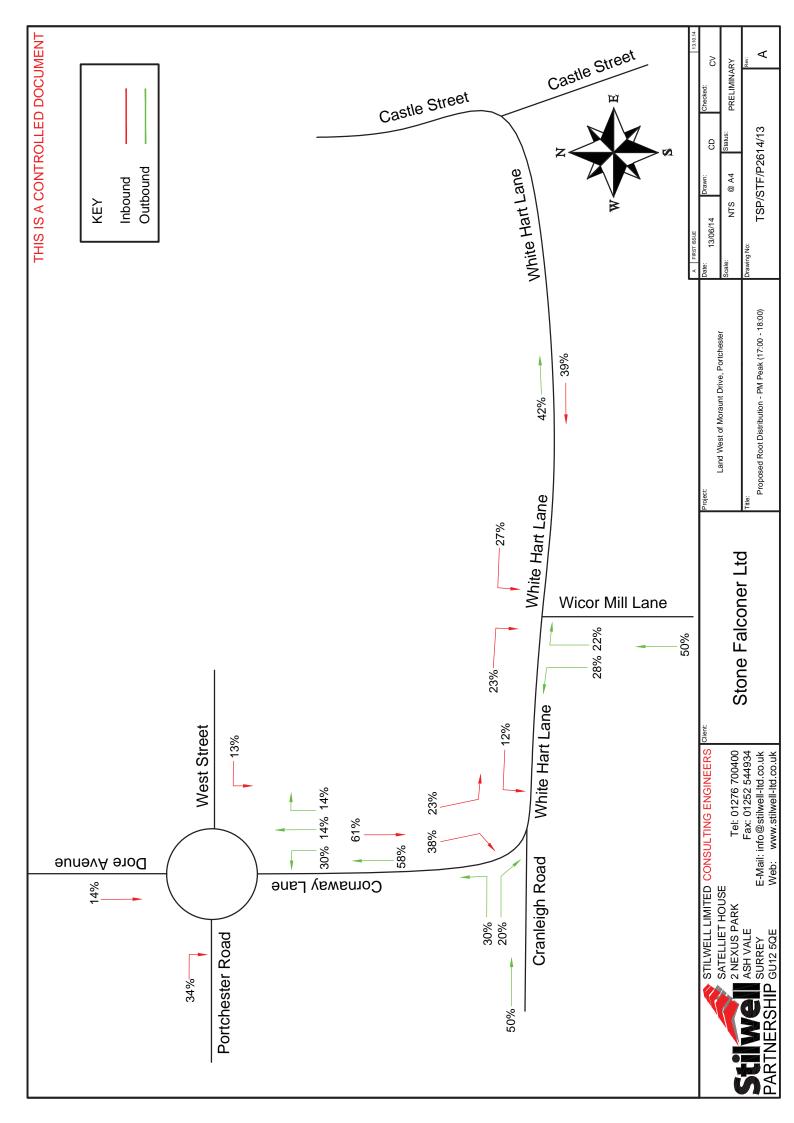




### **APPENDIX P**

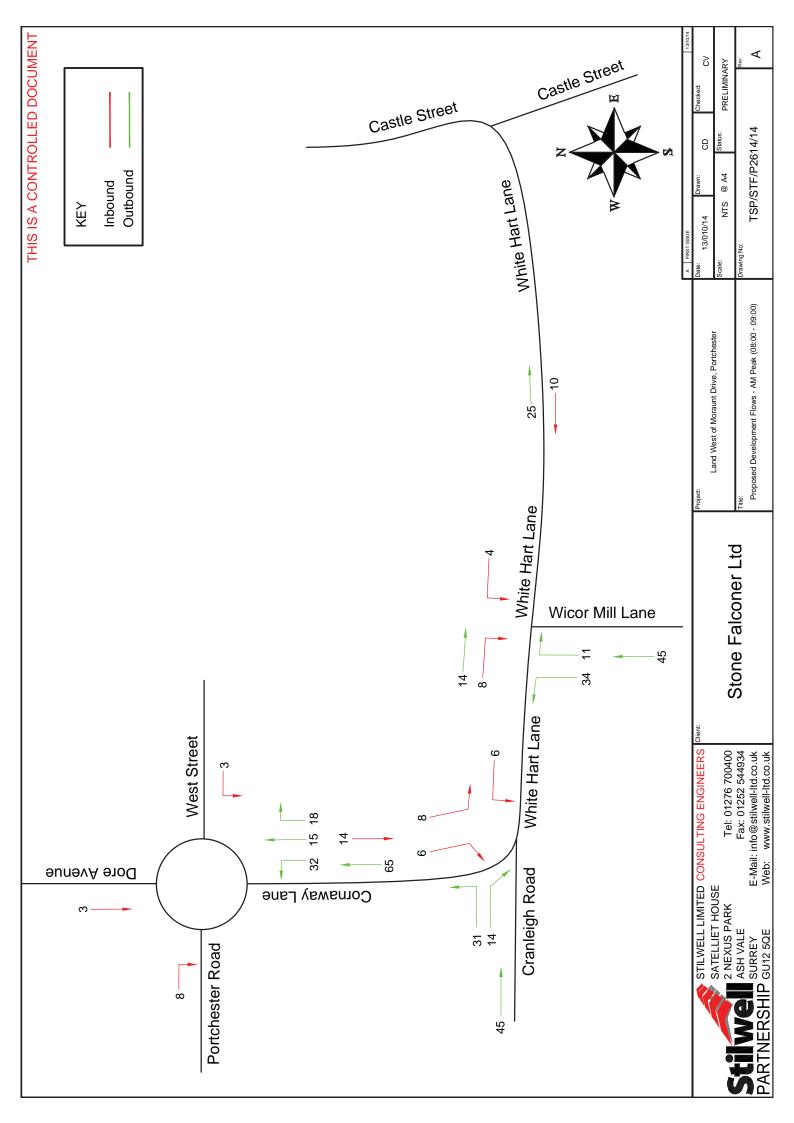
### Proposed AM and PM Root Distribution Diagrams

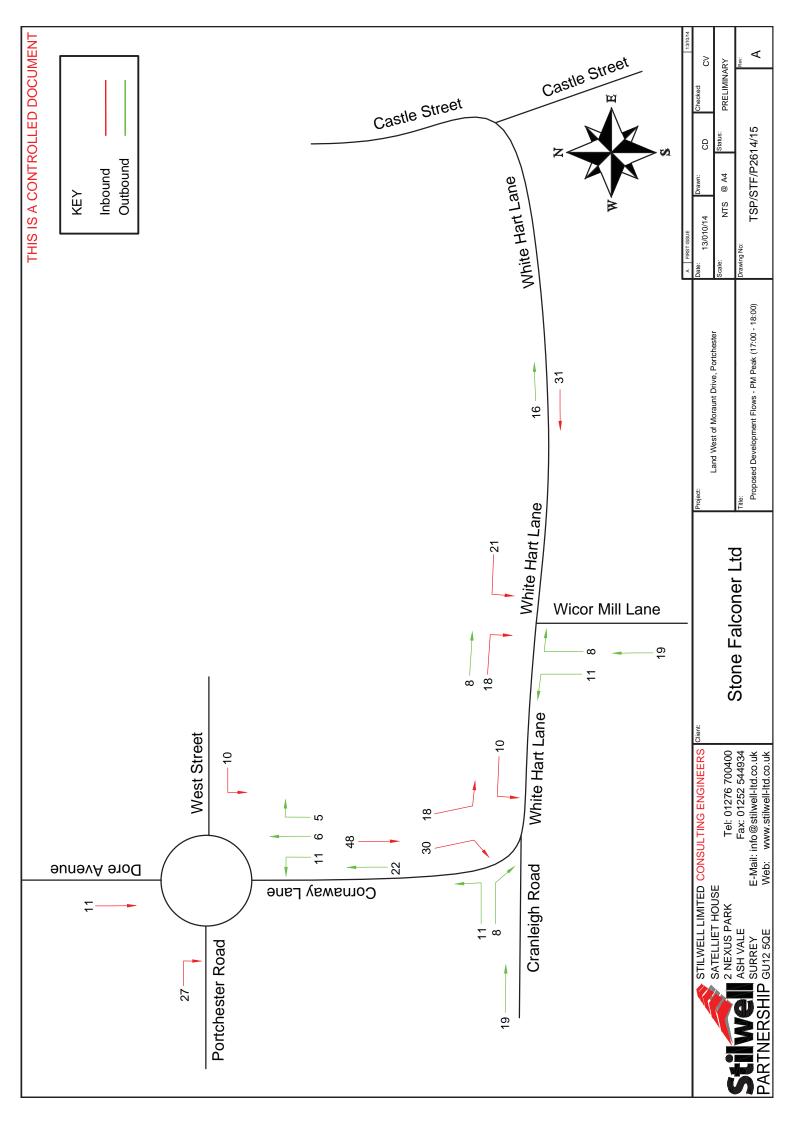




### APPENDIX Q

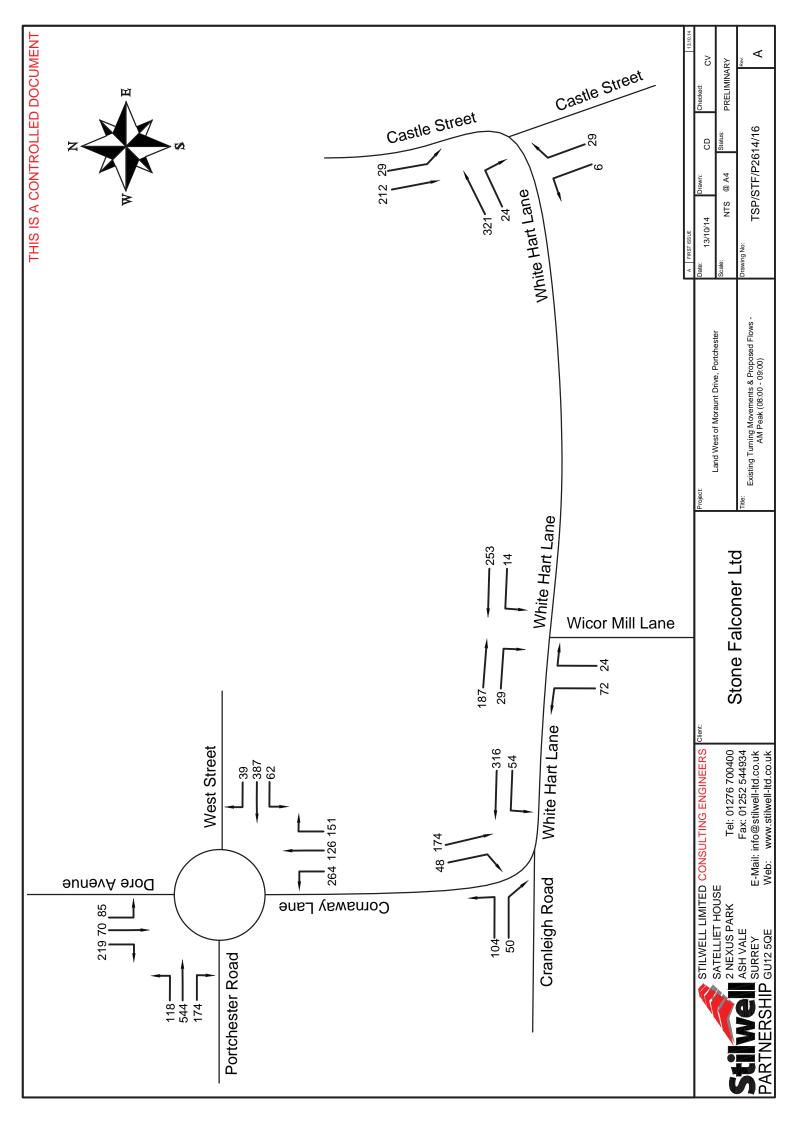
### Proposed AM and PM Peak Hour Flows

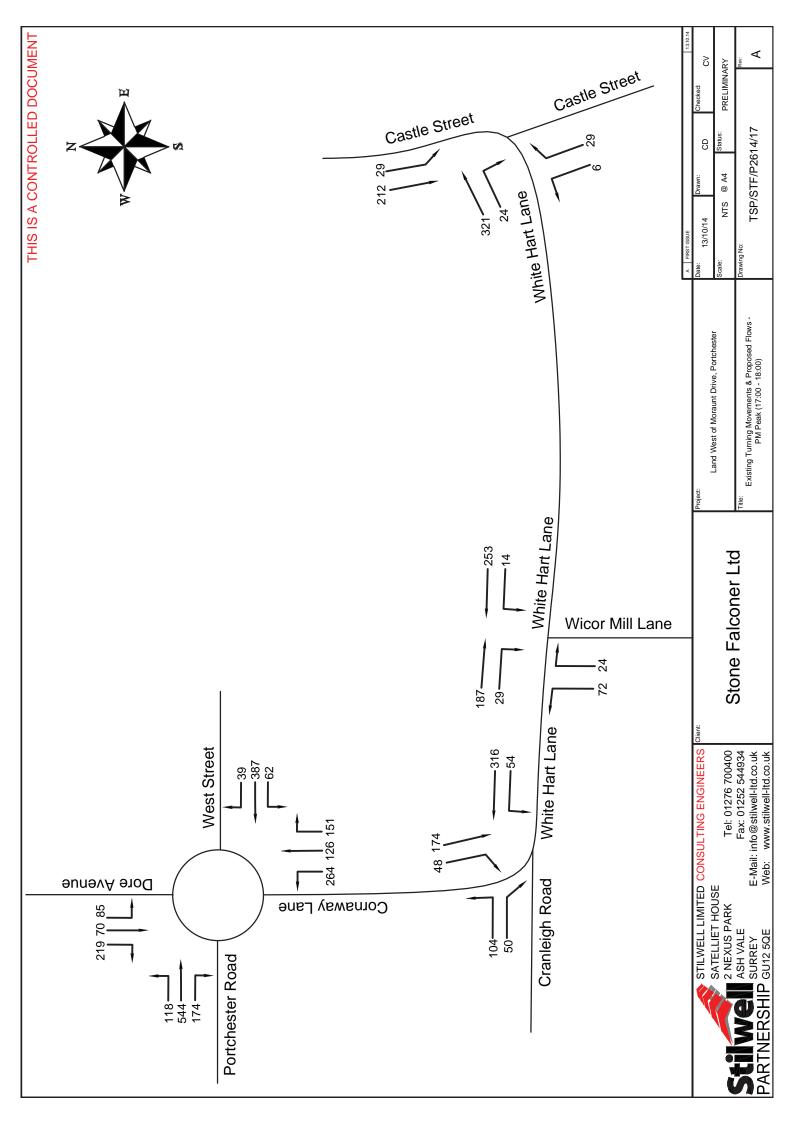




## **APPENDIX** R

# AM and PM Peak Hour Composite Flows





# APPENDIX S Junctions 8 Output



# Junctions 8 PICADY 8 - Priority Intersection Module Version: 8.0.2.316 [14 Feb 2013] © Copyright TRL Limited, 2013 © Copyright TRL Limited, 2014 For sales and distribution information, program advice and maintenance, contact TRL: Tel: +44 (0)1344 770758 Formal: software@trl.co.uk Web: http://www.trlsoftware.co.uk 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: White Hart Lane Cranleigh Road.arc8 Path: S:\Clients\Stone Falconer Ltd\Land West of Moraunt Drive, Fareham - P2614\Junctions 8 Report generation date: 14/10/2014 14:26:53

- « (Default Analysis Set) Scenario 1, AM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

## Summary of junction performance

|             | АМ          |           |       |            |  |  |  |  |
|-------------|-------------|-----------|-------|------------|--|--|--|--|
|             | Queue (Veh) | Delay (s) | RFC   | LOS        |  |  |  |  |
|             | A1 -        | Scenario  | 1     | ti i i i i |  |  |  |  |
| Stream B-AC | 0.24        | 7.14      | 0.19  | A          |  |  |  |  |
| Stream C-AB | 0.14        | 5.67      | 0.09  | A          |  |  |  |  |
| Stream C-A  | -           |           |       |            |  |  |  |  |
| Stream A-B  | -           | -         | -     |            |  |  |  |  |
| Stream A-C  | 2.1         | 2         | 120 ( | 1          |  |  |  |  |

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

"D1 - Scenario 1, AM " model duration: 07:45 - 09:15

"D2 - Scenario 2, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.2.316 at 14/10/2014 14:26:53

## File summary

#### **File Description**

| Title       | White Hart Lane / Cranleigh Road Am Existing       |
|-------------|--|
| Location    | Bart Street and the contract street and the second |
| Site Number |  |
| Date        | 13/10/2014   |
| Version     | COMPLEX STORE                                      |
| Status      | (new file)   |
| Identifier  | Charles of Carlor V                                |
| Client      |  |
| Jobnumber   |  |
| Enumerator  |  |
| Description |  |



## **Analysis Options**

| Vehicle Length | Do Queue   | Calculate Residual | Residual Capacity Criteria | RFC       | Average Delay Threshold | Queue Threshold |
|----------------|------------|--------------------|----------------------------|-----------|-------------------------|-----------------|
| (m)            | Variations | Capacity           | Type                       | Threshold | (s)                     | (PCU)           |
| 5.75           |            |                    | N/A                        | 0.85      | 36.00                   | 20.00           |

## Units

| Distance Units | Speed Units | Traffic Units Input | Traffic Units Results | Flow Units | Average Delay Units | Total Delay Units | Rate Of Delay Units |
|----------------|-------------|---------------------|-----------------------|------------|---------------------|-------------------|---------------------|
| m              | kph         | Veh                 | Veh                   | perHour    | S                   | -Min              | perMin              |

# (Default Analysis Set) - Scenario 1, AM

## **Data Errors and Warnings**

No errors or warnings

## Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | <b>Reason For Scaling Factors</b> |
|------------------------|-------------|--------|---------------------------------|-----------------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                                   |

#### **Demand Set Details**

| Name              | Scenario<br>Name | Time<br>Period<br>Name | Description | Traffic<br>Profile<br>Type | Model Start<br>Time (HH:mm) | Model Finish<br>Time (HH:mm) | Model Time<br>Period Length<br>(min) | Time Segment<br>Length (min) | Single Time<br>Segment Only | Locked |
|-------------------|------------------|------------------------|-------------|----------------------------|-----------------------------|------------------------------|--------------------------------------|------------------------------|-----------------------------|--------|
| Scenario 1,<br>AM | Scenario 1       | АМ                     |             | ONE<br>HOUR                | 07:45                       | 09:15                        | 90                                   | 15                           |                             |        |

# **Junction Network**

## Junctions

| Name                             | Junction Type | Major Road Direction | Arm Order | Junction Delay (s) | Junction LOS |
|----------------------------------|---------------|----------------------|-----------|--------------------|--------------|
| White Hart Lane / Cranleigh Road | T-Junction    | Two-way              | A,B,C     | 6.66               | A            |

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

#### Arms

| Arm | Name            | Description | Arm Type |
|-----|-----------------|-------------|----------|
| Α   | White Hart Lane |             | Major    |
| в   | Cranleigh Road  |             | Minor    |
| С   | White Hart Lane |             | Major    |

## **Major Arm Geometry**

| Arm | Width of<br>carriageway (m) | Has kerbed central reserve | Width of kerbed central reserve (m) | Has right<br>turn bay | Width For Right<br>Turn (m) | Visibility For Right<br>Turn (m) | Blocks? | Blocking Queue<br>(PCU) |
|-----|-----------------------------|----------------------------|-------------------------------------|-----------------------|-----------------------------|----------------------------------|---------|-------------------------|
| С   | 7.50                        |                            | 0.00                                |                       | 2.20                        | 150.00                           | ~       | 0.00                    |

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



## **Minor Arm Geometry**

| Arm | Minor<br>Arm<br>Type | Lane<br>Width<br>(m) | Lane<br>Width<br>(Left) (m) | Lane Width<br>(Right) (m) | Width at<br>give-way<br>(m) | Width at<br>5m (m) | Width at<br>10m (m) | Width at<br>15m (m) | Width at 20m (m) | Estimate<br>Flare<br>Length | Flare<br>Length<br>(PCU) | Visibility To<br>Left (m) | Visibility To<br>Right (m) |
|-----|----------------------|----------------------|-----------------------------|---------------------------|-----------------------------|--------------------|---------------------|---------------------|------------------|-----------------------------|--------------------------|---------------------------|----------------------------|
| в   | One<br>lane          | 3.40                 |                             | -                         |                             |                    |                     |                     |                  |                             | 1.                       | 200                       | 200                        |

## Pedestrian Crossings

| Arm | Crossing Type |
|-----|---------------|
| Α   | None          |
| В   | None          |
| С   | None          |

## Slope / Intercept / Capacity

#### **Priority Intersection Slopes and Intercepts**

| Junction | Stream | Intercept<br>(Veh/hr) | Slope<br>for<br>A-B | Slope<br>for<br>A-C | Slope<br>for<br>C-A | Slope<br>for<br>C-B |
|----------|--------|-----------------------|---------------------|---------------------|---------------------|---------------------|
| 1        | B-A    | 676.039               | 0.115               | 0.291               | 0.183               | 0.416               |
| 1        | B-C    | 779.872               | 0.112               | 0.282               | -                   | -                   |
| 1        | C-B    | 660.830               | 0.239               | 0.239               | 1                   | 1 is                |

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 Flows**

#### **Demand Set Data Options**

| Default<br>Vehicle<br>Mix | Vehicle<br>Mix Varies<br>Over Time |   | Vehicle Mix<br>Varies<br>Over Entry | Vehicle Mix<br>Source | PCU<br>Factor for<br>a HV<br>(PCU) | Default<br>Turning<br>Proportions | Estimate<br>from<br>entry/exit<br>counts | Turning<br>Proportions<br>Vary Over Time | Turning<br>Proportions<br>Vary Over Turn | Turning<br>Proportions<br>Vary Over Entry |
|---------------------------|------------------------------------|---|-------------------------------------|-----------------------|------------------------------------|-----------------------------------|--|--|--|---|
|                           |                                    | ~ | ~                                   | HV<br>Percentages     | 2.00                               |                                   |  |  | ~  | 1   |

# **Entry Flows**

## **General Flows Data**

| Arm | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-----|--------------|--------------------|------------------------------|-------------------------|
| Α   | ONE HOUR     | ~                  | 330.00                       | 100.000                 |
| В   | ONE HOUR     | 1                  | 109.00                       | 100.000                 |
| С   | ONE HOUR     | 1                  | 208.00                       | 100.000                 |



# **Turning Proportions**

#### Turning Counts or Proportions (Veh/hr) - Junction 1 (for whole period)

|      |   | То      |        |         |  |  |  |  |
|------|---|---------|--------|---------|--|--|--|--|
|      |   | Α       | В      | С       |  |  |  |  |
| -    | Α | 0.000   | 48.000 | 282.000 |  |  |  |  |
| From | В | 36.000  | 0.000  | 73.000  |  |  |  |  |
|      | С | 166.000 | 42.000 | 0.000   |  |  |  |  |

#### Turning Proportions (Veh) - Junction 1 (for whole period)

|      | То |      |      |      |  |  |  |
|------|----|------|------|------|--|--|--|
|      |    | Α    | В    | С    |  |  |  |
| _    | Α  | 0.00 | 0.15 | 0.85 |  |  |  |
| From | В  | 0.33 | 0.00 | 0.67 |  |  |  |
|      | С  | 0.80 | 0.20 | 0.00 |  |  |  |

# Vehicle Mix

#### Average PCU Per Vehicle - Junction 1 (for whole period)

|      | То |       |       |       |  |  |  |
|------|----|-------|-------|-------|--|--|--|
|      |    | Α     | В     | С     |  |  |  |
| -    | Α  | 1.000 | 1.000 | 1.000 |  |  |  |
| From | В  | 1.000 | 1.000 | 1.000 |  |  |  |
|      | С  | 1.000 | 1.000 | 1.000 |  |  |  |

### Heavy Vehicle Percentages - Junction 1 (for whole period)

|      | То |       |       |       |  |  |
|------|----|-------|-------|-------|--|--|
|      |    | Α     | В     | С     |  |  |
| _    | Α  | 0.000 | 0.000 | 0.000 |  |  |
| From | В  | 0.000 | 0.000 | 0.000 |  |  |
|      | С  | 0.000 | 0.000 | 0.000 |  |  |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 0.19    | 7,14          | 0.24            | A       |
| C-AB   | 0.09    | 5.67          | 0.14            | А       |
| C-A    | -       |               |                 | - 17    |
| A-B    |         | 2 <b>1</b>    | i - i           | -       |
| A-C    |         | 123           | -               | 2       |



## Main Results for each time segment

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC          | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|--------------|-----------------|-----------|-----|
| B-AC   | 82.06                 | 81.50               | 0.00                       | 661.89            | 0.124        | 0.14            | 6.198     | A   |
| C-AB   | 38.47                 | 38.16               | 0.00                       | 684.22            | 0.056        | 0.08            | 5.572     | A   |
| C-A    | 118.12                | 118.12              | 0.00                       | -                 | ( <b>-</b> ) |                 | -         | 1.4 |
| A-B    | 36.14                 | 36.14               | 0.00                       | -50               | 5            | 27.5            | 0         | -   |
| A-C    | 212.30                | 212.30              | 0.00                       | -<br>             | ंत्रां       | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 97.99                 | 97.84               | 0.00                       | 645.99            | 0.152 | 0.18            | 6.565     | A   |
| C-AB   | 47.87                 | 47.78               | 0.00                       | 689.56            | 0.069 | 0.10            | 5.611     | A   |
| C-A    | 139.12                | 139.12              | 0.00                       |                   | ) e ( | 1.4             |           |     |
| A-B    | 43.15                 | 43.15               | 0.00                       |                   |       | 9 <b>5</b> 8    | 0         | -   |
| A-C    | 253.51                | 253.51              | 0.00                       | -                 |       | -               |           | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC    | End Queue (Veh) | Delay (s)    | LOS  |
|--------|-----------------------|---------------------|----------------------------|-------------------|--------|-----------------|--------------|------|
| B-AC   | 120.01                | 119.78              | 0.00                       | 623.90            | 0.192  | 0.24            | 7.137        | A    |
| C-AB   | 61.99                 | 61.85               | 0.00                       | 697.27            | 0.089  | 0.14            | 5.668        | A    |
| C-A    | 167.02                | 167.02              | 0.00                       | -                 | ( e (  | 1.              | -            | 1.20 |
| A-B    | 52.85                 | 52.85               | 0.00                       | -50               |        | 954             | ( <b>D</b> ) | -    |
| A-C    | 310.49                | 310.49              | 0.00                       | 1<br>1 - 11       | ंत्रां | -               | -            | -    |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 120.01                | 120.01              | 0.00                       | 623.88            | 0.192 | 0.24            | 7.143     | A   |
| C-AB   | 62.03                 | 62.02               | 0.00                       | 697.31            | 0.089 | 0.14            | 5.668     | A   |
| C-A    | 166.99                | 166.99              | 0.00                       |                   | ) e ( | 12-7            | -         |     |
| A-B    | 52.85                 | 52.85               | 0.00                       | -56               |       | 253             | (7)       | - 1 |
| A-C    | 310.49                | 310.49              | 0.00                       | -                 |       | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 97.99                 | 98.22               | 0.00                       | 645.95            | 0.152 | 0.18            | 6.574     | A   |
| C-AB   | 47.91                 | 48.05               | 0.00                       | 689.62            | 0.069 | 0.10            | 5.613     | A   |
| C-A    | <mark>139.08</mark>   | 139.08              | 0.00                       | -                 | ) = ) | -               | -         |     |
| A-B    | 43.15                 | 43.15               | 0.00                       | -50               |       | 27.5            | (7)       | -   |
| A-C    | 253.51                | 253.51              | 0.00                       | -<br>             |       | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 82.06                 | 82.21               | 0.00                       | 661.82            | 0.124 | 0.14            | 6.212     | A   |
| C-AB   | 38.54                 | 38.64               | 0.00                       | 684.27            | 0.056 | 0.08            | 5.577     | A   |
| C-A    | 118.05                | 118.05              | 0.00                       |                   | ) e ( | 1.4             | -         |     |
| A-B    | 36.14                 | 36.14               | 0.00                       | -36               |       | ्र <u>स्</u> रः | (T)       |     |
| A-C    | 212.30                | 212.30              | 0.00                       | -<br>             | - e 1 | -               | -         | -   |



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Filename: White Hart Lane Cranleigh Road AM and PM Existing.arc8 Path: S:\Clients\Stone Falconer Ltd\Land West of Moraunt Drive, Fareham - P2614\Junctions 8 Report generation date: 14/10/2014 14:30:28

- « (Default Analysis Set) Scenario 2, PM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

## Summary of junction performance

|             |             | РМ         |      |        |  |  |  |  |
|-------------|-------------|------------|------|--------|--|--|--|--|
|             | Queue (Veh) | Delay (s)  | RFC  | LOS    |  |  |  |  |
|             | A1 -        | Scenario 3 | 2    | tini j |  |  |  |  |
| Stream B-AC | 0.15        | 6.64       | 0.13 | A      |  |  |  |  |
| Stream C-AB | 0.33        | 5.39       | 0.18 | А      |  |  |  |  |
| Stream C-A  | -           |            |      |        |  |  |  |  |
| Stream A-B  | -           | -          | -    |        |  |  |  |  |
| Stream A-C  | 12 I        | -          | 20   | 1      |  |  |  |  |

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

"D1 - Scenario 1, AM" model duration: 07:45 - 09:15

"D2 - Scenario 2, PM " model duration: 16:45 - 18:15

Run using Junctions 8.0.2.316 at 14/10/2014 14:30:28

## File summary

#### **File Description**

| Title       | White Hart Lane / Cranleigh Road PM Existing  |
|-------------|---|
| Location    | Band distances and the second s |
| Site Number |   |
| Date        | 13/10/2014  |
| Version     | Second and  |
| Status      | (new file)  |
| Identifier  | 641   |
| Client      |   |
| Jobnumber   |   |
| Enumerator  |   |
| Description |   |



## **Analysis Options**

| Vehicle Length | Do Queue   | Calculate Residual | Residual Capacity Criteria | RFC       | Average Delay Threshold | Queue Threshold |
|----------------|------------|--------------------|----------------------------|-----------|-------------------------|-----------------|
| (m)            | Variations | Capacity           | Type                       | Threshold | (s)                     | (PCU)           |
| 5.75           |            |                    | N/A                        | 0.85      | 36.00                   | 20.00           |

## Units

| Distance Units | Speed Units | Traffic Units Input | Traffic Units Results | Flow Units | Average Delay Units | Total Delay Units | Rate Of Delay Units |
|----------------|-------------|---------------------|-----------------------|------------|---------------------|-------------------|---------------------|
| m              | kph         | Veh                 | Veh                   | perHour    | S                   | -Min              | perMin              |

# (Default Analysis Set) - Scenario 2, PM

## **Data Errors and Warnings**

No errors or warnings

## Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

#### **Demand Set Details**

| Name              | Scenario<br>Name | Time<br>Period<br>Name | Description | Traffic<br>Profile<br>Type | Model Start<br>Time (HH:mm) | Model Finish<br>Time (HH:mm) | Model Time<br>Period Length<br>(min) | Time Segment<br>Length (min) | Single Time<br>Segment Only | Locked |
|-------------------|------------------|------------------------|-------------|----------------------------|-----------------------------|------------------------------|--------------------------------------|------------------------------|-----------------------------|--------|
| Scenario<br>2, PM | Scenario 2       | PM                     |             | ONE<br>HOUR                | 16:45                       | 18:15                        | 90                                   | 15                           |                             |        |

# **Junction Network**

## Junctions

| Name                             | Junction Type | Major Road Direction | Arm Order | Junction Delay (s) | Junction LOS |
|----------------------------------|---------------|----------------------|-----------|--------------------|--------------|
| White Hart Lane / Cranleigh Road | T-Junction    | Two-way              | A,B,C     | 5.86               | A            |

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

#### Arms

| Arm | Name            | Description | Arm Type |
|-----|-----------------|-------------|----------|
| Α   | White Hart Lane |             | Major    |
| в   | Cranleigh Road  |             | Minor    |
| С   | White Hart Lane |             | Major    |

## **Major Arm Geometry**

| Arm | Width of<br>carriageway (m) | Has kerbed central reserve | Width of kerbed central reserve (m) | Has right<br>turn bay | Width For Right<br>Turn (m) | Visibility For Right<br>Turn (m) | Blocks? | Blocking Queue<br>(PCU) |
|-----|-----------------------------|----------------------------|-------------------------------------|-----------------------|-----------------------------|----------------------------------|---------|-------------------------|
| С   | 7.50                        |                            | 0.00                                |                       | 2.20                        | 150.00                           | ~       | 0.00                    |

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



## **Minor Arm Geometry**

| Arm | Minor<br>Arm<br>Type | Lane<br>Width<br>(m) | Lane<br>Width<br>(Left) (m) | Lane Width<br>(Right) (m) | Width at<br>give-way<br>(m) | Width at<br>5m (m) | Width at<br>10m (m) | Width at<br>15m (m) | Width at 20m (m) | Estimate<br>Flare<br>Length | Flare<br>Length<br>(PCU) | Visibility To<br>Left (m) | Visibility To<br>Right (m) |
|-----|----------------------|----------------------|-----------------------------|---------------------------|-----------------------------|--------------------|---------------------|---------------------|------------------|-----------------------------|--------------------------|---------------------------|----------------------------|
| в   | One<br>lane          | 3.40                 |                             | -                         |                             |                    |                     |                     |                  |                             | 1                        | 200                       | 200                        |

## Pedestrian Crossings

| Arm | Crossing Type |
|-----|---------------|
| Α   | None          |
| В   | None          |
| С   | None          |

## Slope / Intercept / Capacity

#### **Priority Intersection Slopes and Intercepts**

| Junction | Stream | Intercept<br>(Veh/hr) | Slope<br>for<br>A-B | Slope<br>for<br>A-C | Slope<br>for<br>C-A | Slope<br>for<br>C-B |
|----------|--------|-----------------------|---------------------|---------------------|---------------------|---------------------|
| 1        | B-A    | 676.039               | 0.115               | 0.291               | 0.183               | 0.416               |
| 1        | B-C    | 779.872               | 0.112               | 0.282               | -                   | -                   |
| 1        | C-B    | 660.830               | 0.239               | 0.239               | 1                   | 1 in 1              |

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 Flows**

## **Demand Set Data Options**

| Default<br>Vehicle<br>Mix | Vehicle<br>Mix Varies<br>Over Time |   | Vehicle Mix<br>Varies<br>Over Entry | Vehicle Mix<br>Source | PCU<br>Factor for<br>a HV<br>(PCU) | Default<br>Turning<br>Proportions | Estimate<br>from<br>entry/exit<br>counts | Turning<br>Proportions<br>Vary Over Time | Turning<br>Proportions<br>Vary Over Turn | Turning<br>Proportions<br>Vary Over Entry |
|---------------------------|------------------------------------|---|-------------------------------------|-----------------------|------------------------------------|-----------------------------------|--|--|--|---|
| 1                         |                                    | ~ | ~                                   | HV<br>Percentages     | 2.00                               |                                   |  | 1  | ~  | ~   |

# **Entry Flows**

## **General Flows Data**

| Arm | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-----|--------------|--------------------|------------------------------|-------------------------|
| A   | ONE HOUR     | ~                  | 196.00                       | 100.000                 |
| в   | ONE HOUR     | 1                  | 75.00                        | 100.000                 |
| С   | ONE HOUR     | 1                  | 368.00                       | 100.000                 |



# **Turning Proportions**

#### Turning Counts or Proportions (Veh/hr) - Junction 1 (for whole period)

|      |   | То      |        |         |  |  |  |  |
|------|---|---------|--------|---------|--|--|--|--|
|      |   | A       | В      | С       |  |  |  |  |
|      | Α | 0.000   | 27.000 | 169.000 |  |  |  |  |
| From | В | 31.000  | 0.000  | 44.000  |  |  |  |  |
|      | С | 285.000 | 83.000 | 0.000   |  |  |  |  |

#### Turning Proportions (Veh) - Junction 1 (for whole period)

|      | То |      |      |      |  |  |  |
|------|----|------|------|------|--|--|--|
|      |    | Α    | В    | С    |  |  |  |
| _    | Α  | 0.00 | 0.14 | 0.86 |  |  |  |
| From | В  | 0.41 | 0.00 | 0.59 |  |  |  |
|      | С  | 0.77 | 0.23 | 0.00 |  |  |  |

# Vehicle Mix

#### Average PCU Per Vehicle - Junction 1 (for whole period)

|      | ļ. | То    |       |       |  |  |  |  |  |
|------|----|-------|-------|-------|--|--|--|--|--|
|      |    | Α     | В     | С     |  |  |  |  |  |
| -    | Α  | 1.000 | 1.000 | 1.000 |  |  |  |  |  |
| From | В  | 1.000 | 1.000 | 1.000 |  |  |  |  |  |
|      | С  | 1.000 | 1.000 | 1.000 |  |  |  |  |  |

### Heavy Vehicle Percentages - Junction 1 (for whole period)

|      | То |       |       |       |  |  |  |
|------|----|-------|-------|-------|--|--|--|
|      |    | Α     | В     | С     |  |  |  |
| _    | Α  | 0.000 | 0.000 | 0.000 |  |  |  |
| From | В  | 0.000 | 0.000 | 0.000 |  |  |  |
|      | С  | 0.000 | 0.000 | 0.000 |  |  |  |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 0.13    | 6.64          | 0.15            | A       |
| C-AB   | 0.18    | 5.39          | 0.33            | А       |
| C-A    |         | 350           |                 | 17      |
| A-B    |         | 3 <b>4</b> 3  | -               |         |
| A-C    |         | 242           | -               | - 92    |



## Main Results for each time segment

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 56.46                 | 56.09               | 0.00                       | 660.36            | 0.086 | 0.09            | 5.953     | A   |
| C-AB   | 86.65                 | 85.94               | 0.00                       | 765.31            | 0.113 | 0.18            | 5.297     | A   |
| C-A    | 190.40                | 190.40              | 0.00                       | -                 | ) = ) |                 | -         | 1   |
| A-B    | 20.33                 | 20.33               | 0.00                       | -50               |       | 27.0            | (T)       | -   |
| A-C    | 127.23                | 127.23              | 0.00                       | 5<br>1-11         | ਿਤਾਂ  | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 67.42                 | 67.33               | 0.00                       | 645.45            | 0.104 | 0.12            | 6.227     | A   |
| C-AB   | 110.52                | 110.29              | 0.00                       | 786.52            | 0.141 | 0.24            | 5.327     | A   |
| C-A    | 220.31                | 220.31              | 0.00                       |                   | ) e ( | 1.4             | [ = ]     | -   |
| A-B    | 24.27                 | 24.27               | 0.00                       |                   |       | 9 <b>7</b> .5   | 0         |     |
| A-C    | 151.93                | 151.93              | 0.00                       | -                 |       | -               |           | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 82.58                 | 82.44               | 0.00                       | 624.61            | 0.132 | 0.15            | 6.638     | A   |
| C-AB   | 147,85                | 147.46              | 0.00                       | 816.07            | 0.181 | 0.33            | 5,389     | A   |
| C-A    | 257.33                | 257.33              | 0.00                       | (a)               | ) e ( | 1               | _ = _     | -   |
| A-B    | 29.73                 | 29.73               | 0.00                       |                   |       | 27.5            |           | -   |
| A-C    | 186.07                | 186.07              | 0.00                       | · · · · ·         |       | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 82.58                 | 82.57               | 0.00                       | 624.54            | 0.132 | 0.15            | 6.641     | A   |
| C-AB   | 147.96                | 147.96              | 0.00                       | 816.20            | 0.181 | 0.33            | 5.393     | A   |
| C-A    | 257.21                | 257.21              | 0.00                       |                   | ) e ( | 12-7            | -         |     |
| A-B    | 29.73                 | 29.73               | 0.00                       | -56               |       | 253             | (7)       | -   |
| A-C    | 186.07                | 186.07              | 0.00                       | -                 |       | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 67.42                 | 67.56               | 0.00                       | 645.35            | 0.104 | 0.12            | 6.231     | A   |
| C-AB   | 110.67                | 111.04              | 0.00                       | 786.73            | 0.141 | 0.24            | 5.337     | A   |
| C-A    | 220.15                | 220.15              | 0.00                       | -                 | ) - j | 1.              | -         |     |
| A-B    | 24.27                 | 24.27               | 0.00                       |                   |       | 2.54            | (7)       | -   |
| A-C    | 151.93                | 151.93              | 0.00                       |                   |       | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 56.46                 | 56.56               | 0.00                       | 660.18            | 0.086 | 0.09            | 5.964     | A   |
| C-AB   | 86.91                 | 87.14               | 0.00                       | 765.51            | 0.114 | 0.18            | 5.311     | A   |
| C-A    | 190.14                | 190.14              | 0.00                       |                   | ) = ) | 5-7             |           |     |
| A-B    | 20.33                 | 20.33               | 0.00                       |                   | 5     | 0 <b>7</b> .0   | (7)       |     |
| A-C    | 127.23                | 127.23              | 0.00                       |                   | ं ल   | -               |           |     |



# Junctions 8 PICADY 8 - Priority Intersection Module Version: 8.0.2.316 [14 Feb 2013] © Copyright TRL Limited, 2013] © Copyright TRL Limited, 2014 For sales and distribution information, program advice and maintenance, contact TRL: Tel: +44 (0)1344 770758 For sales and distribution information, program advice and maintenance, contact TRL: Tel: +44 (0)1344 770758 E-mail: software@trl.co.uk Web: http://www.trlsoftware.co.uk 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: White Hart Lane Cranleigh Road AM and PM Existing.arc8 Path: S:\Clients\Stone Falconer Ltd\Land West of Moraunt Drive, Fareham - P2614\Junctions 8 Report generation date: 14/10/2014 14:46:58

- « (Default Analysis Set) Scenario 1, AM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

## Summary of junction performance

|             |             | АМ        |      |          |  |  |  |
|-------------|-------------|-----------|------|----------|--|--|--|
|             | Queue (Veh) | Delay (s) | RFC  | LOS      |  |  |  |
|             | A1 -        | Scenario  | 1    | en en el |  |  |  |
| Stream B-AC | 0.38        | 8.15      | 0.28 | A        |  |  |  |
| Stream C-AB | 0.17        | 5.79      | 0.11 | A        |  |  |  |
| Stream C-A  | -           |           |      | -        |  |  |  |
| Stream A-B  | -           | -         | -    | -        |  |  |  |
| Stream A-C  | 2.1         |           | 2°2  | 123      |  |  |  |

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

"D1 - Scenario 1, AM " model duration: 07:45 - 09:15

"D2 - Scenario 2, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.2.316 at 14/10/2014 14:46:57

## File summary

#### **File Description**

| Title       | White Hart Lane / Cranleigh Road AM Existing PLUS DEV  |
|-------------|--|
| Location    | and the second |
| Site Number |  |
| Date        | 13/10/2014   |
| Version     |  |
| Status      | (new file)   |
| Identifier  |  |
| Client      |  |
| Jobnumber   |  |
| Enumerator  |  |
| Description |  |



## **Analysis Options**

| Vehicle Length | Do Queue   | Calculate Residual | Residual Capacity Criteria | RFC       | Average Delay Threshold | Queue Threshold |
|----------------|------------|--------------------|----------------------------|-----------|-------------------------|-----------------|
| (m)            | Variations | Capacity           | Type                       | Threshold | (s)                     | (PCU)           |
| 5.75           |            |                    | N/A                        | 0.85      | 36.00                   | 20.00           |

## Units

| Distance Units | Speed Units | Traffic Units Input | Traffic Units Results | Flow Units | Average Delay Units | Total Delay Units | Rate Of Delay Units |
|----------------|-------------|---------------------|-----------------------|------------|---------------------|-------------------|---------------------|
| m              | kph         | Veh                 | Veh                   | perHour    | S                   | -Min              | perMin              |

# (Default Analysis Set) - Scenario 1, AM

## **Data Errors and Warnings**

No errors or warnings

## Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | <b>Reason For Scaling Factors</b> |
|------------------------|-------------|--------|---------------------------------|-----------------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                                   |

#### **Demand Set Details**

| Name              | Scenario<br>Name | Time<br>Period<br>Name | Description | Traffic<br>Profile<br>Type | Model Start<br>Time (HH:mm) | Model Finish<br>Time (HH:mm) | Model Time<br>Period Length<br>(min) | Time Segment<br>Length (min) | Single Time<br>Segment Only | Locked |
|-------------------|------------------|------------------------|-------------|----------------------------|-----------------------------|------------------------------|--------------------------------------|------------------------------|-----------------------------|--------|
| Scenario 1,<br>AM | Scenario 1       | АМ                     |             | ONE<br>HOUR                | 07:45                       | 09:15                        | 90                                   | 15                           |                             |        |

# **Junction Network**

## Junctions

| Name                             | Junction Type | Major Road Direction | Arm Order | Junction Delay (s) | Junction LOS |
|----------------------------------|---------------|----------------------|-----------|--------------------|--------------|
| White Hart Lane / Cranleigh Road | T-Junction    | Two-way              | A,B,C     | 7.47               | A            |

## Junction Network Options

| Driving Side | Lighting       |  |  |  |
|--------------|----------------|--|--|--|
| Left         | Normal/unknown |  |  |  |

# Arms

#### Arms

| Arm | Name            | Description | Arm Type |
|-----|-----------------|-------------|----------|
| Α   | White Hart Lane |             | Major    |
| в   | Cranleigh Road  |             | Minor    |
| С   | White Hart Lane |             | Major    |

## **Major Arm Geometry**

| Arm | Width of<br>carriageway (m) | Has kerbed central reserve | Width of kerbed central reserve (m) | Has right<br>turn bay | Width For Right<br>Turn (m) | Visibility For Right<br>Turn (m) | Blocks? | Blocking Queue<br>(PCU) |
|-----|-----------------------------|----------------------------|-------------------------------------|-----------------------|-----------------------------|----------------------------------|---------|-------------------------|
| С   | 7.50                        |                            | 0.00                                |                       | 2.20                        | 150.00                           | ~       | 0.00                    |

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



## **Minor Arm Geometry**

| Arm | Minor<br>Arm<br>Type | Lane<br>Width<br>(m) | Lane<br>Width<br>(Left) (m) | Lane Width<br>(Right) (m) | Width at<br>give-way<br>(m) | Width at<br>5m (m) | Width at<br>10m (m) | Width at<br>15m (m) | Width at 20m (m) | Estimate<br>Flare<br>Length | Flare<br>Length<br>(PCU) | Visibility To<br>Left (m) | Visibility To<br>Right (m) |
|-----|----------------------|----------------------|-----------------------------|---------------------------|-----------------------------|--------------------|---------------------|---------------------|------------------|-----------------------------|--------------------------|---------------------------|----------------------------|
| в   | One<br>lane          | 3.40                 |                             | -                         |                             |                    |                     |                     |                  |                             | 1.                       | 200                       | 200                        |

## Pedestrian Crossings

| Arm | Crossing Type |
|-----|---------------|
| Α   | None          |
| В   | None          |
| С   | None          |

## Slope / Intercept / Capacity

#### **Priority Intersection Slopes and Intercepts**

| Junction | Stream | Intercept<br>(Veh/hr) | Slope<br>for<br>A-B | Slope<br>for<br>A-C | Slope<br>for<br>C-A | Slope<br>for<br>C-B |
|----------|--------|-----------------------|---------------------|---------------------|---------------------|---------------------|
| 1        | B-A    | 676.039               | 0.115               | 0.291               | 0.183               | 0.416               |
| 1        | B-C    | 779.872               | 0.112               | 0.282               | -                   | -                   |
| 1        | C-B    | 660.830               | 0.239               | 0.239               | 1                   | 1 in 1              |

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 Flows**

#### **Demand Set Data Options**

| Default<br>Vehicle<br>Mix | Vehicle<br>Mix Varies<br>Over Time |   | Vehicle Mix<br>Varies<br>Over Entry | Vehicle Mix<br>Source | PCU<br>Factor for<br>a HV<br>(PCU) | Default<br>Turning<br>Proportions | Estimate<br>from<br>entry/exit<br>counts | Turning<br>Proportions<br>Vary Over Time | Turning<br>Proportions<br>Vary Over Turn | Turning<br>Proportions<br>Vary Over Entry |
|---------------------------|------------------------------------|---|-------------------------------------|-----------------------|------------------------------------|-----------------------------------|--|--|--|---|
|                           |                                    | ~ | ~                                   | HV<br>Percentages     | 2.00                               |                                   |  |  | ~  | 1   |

# **Entry Flows**

## **General Flows Data**

| Arm | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-----|--------------|--------------------|------------------------------|-------------------------|
| A   | ONE HOUR     | ~                  | 370.00                       | 100.000                 |
| в   | ONE HOUR     | 1                  | 154.00                       | 100.000                 |
| С   | ONE HOUR     | 1                  | 222.00                       | 100.000                 |



# **Turning Proportions**

#### Turning Counts or Proportions (Veh/hr) - Junction 1 (for whole period)

|      | То |         |        |         |  |  |  |
|------|----|---------|--------|---------|--|--|--|
|      |    | Α       | В      | С       |  |  |  |
| -    | Α  | 0.000   | 54.000 | 316.000 |  |  |  |
| From | В  | 50.000  | 0.000  | 104.000 |  |  |  |
|      | С  | 174.000 | 48.000 | 0.000   |  |  |  |

#### Turning Proportions (Veh) - Junction 1 (for whole period)

|      | То |      |      |      |  |  |
|------|----|------|------|------|--|--|
|      |    | Α    | В    | С    |  |  |
| _    | Α  | 0.00 | 0.15 | 0.85 |  |  |
| From | В  | 0.32 | 0.00 | 0.68 |  |  |
|      | С  | 0.78 | 0.22 | 0.00 |  |  |

# Vehicle Mix

#### Average PCU Per Vehicle - Junction 1 (for whole period)

|      | ļ. | То    |       |       |  |  |  |
|------|----|-------|-------|-------|--|--|--|
|      |    | Α     | В     | С     |  |  |  |
| -    | Α  | 1.000 | 1.000 | 1.000 |  |  |  |
| From | В  | 1.000 | 1.000 | 1.000 |  |  |  |
|      | С  | 1.000 | 1.000 | 1.000 |  |  |  |

### Heavy Vehicle Percentages - Junction 1 (for whole period)

|      | То |       |       |       |  |  |  |
|------|----|-------|-------|-------|--|--|--|
|      |    | Α     | В     | С     |  |  |  |
| _    | Α  | 0.000 | 0.000 | 0.000 |  |  |  |
| From | В  | 0.000 | 0.000 | 0.000 |  |  |  |
|      | С  | 0.000 | 0.000 | 0.000 |  |  |  |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 0.28    | 8.15          | 0.38            | A       |
| C-AB   | 0.11    | 5.79          | 0.17            | А       |
| C-A    |         | 350           |                 | 17      |
| A-B    |         | 2 <b>.</b>    | i               | -       |
| A-C    |         | 242           | -               | - 22    |



## Main Results for each time segment

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC          | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|--------------|-----------------|-----------|-----|
| B-AC   | 115.94                | 115.08              | 0.00                       | 653.51            | 0.177        | 0.21            | 6.665     | A   |
| C-AB   | 44.46                 | 44.10               | 0.00                       | 681.49            | 0.065        | 0.09            | 5.646     | A   |
| C-A    | 122.67                | 122.67              | 0.00                       | -                 | ( <b>-</b> ) | 1.2             | -         | 1.4 |
| A-B    | 40.65                 | 40.65               | 0.00                       |                   | 5            | 27.0            | (7)       | -   |
| A-C    | 237.90                | 237.90              | 0.00                       | -                 | ंद्रां       | -               | -         | 1   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 138.44                | 138.20              | 0.00                       | 635.80            | 0.218 | 0.28            | 7.231     | A   |
| C-AB   | 55.47                 | 55.36               | 0.00                       | 686.45            | 0.081 | 0.12            | 5.705     | A   |
| C-A    | 144.10                | 144.10              | 0.00                       |                   | ) e ( | 1.4             | -         | -   |
| A-B    | 48.54                 | 48.54               | 0.00                       | -50               |       | 9 <b>7</b> .0   | 17)       |     |
| A-C    | 284.08                | 284.08              | 0.00                       | -                 | - e 1 | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC          | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|--------------|-----------------|-----------|-----|
| B-AC   | 169.56                | 169.14              | 0.00                       | 611.18            | 0.277        | 0.38            | 8.137     | A   |
| C-AB   | 73.00                 | 72.82               | 0.00                       | 694.88            | 0.105        | 0.17            | 5.790     | A   |
| C-A    | 171.43                | 171.43              | 0.00                       | -                 | ( <b>P</b> ) | 12              | -         | -   |
| A-B    | 59.46                 | 59.46               | 0.00                       | -50               |              | 954             | (T)       | -   |
| A-C    | 347.92                | 347.92              | 0.00                       | -<br>             |              | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 169.56                | 169.55              | 0.00                       | 611.15            | 0.277 | 0.38            | 8.152     | A   |
| C-AB   | 73.04                 | 73.04               | 0.00                       | 694.94            | 0.105 | 0.17            | 5.793     | A   |
| C-A    | 171.38                | 171.38              | 0.00                       | -                 | ) e ( | 13 <b>-</b> 7   | [ ¥ ]     |     |
| A-B    | 59.46                 | 59.46               | 0.00                       | -36               | 5     | 955             |           | - 1 |
| A-C    | 347.92                | 347.92              | 0.00                       |                   | ( e ) | ( <b>-</b> )    | -         |     |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 138.44                | 138.84              | 0.00                       | 635.76            | 0.218 | 0.28            | 7.249     | A   |
| C-AB   | 55.53                 | 55.70               | 0.00                       | 686.53            | 0.081 | 0.12            | 5.710     | A   |
| C-A    | 144.05                | 144.05              | 0.00                       | -                 | ) e ( | -               | -         | -   |
| A-B    | 48.54                 | 48.54               | 0.00                       | -50               |       | 2.54            | (7)       | -   |
| A-C    | 284.08                | 284.08              | 0.00                       | -<br>             |       | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s)    | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|--------------|-----|
| B-AC   | 115.94                | 116.19              | 0.00                       | 653.43            | 0.177 | 0.22            | 6.703        | A   |
| C-AB   | 44.55                 | 44.66               | 0.00                       | 681.56            | 0.065 | 0.09            | 5.654        | A   |
| C-A    | 122.58                | 122.58              | 0.00                       |                   | ) e ( | 100             | -            |     |
| A-B    | 40.65                 | 40.65               | 0.00                       |                   | 5     | ्रहरू           | ( <b>7</b> ) |     |
| A-C    | 237.90                | 237.90              | 0.00                       | -<br>             | ਿਫ਼   | -               | -            | -   |



| Junctions 8  |
|--|
| PICADY 8 - Priority Intersection Module  |
| Version: 8.0.2.316 [14 Feb 2013]<br>© Copyright TRL Limited, 2014                    |
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Filename: White Hart Lane Cranleigh Road.arc8 Path: S:\Clients\Stone Falconer Ltd\Land West of Moraunt Drive, Fareham - P2614\Junctions 8 Report generation date: 23/10/2014 15:18:27

- « (Default Analysis Set) Scenario 2, PM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

## Summary of junction performance

|             |             | РМ         |          |        |  |  |  |
|-------------|-------------|------------|----------|--------|--|--|--|
|             | Queue (Veh) | Delay (s)  | RFC      | LOS    |  |  |  |
|             | A1 -        | Scenario 3 | 2        | tini j |  |  |  |
| Stream B-AC | 0.20        | 7.01       | 0.17     | A      |  |  |  |
| Stream C-AB | 0.35        | 5.37       | 0.19     | A      |  |  |  |
| Stream C-A  | -           |            |          |        |  |  |  |
| Stream A-B  | -           | -          | -        |        |  |  |  |
| Stream A-C  | 2.1         | <u> </u>   | - 12 ° ( | 122    |  |  |  |

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

"D1 - Scenario 1, AM" model duration: 08:00 - 09:30 "D2 - Scenario 2, PM " model duration: 17:00 - 18:30

Run using Junctions 8.0.2.316 at 23/10/2014 15:18:27

## File summary

#### **File Description**

| Title       | White Hart Lane / Cranleigh Road PM Existing Plus Dev   |
|-------------|---|
| Location    | Chine I. (1991) Constrained and the state of the state of the basis |
| Site Number |   |
| Date        | 13/10/2014  |
| Version     |   |
| Status      | (new file)  |
| Identifier  |   |
| Client      |   |
| Jobnumber   |   |
| Enumerator  |   |
| Description |   |



## **Analysis Options**

| Vehicle Length | Do Queue   | Calculate Residual | Residual Capacity Criteria | RFC       | Average Delay Threshold | Queue Threshold |
|----------------|------------|--------------------|----------------------------|-----------|-------------------------|-----------------|
| (m)            | Variations | Capacity           | Type                       | Threshold | (s)                     | (PCU)           |
| 5.75           |            |                    | N/A                        | 0.85      | 36.00                   | 20.00           |

## Units

| Distance Units | Speed Units | Traffic Units Input | Traffic Units Results | Flow Units | Average Delay Units | Total Delay Units | Rate Of Delay Units |  |
|----------------|-------------|---------------------|-----------------------|------------|---------------------|-------------------|---------------------|--|
| m              | kph         | Veh                 | Veh                   | perHour    | S                   | -Min              | perMin              |  |

# (Default Analysis Set) - Scenario 2, PM

## **Data Errors and Warnings**

No errors or warnings

## Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

#### **Demand Set Details**

| Name              | Scenario<br>Name | Time<br>Period<br>Name | Description | Traffic<br>Profile<br>Type | Model Start<br>Time (HH:mm) | Model Finish<br>Time (HH:mm) | Model Time<br>Period Length<br>(min) | Time Segment<br>Length (min) | Single Time<br>Segment Only | Locked |
|-------------------|------------------|------------------------|-------------|----------------------------|-----------------------------|------------------------------|--------------------------------------|------------------------------|-----------------------------|--------|
| Scenario<br>2, PM | Scenario 2       | PM                     |             | ONE<br>HOUR                | 17:00                       | 18:30                        | 90                                   | 15                           |                             |        |

# **Junction Network**

## Junctions

| Name                             | Junction Type | Major Road Direction | Arm Order | Junction Delay (s) | Junction LOS |
|----------------------------------|---------------|----------------------|-----------|--------------------|--------------|
| White Hart Lane / Cranleigh Road | T-Junction    | Two-way              | A,B,C     | 6.06               | A            |

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

## Arms

#### Arms

| Arm | Name       | Description | Arm Type |
|-----|------------|-------------|----------|
| Α   | (untitled) |             | Major    |
| в   | (untitled) | 1           | Minor    |
| С   | (untitled) | 1           | Major    |

## **Major Arm Geometry**

| Arm | Width of<br>carriageway (m) | Has kerbed central reserve | Width of kerbed central reserve (m) | Has right<br>turn bay | Width For Right<br>Turn (m) | Visibility For Right<br>Turn (m) | Blocks? | Blocking Queue<br>(PCU) |
|-----|-----------------------------|----------------------------|-------------------------------------|-----------------------|-----------------------------|----------------------------------|---------|-------------------------|
| С   | 7.50                        |                            | 0.00                                |                       | 2.20                        | 150.00                           | ~       | 0.00                    |

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



## **Minor Arm Geometry**

| Arm | Minor<br>Arm<br>Type | Lane<br>Width<br>(m) | Lane<br>Width<br>(Left) (m) | Lane Width<br>(Right) (m) | Width at<br>give-way<br>(m) | Width at<br>5m (m) | Width at<br>10m (m) | Width at<br>15m (m) | Width at 20m (m) | Estimate<br>Flare<br>Length | Flare<br>Length<br>(PCU) | Visibility To<br>Left (m) | Visibility To<br>Right (m) |
|-----|----------------------|----------------------|-----------------------------|---------------------------|-----------------------------|--------------------|---------------------|---------------------|------------------|-----------------------------|--------------------------|---------------------------|----------------------------|
| в   | One<br>lane          | 3.40                 |                             | -                         |                             |                    |                     |                     |                  |                             | 1                        | 200                       | 200                        |

## Pedestrian Crossings

| Arm | Crossing Type |
|-----|---------------|
| Α   | None          |
| В   | None          |
| С   | None          |

## Slope / Intercept / Capacity

#### **Priority Intersection Slopes and Intercepts**

| Junction | Stream | Intercept<br>(Veh/hr) | Slope<br>for<br>A-B | Slope<br>for<br>A-C | Slope<br>for<br>C-A | Slope<br>for<br>C-B |
|----------|--------|-----------------------|---------------------|---------------------|---------------------|---------------------|
| 1        | B-A    | 676.039               | 0.115               | 0.291               | 0.183               | 0.416               |
| 1        | B-C    | 779.872               | 0.112               | 0.282               | -                   | -                   |
| 1        | C-B    | 660.830               | 0.239               | 0.239               | 1.2                 | 1 iz                |

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 Flows**

## **Demand Set Data Options**

| Default<br>Vehicle<br>Mix | Vehicle<br>Mix Varies<br>Over Time | Vehicle<br>Mix Varies<br>Over Turn | Vehicle Mix<br>Varies<br>Over Entry | Vehicle Mix<br>Source | PCU<br>Factor for<br>a HV<br>(PCU) | Default<br>Turning<br>Proportions | Estimate<br>from<br>entry/exit<br>counts | Turning<br>Proportions<br>Vary Over Time | Turning<br>Proportions<br>Vary Over Turn | Turning<br>Proportions<br>Vary Over Entry |
|---------------------------|------------------------------------|------------------------------------|-------------------------------------|-----------------------|------------------------------------|-----------------------------------|--|--|--|---|
|                           |                                    | ~                                  | ~                                   | HV<br>Percentages     | 2.00                               |                                   |  |  | ~  | 1   |

# **Entry Flows**

## **General Flows Data**

| Arm | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-----|--------------|--------------------|------------------------------|-------------------------|
| A   | ONE HOUR     | ~                  | 217.00                       | 100.000                 |
| в   | ONE HOUR     | 1                  | 94.00                        | 100.000                 |
| С   | ONE HOUR     | 1                  | 386.00                       | 100.000                 |



# **Turning Proportions**

#### Turning Counts or Proportions (Veh/hr) - Junction 1 (for whole period)

|      | То |         |        |              |  |  |
|------|----|---------|--------|--------------|--|--|
|      |    | Α       | В      | C<br>180.000 |  |  |
|      | Α  | 0.000   | 37.000 |              |  |  |
| From | В  | 39.000  | 0.000  | 55.000       |  |  |
|      | С  | 303.000 | 83.000 | 0.000        |  |  |

#### Turning Proportions (Veh) - Junction 1 (for whole period)

|      | То |      |      |      |  |  |  |
|------|----|------|------|------|--|--|--|
|      |    | Α    | В    | С    |  |  |  |
| _    | Α  | 0.00 | 0.17 | 0.83 |  |  |  |
| From | В  | 0.41 | 0.00 | 0.59 |  |  |  |
|      | С  | 0.78 | 0.22 | 0.00 |  |  |  |

# Vehicle Mix

#### Average PCU Per Vehicle - Junction 1 (for whole period)

|      | ļ. | То    |       |       |  |  |  |
|------|----|-------|-------|-------|--|--|--|
|      |    | Α     | В     | С     |  |  |  |
| -    | Α  | 1.000 | 1.000 | 1.000 |  |  |  |
| From | В  | 1.000 | 1.000 | 1.000 |  |  |  |
|      | С  | 1.000 | 1.000 | 1.000 |  |  |  |

### Heavy Vehicle Percentages - Junction 1 (for whole period)

|      | То |       |       |       |  |  |
|------|----|-------|-------|-------|--|--|
|      |    | Α     | В     | С     |  |  |
| _    | Α  | 0.000 | 0.000 | 0.000 |  |  |
| From | В  | 0.000 | 0.000 | 0.000 |  |  |
|      | С  | 0.000 | 0.000 | 0.000 |  |  |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 0.17    | 7.01          | 0.20            | A       |
| C-AB   | 0.19    | 5.37          | 0.35            | А       |
| C-A    |         | 350           |                 | 17      |
| A-B    |         | 3 <b>4</b> 3  | -               |         |
| A-C    |         | 242           | -               | - 92    |



## Main Results for each time segment

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 70.77                 | 70.29               | 0.00                       | 655.42            | 0.108 | 0.12            | 6.147     | A   |
| C-AB   | 88.53                 | 87.79               | 0.00                       | 770.79            | 0.115 | 0.18            | 5.269     | A   |
| C-A    | 202.07                | 202.07              | 0.00                       | -                 | )     |                 | -         | -   |
| A-B    | 27.86                 | 27.86               | 0.00                       | -50               |       | 27.0            | (T)       | -   |
| A-C    | 135.51                | 135.51              | 0.00                       | -                 | ंद    | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 84.50                 | 84.38               | 0.00                       | 639.52            | 0.132 | 0.15            | 6.482     | A   |
| C-AB   | 113.42                | 113.17              | 0.00                       | 793.21            | 0.143 | 0.25            | 5.296     | A   |
| C-A    | 233.59                | 233.59              | 0.00                       |                   | ) e ( | 11-1            | -         | -   |
| A-B    | 33.26                 | 33.26               | 0.00                       | -50               |       | 27.5            |           | -   |
| A-C    | 161.82                | 161.82              | 0.00                       |                   |       | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 103.50                | 103.30              | 0.00                       | 617.26            | 0.168 | 0.20            | 7.004     | A   |
| C-AB   | 152.63                | 152.22              | 0.00                       | 824.45            | 0.185 | 0.35            | 5.359     | A   |
| C-A    | 272.36                | 272.36              | 0.00                       | -                 | ) - j | 1. <b>-</b> (   | -         | -   |
| A-B    | 40.74                 | 40.74               | 0.00                       | -50               |       | 275             |           |     |
| A-C    | 198.18                | 198.18              | 0.00                       | -<br>             |       | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 103.50                | 103.49              | 0.00                       | 617.19            | 0.168 | 0.20            | 7.007     | A   |
| C-AB   | 152.76                | 152.75              | 0.00                       | 824.59            | 0.185 | 0.35            | 5.365     | A   |
| C-A    | 272.23                | 272.23              | 0.00                       | -                 | ) e ( | 12-7            | -         |     |
| A-B    | 40.74                 | 40.74               | 0.00                       | -36               | 5     | 253             | (7)       | -   |
| A-C    | 198.18                | 198.18              | 0.00                       | -                 | · .   | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 84.50                 | 84.69               | 0.00                       | 639.41            | 0.132 | 0.15            | 6.493     | A   |
| C-AB   | 113.59                | 113.99              | 0.00                       | 793.44            | 0.143 | 0.25            | 5.308     | A   |
| C-A    | 233.42                | 233.42              | 0.00                       | -                 | ) = ) | -               | -         |     |
| A-B    | 33.26                 | 33.26               | 0.00                       | -50               |       | 27.5            | (7)       | -   |
| A-C    | 161.82                | 161.82              | 0.00                       |                   |       | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC    | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|--------|-----------------|-----------|-----|
| B-AC   | 70.77                 | 70.89               | 0.00                       | 655.23            | 0.108  | 0.12            | 6.163     | A   |
| C-AB   | 88.81                 | 89.06               | 0.00                       | 771.01            | 0.115  | 0.19            | 5.286     | A   |
| C-A    | 201.79                | 201.79              | 0.00                       |                   | ) e (  | 12-7            | -         | -   |
| A-B    | 27.86                 | 27.86               | 0.00                       | -36               |        | ्रहरू           | (T)       |     |
| A-C    | 135.51                | 135.51              | 0.00                       | -                 | ंत्रां | -               | -         | -   |



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Filename: White Hart Lane Wicor Mill Lane.arc8 Path: S:\Clients\Stone Falconer Ltd\Land West of Moraunt Drive, Fareham - P2614\Junctions 8 Report generation date: 14/10/2014 14:35:09

- « (Default Analysis Set) Scenario 1, AM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

## Summary of junction performance

|             |             | АМ        |      |            |  |  |  |
|-------------|-------------|-----------|------|------------|--|--|--|
|             | Queue (Veh) | Delay (s) | RFC  | LOS        |  |  |  |
|             | A1 -        | Scenario  | 1    | ti i i i i |  |  |  |
| Stream B-AC | 0.11        | 6.90      | 0.10 | A          |  |  |  |
| Stream C-AB | 0.06        | 4.94      | 0.04 | А          |  |  |  |
| Stream C-A  | -           |           |      |            |  |  |  |
| Stream A-B  | -           | -         | -    |            |  |  |  |
| Stream A-C  | 2.1         | 2         | 2    | 1          |  |  |  |

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

"D1 - Scenario 1, AM " model duration: 07:45 - 09:15

"D2 - Scenario 2, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.2.316 at 14/10/2014 14:35:08

## File summary

#### **File Description**

| Title       | White Hart Lane / Wicor Mill Lane AM Existing   |
|-------------|---|
| Location    | and a state of the second state |
| Site Number |   |
| Date        | 13/10/2014  |
| Version     |   |
| Status      | (new file)  |
| Identifier  | 100 C C C C C   |
| Client      |   |
| Jobnumber   |   |
| Enumerator  |   |
| Description |   |

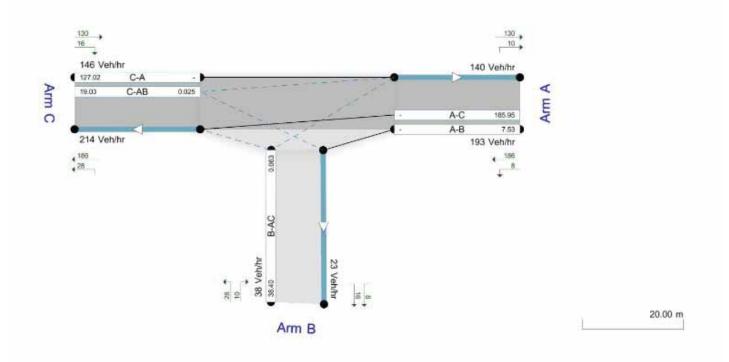


## **Analysis Options**

| Vehicle Length | Do Queue   | Calculate Residual | Residual Capacity Criteria | RFC       | Average Delay Threshold | Queue Threshold |
|----------------|------------|--------------------|----------------------------|-----------|-------------------------|-----------------|
| (m)            | Variations | Capacity           | Type                       | Threshold | (s)                     | (PCU)           |
| 5.75           |            |                    | N/A                        | 0.85      | 36.00                   | 20.00           |

## Units

| Distance Units | Speed Units | Traffic Units Input | Traffic Units Results | Flow Units | Average Delay Units | Total Delay Units | Rate Of Delay Units |
|----------------|-------------|---------------------|-----------------------|------------|---------------------|-------------------|---------------------|
| m              | kph         | Veh                 | Veh                   | perHour    | S                   | -Min              | perMin              |



Ted centrys there excluded like through the landse setup and set likes. Velvy, Searce (upsman) show Teal Demand (Velvt) Sevara (downamean) etca IPC ( Trans Sogmer, (D745-06.00) Showing Analysis Set "A1.", Demand Set "D1 - Scarano 1, AM."

The junction diagram reflects the last run of ARCADY.



# (Default Analysis Set) - Scenario 1, AM

## Data Errors and Warnings

No errors or warnings

## Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

## **Demand Set Details**

| Name              | Scenario<br>Name | Time<br>Period<br>Name | Description | Traffic<br>Profile<br>Type | Model Start<br>Time (HH:mm) | Model Finish<br>Time (HH:mm) | Model Time<br>Period Length<br>(min) | Time Segment<br>Length (min) | Single Time<br>Segment Only | Locked |
|-------------------|------------------|------------------------|-------------|----------------------------|-----------------------------|------------------------------|--------------------------------------|------------------------------|-----------------------------|--------|
| Scenario 1,<br>AM | Scenario 1       | АМ                     |             | ONE<br>HOUR                | 07:45                       | 09:15                        | 90                                   | 15                           |                             |        |

# **Junction Network**

## Junctions

| Name                              | Junction Type | Major Road Direction | Arm Order | Junction Delay (s) | Junction LOS |
|-----------------------------------|---------------|----------------------|-----------|--------------------|--------------|
| White Park Lane / Wicor Mill Lane | T-Junction    | Two-way              | A,B,C     | 6.23               | A            |

## **Junction Network Options**

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

## Arms

## Arms

| Arm | Name             | Description | Arm Type |
|-----|------------------|-------------|----------|
| Α   | Whiter Hart Lane |             | Major    |
| В   | Wicor Mill Lane  | i i         | Minor    |
| С   | White Hart Lane  | Q Q         | Major    |

## **Major Arm Geometry**

| Arm | Width of<br>carriageway (m) | Has kerbed central reserve | Width of kerbed central<br>reserve (m) | Has right<br>turn bay | Width For Right<br>Turn (m) | Visibility For Right<br>Turn (m) | Blocks? | Blocking Queue<br>(PCU) |
|-----|-----------------------------|----------------------------|--|-----------------------|-----------------------------|----------------------------------|---------|-------------------------|
| С   | 6.70                        |                            | 0.00                                   | -                     | 2.20                        | 250.00                           | ~       | 0.00                    |

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

#### Minor Arm Geometry

| Arm | Minor<br>Arm<br>Type | Lane<br>Width<br>(m) | Lane<br>Width<br>(Left) (m) | Lane Width<br>(Right) (m) | Width at<br>give-way<br>(m) | Width at<br>5m (m) | Width at<br>10m (m) | Width at<br>15m (m) | Width at 20m (m) | Estimate<br>Flare<br>Length | Flare<br>Length<br>(PCU) | Visibility To<br>Left (m) | Visibility To<br>Right (m) |
|-----|----------------------|----------------------|-----------------------------|---------------------------|-----------------------------|--------------------|---------------------|---------------------|------------------|-----------------------------|--------------------------|---------------------------|----------------------------|
| в   | One<br>lane          | 3.20                 |                             |                           |                             |                    |                     |                     |                  |                             |                          | 100                       | 105                        |



#### Pedestrian Crossings

| Arm | Crossing Type |
|-----|---------------|
| A   | None          |
| В   | None          |
| С   | None          |

#### Slope / Intercept / Capacity

#### **Priority Intersection Slopes and Intercepts**

| Junction | Stream | Intercept<br>(Veh/hr) | Slope<br>for<br>A-B | Slope<br>for<br>A-C | Slope<br>for<br>C-A | Slope<br>for<br>C-B |
|----------|--------|-----------------------|---------------------|---------------------|---------------------|---------------------|
| 1        | B-A    | 574.600               | 0.101               | 0.256               | 0.161               | 0.366               |
| 1        | B-C    | 703.854               | 0.105               | 0.264               | 1                   |                     |
| 1        | C-B    | 718.741               | 0.270               | 0.270               | -                   | -                   |

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 Flows**

## **Demand Set Data Options**

| Default<br>Vehicle<br>Mix | Vehicle<br>Mix Varies<br>Over Time | Vehicle<br>Mix Varies<br>Over Turn | Vehicle Mix<br>Varies<br>Over Entry | Vehicle Mix<br>Source | PCU<br>Factor for<br>a HV<br>(PCU) | Default<br>Turning<br>Proportions | Estimate<br>from<br>entry/exit<br>counts | Turning<br>Proportions<br>Vary Over Time | Turning<br>Proportions<br>Vary Over Turn | Turning<br>Proportions<br>Vary Over Entry |
|---------------------------|------------------------------------|------------------------------------|-------------------------------------|-----------------------|------------------------------------|-----------------------------------|--|--|--|---|
|                           |                                    | ~                                  | <b>V</b> :                          | HV<br>Percentages     | 2.00                               |                                   |  |  | ~  | v -                                       |

## **Entry Flows**

## **General Flows Data**

| Årm | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-----|--------------|--------------------|------------------------------|-------------------------|
| Α   | ONE HOUR     | 1                  | 257.00                       | 100.000                 |
| В   | ONE HOUR     | ~                  | 51.00                        | 100.000                 |
| С   | ONE HOUR     | 1                  | 194.00                       | 100.000                 |

## **Turning Proportions**

Turning Counts or Proportions (Veh/hr) - Junction 1 (for whole period)

|      |   | То      |        |         |  |  |  |
|------|---|---------|--------|---------|--|--|--|
|      | 1 | A       | В      | С       |  |  |  |
| 4000 | Α | 0.000   | 10.000 | 247.000 |  |  |  |
| From | в | 13.000  | 0.000  | 38.000  |  |  |  |
|      | С | 173.000 | 21.000 | 0.000   |  |  |  |



#### Turning Proportions (Veh) - Junction 1 (for whole period)

|      |    | То   |      |      |  |  |
|------|----|------|------|------|--|--|
|      | í. | A    | В    | С    |  |  |
| 2000 | Α  | 0.00 | 0.04 | 0.96 |  |  |
| From | В  | 0.25 | 0.00 | 0.75 |  |  |
|      | С  | 0.89 | 0.11 | 0.00 |  |  |

# **Vehicle Mix**

Average PCU Per Vehicle - Junction 1 (for whole period)

|      |    | То    |       |       |  |  |  |
|------|----|-------|-------|-------|--|--|--|
|      | í. | Α     | В     | С     |  |  |  |
| 2000 | Α  | 1.000 | 1.000 | 1.000 |  |  |  |
| From | в  | 1.000 | 1.000 | 1.000 |  |  |  |
|      | С  | 1.000 | 1.000 | 1.000 |  |  |  |

Heavy Vehicle Percentages - Junction 1 (for whole period)

|      |    |       | То    |       |
|------|----|-------|-------|-------|
|      | í. | Α     | В     | С     |
| 2000 | Α  | 0.000 | 0.000 | 0.000 |
| From | в  | 0.000 | 0.000 | 0.000 |
|      | С  | 0.000 | 0.000 | 0.000 |

## Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 0.10    | 6.90          | 0.11            | А       |
| C-AB   | 0.04    | 4.94          | 0.06            | А       |
| C-A    | -       | · • ·         | -               | -       |
| A-B    |         | 328           | () 4 ()         | - 52    |
| A-C    | -       | 1.00          | -               | 27      |

## Main Results for each time segment

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr)   | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|---|-------|-----------------|-----------|-----|
| B-AC   | 38.40                 | 38.13               | 0.00                       | 606.08  | 0.063 | 0.07            | 6.335     | A   |
| C-AB   | 19.03                 | 18.90               | 0.00                       | 748.12  | 0.025 | 0.03            | 4.937     | A   |
| C-A    | 127.02                | 127.02              | 0.00                       | -   | -     |                 |           | -   |
| A-B    | 7.53                  | 7.53                | 0.00                       | 1.00  | ( e ( | 12 <b>-</b> -0  |           | -   |
| A-C    | 185.95                | 185.95              | 0.00                       | 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - | 2     | 121             |           | 12  |



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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS  |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|------|
| B-AC   | 45.85                 | 45.78               | 0.00                       | 594.34            | 0.077 | 0.08            | 6.562     | A    |
| C-AB   | 23.60                 | 23.57               | 0.00                       | 754.51            | 0.031 | 0.04            | 4.924     | A    |
| C-A    | 150.80                | 150.80              | 0.00                       | 175               |       | 12.74           |           | - 21 |
| A-B    | 8.99                  | 8.99                | 0.00                       | -                 | ( e ( |                 | -         | -7   |
| A-C    | 222.05                | 222.05              | 0.00                       | 120               | ( a ( | 12              | 1         | 2    |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh)   | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-------------------|-----------|-----|
| B-AC   | 56.15                 | 56.06               | 0.00                       | 578.04            | 0.097 | 0.11              | 6.897     | A   |
| C-AB   | 30.44                 | 30.38               | 0.00                       | 763.64            | 0.040 | 0.06              | 4.909     | A   |
| C-A    | 183.16                | 183.16              | 0.00                       | 5765              |       | 12.7.4            |           |     |
| A-B    | 11.01                 | 11.01               | 0.00                       |                   | ( e ( | () <del>-</del> ( | -         | -2  |
| A-C    | 271.95                | 271.95              | 0.00                       | 120               | 1 2 1 | 12                | 1 1       | 1.2 |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh)   | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-------------------|-----------|-----|
| B-AC   | 56.15                 | 56.15               | 0.00                       | 578.03            | 0.097 | 0.11              | 6.897     | A   |
| C-AB   | 30.45                 | 30.45               | 0.00                       | 763.65            | 0.040 | 0.06              | 4.912     | A   |
| C-A    | 183.15                | 183.15              | 0.00                       | 176               |       | 12.75             |           | 1.2 |
| A-B    | 11.01                 | 11.01               | 0.00                       |                   | ंड    | () <del>+</del> ( | -         |     |
| A-C    | 271.95                | 271.95              | 0.00                       | 120               |       | 12                | 1 1       | 1.2 |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC    | End Queue (Veh) | Delay (s) | LOS  |
|--------|-----------------------|---------------------|----------------------------|-------------------|--------|-----------------|-----------|------|
| B-AC   | 45.85                 | 45.94               | 0.00                       | 594.33            | 0.077  | 0.08            | 6.567     | A    |
| C-AB   | 23.62                 | 23.68               | 0.00                       | 754.53            | 0.031  | 0.04            | 4.928     | А    |
| C-A    | 150.78                | 150.78              | 0.00                       | 1.765             |        | 12.74           |           | - 22 |
| A-B    | 8.99                  | 8.99                | 0.00                       |                   | िल्हाँ |                 | -         |      |
| A-C    | 222.05                | 222.05              | 0.00                       | 120               | 1 2 1  | 12              | 1         | 1.20 |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh)   | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-------------------|-----------|-----|
| B-AC   | 38.40                 | 38.46               | 0.00                       | 606.06            | 0.063 | 0.07              | 6.342     | A   |
| C-AB   | 19.06                 | 19.09               | 0.00                       | 748.14            | 0.025 | 0.03              | 4.940     | A   |
| C-A    | 127.00                | 127.00              | 0.00                       | :75               |       | 374               |           |     |
| A-B    | 7.53                  | 7.53                | 0.00                       |                   | ( e ( | () <del>+</del> ( | -         |     |
| A-C    | 185.95                | 185.95              | 0.00                       | 120               | 12    | 12                | 1 2       | 1.2 |



| Junctions 8  |
|--|
| PICADY 8 - Priority Intersection Module  |
| Version: 8.0.2.316 [14 Feb 2013]<br>© Copyright TRL Limited, 2014                    |
| For sales and distribution information, program advice and maintenance, contact TRL: |
| Tel: +44 (0)1344 770758 E-mail: software@trl.co.uk Web: http://www.trlsoftware.co.uk |

Filename: White Hart Lane Wicor Mill Lane.arc8 Path: S:\Clients\Stone Falconer Ltd\Land West of Moraunt Drive, Fareham - P2614\Junctions 8 Report generation date: 14/10/2014 14:38:08

« (Default Analysis Set) - Scenario 2, PM

- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

## Summary of junction performance

|             |             | РМ        |      |                                       |
|-------------|-------------|-----------|------|---------------------------------------|
|             | Queue (Veh) | Delay (s) | RFC  | LOS                                   |
|             | A1 -        | Scenario  | 2    | e e e e e e e e e e e e e e e e e e e |
| Stream B-AC | 0.06        | 6.98      | 0.06 | A                                     |
| Stream C-AB | 0.12        | 4.74      | 0.07 | A                                     |
| Stream C-A  | -           |           |      | -                                     |
| Stream A-B  | -           | ÷         | -    | -                                     |
| Stream A-C  | 2.1         |           | 22   | 1                                     |

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

"D1 - Scenario 1, AM" model duration: 07:45 - 09:15 "D2 - Scenario 2, PM " model duration: 16:45 - 18:15

Run using Junctions 8.0.2.316 at 14/10/2014 14:38:07

## File summary

#### **File Description**

| Title       | White Hart Lane / Wicor Mill Lane PM Existing   |
|-------------|---|
| Location    | The set of the second second second field of the second second second second second second second second second |
| Site Number |   |
| Date        | 13/10/2014  |
| Version     | 474 ST 100  |
| Status      | (new file)  |
| Identifier  | a caller a constant   |
| Client      |   |
| Jobnumber   |   |
| Enumerator  |   |
| Description |   |

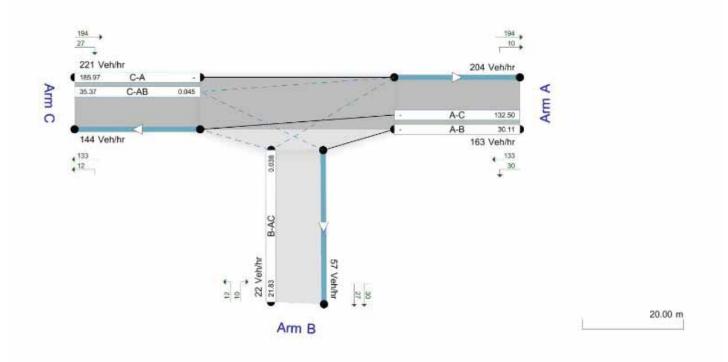


## **Analysis Options**

| Vehicle Length | Do Queue   | Calculate Residual | Residual Capacity Criteria | RFC       | Average Delay Threshold | Queue Threshold |
|----------------|------------|--------------------|----------------------------|-----------|-------------------------|-----------------|
| (m)            | Variations | Capacity           | Type                       | Threshold | (s)                     | (PCU)           |
| 5.75           |            |                    | N/A                        | 0.85      | 36.00                   | 20.00           |

## Units

| Distance Units | Speed Units | Traffic Units Input | Traffic Units Results | Flow Units | Average Delay Units | Total Delay Units | Rate Of Delay Units |
|----------------|-------------|---------------------|-----------------------|------------|---------------------|-------------------|---------------------|
| m              | kph         | Veh                 | Veh                   | perHour    | S                   | -Min              | perMin              |



Ted centrys their exceeded line transpirit is under setty rest cell lines. Velvy, Searce (upsmatna) show Train Demand (Velvt) Severa (downamean) etcas IPC ( Trains Sogmet, (18-45-17.00) Showing Analysis Set "A1.", Demand Set "D2 - Scienano 2, PM."

The junction diagram reflects the last run of ARCADY.



# (Default Analysis Set) - Scenario 2, PM

## Data Errors and Warnings

No errors or warnings

## Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

## **Demand Set Details**

| Name              | Scenario<br>Name | Time<br>Period<br>Name | Description | Traffic<br>Profile<br>Type | Model Start<br>Time (HH:mm) | Model Finish<br>Time (HH:mm) | Model Time<br>Period Length<br>(min) | Time Segment<br>Length (min) | Single Time<br>Segment Only | Locked |
|-------------------|------------------|------------------------|-------------|----------------------------|-----------------------------|------------------------------|--------------------------------------|------------------------------|-----------------------------|--------|
| Scenario<br>2, PM | Scenario 2       | PM                     |             | ONE<br>HOUR                | 16:45                       | 18:15                        | 90                                   | 15                           |                             |        |

# **Junction Network**

## Junctions

| Name                              | Junction Type | Major Road Direction | Arm Order | Junction Delay (s) | Junction LOS |
|-----------------------------------|---------------|----------------------|-----------|--------------------|--------------|
| White Park Lane / Wicor Mill Lane | T-Junction    | Two-way              | A,B,C     | 5.56               | A            |

## **Junction Network Options**

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

#### Arms

| Arm | Name             | Description | Arm Type |
|-----|------------------|-------------|----------|
| Α   | Whiter Hart Lane |             | Major    |
| в   | Wicor Mill Lane  | i i         | Minor    |
| С   | White Hart Lane  |             | Major    |

#### **Major Arm Geometry**

| Arm | Width of<br>carriageway (m) | Has kerbed central reserve | Width of kerbed central<br>reserve (m) | Has right<br>turn bay | Width For Right<br>Turn (m) | Visibility For Right<br>Turn (m) | Blocks? | Blocking Queue<br>(PCU) |
|-----|-----------------------------|----------------------------|--|-----------------------|-----------------------------|----------------------------------|---------|-------------------------|
| С   | 6.70                        |                            | 0.00                                   | -                     | 2.20                        | 250.00                           | ~       | 0.00                    |

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

## Minor Arm Geometry

| Arm | Minor<br>Arm<br>Type | Lane<br>Width<br>(m) | Lane<br>Width<br>(Left) (m) | Lane Width<br>(Right) (m) | Width at<br>give-way<br>(m) | Width at<br>5m (m) | Width at<br>10m (m) | Width at<br>15m (m) | Width at 20m (m) | Estimate<br>Flare<br>Length | Flare<br>Length<br>(PCU) | Visibility To<br>Left (m) | Visibility To<br>Right (m) |
|-----|----------------------|----------------------|-----------------------------|---------------------------|-----------------------------|--------------------|---------------------|---------------------|------------------|-----------------------------|--------------------------|---------------------------|----------------------------|
| в   | One<br>lane          | 3.20                 |                             |                           |                             |                    |                     |                     |                  |                             |                          | 100                       | 105                        |



#### Pedestrian Crossings

| Arm | Crossing Type |
|-----|---------------|
| A   | None          |
| В   | None          |
| С   | None          |

#### Slope / Intercept / Capacity

#### **Priority Intersection Slopes and Intercepts**

| Junction | Stream | Intercept<br>(Veh/hr) | Slope<br>for<br>A-B | Slope<br>for<br>A-C | Slope<br>for<br>C-A | Slope<br>for<br>C-B |
|----------|--------|-----------------------|---------------------|---------------------|---------------------|---------------------|
| 1        | B-A    | 574.600               | 0.101               | 0.256               | 0.161               | 0.366               |
| 1        | B-C    | 703.854               | 0.105               | 0.264               | 1                   |                     |
| 1        | C-B    | 718.741               | 0.270               | 0.270               | -                   | -                   |

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 Flows**

## **Demand Set Data Options**

| Default<br>Vehicle<br>Mix | Vehicle<br>Mix Varies<br>Over Time | Vehicle<br>Mix Varies<br>Over Turn | Vehicle Mix<br>Varies<br>Over Entry | Vehicle Mix<br>Source | PCU<br>Factor for<br>a HV<br>(PCU) | Default<br>Turning<br>Proportions | Estimate<br>from<br>entry/exit<br>counts | Turning<br>Proportions<br>Vary Over Time | Turning<br>Proportions<br>Vary Over Turn | Turning<br>Proportions<br>Vary Over Entry |
|---------------------------|------------------------------------|------------------------------------|-------------------------------------|-----------------------|------------------------------------|-----------------------------------|--|--|--|---|
|                           |                                    | ~                                  | <b>V</b> :                          | HV<br>Percentages     | 2.00                               |                                   |  |  | ~  | ✓   |

## **Entry Flows**

## **General Flows Data**

| Årm | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-----|--------------|--------------------|------------------------------|-------------------------|
| Α   | ONE HOUR     | 1                  | 216.00                       | 100.000                 |
| в   | ONE HOUR     | ~                  | 29.00                        | 100.000                 |
| С   | ONE HOUR     | 1                  | 294.00                       | 100.000                 |

## **Turning Proportions**

Turning Counts or Proportions (Veh/hr) - Junction 1 (for whole period)

|       | То |         |        |         |  |  |  |  |
|-------|----|---------|--------|---------|--|--|--|--|
|       | 1  | A       | В      | С       |  |  |  |  |
| 4.3.8 | Α  | 0.000   | 40.000 | 176.000 |  |  |  |  |
| From  | в  | 13.000  | 0.000  | 16.000  |  |  |  |  |
|       | С  | 258.000 | 36.000 | 0.000   |  |  |  |  |



#### Turning Proportions (Veh) - Junction 1 (for whole period)

|        | То |      |      |      |  |  |  |
|--------|----|------|------|------|--|--|--|
| 200200 | í. | Α    | В    | С    |  |  |  |
|        | Α  | 0.00 | 0.19 | 0.81 |  |  |  |
| From   | В  | 0.45 | 0.00 | 0.55 |  |  |  |
|        | С  | 0.88 | 0.12 | 0.00 |  |  |  |

# **Vehicle Mix**

Average PCU Per Vehicle - Junction 1 (for whole period)

|       | То |       |       |       |  |  |  |
|-------|----|-------|-------|-------|--|--|--|
|       | 1  | Α     | В     | С     |  |  |  |
| 10000 | Α  | 1.000 | 1.000 | 1.000 |  |  |  |
| From  | в  | 1.000 | 1.000 | 1.000 |  |  |  |
|       | С  | 1.000 | 1.000 | 1.000 |  |  |  |

Heavy Vehicle Percentages - Junction 1 (for whole period)

|      |     | То    |       |       |  |  |  |  |  |
|------|-----|-------|-------|-------|--|--|--|--|--|
|      | i – | Α     | В     | С     |  |  |  |  |  |
| 2000 | Α   | 0.000 | 0.000 | 0.000 |  |  |  |  |  |
| From | В   | 0.000 | 0.000 | 0.000 |  |  |  |  |  |
|      | С   | 0.000 | 0.000 | 0.000 |  |  |  |  |  |

## Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 0.06    | 6.98          | 0.06            | А       |
| C-AB   | 0.07    | 4.74          | 0.12            | А       |
| C-A    | -       |               | -               | -       |
| A-B    |         | 328           | () 4 ()         | - 52    |
| A-C    | -       | 1.00          | -               | 27      |

## Main Results for each time segment

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr)   | RFC   | End Queue (Veh) | Delay (s) | LOS  |
|--------|-----------------------|---------------------|----------------------------|---|-------|-----------------|-----------|------|
| B-AC   | 21.83                 | 21.68               | 0.00                       | 577.34  | 0.038 | 0.04            | 6.477     | A    |
| C-AB   | 35.37                 | 35.12               | 0.00                       | 794.99  | 0.045 | 0.06            | 4.736     | A    |
| C-A    | 185.97                | 185.97              | 0.00                       | -   | -     |                 |           | - 23 |
| A-B    | 30.11                 | 30.11               | 0.00                       | 1.00  | ( e ( | 2 <b>-</b> (    |           | 2    |
| A-C    | 132.50                | 132.50              | 0.00                       | 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - | 2     |                 |           | 12   |



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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS  |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|------|
| B-AC   | 26.07                 | 26.03               | 0.00                       | 564.94            | 0.046 | 0.05            | 6.679     | A    |
| C-AB   | 44.50                 | 44.42               | 0.00                       | 810.31            | 0.055 | 0.09            | 4.700     | A    |
| C-A    | 219.80                | 219.80              | 0.00                       | 5.729             |       | 12.74           |           | - 21 |
| A-B    | 35.96                 | 35.96               | 0.00                       | -                 | ( e ( |                 | -         | -7   |
| A-C    | 158.22                | 158.22              | 0.00                       | 120               | ( a ( | 12              | 1         | 2    |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh)  | Delay (s) | LOS  |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|------------------|-----------|------|
| B-AC   | 31.93                 | 31.88               | 0.00                       | 547.65            | 0.058 | 0.06             | 6.979     | A    |
| C-AB   | 58.42                 | 58.27               | 0.00                       | 831.55            | 0.070 | 0.12             | 4.658     | A    |
| C-A    | 265.28                | 265.28              | 0.00                       | 1.76              |       | 12.74            |           | - 53 |
| A-B    | 44.04                 | 44.04               | 0.00                       |                   | ( e ( | ( <del>-</del> ) | -         |      |
| A-C    | 193.78                | 193.78              | 0.00                       | 120               |       | -                | 1 1       | 1.2  |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS  |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|------|
| B-AC   | 31.93                 | 31.93               | 0.00                       | 547.62            | 0.058 | 0.06            | 6.980     | A    |
| C-AB   | 58.46                 | 58.45               | 0.00                       | 831.59            | 0.070 | 0.12            | 4.660     | A    |
| C-A    | 265.24                | 265.24              | 0.00                       | 5 <b>7</b> 51     |       | 18 <b>-</b> 14  |           | 1.5% |
| A-B    | 44.04                 | 44.04               | 0.00                       |                   | ( e ( | · · · ·         | -         |      |
| A-C    | 193.78                | 193.78              | 0.00                       | 120               | 12    | 12              | 1         | 1.2  |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS  |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|------|
| B-AC   | 26.07                 | 26.12               | 0.00                       | 564.90            | 0.046 | 0.05            | 6.681     | A    |
| C-AB   | 44.55                 | 44.69               | 0.00                       | 810.37            | 0.055 | 0.09            | 4.705     | A    |
| C-A    | 219.75                | 219.75              | 0.00                       | 1.765             |       | 12.74           |           | - 54 |
| A-B    | 35.96                 | 35.96               | 0.00                       |                   | िल्हा |                 | -         | -    |
| A-C    | 158.22                | 158.22              | 0.00                       | 120               | 1 2 1 | 12              | 1         | 1.20 |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS  |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|------|
| B-AC   | 21.83                 | 21.87               | 0.00                       | 577.28            | 0.038 | 0.04            | 6.483     | A    |
| C-AB   | 35.45                 | 35.54               | 0.00                       | 795.05            | 0.045 | 0.07            | 4.742     | A    |
| C-A    | 185.89                | 185.89              | 0.00                       | :75               |       | 274             |           | - 53 |
| A-B    | 30.11                 | 30.11               | 0.00                       |                   |       | (1 <b>+</b> )   | -         |      |
| A-C    | 132.50                | 132.50              | 0.00                       | 120               |       |                 | 1 2 1     | 1.2  |



# Junctions 8 PICADY 8 - Priority Intersection Module Version: 8.0.2.316 [14 Feb 2013] © Copyright TRL Limited, 2013 © Copyright TRL Limited, 2014 For sales and distribution information, program advice and maintenance, contact TRL: Tel: +44 (0)1344 770758 F-mail: software@trl.co.uk Web: http://www.trlsoftware.co.uk 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: White Hart Lane Wicor Mill Lane.arc8 Path: S:\Clients\Stone Falconer Ltd\Land West of Moraunt Drive, Fareham - P2614\Junctions 8 Report generation date: 14/10/2014 15:01:38

« (Default Analysis Set) - Scenario 1, AM

- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

## Summary of junction performance

|             |             | АМ        |      |   |
|-------------|-------------|-----------|------|---|
|             | Queue (Veh) | Delay (s) | RFC  | LOS   |
|             | A1 -        | Scenario  | 1    | t territoria de la competencia de la co<br>La competencia de la c |
| Stream B-AC | 0.23        | 7.70      | 0.18 | A   |
| Stream C-AB | 0.09        | 4.97      | 0.06 | A   |
| Stream C-A  | -           |           |      | -   |
| Stream A-B  | -           | -         | -    | -   |
| Stream A-C  | 2.1         | <u> </u>  | 2°   | 123   |

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

"D1 - Scenario 1, AM " model duration: 07:45 - 09:15 "D2 - Scenario 2, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.2.316 at 14/10/2014 15:01:37

# File summary

#### **File Description**

| Title       | White Hart Lane / Wicor Mill Lane AM Existing plus DEV   |
|-------------|--|
| Location    | where the second s |
| Site Number |  |
| Date        | 13/10/2014   |
| Version     | 1.000  |
| Status      | (new file)   |
| Identifier  | a second a second  |
| Client      |  |
| Jobnumber   |  |
| Enumerator  |  |
| Description |  |

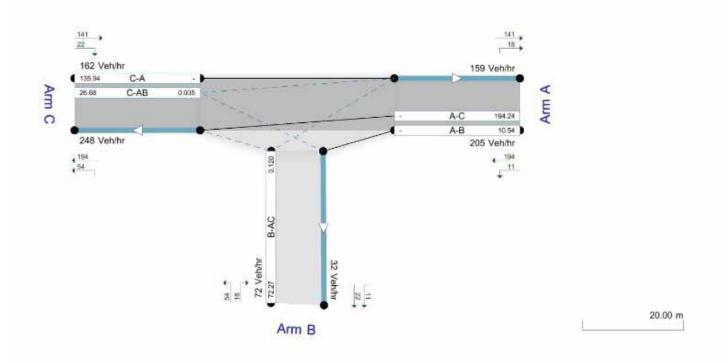


# **Analysis Options**

| Vehicle Length | Do Queue   | Calculate Residual | Residual Capacity Criteria | RFC       | Average Delay Threshold | Queue Threshold |
|----------------|------------|--------------------|----------------------------|-----------|-------------------------|-----------------|
| (m)            | Variations | Capacity           | Type                       | Threshold | (s)                     | (PCU)           |
| 5.75           |            |                    | N/A                        | 0.85      | 36.00                   | 20.00           |

## Units

| Distance Units | Speed Units | Traffic Units Input | Traffic Units Results | Flow Units | Average Delay Units | Total Delay Units | Rate Of Delay Units |
|----------------|-------------|---------------------|-----------------------|------------|---------------------|-------------------|---------------------|
| m              | kph         | Veh                 | Veh                   | perHour    | S                   | -Min              | perMin              |



Ted overlaps there excluded their transfer the landse setury rest cell laws. Velve), Severe operations show Train Demand (VelVe) Severe (downamean) etces IPC ( Trains Segment (07:45:000) Showing Analysis Set "A1.", Demand Set "D1 - Scienario 1, AM."

The junction diagram reflects the last run of ARCADY.



# (Default Analysis Set) - Scenario 1, AM

## Data Errors and Warnings

No errors or warnings

## Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

## **Demand Set Details**

| Name              | Scenario<br>Name | Time<br>Period<br>Name | Description | Traffic<br>Profile<br>Type | Model Start<br>Time (HH:mm) | Model Finish<br>Time (HH:mm) | Model Time<br>Period Length<br>(min) | Time Segment<br>Length (min) | Single Time<br>Segment Only | Locked |
|-------------------|------------------|------------------------|-------------|----------------------------|-----------------------------|------------------------------|--------------------------------------|------------------------------|-----------------------------|--------|
| Scenario 1,<br>AM | Scenario 1       | АМ                     |             | ONE<br>HOUR                | 07:45                       | 09:15                        | 90                                   | 15                           |                             |        |

# **Junction Network**

#### Junctions

| Name                              | Junction Type | Major Road Direction | Arm Order | Junction Delay (s) | Junction LOS |
|-----------------------------------|---------------|----------------------|-----------|--------------------|--------------|
| White Park Lane / Wicor Mill Lane | T-Junction    | Two-way              | A,B,C     | 6.94               | A            |

### **Junction Network Options**

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

#### Arms

| Arm | Name            | Description | Arm Type |
|-----|-----------------|-------------|----------|
| Α   | White Hart Lane |             | Major    |
| в   | Wicor Mill Lane |             | Minor    |
| С   | White Hart Lane |             | Major    |

#### **Major Arm Geometry**

| Arm | Width of<br>carriageway (m) | Has kerbed central reserve | Width of kerbed central<br>reserve (m) | Has right<br>turn bay | Width For Right<br>Turn (m) | Visibility For Right<br>Turn (m) | Blocks? | Blocking Queue<br>(PCU) |
|-----|-----------------------------|----------------------------|--|-----------------------|-----------------------------|----------------------------------|---------|-------------------------|
| С   | 6.70                        |                            | 0.00                                   |                       | 2.20                        | 250.00                           | ~       | 0.00                    |

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

#### Minor Arm Geometry

| Arm | Minor<br>Arm<br>Type | Lane<br>Width<br>(m) | Lane<br>Width<br>(Left) (m) | Lane Width<br>(Right) (m) | Width at<br>give-way<br>(m) | Width at<br>5m (m) | Width at<br>10m (m) | Width at<br>15m (m) | Width at 20m (m) | Estimate<br>Flare<br>Length | Flare<br>Length<br>(PCU) | Visibility To<br>Left (m) | Visibility To<br>Right (m) |
|-----|----------------------|----------------------|-----------------------------|---------------------------|-----------------------------|--------------------|---------------------|---------------------|------------------|-----------------------------|--------------------------|---------------------------|----------------------------|
| в   | One<br>lane          | 3.20                 |                             |                           |                             |                    |                     |                     |                  |                             |                          | 100                       | 105                        |



#### Pedestrian Crossings

| Arm | Crossing Type |
|-----|---------------|
| A   | None          |
| В   | None          |
| С   | None          |

#### Slope / Intercept / Capacity

#### **Priority Intersection Slopes and Intercepts**

| Junction | Stream | Intercept<br>(Veh/hr) | Slope<br>for<br>A-B | Slope<br>for<br>A-C | Slope<br>for<br>C-A | Slope<br>for<br>C-B |
|----------|--------|-----------------------|---------------------|---------------------|---------------------|---------------------|
| 1        | B-A    | 574.600               | 0.101               | 0.256               | 0.161               | 0.366               |
| 1        | B-C    | 703.854               | 0.105               | 0.264               | 1                   |                     |
| 1        | C-B    | 718.741               | 0.270               | 0.270               | -                   | -                   |

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 Flows**

## **Demand Set Data Options**

| Default<br>Vehicle<br>Mix | Vehicle<br>Mix Varies<br>Over Time | Vehicle<br>Mix Varies<br>Over Turn | Vehicle Mix<br>Varies<br>Over Entry | Vehicle Mix<br>Source | PCU<br>Factor for<br>a HV<br>(PCU) | Default<br>Turning<br>Proportions | Estimate<br>from<br>entry/exit<br>counts | Turning<br>Proportions<br>Vary Over Time | Turning<br>Proportions<br>Vary Over Turn | Turning<br>Proportions<br>Vary Over Entry |
|---------------------------|------------------------------------|------------------------------------|-------------------------------------|-----------------------|------------------------------------|-----------------------------------|--|--|--|---|
|                           |                                    | ~                                  | <b>V</b> :                          | HV<br>Percentages     | 2.00                               |                                   |  |  | ~  | ✓-  |

# **Entry Flows**

## **General Flows Data**

| Årm | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-----|--------------|--------------------|------------------------------|-------------------------|
| Α   | ONE HOUR     | 1                  | 272.00                       | 100.000                 |
| В   | ONE HOUR     | ~                  | 96.00                        | 100.000                 |
| С   | ONE HOUR     | 1                  | 216.00                       | 100.000                 |

# **Turning Proportions**

Turning Counts or Proportions (Veh/hr) - Junction 1 (for whole period)

|       |   | То      |        |         |  |  |  |  |  |
|-------|---|---------|--------|---------|--|--|--|--|--|
|       | 1 | A       | В      | С       |  |  |  |  |  |
| 4.3.3 | Α | 0.000   | 14.000 | 258.000 |  |  |  |  |  |
| From  | в | 24.000  | 0.000  | 72.000  |  |  |  |  |  |
|       | С | 187.000 | 29.000 | 0.000   |  |  |  |  |  |



#### Turning Proportions (Veh) - Junction 1 (for whole period)

|        | í. | Α    | В    | С    |  |
|--------|----|------|------|------|--|
| 120000 | Α  | 0.00 | 0.05 | 0.95 |  |
| From   | В  | 0.25 | 0.00 | 0.75 |  |
|        | С  | 0.87 | 0.13 | 0.00 |  |

# **Vehicle Mix**

Average PCU Per Vehicle - Junction 1 (for whole period)

|      | То |       |       |       |  |  |  |  |
|------|----|-------|-------|-------|--|--|--|--|
|      | í. | Α     | В     | С     |  |  |  |  |
| 2000 | Α  | 1.000 | 1.000 | 1.000 |  |  |  |  |
| From | в  | 1.000 | 1.000 | 1.000 |  |  |  |  |
|      | С  | 1.000 | 1.000 | 1.000 |  |  |  |  |

Heavy Vehicle Percentages - Junction 1 (for whole period)

|      |     | То    |       |       |  |  |  |  |  |
|------|-----|-------|-------|-------|--|--|--|--|--|
|      | i – | Α     | В     | С     |  |  |  |  |  |
| 2000 | Α   | 0.000 | 0.000 | 0.000 |  |  |  |  |  |
| From | В   | 0.000 | 0.000 | 0.000 |  |  |  |  |  |
|      | С   | 0.000 | 0.000 | 0.000 |  |  |  |  |  |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 0.18    | 7.70          | 0.23            | А       |
| C-AB   | 0.06    | 4.97          | 0.09            | A       |
| C-A    | -       |               | -               | -       |
| A-B    | )       | 323           | () <u> </u>     | - 92    |
| A-C    | -       | 1.00          | -               | 27      |

## Main Results for each time segment

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr)   | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|---|-------|-----------------|-----------|-----|
| B-AC   | 72.27                 | 71.73               | 0.00                       | 602.96  | 0.120 | 0.14            | 6.769     | A   |
| C-AB   | 26.68                 | 26.48               | 0.00                       | 751.84  | 0.035 | 0.05            | 4.961     | A   |
| C-A    | 135.94                | 135.94              | 0.00                       | -   | -     |                 |           | -   |
| A-B    | 10.54                 | 10.54               | 0.00                       | 1.00  | ( e ( | (i+)            |           | 1   |
| A-C    | 194.24                | 194.24              | 0.00                       | 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - | 2     |                 | 1 Q       | 12  |



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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS  |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|------|
| B-AC   | 86.30                 | 86.16               | 0.00                       | 590.44            | 0.146 | 0.17            | 7.137     | A    |
| C-AB   | 33 <mark>.1</mark> 9  | 33.13               | 0.00                       | 759.04            | 0.044 | 0.06            | 4.959     | A    |
| C-A    | 160.99                | 160.99              | 0.00                       | 8789              | -     | 12.74           |           | - 21 |
| A-B    | 12.59                 | 12.59               | 0.00                       | -                 | िल्हा |                 | -         | -7   |
| A-C    | 231.94                | 231.94              | 0.00                       | 120               | 1     | 12              | 1         | 2    |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh)   | Delay (s) | LOS  |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-------------------|-----------|------|
| B-AC   | 105.70                | 105.48              | 0.00                       | 573.02            | 0.184 | 0.22              | 7.697     | A    |
| C-AB   | 42.98                 | 42.88               | 0.00                       | 769.30            | 0.056 | 0.09              | 4.958     | A    |
| C-A    | 194.84                | 194.84              | 0.00                       | 1.76              |       | 12.74             |           | - 53 |
| A-B    | 15.41                 | 15.41               | 0.00                       |                   | ( e ( | () <del>-</del> ( | -         |      |
| A-C    | 284.06                | 284.06              | 0.00                       | 120               | 1 2 1 | 12                | 1         | 1.20 |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh)   | Delay (s) | LOS  |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-------------------|-----------|------|
| B-AC   | 105.70                | 105.69              | 0.00                       | 573.01            | 0.184 | 0.23              | 7.703     | A    |
| C-AB   | 43.00                 | 43.00               | 0.00                       | 769.32            | 0.056 | 0.09              | 4.959     | A    |
| C-A    | 194.82                | 194.82              | 0.00                       | 876               |       | 12.74             |           | 1.5% |
| A-B    | 15.41                 | 15.41               | 0.00                       |                   | ( e ( | () <del>+</del> ( | -         |      |
| A-C    | 284.06                | 284.06              | 0.00                       | 120               | 1     | 12                | 1         | 1.20 |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh)   | Delay (s) | LOS  |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-------------------|-----------|------|
| B-AC   | 86.30                 | 86.51               | 0.00                       | 590.42            | 0.146 | 0.17              | 7.146     | A    |
| C-AB   | 33.22                 | 33.32               | 0.00                       | 759.08            | 0.044 | 0.06              | 4.963     | A    |
| C-A    | 160.96                | 160.96              | 0.00                       | 1.765             |       | 12.74             |           |      |
| A-B    | 12.59                 | 12.59               | 0.00                       |                   | ( e ( | () <del>+</del> ( |           | -    |
| A-C    | 231.94                | 231.94              | 0.00                       | 120               | 121   | 1                 | 1         | 1.23 |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh)   | Delay (s) | LOS  |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-------------------|-----------|------|
| B-AC   | 72.27                 | 72.42               | 0.00                       | 602.93            | 0.120 | 0.14              | 6.789     | A    |
| C-AB   | 26.72                 | 26.78               | 0.00                       | 751.88            | 0.036 | 0.05              | 4.967     | A    |
| C-A    | 135.89                | 135.89              | 0.00                       | :76               |       | 12.74             |           | - 53 |
| A-B    | 10.54                 | 10.54               | 0.00                       |                   | ( e ( | () <del>+</del> ( | -         |      |
| A-C    | 194.24                | 194.24              | 0.00                       | 120               | 12    | 1                 | 1         | 1.2  |



| Junctions 8  |
|--|
| PICADY 8 - Priority Intersection Module  |
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|  |

Filename: White Hart Lane Wicor Mill Lane.arc8 Path: S:\Clients\Stone Falconer Ltd\Land West of Moraunt Drive, Fareham - P2614\Junctions 8 Report generation date: 23/10/2014 15:21:26

- « (Default Analysis Set) Scenario 2, PM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

# Summary of junction performance

|             | РМ          |           |       |        |  |  |
|-------------|-------------|-----------|-------|--------|--|--|
|             | Queue (Veh) | Delay (s) | RFC   | LOS    |  |  |
|             | A1 -        | Scenario  | 2     | tini j |  |  |
| Stream B-AC | 0.11        | 7.41      | 0.10  | A      |  |  |
| Stream C-AB | 0.19        | 4.87      | 0.11  | А      |  |  |
| Stream C-A  | -           | -         |       |        |  |  |
| Stream A-B  | -           | -         | -     |        |  |  |
| Stream A-C  | 2.1         |           | - 200 | 122    |  |  |

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

"D1 - Scenario 1, AM" model duration: 08:00 - 09:30 "D2 - Scenario 2, PM " model duration: 17:00 - 18:30

Run using Junctions 8.0.2.316 at 23/10/2014 15:21:25

## File summary

#### **File Description**

| Title       | White Hart Lane / Wicor Mill Lane PM Peak - Existing Plus Dev   |
|-------------|---|
| Location    | Construction of the second s<br>second second sec<br>second second sec<br>second second sec |
| Site Number |   |
| Date        | 13/10/2014  |
| Version     |   |
| Status      | (new file)  |
| Identifier  | CEU COM UNU   |
| Client      |   |
| Jobnumber   |   |
| Enumerator  |   |
| Description |   |

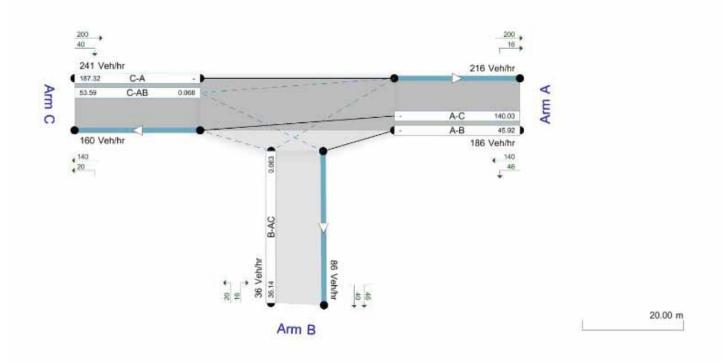


# **Analysis Options**

| Vehicle Length | Do Queue   | Calculate Residual | Residual Capacity Criteria | RFC       | Average Delay Threshold | Queue Threshold |
|----------------|------------|--------------------|----------------------------|-----------|-------------------------|-----------------|
| (m)            | Variations | Capacity           | Type                       | Threshold | (s)                     | (PCU)           |
| 5.75           |            |                    | N/A                        | 0.85      | 36.00                   | 20.00           |

## Units

| Distance Units | Speed Units | Traffic Units Input | Traffic Units Results | Flow Units | Average Delay Units | Total Delay Units | Rate Of Delay Units |
|----------------|-------------|---------------------|-----------------------|------------|---------------------|-------------------|---------------------|
| m              | kph         | Veh                 | Veh                   | perHour    | S                   | -Min              | perMin              |



Ted overlap show worked time transpir to junitio entry and will be write the lines. Velvin, severe operating show from Demand (Velvin) Severe (downaments) etcs IPC ( Trans Segment (17,20,17,25). Showing Analysis Set "A1.", Demand Set "D2 - Scienzio 2, PM."

The junction diagram reflects the last run of ARCADY.



# (Default Analysis Set) - Scenario 2, PM

## Data Errors and Warnings

No errors or warnings

## Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

# **Demand Set Details**

| Name              | Scenario<br>Name | Time<br>Period<br>Name | Description | Traffic<br>Profile<br>Type | Model Start<br>Time (HH:mm) | Model Finish<br>Time (HH:mm) | Model Time<br>Period Length<br>(min) | Time Segment<br>Length (min) | Single Time<br>Segment Only | Locked |
|-------------------|------------------|------------------------|-------------|----------------------------|-----------------------------|------------------------------|--------------------------------------|------------------------------|-----------------------------|--------|
| Scenario<br>2, PM | Scenario 2       | PM                     |             | ONE<br>HOUR                | 17:00                       | 18:30                        | 90                                   | 15                           |                             |        |

# **Junction Network**

#### Junctions

| Name                              | Junction Type | Major Road Direction | Arm Order | Junction Delay (s) | Junction LOS |
|-----------------------------------|---------------|----------------------|-----------|--------------------|--------------|
| White Hart Lane / Wicor Mill Lane | T-Junction    | Two-way              | A,B,C     | 5.84               | A            |

## **Junction Network Options**

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

## Arms

| Arm | Name       | Description | Arm Type |
|-----|------------|-------------|----------|
| Α   | (untitled) |             | Major    |
| в   | (untitled) |             | Minor    |
| С   | (untitled) |             | Major    |

# Major Arm Geometry

| Arm | Width of<br>carriageway (m) | Has kerbed central reserve | Width of kerbed central<br>reserve (m) | Has right<br>turn bay | Width For Right<br>Turn (m) | Visibility For Right<br>Turn (m) | Blocks? | Blocking Queue<br>(PCU) |
|-----|-----------------------------|----------------------------|--|-----------------------|-----------------------------|----------------------------------|---------|-------------------------|
| С   | 6.70                        |                            | 0.00                                   |                       | 2.20                        | 250.00                           | ~       | 0.00                    |

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

#### Minor Arm Geometry

| Arm | Minor<br>Arm<br>Type | Lane<br>Width<br>(m) | Lane<br>Width<br>(Left) (m) | Lane Width<br>(Right) (m) | Width at<br>give-way<br>(m) | Width at<br>5m (m) | Width at<br>10m (m) | Width at<br>15m (m) | Width at 20m (m) | Estimate<br>Flare<br>Length | Flare<br>Length<br>(PCU) | Visibility To<br>Left (m) | Visibility To<br>Right (m) |
|-----|----------------------|----------------------|-----------------------------|---------------------------|-----------------------------|--------------------|---------------------|---------------------|------------------|-----------------------------|--------------------------|---------------------------|----------------------------|
| в   | One<br>lane          | 3.20                 |                             |                           |                             |                    |                     |                     |                  |                             |                          | 100                       | 105                        |



#### Pedestrian Crossings

| Arm | Crossing Type |
|-----|---------------|
| A   | None          |
| В   | None          |
| С   | None          |

#### Slope / Intercept / Capacity

#### **Priority Intersection Slopes and Intercepts**

| Junction | Stream | Intercept<br>(Veh/hr) | Slope<br>for<br>A-B | Slope<br>for<br>A-C | Slope<br>for<br>C-A | Slope<br>for<br>C-B |
|----------|--------|-----------------------|---------------------|---------------------|---------------------|---------------------|
| 1        | B-A    | 574.600               | 0.101               | 0.256               | 0.161               | 0.366               |
| 1        | B-C    | 703.854               | 0.105               | 0.264               | 1                   |                     |
| 1        | C-B    | 718.741               | 0.270               | 0.270               | -                   | -                   |

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 Flows**

## **Demand Set Data Options**

| Default<br>Vehicle<br>Mix | Vehicle<br>Mix Varies<br>Over Time | Vehicle<br>Mix Varies<br>Over Turn | Vehicle Mix<br>Varies<br>Over Entry | Vehicle Mix<br>Source | PCU<br>Factor for<br>a HV<br>(PCU) | Default<br>Turning<br>Proportions | Estimate<br>from<br>entry/exit<br>counts | Turning<br>Proportions<br>Vary Over Time | Turning<br>Proportions<br>Vary Over Turn | Turning<br>Proportions<br>Vary Over Entry |
|---------------------------|------------------------------------|------------------------------------|-------------------------------------|-----------------------|------------------------------------|-----------------------------------|--|--|--|---|
|                           |                                    | ~                                  | <b>V</b> :                          | HV<br>Percentages     | 2.00                               |                                   |  |  | ~  | ✓-  |

# **Entry Flows**

## **General Flows Data**

| Årm | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-----|--------------|--------------------|------------------------------|-------------------------|
| Α   | ONE HOUR     | 1                  | 247.00                       | 100.000                 |
| В   | ONE HOUR     | ~                  | 48.00                        | 100.000                 |
| С   | ONE HOUR     | 1                  | 320.00                       | 100.000                 |

# **Turning Proportions**

Turning Counts or Proportions (Veh/hr) - Junction 1 (for whole period)

|              | То |         |        |         |  |  |  |  |
|--------------|----|---------|--------|---------|--|--|--|--|
|              | 1  | A       | В      | С       |  |  |  |  |
| <b>1</b> -22 | Α  | 0.000   | 61.000 | 186.000 |  |  |  |  |
| From         | в  | 21.000  | 0.000  | 27.000  |  |  |  |  |
|              | С  | 266.000 | 54.000 | 0.000   |  |  |  |  |





#### Turning Proportions (Veh) - Junction 1 (for whole period)

|      | То |      |      |      |  |  |  |
|------|----|------|------|------|--|--|--|
| -    | í. | A    | В    | С    |  |  |  |
| -    | Α  | 0.00 | 0.25 | 0.75 |  |  |  |
| From | В  | 0.44 | 0.00 | 0.56 |  |  |  |
|      | С  | 0.83 | 0.17 | 0.00 |  |  |  |

# **Vehicle Mix**

Average PCU Per Vehicle - Junction 1 (for whole period)

|        | То |       |       |       |  |  |  |  |
|--------|----|-------|-------|-------|--|--|--|--|
|        | 1  | Α     | в     | С     |  |  |  |  |
| 120303 | Α  | 1.000 | 1.000 | 1.000 |  |  |  |  |
| From   | в  | 1.000 | 1.000 | 1.000 |  |  |  |  |
|        | С  | 1.000 | 1.000 | 1.000 |  |  |  |  |

Heavy Vehicle Percentages - Junction 1 (for whole period)

|      | То |       |       |       |  |  |  |  |
|------|----|-------|-------|-------|--|--|--|--|
|      | í. | Α     | В     | С     |  |  |  |  |
| 2000 | Α  | 0.000 | 0.000 | 0.000 |  |  |  |  |
| From | В  | 0.000 | 0.000 | 0.000 |  |  |  |  |
|      | С  | 0.000 | 0.000 | 0.000 |  |  |  |  |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 0.10    | 7.41          | 0.11            | А       |
| C-AB   | 0.11    | 4.87          | 0.19            | А       |
| C-A    | -       | ( <b></b> )   | -               | -       |
| A-B    |         | 328           | () 4 ()         | - 52    |
| A-C    | -       | 1.00          | -               | 27      |

## Main Results for each time segment

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 36.14                 | 35.87               | 0.00                       | 571.97            | 0.063 | 0.07            | 6.712     | A   |
| C-AB   | 53.59                 | 53.18               | 0.00                       | 793.03            | 0.068 | 0.10            | 4.867     | A   |
| C-A    | 187.32                | 187.32              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 45.92                 | 45.92               | 0.00                       |                   | ( e ( | 2 <b>4</b> -0   | -         | 1   |
| A-C    | 140.03                | 140.03              | 0.00                       | 1. SEC            | 2     |                 |           | 23  |



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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh)  | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|------------------|-----------|-----|
| B-AC   | 43.15                 | 43.09               | 0.00                       | 558.11            | 0.077 | 0.08             | 6.989     | A   |
| C-AB   | 67.58                 | 67.45               | 0.00                       | 808.13            | 0.084 | 0.13             | 4.863     | A   |
| C-A    | 220.10                | 220.10              | 0.00                       | 576               |       | 12.74            |           |     |
| A-B    | 54.84                 | 54.84               | 0.00                       | -                 | ( e ( | ( <del>-</del> ) | -         | -7  |
| A-C    | 167.21                | 167.21              | 0.00                       | 120               | 1     | 12               | 1         | 2   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 52.85                 | 52.75               | 0.00                       | 538.78            | 0.098 | 0.11            | 7.404     | A   |
| C-AB   | 91.42                 | 91.20               | 0.00                       | 832.61            | 0.110 | 0.19            | 4.859     | A   |
| C-A    | 260.90                | 260.90              | 0.00                       | 5765              |       | 12.74           |           |     |
| A-B    | 67.16                 | 67.16               | 0.00                       |                   |       | (               | -         | -2  |
| A-C    | 204.79                | 204.79              | 0.00                       | 120               | 1 2 1 | 12              | 1 1       | 1.2 |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 52.85                 | 52.85               | 0.00                       | 538.74            | 0.098 | 0.11            | 7.408     | A   |
| C-AB   | 91.48                 | 91.48               | 0.00                       | 832.68            | 0.110 | 0.19            | 4.859     | A   |
| C-A    | 260.85                | 260.85              | 0.00                       | :76               |       | 12.74           |           | 1.5 |
| A-B    | 67.16                 | 67.16               | 0.00                       |                   | ( e ( | · · · ·         | -         |     |
| A-C    | 204.79                | 204.79              | 0.00                       | 120               | 1     | 12              | 1         | 1.2 |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS  |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|------|
| B-AC   | 43.15                 | 43.25               | 0.00                       | 558.05            | 0.077 | 0.08            | 6.993     | A    |
| C-AB   | 67.65                 | 67.86               | 0.00                       | 808.23            | 0.084 | 0.14            | 4.865     | A    |
| C-A    | 220.02                | 220.02              | 0.00                       | :76               |       | 12.74           |           | - 53 |
| A-B    | <mark>54.8</mark> 4   | 54.84               | 0.00                       | -                 | ( e ( |                 | -         | -    |
| A-C    | 167.21                | 167.21              | 0.00                       | 120               | 1 2 1 | 1               | 1 2       | 12   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh)   | Delay (s) | LOS  |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-------------------|-----------|------|
| B-AC   | 36.14                 | 36.20               | 0.00                       | 571.86            | 0.063 | 0.07              | 6.723     | A    |
| C-AB   | 53.72                 | 53.84               | 0.00                       | 793.12            | 0.068 | 0.11              | 4.873     | A    |
| C-A    | 187,20                | 187.20              | 0.00                       | :76               |       | 12.74             |           | - 53 |
| A-B    | 45.92                 | 45.92               | 0.00                       |                   | ( e ( | () <del>+</del> ( | -         |      |
| A-C    | 140.03                | 140.03              | 0.00                       | 120               | 12    | 1                 | 1         | 1.2  |



| Junctions 8  |
|--|
| PICADY 8 - Priority Intersection Module  |
| Version: 8.0.2.316 [14 Feb 2013]   |
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|  |

Filename: Castle street.arc8

Path: S:\Clients\Stone Falconer Ltd\Land West of Moraunt Drive, Fareham - P2614\Junctions 8 Report generation date: 14/10/2014 14:20:29

- « (Default Analysis Set) Scenario 1, AM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

# Summary of junction performance

|             |             | АМ        |        |      |
|-------------|-------------|-----------|--------|------|
|             | Queue (Veh) | Delay (s) | RFC    | LOS  |
|             | A1 -        | Scenario  | 1      |      |
| Stream B-AC | 0.08        | 7.48      | 0.07   | A    |
| Stream C-AB | 0.08        | 4.89      | 0.05   | A    |
| Stream C-A  | Ξ.          | -         |        |      |
| Stream A-B  |             | -         | -      | 24   |
| Stream A-C  | 2.1         | <u> </u>  | - 12 M | 1923 |

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

"D1 - Scenario 1, AM " model duration: 07:45 - 09:15 "D2 - Scenario 2, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.2.316 at 14/10/2014 14:20:29

## File summary

#### **File Description**

| Title       | White Hart Lane / Castle Street AM Existing  |
|-------------|--|
| Location    | Charles (Beller, and a start local). Books Mathematical JPP 1, 2003P. Addition 2013. |
| Site Number |  |
| Date        | 13/10/2014   |
| Version     | 111111111111   |
| Status      | (new file)   |
| Identifier  | . 3a 1-8 7 a 322   |
| Client      |  |
| Jobnumber   |  |
| Enumerator  |  |
| Description |  |



# **Analysis Options**

| Vehicle Length | Do Queue   | Calculate Residual | Residual Capacity Criteria | RFC       | Average Delay Threshold | Queue Threshold |
|----------------|------------|--------------------|----------------------------|-----------|-------------------------|-----------------|
| (m)            | Variations | Capacity           | Type                       | Threshold | (s)                     | (PCU)           |
| 5.75           |            |                    | N/A                        | 0.85      | 36.00                   | 20.00           |

#### Units

| Distance Units | Speed Units | Traffic Units Input | Traffic Units Results | Flow Units | Average Delay Units | Total Delay Units | Rate Of Delay Units |
|----------------|-------------|---------------------|-----------------------|------------|---------------------|-------------------|---------------------|
| m              | kph         | Veh                 | Veh                   | perHour    | S                   | -Min              | perMin              |

# (Default Analysis Set) - Scenario 1, AM

# **Data Errors and Warnings**

No errors or warnings

## Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | <b>Reason For Scaling Factors</b> |
|------------------------|-------------|--------|---------------------------------|-----------------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                                   |

#### **Demand Set Details**

| Name              | Scenario<br>Name | Time<br>Period<br>Name | Description | Traffic<br>Profile<br>Type | Model Start<br>Time (HH:mm) | Model Finish<br>Time (HH:mm) | Model Time<br>Period Length<br>(min) | Time Segment<br>Length (min) | Single Time<br>Segment Only | Locked |
|-------------------|------------------|------------------------|-------------|----------------------------|-----------------------------|------------------------------|--------------------------------------|------------------------------|-----------------------------|--------|
| Scenario 1,<br>AM | Scenario 1       | АМ                     |             | ONE<br>HOUR                | 07:45                       | 09:15                        | 90                                   | 15                           |                             |        |

# **Junction Network**

# Junctions

| Name          | Junction Type | Major Road Direction | Arm Order | Junction Delay (s) | Junction LOS |
|---------------|---------------|----------------------|-----------|--------------------|--------------|
| Castle Street | T-Junction    | Two-way              | A,B,C     | 6.16               | A            |

## **Junction Network Options**

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

#### Arms

| Arm | Name            | Description | Arm Type |
|-----|-----------------|-------------|----------|
| Α   | Castle Street   |             | Major    |
| в   | Castle Street   |             | Minor    |
| С   | White Hart Lane |             | Major    |

## **Major Arm Geometry**

| Arm | Width of<br>carriageway (m) | Has kerbed central reserve | Width of kerbed central reserve (m) | Has right<br>turn bay | Width For Right<br>Turn (m) | Visibility For Right<br>Turn (m) | Blocks? | Blocking Queue<br>(PCU) |
|-----|-----------------------------|----------------------------|-------------------------------------|-----------------------|-----------------------------|----------------------------------|---------|-------------------------|
| С   | 6.80                        |                            | 0.00                                |                       | 2.20                        | 150.00                           | ~       | 0.00                    |

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



## **Minor Arm Geometry**

| Arm | Minor<br>Arm<br>Type | Lane<br>Width<br>(m) | Lane<br>Width<br>(Left) (m) | Lane Width<br>(Right) (m) | Width at<br>give-way<br>(m) | Width at<br>5m (m) | Width at<br>10m (m) | Width at<br>15m (m) | Width at 20m (m) | Estimate<br>Flare<br>Length | Flare<br>Length<br>(PCU) | Visibility To<br>Left (m) | Visibility To<br>Right (m) |
|-----|----------------------|----------------------|-----------------------------|---------------------------|-----------------------------|--------------------|---------------------|---------------------|------------------|-----------------------------|--------------------------|---------------------------|----------------------------|
| в   | One<br>lane          | 3.40                 |                             |                           |                             |                    |                     |                     |                  |                             | 1                        | 150                       | 150                        |

## Pedestrian Crossings

| Arm | Crossing Type |
|-----|---------------|
| Α   | None          |
| В   | None          |
| С   | None          |

## Slope / Intercept / Capacity

#### **Priority Intersection Slopes and Intercepts**

| Junction | Stream | Intercept<br>(Veh/hr) | Slope<br>for<br>A-B | Slope<br>for<br>A-C | Slope<br>for<br>C-A | Slope<br>for<br>C-B |
|----------|--------|-----------------------|---------------------|---------------------|---------------------|---------------------|
| 1        | B-A    | 628.797               | 0.111               | 0.279               | 0.176               | 0.399               |
| 1        | B-C    | 747.135               | 0.111               | 0.279               | -                   | -                   |
| 1        | C-B    | 660.830               | 0.247               | 0.247               | 1 🖕                 | 1 s.                |

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 Flows**

#### **Demand Set Data Options**

| Default<br>Vehicle<br>Mix | Vehicle<br>Mix Varies<br>Over Time | Vehicle<br>Mix Varies<br>Over Turn | Vehicle Mix<br>Varies<br>Over Entry | Vehicle Mix<br>Source | PCU<br>Factor for<br>a HV<br>(PCU) | Default<br>Turning<br>Proportions | Estimate<br>from<br>entry/exit<br>counts | Turning<br>Proportions<br>Vary Over Time | Turning<br>Proportions<br>Vary Over Turn | Turning<br>Proportions<br>Vary Over Entry |
|---------------------------|------------------------------------|------------------------------------|-------------------------------------|-----------------------|------------------------------------|-----------------------------------|--|--|--|---|
|                           |                                    | ~                                  | ~                                   | HV<br>Percentages     | 2.00                               |                                   |  |  | ~  | 1   |

# **Entry Flows**

# **General Flows Data**

| Arm | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-----|--------------|--------------------|------------------------------|-------------------------|
| A   | ONE HOUR     | ~                  | 231.00                       | 100.000                 |
| в   | ONE HOUR     | 1                  | 35.00                        | 100.000                 |
| С   | ONE HOUR     | 1                  | 320.00                       | 100.000                 |



# **Turning Proportions**

#### Turning Counts or Proportions (Veh/hr) - Junction 1 (for whole period)

|      | То |         |        |         |  |  |  |  |
|------|----|---------|--------|---------|--|--|--|--|
|      |    | A       | В      | С       |  |  |  |  |
|      | Α  | 0.000   | 29.000 | 202.000 |  |  |  |  |
| From | В  | 29.000  | 0.000  | 6.000   |  |  |  |  |
|      | С  | 296.000 | 24.000 | 0.000   |  |  |  |  |

#### Turning Proportions (Veh) - Junction 1 (for whole period)

|      | То |      |      |      |  |  |  |
|------|----|------|------|------|--|--|--|
|      |    | Α    | В    | С    |  |  |  |
| _    | Α  | 0.00 | 0.13 | 0.87 |  |  |  |
| From | В  | 0.83 | 0.00 | 0.17 |  |  |  |
|      | С  | 0.93 | 0.08 | 0.00 |  |  |  |

# Vehicle Mix

#### Average PCU Per Vehicle - Junction 1 (for whole period)

|      | То |       |       |       |  |  |  |
|------|----|-------|-------|-------|--|--|--|
|      |    | Α     | В     | С     |  |  |  |
| -    | Α  | 1.000 | 1.000 | 1.000 |  |  |  |
| From | В  | 1.000 | 1.000 | 1.000 |  |  |  |
|      | С  | 1.000 | 1.000 | 1.000 |  |  |  |

#### Heavy Vehicle Percentages - Junction 1 (for whole period)

|      | То |       |       |       |  |  |
|------|----|-------|-------|-------|--|--|
|      |    | Α     | В     | С     |  |  |
| _    | Α  | 0.000 | 0.000 | 0.000 |  |  |
| From | В  | 0.000 | 0.000 | 0.000 |  |  |
|      | С  | 0.000 | 0.000 | 0.000 |  |  |

# Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 0.07    | 7.48          | 0.08            | A       |
| C-AB   | 0.05    | 4.89          | 0.08            | А       |
| C-A    |         | 350           |                 | 17      |
| A-B    |         | 3 <b>4</b> 3  | -               | -       |
| A-C    |         | 242           | -               | - 22    |



# Main Results for each time segment

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 26.35                 | 26.15               | 0.00                       | 560.03            | 0.047 | 0.05            | 6.742     | A   |
| C-AB   | 25.05                 | 24.88               | 0.00                       | 762.24            | 0.033 | 0.04            | 4.882     | A   |
| C-A    | 215.86                | 215.86              | 0.00                       | -                 | ( e ( | 10.44<br>10.44  | -         | 1.4 |
| A-B    | 21.83                 | 21.83               | 0.00                       | -50               |       | 27.0            | 0         | -   |
| A-C    | 152.08                | 152.08              | 0.00                       | 5<br>1-11         | ਿਤਾਂ  | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 31.46                 | 31.42               | 0.00                       | 543.06            | 0.058 | 0.06            | 7.035     | A   |
| C-AB   | 31.84                 | 31.79               | 0.00                       | 782.25            | 0.041 | 0.06            | 4.798     | A   |
| C-A    | 255.83                | 255.83              | 0.00                       |                   | ) e ( | 1.4             | -         | -   |
| A-B    | 26.07                 | 26.07               | 0.00                       |                   |       | 9 <b>7</b> .0   |           |     |
| A-C    | 181.59                | 181.59              | 0.00                       | -                 |       | -               |           | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 38.54                 | 38.46               | 0.00                       | 519.56            | 0.074 | 0.08            | 7.483     | A   |
| C-AB   | 42.35                 | 42.26               | 0.00                       | 809.78            | 0.052 | 0.08            | 4.690     | A   |
| C-A    | 309.97                | 309.97              | 0.00                       | -                 | ( )   | 11-1            | -         | -   |
| A-B    | 31.93                 | 31.93               | 0.00                       |                   |       | 27.5            |           | -   |
| A-C    | 222.41                | 222.41              | 0.00                       | -<br>             |       | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 38.54                 | 38.53               | 0.00                       | 519.54            | 0.074 | 0.08            | 7.483     | A   |
| C-AB   | 42.38                 | 42.38               | 0.00                       | 809.81            | 0.052 | 0.08            | 4.693     | A   |
| C-A    | 309.95                | 309.95              | 0.00                       |                   | ) e ( | 12-7            | -         |     |
| A-B    | 31.93                 | 31.93               | 0.00                       | -56               |       | 253             | (7)       | - 1 |
| A-C    | 222.41                | 222.41              | 0.00                       | -                 |       | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 31.46                 | 31.54               | 0.00                       | 543.02            | 0.058 | 0.06            | 7.041     | A   |
| C-AB   | 31.88                 | 31.97               | 0.00                       | 782.29            | 0.041 | 0.06            | 4.798     | A   |
| C-A    | 255.80                | 255.80              | 0.00                       |                   | ) e ( |                 | -         | -   |
| A-B    | 26.07                 | 26.07               | 0.00                       | -50               |       | 2.54            | (7)       | -   |
| A-C    | 181.59                | 181.59              | 0.00                       | -<br>             |       | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s)    | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|--------------|-----|
| B-AC   | 26.35                 | 26.40               | 0.00                       | 559.96            | 0.047 | 0.05            | 6.749        | A   |
| C-AB   | 25.11                 | 25.17               | 0.00                       | 762.28            | 0.033 | 0.04            | 4.886        | A   |
| C-A    | 215.80                | 215.80              | 0.00                       |                   | ) e ( | 100             | -            |     |
| A-B    | 21.83                 | 21.83               | 0.00                       |                   | 5     | ्रहरू           | ( <b>7</b> ) |     |
| A-C    | 152.08                | 152.08              | 0.00                       | -<br>             | ਿਫ਼   | -               | -            | -   |



# Junctions 8 PICADY 8 - Priority Intersection Module Version: 8.0.2.316 [14 Feb 2013]

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Filename: Castle street.arc8

Path: S:\Clients\Stone Falconer Ltd\Land West of Moraunt Drive, Fareham - P2614\Junctions 8 Report generation date: 14/10/2014 14:21:10

« (Default Analysis Set) - Scenario 2, PM

- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

## Summary of junction performance

|             |                 | РМ        |      |     |  |  |  |  |
|-------------|-----------------|-----------|------|-----|--|--|--|--|
|             | Queue (Veh)     | Delay (s) | RFC  | LOS |  |  |  |  |
|             | A1 - Scenario 2 |           |      |     |  |  |  |  |
| Stream B-AC | 0.07            | 7.19      | 0.07 | A   |  |  |  |  |
| Stream C-AB | 0.01            | 5.24      | 0.01 | A   |  |  |  |  |
| Stream C-A  | -               | -         |      |     |  |  |  |  |
| Stream A-B  | ÷.              | -         | -    | 24  |  |  |  |  |
| Stream A-C  | 2.1             |           | 22   | 1   |  |  |  |  |

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

"D1 - Scenario 1, AM" model duration: 07:45 - 09:15

"D2 - Scenario 2, PM " model duration: 16:45 - 18:15

Run using Junctions 8.0.2.316 at 14/10/2014 14:21:09

## File summary

#### **File Description**

| Title       | White Hart Lane / Castle Street AM Existing   |
|-------------|---|
| Location    | Constraints of the second s |
| Site Number |   |
| Date        | 13/10/2014  |
| Version     | 12.22.2   |
| Status      | (new file)  |
| Identifier  | . An 1-A 1 a 222  |
| Client      |   |
| Jobnumber   |   |
| Enumerator  |   |
| Description |   |



# **Analysis Options**

| Vehicle Length | Do Queue   | Calculate Residual | Residual Capacity Criteria | RFC       | Average Delay Threshold | Queue Threshold |
|----------------|------------|--------------------|----------------------------|-----------|-------------------------|-----------------|
| (m)            | Variations | Capacity           | Type                       | Threshold | (s)                     | (PCU)           |
| 5.75           |            |                    | N/A                        | 0.85      | 36.00                   | 20.00           |

#### Units

| Distance Units | Speed Units | Traffic Units Input | Traffic Units Results | Flow Units | Average Delay Units | Total Delay Units | Rate Of Delay Units |
|----------------|-------------|---------------------|-----------------------|------------|---------------------|-------------------|---------------------|
| m              | kph         | Veh                 | Veh                   | perHour    | S                   | -Min              | perMin              |

# (Default Analysis Set) - Scenario 2, PM

# **Data Errors and Warnings**

No errors or warnings

#### Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | <b>Reason For Scaling Factors</b> |
|------------------------|-------------|--------|---------------------------------|-----------------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                                   |

#### **Demand Set Details**

| Name              | Scenario<br>Name | Time<br>Period<br>Name | Description | Traffic<br>Profile<br>Type | Model Start<br>Time (HH:mm) | Model Finish<br>Time (HH:mm) | Model Time<br>Period Length<br>(min) | Time Segment<br>Length (min) | Single Time<br>Segment Only | Locked |
|-------------------|------------------|------------------------|-------------|----------------------------|-----------------------------|------------------------------|--------------------------------------|------------------------------|-----------------------------|--------|
| Scenario<br>2, PM | Scenario 2       | PM                     |             | ONE<br>HOUR                | 16:45                       | 18:15                        | 90                                   | 15                           |                             |        |

# **Junction Network**

# Junctions

|    | Name         | Junction Type | Major Road Direction | Arm Order | Junction Delay (s) | Junction LOS |
|----|--------------|---------------|----------------------|-----------|--------------------|--------------|
| Ca | astle Street | T-Junction    | Two-way              | A,B,C     | 6.92               | A            |

## **Junction Network Options**

| Driving Side | Lighting       |  |  |  |
|--------------|----------------|--|--|--|
| Left         | Normal/unknown |  |  |  |

# Arms

#### Arms

| Arm | Name            | Description | Arm Type |
|-----|-----------------|-------------|----------|
| Α   | Castle Street   |             | Major    |
| в   | Castle Street   |             | Minor    |
| С   | White Hart Lane |             | Major    |

## **Major Arm Geometry**

| Arm | Width of<br>carriageway (m) | Has kerbed central reserve | Width of kerbed central reserve (m) | Has right<br>turn bay | Width For Right<br>Turn (m) | Visibility For Right<br>Turn (m) | Blocks? | Blocking Queue<br>(PCU) |
|-----|-----------------------------|----------------------------|-------------------------------------|-----------------------|-----------------------------|----------------------------------|---------|-------------------------|
| С   | 6.80                        |                            | 0.00                                |                       | 2.20                        | 150.00                           | ~       | 0.00                    |

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



## **Minor Arm Geometry**

| Arm | Minor<br>Arm<br>Type | Lane<br>Width<br>(m) | Lane<br>Width<br>(Left) (m) | Lane Width<br>(Right) (m) | Width at<br>give-way<br>(m) | Width at<br>5m (m) | Width at<br>10m (m) | Width at<br>15m (m) | Width at 20m (m) | Estimate<br>Flare<br>Length | Flare<br>Length<br>(PCU) | Visibility To<br>Left (m) | Visibility To<br>Right (m) |
|-----|----------------------|----------------------|-----------------------------|---------------------------|-----------------------------|--------------------|---------------------|---------------------|------------------|-----------------------------|--------------------------|---------------------------|----------------------------|
| в   | One<br>lane          | 3.40                 |                             |                           |                             |                    |                     |                     |                  |                             | 1                        | 150                       | 150                        |

## Pedestrian Crossings

| Arm | Crossing Type |
|-----|---------------|
| Α   | None          |
| В   | None          |
| С   | None          |

## Slope / Intercept / Capacity

#### **Priority Intersection Slopes and Intercepts**

| Junction | Stream | Intercept<br>(Veh/hr) | Slope<br>for<br>A-B | Slope<br>for<br>A-C | Slope<br>for<br>C-A | Slope<br>for<br>C-B |
|----------|--------|-----------------------|---------------------|---------------------|---------------------|---------------------|
| 1        | B-A    | 628.797               | 0.111               | 0.279               | 0.176               | 0.399               |
| 1        | B-C    | 747.135               | 0.111               | 0.279               | -                   | -                   |
| 1        | C-B    | 660.830               | 0.247               | 0.247               | 1 🖕                 | 1 s.                |

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 Flows**

#### **Demand Set Data Options**

| Default<br>Vehicle<br>Mix | Vehicle<br>Mix Varies<br>Over Time |   | Vehicle Mix<br>Varies<br>Over Entry | Vehicle Mix<br>Source | PCU<br>Factor for<br>a HV<br>(PCU) | Default<br>Turning<br>Proportions | Estimate<br>from<br>entry/exit<br>counts | Turning<br>Proportions<br>Vary Over Time | Turning<br>Proportions<br>Vary Over Turn | Turning<br>Proportions<br>Vary Over Entry |
|---------------------------|------------------------------------|---|-------------------------------------|-----------------------|------------------------------------|-----------------------------------|--|--|--|---|
|                           |                                    | ~ | ~                                   | HV<br>Percentages     | 2.00                               |                                   |  |  | ~  | 1   |

# **Entry Flows**

# **General Flows Data**

| Arm | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-----|--------------|--------------------|------------------------------|-------------------------|
| A   | ONE HOUR     | ~                  | 313.00                       | 100.000                 |
| в   | ONE HOUR     | 1                  | 32.00                        | 100.000                 |
| С   | ONE HOUR     | 1                  | 180.00                       | 100.000                 |



# **Turning Proportions**

#### Turning Counts or Proportions (Veh/hr) - Junction 1 (for whole period)

|      |   | То      |        |              |  |  |  |  |  |  |
|------|---|---------|--------|--------------|--|--|--|--|--|--|
|      |   | Α       | В      | C<br>271.000 |  |  |  |  |  |  |
|      | Α | 0.000   | 42.000 |              |  |  |  |  |  |  |
| From | В | 24.000  | 0.000  | 8.000        |  |  |  |  |  |  |
|      | С | 176.000 | 4.000  | 0.000        |  |  |  |  |  |  |

#### Turning Proportions (Veh) - Junction 1 (for whole period)

|      | То |      |      |      |  |  |
|------|----|------|------|------|--|--|
|      |    | Α    | В    | С    |  |  |
| _    | Α  | 0.00 | 0.13 | 0.87 |  |  |
| From | В  | 0.75 | 0.00 | 0.25 |  |  |
|      | С  | 0.98 | 0.02 | 0.00 |  |  |

# Vehicle Mix

#### Average PCU Per Vehicle - Junction 1 (for whole period)

|      | ļ. | 1     | То    |       |
|------|----|-------|-------|-------|
|      |    | Α     | В     | С     |
| -    | Α  | 1.000 | 1.000 | 1.000 |
| From | В  | 1.000 | 1.000 | 1.000 |
|      | С  | 1.000 | 1.000 | 1.000 |

#### Heavy Vehicle Percentages - Junction 1 (for whole period)

|      | ļ |       | То    | _     |
|------|---|-------|-------|-------|
|      |   | Α     | В     | С     |
| _    | Α | 0.000 | 0.000 | 0.000 |
| From | В | 0.000 | 0.000 | 0.000 |
| -    | С | 0.000 | 0.000 | 0.000 |

# Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 0.07    | 7.19          | 0.07            | A       |
| C-AB   | 0.01    | 5.24          | 0.01            | A       |
| C-A    |         | 350           |                 | 17      |
| A-B    |         | 3 <b>4</b> 3  | -               |         |
| A-C    | -       | 1423          | -               | 2       |



# Main Results for each time segment

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 24.09                 | 23.92               | 0.00                       | 573.64            | 0.042 | 0.04            | 6.547     | A   |
| C-AB   | 3.70                  | 3.68                | 0.00                       | 690.30            | 0.005 | 0.01            | 5.242     | A   |
| C-A    | 131.81                | 131.81              | 0.00                       | -                 | ) e j |                 | -         | -   |
| A-B    | 31.62                 | 31.62               | 0.00                       | -50               |       | 27.0            | (7)       | -   |
| A-C    | 204.02                | 204.02              | 0.00                       | -                 | ंदां  | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 28.77                 | 28.73               | 0.00                       | 557.80            | 0.052 | 0.05            | 6.804     | A   |
| C-AB   | 4.62                  | 4.61                | 0.00                       | 696.79            | 0.007 | 0.01            | 5.200     | A   |
| C-A    | 157.20                | 157.20              | 0.00                       |                   | ) e ( |                 | [ = ]     | -   |
| A-B    | 37.76                 | 37.76               | 0.00                       | -36               |       | 9 <b>5</b> 8    | (D)       |     |
| A-C    | 243.62                | 243.62              | 0.00                       | -                 | - e 1 | -               |           | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh)  | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|------------------|-----------|-----|
| B-AC   | 35.23                 | 35.17               | 0.00                       | 535.84            | 0.066 | 0.07             | 7.190     | A   |
| C-AB   | 5.99                  | 5.98                | 0.00                       | 706.11            | 0.008 | 0.01             | 5.141     | A   |
| C-A    | 192.19                | 192.19              | 0.00                       | -                 | ( P)  | -                | -         | -   |
| A-B    | 46.24                 | 46.24               | 0.00                       | -50               |       | 27.5             |           | -   |
| A-C    | 298.38                | 298.38              | 0.00                       | -<br>             | ਿਤਾਂ  | 1 <del>-</del> 1 |           | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 35.23                 | 35.23               | 0.00                       | 535.84            | 0.066 | 0.07            | 7.190     | A   |
| C-AB   | 5.99                  | 5.99                | 0.00                       | 706.11            | 0.008 | 0.01            | 5.143     | A   |
| C-A    | 192.19                | 192.19              | 0.00                       | -                 | ) e ( | 1.4             | -         |     |
| A-B    | 46.24                 | 46.24               | 0.00                       | -56               |       | 253             | (7)       | -   |
| A-C    | 298.38                | 298.38              | 0.00                       | -                 |       | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 28.77                 | 28.83               | 0.00                       | 557.79            | 0.052 | 0.05            | 6.808     | A   |
| C-AB   | 4.62                  | 4.63                | 0.00                       | 696.80            | 0.007 | 0.01            | 5.202     | A   |
| C-A    | 157.20                | 157.20              | 0.00                       |                   | ) e ( | 11 <b>-</b> 7   | -         |     |
| A-B    | 37.76                 | 37.76               | 0.00                       | -50               |       | 2.54            | (7)       | -   |
| A-C    | 243.62                | 243.62              | 0.00                       |                   |       | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 24.09                 | 24.13               | 0.00                       | 573.63            | 0.042 | 0.04            | 6.553     | A   |
| C-AB   | 3.71                  | 3.71                | 0.00                       | 690.30            | 0.005 | 0.01            | 5.242     | A   |
| C-A    | 131.80                | 131.80              | 0.00                       |                   | ) e ( | 100             | ( = )     |     |
| A-B    | 31.62                 | 31.62               | 0.00                       |                   |       | ्रहरू           | (7)       |     |
| A-C    | 204.02                | 204.02              | 0.00                       | -                 |       | -               |           | -   |



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Filename: Castle street.arc8

Path: S:\Clients\Stone Falconer Ltd\Land West of Moraunt Drive, Fareham - P2614\Junctions 8 Report generation date: 14/10/2014 15:04:30

- « (Default Analysis Set) Scenario 1, AM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

## Summary of junction performance

|             |             | АМ        |      |     |  |  |  |
|-------------|-------------|-----------|------|-----|--|--|--|
|             | Queue (Veh) | Delay (s) | RFC  | LOS |  |  |  |
|             | A1 -        | Scenario  | 1    |     |  |  |  |
| Stream B-AC | 0.08        | 7.60      | 0.08 | A   |  |  |  |
| Stream C-AB | 0.08        | 4.82      | 0.05 | A   |  |  |  |
| Stream C-A  | -           |           |      |     |  |  |  |
| Stream A-B  | -           | -         | -    | -   |  |  |  |
| Stream A-C  | 2.1         | L .       | 22   | 12  |  |  |  |

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

"D1 - Scenario 1, AM " model duration: 07:45 - 09:15

"D2 - Scenario 2, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.2.316 at 14/10/2014 15:04:30

## File summary

#### **File Description**

| Title       | White Hart Lane / Castle Street AM EXISTING plus DEV   |
|-------------|--|
| Location    | <ul> <li>Basel Children and Solar Solar Biological Control (2007)</li> <li>Control (2007)</li> </ul>           |
| Site Number |  |
| Date        | 13/10/2014   |
| Version     | 100.000  |
| Status      | (new file)   |
| Identifier  | Ended as the second |
| Client      |  |
| Jobnumber   |  |
| Enumerator  |  |
| Description |  |



# **Analysis Options**

| Vehicle Length | Do Queue   | Calculate Residual | Residual Capacity Criteria | RFC       | Average Delay Threshold | Queue Threshold |
|----------------|------------|--------------------|----------------------------|-----------|-------------------------|-----------------|
| (m)            | Variations | Capacity           | Type                       | Threshold | (s)                     | (PCU)           |
| 5.75           |            |                    | N/A                        | 0.85      | 36.00                   | 20.00           |

### Units

| Distance Units | Speed Units | Traffic Units Input | Traffic Units Results | Flow Units | Average Delay Units | Total Delay Units | Rate Of Delay Units |
|----------------|-------------|---------------------|-----------------------|------------|---------------------|-------------------|---------------------|
| m              | kph         | Veh                 | Veh                   | perHour    | S                   | -Min              | perMin              |

# (Default Analysis Set) - Scenario 1, AM

# **Data Errors and Warnings**

No errors or warnings

#### Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | <b>Reason For Scaling Factors</b> |
|------------------------|-------------|--------|---------------------------------|-----------------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                                   |

#### **Demand Set Details**

| Name              | Scenario<br>Name | Time<br>Period<br>Name | Description | Traffic<br>Profile<br>Type | Model Start<br>Time (HH:mm) | Model Finish<br>Time (HH:mm) | Model Time<br>Period Length<br>(min) | Time Segment<br>Length (min) | Single Time<br>Segment Only | Locked |
|-------------------|------------------|------------------------|-------------|----------------------------|-----------------------------|------------------------------|--------------------------------------|------------------------------|-----------------------------|--------|
| Scenario 1,<br>AM | Scenario 1       | АМ                     |             | ONE<br>HOUR                | 07:45                       | 09:15                        | 90                                   | 15                           |                             |        |

# **Junction Network**

# Junctions

| Name          | Junction Type | Major Road Direction | Arm Order | Junction Delay (s) | Junction LOS |
|---------------|---------------|----------------------|-----------|--------------------|--------------|
| Castle Street | T-Junction    | Two-way              | A,B,C     | 6.17               | A            |

## **Junction Network Options**

| Driving Side | Lighting       |  |  |  |  |
|--------------|----------------|--|--|--|--|
| Left         | Normal/unknown |  |  |  |  |

# Arms

#### Arms

| Arm | Name            | Description | Arm Type |
|-----|-----------------|-------------|----------|
| Α   | Castle Street   |             | Major    |
| в   | Castle Street   |             | Minor    |
| С   | White Hart Lane |             | Major    |

## **Major Arm Geometry**

| Arm | Width of<br>carriageway (m) | Has kerbed central reserve | Width of kerbed central reserve (m) | Has right<br>turn bay | Width For Right<br>Turn (m) | Visibility For Right<br>Turn (m) | Blocks? | Blocking Queue<br>(PCU) |
|-----|-----------------------------|----------------------------|-------------------------------------|-----------------------|-----------------------------|----------------------------------|---------|-------------------------|
| С   | 6.80                        |                            | 0.00                                |                       | 2.20                        | 150.00                           | ~       | 0.00                    |

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



## **Minor Arm Geometry**

| Arm | Minor<br>Arm<br>Type | Lane<br>Width<br>(m) | Lane<br>Width<br>(Left) (m) | Lane Width<br>(Right) (m) | Width at<br>give-way<br>(m) | Width at<br>5m (m) | Width at<br>10m (m) | Width at<br>15m (m) | Width at 20m (m) | Estimate<br>Flare<br>Length | Flare<br>Length<br>(PCU) | Visibility To<br>Left (m) | Visibility To<br>Right (m) |
|-----|----------------------|----------------------|-----------------------------|---------------------------|-----------------------------|--------------------|---------------------|---------------------|------------------|-----------------------------|--------------------------|---------------------------|----------------------------|
| в   | One<br>lane          | 3.40                 |                             |                           |                             |                    |                     |                     |                  |                             | 1                        | 150                       | 150                        |

## Pedestrian Crossings

| Arm | Crossing Type |
|-----|---------------|
| Α   | None          |
| В   | None          |
| С   | None          |

## Slope / Intercept / Capacity

#### **Priority Intersection Slopes and Intercepts**

| Junction | Stream | Intercept<br>(Veh/hr) | Slope<br>for<br>A-B | Slope<br>for<br>A-C | Slope<br>for<br>C-A | Slope<br>for<br>C-B |
|----------|--------|-----------------------|---------------------|---------------------|---------------------|---------------------|
| 1        | B-A    | 628.797               | 0.111               | 0.279               | 0.176               | 0.399               |
| 1        | B-C    | 747.135               | 0.111               | 0.279               | -                   | -                   |
| 1        | C-B    | 660.830               | 0.247               | 0.247               | 1 🖕                 | 1 s.                |

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 Flows**

#### **Demand Set Data Options**

| Default<br>Vehicle<br>Mix | Vehicle<br>Mix Varies<br>Over Time |   | Vehicle Mix<br>Varies<br>Over Entry | Vehicle Mix<br>Source | PCU<br>Factor for<br>a HV<br>(PCU) | Default<br>Turning<br>Proportions | Estimate<br>from<br>entry/exit<br>counts | Turning<br>Proportions<br>Vary Over Time | Turning<br>Proportions<br>Vary Over Turn | Turning<br>Proportions<br>Vary Over Entry |
|---------------------------|------------------------------------|---|-------------------------------------|-----------------------|------------------------------------|-----------------------------------|--|--|--|---|
|                           |                                    | ~ | ~                                   | HV<br>Percentages     | 2.00                               |                                   |  |  | ~  | 1   |

# **Entry Flows**

# **General Flows Data**

| Arm | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-----|--------------|--------------------|------------------------------|-------------------------|
| A   | ONE HOUR     | ~                  | 241.00                       | 100.000                 |
| в   | ONE HOUR     | 1                  | 35.00                        | 100.000                 |
| С   | ONE HOUR     | 1                  | 345.00                       | 100.000                 |



# **Turning Proportions**

#### Turning Counts or Proportions (Veh/hr) - Junction 1 (for whole period)

|      |   | То      |        |         |  |  |  |
|------|---|---------|--------|---------|--|--|--|
|      |   | A       | В      | С       |  |  |  |
|      | Α | 0.000   | 29.000 | 212.000 |  |  |  |
| From | В | 29.000  | 0.000  | 6.000   |  |  |  |
|      | С | 321.000 | 24.000 | 0.000   |  |  |  |

#### Turning Proportions (Veh) - Junction 1 (for whole period)

|      | То |      |      |      |  |  |  |
|------|----|------|------|------|--|--|--|
|      |    | Α    | В    | С    |  |  |  |
| _    | Α  | 0.00 | 0.12 | 0.88 |  |  |  |
| From | В  | 0.83 | 0.00 | 0.17 |  |  |  |
|      | С  | 0.93 | 0.07 | 0.00 |  |  |  |

# Vehicle Mix

#### Average PCU Per Vehicle - Junction 1 (for whole period)

|      | ļ. | 1     | То    |       |
|------|----|-------|-------|-------|
|      |    | Α     | В     | С     |
| -    | Α  | 1.000 | 1.000 | 1.000 |
| From | В  | 1.000 | 1.000 | 1.000 |
|      | С  | 1.000 | 1.000 | 1.000 |

#### Heavy Vehicle Percentages - Junction 1 (for whole period)

|      | ļ | То    |       |       |  |  |
|------|---|-------|-------|-------|--|--|
|      |   | Α     | В     | С     |  |  |
| _    | Α | 0.000 | 0.000 | 0.000 |  |  |
| From | В | 0.000 | 0.000 | 0.000 |  |  |
|      | С | 0.000 | 0.000 | 0.000 |  |  |

# Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 0.08    | 7.60          | 0.08            | A       |
| C-AB   | 0.05    | 4.82          | 0.08            | А       |
| C-A    |         | 350           |                 | 17      |
| A-B    |         | 2 <b>.</b>    | i               | -       |
| A-C    |         | 242           | -               | - 92    |



# Main Results for each time segment

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 26.35                 | 26.15               | 0.00                       | 554.93            | 0.047 | 0.05            | 6.807     | A   |
| C-AB   | 25.70                 | 25.52               | 0.00                       | 772.47            | 0.033 | 0.04            | 4.820     | A   |
| C-A    | 234.03                | 234.03              | 0.00                       | -                 | ( e ( | 1.4             | -         | 1   |
| A-B    | 21.83                 | 21.83               | 0.00                       | -50               |       | 27.0            | 0         |     |
| A-C    | 159.60                | 159.60              | 0.00                       | 5<br>1-11         | ਿਤਾਂ  | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 31.46                 | 31.42               | 0.00                       | 536.95            | 0.059 | 0.06            | 7.121     | A   |
| C-AB   | 32.81                 | 32.75               | 0.00                       | 794.39            | 0.041 | 0.06            | 4.726     | A   |
| C-A    | 277.34                | 277.34              | 0.00                       |                   | 1.2   | 1.4             | -         | -   |
| A-B    | 26.07                 | 26.07               | 0.00                       | -36               |       | 9 <b>7</b> .0   | 0         |     |
| A-C    | 190.58                | 190.58              | 0.00                       |                   | - e 1 | -               | · -       | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 38.54                 | 38.46               | 0.00                       | 512.03            | 0.075 | 0.08            | 7.602     | A   |
| C-AB   | 43.88                 | 43.79               | 0.00                       | 824.47            | 0.053 | 0.08            | 4.611     | A   |
| C-A    | 335.97                | 335.97              | 0.00                       | -                 | ( - ) | 11 <b>-</b> 1   | -         | -   |
| A-B    | 31.93                 | 31.93               | 0.00                       | -50               |       | 27.5            |           | -   |
| A-C    | 233.42                | 233.42              | 0.00                       | -<br>             |       | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 38.54                 | 38.53               | 0.00                       | 512.00            | 0.075 | 0.08            | 7.602     | A   |
| C-AB   | 43.91                 | 43.91               | 0.00                       | 824.50            | 0.053 | 0.08            | 4.612     | A   |
| C-A    | 335.94                | 335.94              | 0.00                       | -                 | ) e ( | 1               | -         |     |
| A-B    | 31.93                 | 31.93               | 0.00                       | -36               |       | 250             | (7)       | - 1 |
| A-C    | 233.42                | 233.42              | 0.00                       |                   | ( e ( | -               | -         |     |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 31.46                 | 31.54               | 0.00                       | 536.91            | 0.059 | 0.06            | 7.123     | A   |
| C-AB   | 32.85                 | 32.94               | 0.00                       | 794.44            | 0.041 | 0.06            | 4.730     | A   |
| C-A    | 277.30                | 277.30              | 0.00                       | -                 | ) e ( |                 | -         | -   |
| A-B    | 26.07                 | 26.07               | 0.00                       | -50               |       | 2.54            | (7)       | -   |
| A-C    | 190.58                | 190.58              | 0.00                       | -<br>             |       | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC    | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|--------|-----------------|-----------|-----|
| B-AC   | 26.35                 | 26.40               | 0.00                       | 554.86            | 0.047  | 0.05            | 6.814     | A   |
| C-AB   | 25.77                 | 25.82               | 0.00                       | 772.52            | 0.033  | 0.05            | 4.821     | A   |
| C-A    | 233.97                | 233.97              | 0.00                       |                   | ) e (  | 12-7            | -         | -   |
| A-B    | 21.83                 | 21.83               | 0.00                       | -36               |        | ्रहरू           | (T)       |     |
| A-C    | 159.60                | 159.60              | 0.00                       | -                 | ंत्रां | -               | -         | -   |



# Junctions 8 PICADY 8 - Priority Intersection Module Version: 8.0.2.316 [14 Feb 2013] © Copyright TRL Limited, 2014 For sales and distribution information, program advice and maintenance, contact TRL: Tel: +44 (0)1344 770758 E-mail: software@trl.co.uk Web: http://www.trlsoftware.co.uk 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: Castle street.arc8

Path: S:\Clients\Stone Falconer Ltd\Land West of Moraunt Drive, Fareham - P2614\Junctions 8 Report generation date: 23/10/2014 15:23:00

« (Default Analysis Set) - Scenario 2, PM

- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

# Summary of junction performance

|             | РМ          |           |      |        |  |  |  |  |
|-------------|-------------|-----------|------|--------|--|--|--|--|
|             | Queue (Veh) | Delay (s) | RFC  | LOS    |  |  |  |  |
|             | A1 -        | Scenario  | 2    | tini j |  |  |  |  |
| Stream B-AC | 0.07        | 7.37      | 0.07 | A      |  |  |  |  |
| Stream C-AB | 0.01        | 5.23      | 0.01 | А      |  |  |  |  |
| Stream C-A  | -           | -         |      |        |  |  |  |  |
| Stream A-B  | -           | -         | -    |        |  |  |  |  |
| Stream A-C  | 12 I        | 21        | -20  | 1      |  |  |  |  |

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

"D1 - Scenario 1, AM" model duration: 07:45 - 09:15

"D2 - Scenario 2, PM " model duration: 16:45 - 18:15

Run using Junctions 8.0.2.316 at 23/10/2014 15:22:59

## File summary

#### **File Description**

| Title       | White Hart Lane / Castle Street PM Existing Plus DEV   |
|-------------|--|
| Location    | Caller F. Mader and F. and Andre Mader Management and Social and an end of the second statements |
| Site Number |  |
| Date        | 13/10/2014   |
| Version     |  |
| Status      | (new file)   |
| Identifier  | San  |
| Client      |  |
| Jobnumber   |  |
| Enumerator  |  |
| Description |  |



# **Analysis Options**

| Vehicle Length | Do Queue   | Calculate Residual | Residual Capacity Criteria | RFC       | Average Delay Threshold | Queue Threshold |
|----------------|------------|--------------------|----------------------------|-----------|-------------------------|-----------------|
| (m)            | Variations | Capacity           | Type                       | Threshold | (s)                     | (PCU)           |
| 5.75           |            |                    | N/A                        | 0.85      | 36.00                   | 20.00           |

#### Units

| Distance Units | Speed Units | Traffic Units Input | Traffic Units Results | Flow Units | Average Delay Units | Total Delay Units | Rate Of Delay Units |
|----------------|-------------|---------------------|-----------------------|------------|---------------------|-------------------|---------------------|
| m              | kph         | Veh                 | Veh                   | perHour    | S                   | -Min              | perMin              |

# (Default Analysis Set) - Scenario 2, PM

# **Data Errors and Warnings**

No errors or warnings

## Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

#### **Demand Set Details**

| Name              | Scenario<br>Name | Time<br>Period<br>Name | Description | Traffic<br>Profile<br>Type | Model Start<br>Time (HH:mm) | Model Finish<br>Time (HH:mm) | Model Time<br>Period Length<br>(min) | Time Segment<br>Length (min) | Single Time<br>Segment Only | Locked |
|-------------------|------------------|------------------------|-------------|----------------------------|-----------------------------|------------------------------|--------------------------------------|------------------------------|-----------------------------|--------|
| Scenario<br>2, PM | Scenario 2       | PM                     |             | ONE<br>HOUR                | 16:45                       | 18:15                        | 90                                   | 15                           |                             |        |

# **Junction Network**

# Junctions

| Name          | Junction Type | Major Road Direction | Arm Order | Junction Delay (s) | Junction LOS |
|---------------|---------------|----------------------|-----------|--------------------|--------------|
| Castle Street | T-Junction    | Two-way              | A,B,C     | 7.06               | A            |

# **Junction Network Options**

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

#### Arms

| Arm | Name            | Description | Arm Type |
|-----|-----------------|-------------|----------|
| Α   | Castle Street   |             | Major    |
| в   | Castle Street   |             | Minor    |
| С   | White Hart Lane |             | Major    |

## **Major Arm Geometry**

| Arm | Width of<br>carriageway (m) | Has kerbed central reserve | Width of kerbed central reserve (m) | Has right<br>turn bay | Width For Right<br>Turn (m) | Visibility For Right<br>Turn (m) | Blocks? | Blocking Queue<br>(PCU) |
|-----|-----------------------------|----------------------------|-------------------------------------|-----------------------|-----------------------------|----------------------------------|---------|-------------------------|
| С   | 6.80                        |                            | 0.00                                |                       | 2.20                        | 150.00                           | ~       | 0.00                    |

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



## **Minor Arm Geometry**

| Arm | Minor<br>Arm<br>Type | Lane<br>Width<br>(m) | Lane<br>Width<br>(Left) (m) | Lane Width<br>(Right) (m) | Width at<br>give-way<br>(m) | Width at<br>5m (m) | Width at<br>10m (m) | Width at<br>15m (m) | Width at 20m (m) | Estimate<br>Flare<br>Length | Flare<br>Length<br>(PCU) | Visibility To<br>Left (m) | Visibility To<br>Right (m) |
|-----|----------------------|----------------------|-----------------------------|---------------------------|-----------------------------|--------------------|---------------------|---------------------|------------------|-----------------------------|--------------------------|---------------------------|----------------------------|
| в   | One<br>lane          | 3.40                 |                             |                           |                             |                    |                     |                     |                  |                             |                          | 150                       | 150                        |

#### Pedestrian Crossings

| Arm | Crossing Type |
|-----|---------------|
| Α   | None          |
| В   | None          |
| С   | None          |

## Slope / Intercept / Capacity

#### **Priority Intersection Slopes and Intercepts**

| Junction | Stream | Intercept<br>(Veh/hr) | Slope<br>for<br>A-B | Slope<br>for<br>A-C | Slope<br>for<br>C-A | Slope<br>for<br>C-B |
|----------|--------|-----------------------|---------------------|---------------------|---------------------|---------------------|
| 1        | B-A    | 628.797               | 0.111               | 0.279               | 0.176               | 0.399               |
| 1        | B-C    | 747.135               | 0.111               | 0.279               | -                   | -                   |
| 1        | C-B    | 660.830               | 0.247               | 0.247               | 1 🖕                 | 1 s.                |

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 Flows**

#### **Demand Set Data Options**

| Default<br>Vehicle<br>Mix | Vehicle<br>Mix Varies<br>Over Time |   | Vehicle Mix<br>Varies<br>Over Entry | Vehicle Mix<br>Source | PCU<br>Factor for<br>a HV<br>(PCU) | Default<br>Turning<br>Proportions | Estimate<br>from<br>entry/exit<br>counts | Turning<br>Proportions<br>Vary Over Time | Turning<br>Proportions<br>Vary Over Turn | Turning<br>Proportions<br>Vary Over Entry |
|---------------------------|------------------------------------|---|-------------------------------------|-----------------------|------------------------------------|-----------------------------------|--|--|--|---|
| 1                         |                                    | ~ | ~                                   | HV<br>Percentages     | 2.00                               |                                   |  | 1  | ~  | ~   |

# **Entry Flows**

# **General Flows Data**

| Arm | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-----|--------------|--------------------|------------------------------|-------------------------|
| A   | ONE HOUR     | ~                  | 344.00                       | 100.000                 |
| в   | ONE HOUR     | 1                  | 32.00                        | 100.000                 |
| С   | ONE HOUR     | 1                  | 196.00                       | 100.000                 |



# **Turning Proportions**

#### Turning Counts or Proportions (Veh/hr) - Junction 1 (for whole period)

|      |   | То      |        |         |  |  |  |  |  |
|------|---|---------|--------|---------|--|--|--|--|--|
|      |   | Α       | В      | С       |  |  |  |  |  |
|      | Α | 0.000   | 42.000 | 302.000 |  |  |  |  |  |
| From | В | 24.000  | 0.000  | 8.000   |  |  |  |  |  |
|      | С | 192.000 | 4.000  | 0.000   |  |  |  |  |  |

#### Turning Proportions (Veh) - Junction 1 (for whole period)

|      | То |      |      |      |  |  |  |
|------|----|------|------|------|--|--|--|
|      |    | Α    | В    | С    |  |  |  |
| _    | Α  | 0.00 | 0.12 | 0.88 |  |  |  |
| From | В  | 0.75 | 0.00 | 0.25 |  |  |  |
|      | С  | 0.98 | 0.02 | 0.00 |  |  |  |

# Vehicle Mix

#### Average PCU Per Vehicle - Junction 1 (for whole period)

|      | То |       |       |       |  |
|------|----|-------|-------|-------|--|
|      |    | Α     | В     | С     |  |
| -    | Α  | 1.000 | 1.000 | 1.000 |  |
| From | В  | 1.000 | 1.000 | 1.000 |  |
|      | С  | 1.000 | 1.000 | 1.000 |  |

#### Heavy Vehicle Percentages - Junction 1 (for whole period)

|      | То |       |       |       |  |  |
|------|----|-------|-------|-------|--|--|
|      |    | Α     | В     | С     |  |  |
| _    | Α  | 0.000 | 0.000 | 0.000 |  |  |
| From | В  | 0.000 | 0.000 | 0.000 |  |  |
|      | С  | 0.000 | 0.000 | 0.000 |  |  |

# Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 0.07    | 7.37          | 0.07            | A       |
| C-AB   | 0.01    | 5.23          | 0.01            | А       |
| C-A    |         | 350           |                 | 17      |
| A-B    |         | 3 <b>4</b> 3  | -               |         |
| A-C    |         | 242           | -               | - 92    |



# Main Results for each time segment

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 24.09                 | 23.91               | 0.00                       | 565.28            | 0.043 | 0.04            | 6.648     | A   |
| C-AB   | 3.78                  | 3.75                | 0.00                       | 692.87            | 0.005 | 0.01            | 5.223     | A   |
| C-A    | 143.78                | 143.78              | 0.00                       | -                 | ) e j |                 | -         | -   |
| A-B    | 31.62                 | 31.62               | 0.00                       | -50               |       | 27.5            | (T)       | -   |
| A-C    | 227.36                | 227.36              | 0.00                       | -                 | ंद    | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 28.77                 | 28.72               | 0.00                       | 547.80            | 0.053 | 0.05            | 6.935     | A   |
| C-AB   | 4.73                  | 4.72                | 0.00                       | 700.00            | 0.007 | 0.01            | 5.177     | A   |
| C-A    | 171.47                | 171.47              | 0.00                       | 1997              | ) e ( | -               | -         |     |
| A-B    | 37.76                 | 37.76               | 0.00                       | -36               |       | 9 <b>7</b> .0   |           | -   |
| A-C    | 271.49                | 271.49              | 0.00                       |                   |       | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 35.23                 | 35.17               | 0.00                       | 523.57            | 0.067 | 0.07            | 7.371     | A   |
| C-AB   | 6.17                  | 6.16                | 0.00                       | 710.25            | 0.009 | 0.01            | 5.112     | A   |
| C-A    | 209.63                | 209.63              | 0.00                       | -                 | ( e ) | -               | -         | -   |
| A-B    | 46.24                 | 46.24               | 0.00                       |                   |       | 27.5            |           | -   |
| A-C    | 332.51                | 332.51              | 0.00                       | -<br>             |       | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 35.23                 | 35.23               | 0.00                       | 523.56            | 0.067 | 0.07            | 7.371     | A   |
| C-AB   | 6.17                  | 6.17                | 0.00                       | 710.25            | 0.009 | 0.01            | 5.112     | A   |
| C-A    | 209.63                | 209.63              | 0.00                       |                   | ) e ( | 12-7            | -         |     |
| A-B    | 46.24                 | 46.24               | 0.00                       | -56               |       | 253             | (7)       | - 1 |
| A-C    | 332.51                | 332.51              | 0.00                       | -                 |       | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 28.77                 | 28.83               | 0.00                       | 547.80            | 0.053 | 0.06            | 6.939     | A   |
| C-AB   | 4.73                  | 4.74                | 0.00                       | 700.01            | 0.007 | 0.01            | 5.177     | A   |
| C-A    | 171.47                | 171.47              | 0.00                       | -                 | ) e ( | 11 <b>-</b> 7   | -         | -   |
| A-B    | 37.76                 | 37.76               | 0.00                       | -50               |       | 27.5            | (7)       | -   |
| A-C    | 271.49                | 271.49              | 0.00                       | -<br>             |       | -               | -         | -   |

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

| Stream | Total Demand (Veh/hr) | Entry Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | RFC   | End Queue (Veh) | Delay (s)    | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|--------------|-----|
| B-AC   | 24.09                 | 24.14               | 0.00                       | 565.28            | 0.043 | 0.04            | 6.654        | A   |
| C-AB   | 3.78                  | 3.79                | 0.00                       | 692.88            | 0.005 | 0.01            | 5.225        | A   |
| C-A    | 143.78                | 143.78              | 0.00                       |                   | ) e ( | 1.4             | -            | -   |
| A-B    | 31.62                 | 31.62               | 0.00                       |                   |       | ्र <b>त्र</b> क | ( <b>7</b> ) |     |
| A-C    | 227.36                | 227.36              | 0.00                       |                   | - e 1 | -               | -            | -   |

# APPENDIX T

Proposed Site Access

