



## TRANSPORT ASSESSMENT

## Land West of Moraunt Drive, Portchester, Hampshire

For Stone Falconer Ltd.

**OCTOBER 2014** 

The Stilwell Partnership Consulting Engineers Satelliet House 2 Nexus Park Lysons Avenue Ash Vale GU12 5QE

 Telephone:
 01276 700 400

 Fax:
 01252 544 934

 E-mail:
 info@stilwell-ltd.co.uk

 Web Site:
 www.stilwell-ltd.co.uk

Version No: 2.0



Stilwell Partnership ISO 9001:2008 Certificate No: LRQ 4004624

## **Document Location**

Ensure that this document is current. Printed documents and locally copied files may become obsolete due to changes to the master document.

This is a controlled document.

The source of the document can be found on the file server at location:

S:\Clients\Stone Falconer Ltd\Land West of Moraunt Drive, Fareham - P2614\Reports\Transport Assessment\TransportAssessmentV2.0.doc

## **Revision History**

This document has the following history:

Version No	o. Version Date	Summary of Changes	Changes marked
1.0	22/10/2014	First Draft	N/A
2.0	23/10/2014	Minor Text Changes	No

## Approvals

This document requires the following approvals:

Name	Title & Organisation
Nick J Stilwell	Managing Director – Stilwell Limited
David Brooke	Director – Stilwell Limited

## Distribution

The Final Document will also be distributed to:

Name	Organisation
Nigel Rankine	Stone Falconer Ltd.
Steve Fidgett	Alliance Planning
	Hampshire County Council

## CONTENTS

1.0	INTRODUCTION	5
2.0	LOCAL & NATIONAL PLANNING POLICY	6
3.0	SITE LOCATION	11
4.0	STUDY AREA AND METHODOLOGY	12
5.0	SUSTAINABILITY OF THE SITE	14
6.0	DEVELOPMENT PROPOSALS, LAYOUT & PARKING PROVISION	16
7.0	TRIP GENERATION	19
8.0	TRIP DISTRIBUTION & ASSIGNMENT	20
9.0	HIGHWAY IMPACT	21
10.0	CONCLUSION	24

## APPENDICES

- A Site Location Plan
- B Detailed Local Highway Network Description
- C Study Area Plan
- D Personal Injury Accident Plan
- E Detailed Personal Injury Accident Breakdown
- F Sustainability Map
- G Summary of Local Schools
- H Walking and Cycling Routes Plan
- J Public Transport Summary and Bus Routes Map
- K Illustrative Site Layout Plan
- L TRICS data
- M Existing AM and PM Peak Hour Flows
- N Existing AM and PM Root Distribution Diagrams
- P Proposed Development AM and PM Root Distribution Diagrams
- **Q** Proposed Development AM and PM Peak Hour Flows
- R AM and PM Composite Flows
- S Junctions 8 Output
- T Proposed Site Access

### 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, 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 units)	1 space per unit
Mixed Housing (2 & 3 bed units)	2 spaces per unit
Mixed Housing (4 or 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 units)	1 space per unit
Mixed Housing (2 & 3 bed units)	2 spaces per unit
Mixed Housing (4 or 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.

Version 2.0 Version Date: 23/10/2014 Author: David Brooke

### 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 – 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 Development	AM Peak (08:00 – 09:00)			ık (17:00 – 3:00)
		Arrival Departure		Arrival	Departure
Mixed private/non-private 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 Queue	Max RFC	Max 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 Queue	Max RFC	Max 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 / DoS		Proposed RFC / 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.

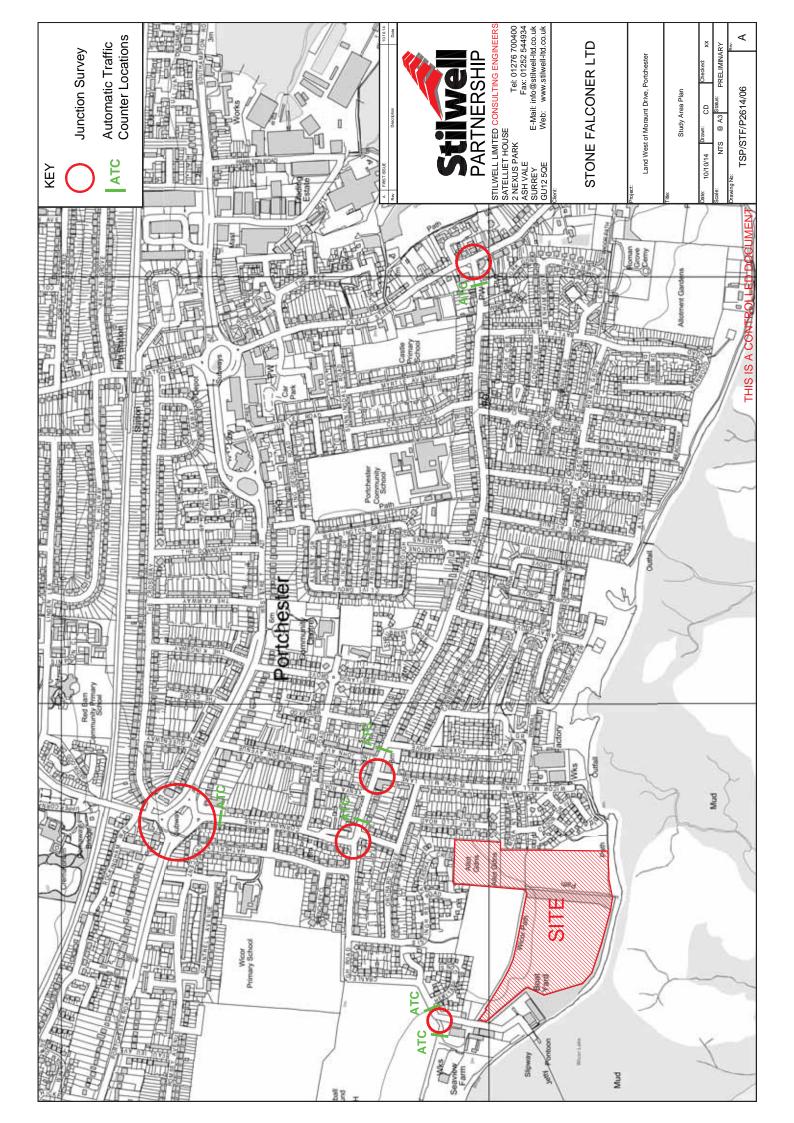
#### Cornaway Lane / White Hart Lane

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.

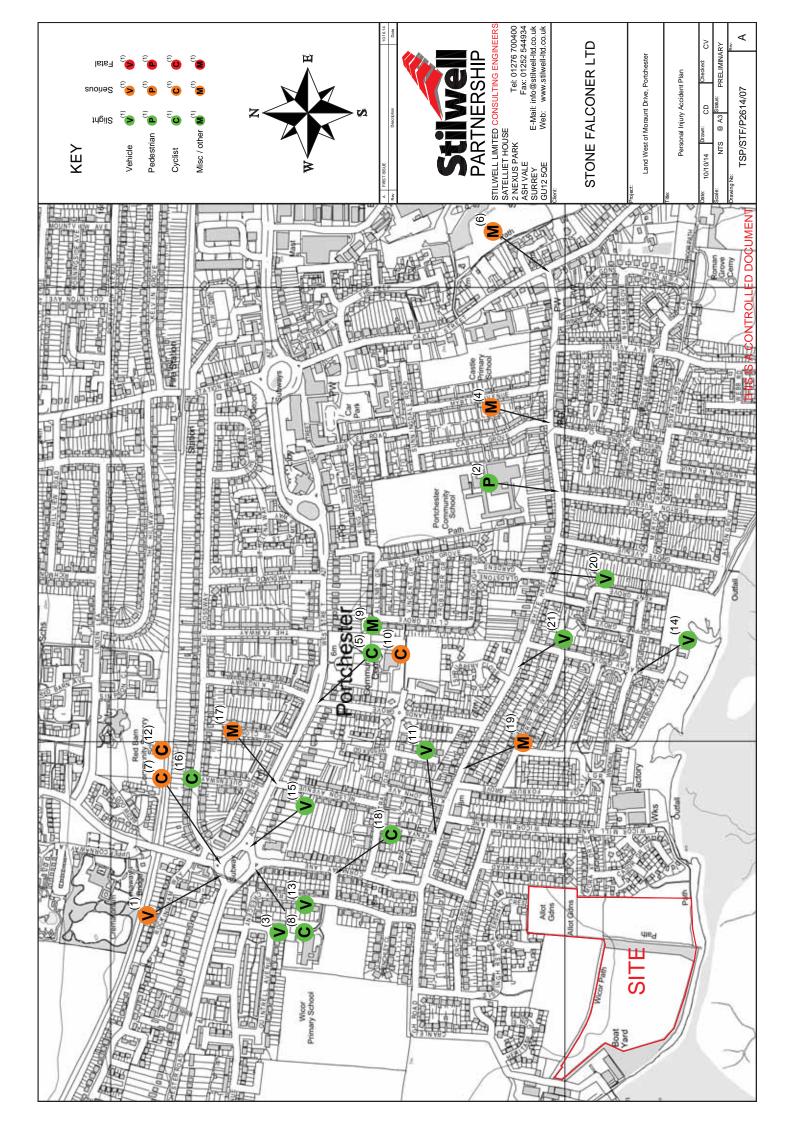
#### Portchester Road / West Street (A27)

**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.

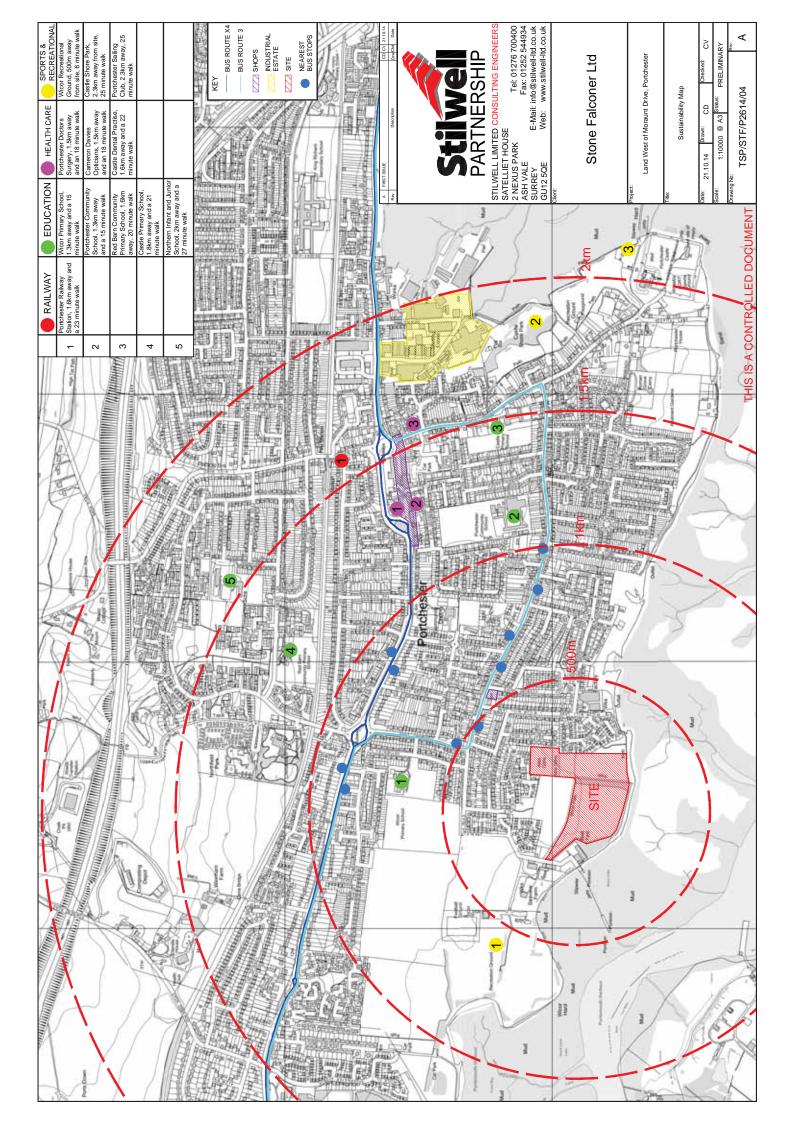
**1.11** Just 3 accidents at this junction in a 3 year period would suggest that the junction does not have a serious accident problem. A factor of two accidents at the junction included drivers failing to look properly and the accidents can therefore be put down to driver error.

#### 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.

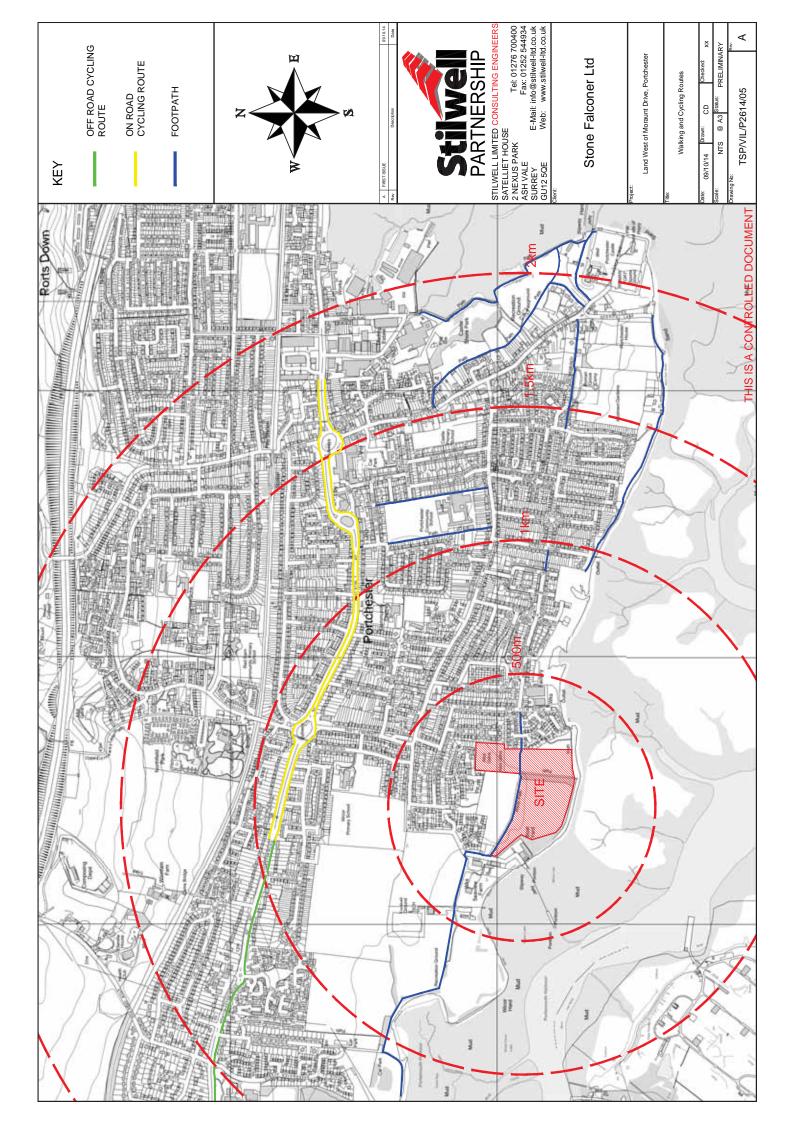
#### **The Victory Primary School**

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

Contains Ordnance Survey data © Crown Copyright 2014

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

TRICS 2000	(a) (C) 2006 JMP Consulting on behalf of the	e TRICS Consortium Thursday 19/01/06 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 ALDER DRIVE	ABERDEENSHIRE
2	PORTLETHEN Total Number of households: 104 ****** CA-03-K-01 MIXED HOUSING, CAMBRIDGE FALLOWFIELD CHESTERTON	CAMBRIDGESHIRE
3	CAMBRIDGE Total Number of households: 124 ****** CA-03-K-02 MIXED HOUSING,PETERBOROUGH THORPE ROAD	CAMBRIDGESHIRE
4	PETERBOROUGH Total Number of households: 363 ****** CF-03-K-01 MIXED PRIVATE HOUS., CARDIFF POWDERHAM DRIVE LECKWITH	CARDIFF
5	CARDIFF Total Number of households: 222 ****** ES-03-K-01 MIXED HOUSING, LEWES OLD MALLING WAY SOUTH MALLING	EAST SUSSEX
6	LEWES Total Number of households: 491 ****** GC-03-K-03 MIXED GLASGOW HOUSING DUNTREATH AVENUE DRUMCHAPEL 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 KINGSHOLM	GLOUCESTERSHIRE
10	GLOUCESTER Total Number of households: 73 ****** HC-03-K-04 PORTSMOUTH HOUSING ST GEORGES ROAD	HAMPSHIRE
11	PORTSMOUTH Total Number of households: 150 ****** HC-03-K-05 PORTSMOUTH HOUSING BROAD STREET	HAMPSHIRE
	PORTSMOUTH Total Number of households: 58 *****	

TRICS 2000	(C) 2006 JMP Consulting on behalf of the	TRICS Consortium	Thursday 19/01/06 Page 4
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 ANCELLS ROAD ANCELLS FARM FLEET	HAMPSHIRE	
13	Total Number of households: 747 ***** HC-03-K-09 WINCHESTER HOUSING RIDGEWAY/MEADOW W. BADGER FARM WINCHESTER	HAMPSHIRE	
14	Total Number of households:1040******HC-03-K-10EASTLEIGH HOUSINGKNIGHTWOOD ROADBADGER'S COPSE	HAMPSHIRE	
15	EASTLEIGH Total Number of households: 700 ****** HC-03-K-11 WINCHESTER HOUSING RIDGEWAY/MEADOW W. BADGER FARM	HAMPSHIRE	
16	WINCHESTER Total Number of households: 1040 ****** HF-03-K-01 MIXED PRI. HOUSING,WELWYN GC LONGCROFT GARDENS	HERTFORDSHIRE	
17	WELWYN GARDEN CITY Total Number of households: 53 ****** HI-03-K-01 MIXED HOUSING, INVERNESS DRUMOSSIE AVENUE DRAKIES	HIGHLAND	
18	INVERNESS Total Number of households: 11 ****** LC-03-K-07 LANCASTER HOUSING HERONSKYE SKERTON	LANCASHIRE	
19	LANCASTER Total Number of households: 135 ****** LC-03-K-08 MIXED HOUSING, BLACKBURN RHODES AVENUE FOUR LANE ENDS	LANCASHIRE	
20	BLACKBURN Total Number of households: 185 ***** LN-03-K-01 MIXED PRI. HOUSING, LINCOLN DE WINT AVENUE	LINCOLNSHIRE	
21	LINCOLN Total Number of households: 56 ****** NF-03-K-01 MIXED HOUSING, NORWICH ROBERT GYBSON WAY	NORFOLK	
22	NORWICH Total Number of households: 51 ***** NI-03-K-01 MIXED HOUSING, BELFAST BROOMHILL MANOR/CT MALONE BELFAST	NORTHERN IRELAND	
	Total Number of households:21		

TRICS 200	(C) 2006 JMP Consulting on behalf of the TRICS Consortium	Thursday 19/01/06 Page 5
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 SAINTFIELD ROAD NEWTOWNBREDA BELFAST	
24	Total Number of households:288******NI-03-K-03MIXED HOUSING, OMAGHNORTHERN IRELANDKELVIN GLENKELVIN GLEN	
25	OMAGH Total Number of households: 44 ****** NI-03-K-04 MIXED HOUSING, ANTRIM NORTHERN IRELAND PARKLANDS	
26	ANTRIM Total Number of households: 164 ***** NI-03-K-05 MIXED HOUSING, LISBURN NORTHERN IRELAND LIME TREE AVENUE	
27	LISBURN Total Number of households: 358 ***** NT-03-K-02 NEWARK HOUSING NOTTINGHAMSHIRE BEACON HILL ROAD BEACON HILL	
	NEWARK-ON-TRENT	
28	Total Number of households:394******NT-03-K-03MANSFIELD HOUSINGNOTTINGHAMSHIRELOXLEY DRIVEBERRYHILLBERRYHILL	
29	MANSFIELD Total Number of households: 61 ****** NT-03-K-04 NOTTINGHAM HOUSING NOTTINGHAMSHIRE BEAUMARIS DRIVE GEDLING	
30	NOTTINGHAM Total Number of households: 160 ****** NT-03-K-05 NOTTINGHAM HOUSING NOTTINGHAMSHIRE JENNY BURTON WAY ASHFIELD	
31	NOTTINGHAM Total Number of households: 174 ***** SF-03-K-01 MIXED HOUSING, IPSWICH SUFFOLK FINBARS WALK	
32	IPSWICH Total Number of households: 99 ****** SH-03-K-01 BRIDGNORTH HOUSING SHROPSHIRE BRAMBLE RIDGE	
33	BRIDGNORTH Total Number of households: 52 ***** ST-03-K-01 MIXED HOUSING, STAFFORD STAFFORDSHIRE THE MEADOWS QUEENSVILLE STAFFORD	
	Total Number of households: 224 *****	

TRICS 200	· · · · · · · ·	Thursday 19/01/06 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 OLD TOWN	
	STRATFORD UPON AVON	
	Total Number of households: 64 ******	
36	WO-03-K-01 MIXED HOUSING, WORCESTER WORCESTERSHIRE	
	MALVERN ROAD	
	LOWER WICK 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 ASTON FIELDS	
	BROMSGROVE	
	Total Number of households: 232 ******	
40	WS-03-K-03 HOUSING, NEAR CHICHESTER WEST SUSSEX	
	LAVANT DOWN ROAD	
	NEAR CHICHESTER 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

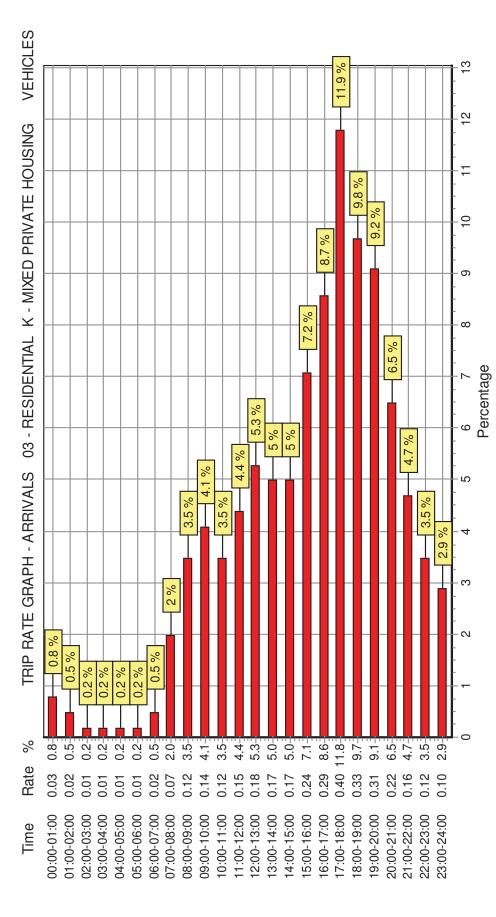
Trip rate parameter range selected:	11 - 1165 (units: )
Survey date date range:	01/01/97 - 30/06/05
Number of weekdays (Monday-Friday):	40
Number of Saturdays:	0
Number of Sundays:	0
Optional parameters used in selection:	NO
Surveys manually removed from selection:	33

TRICS 2006(a)

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

JMP Consultants Ltd 16-20 Ely Place London

Licence No: 500000



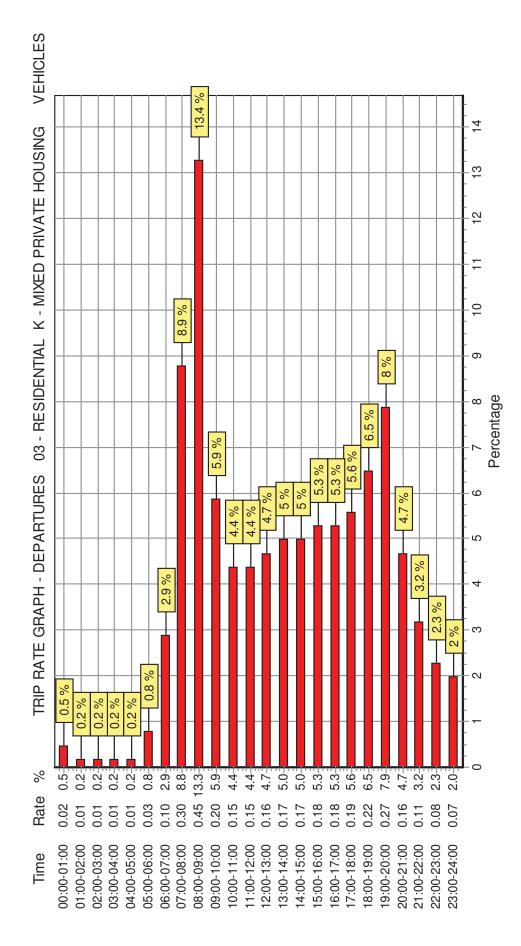
TRICS 2006(a)

16-20 Ely Place London

JMP Consultants Ltd

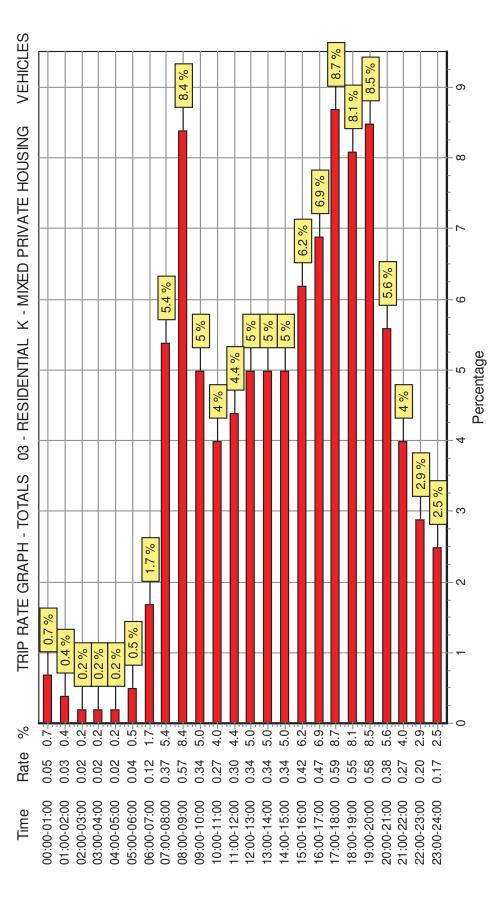
(C) 2006 JMP Consulting on behalf of the TRICS Consortium

Licence No: 500000



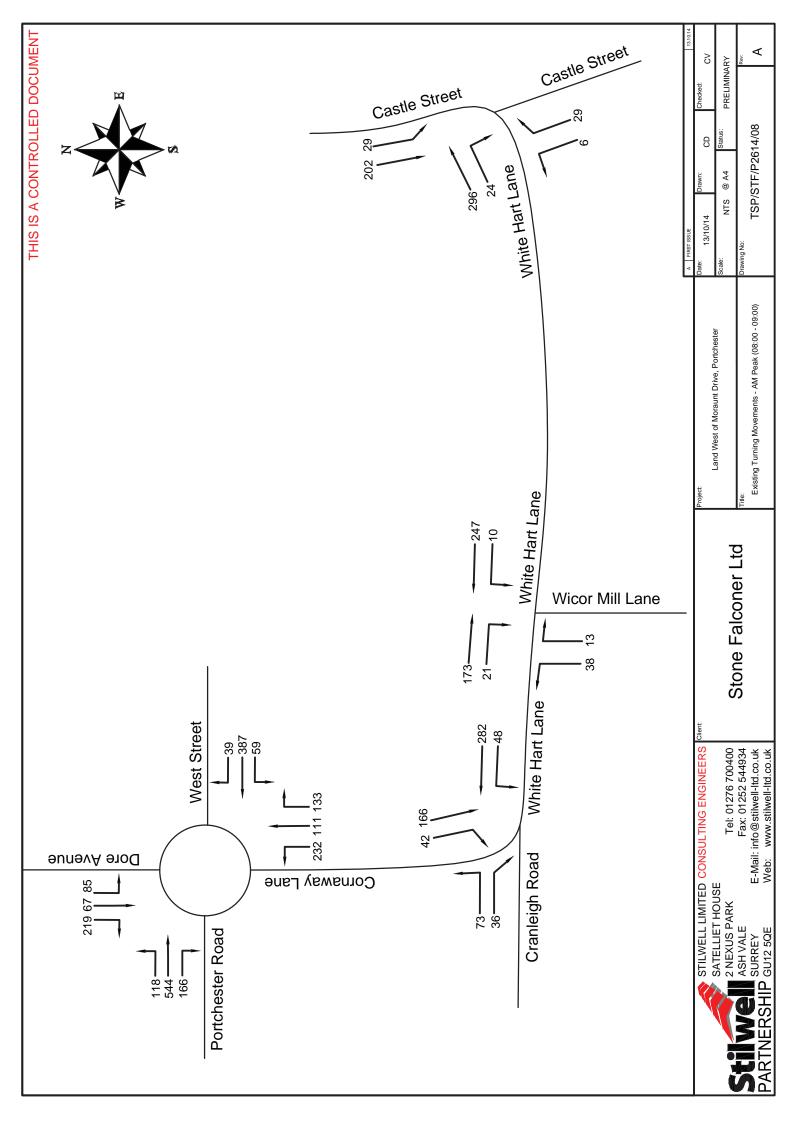
JMP Consultants Ltd 16-20 Ely Place London

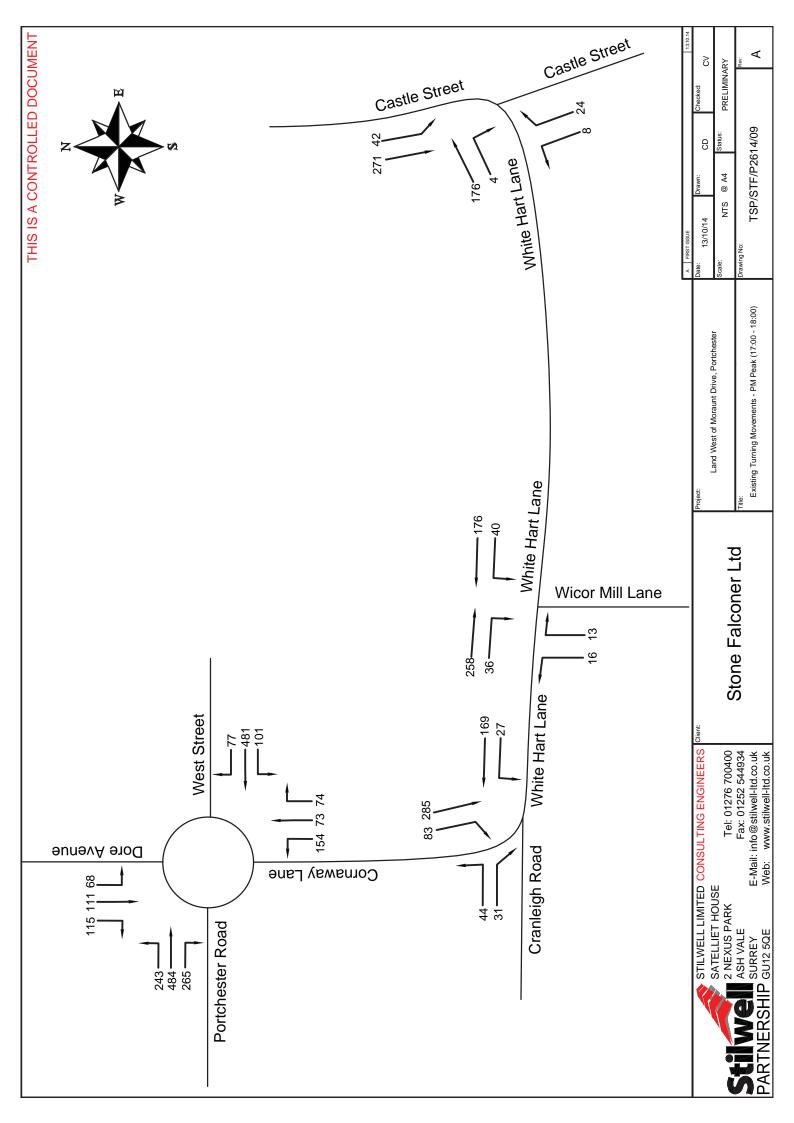
Licence No: 500000



### APPENDIX M

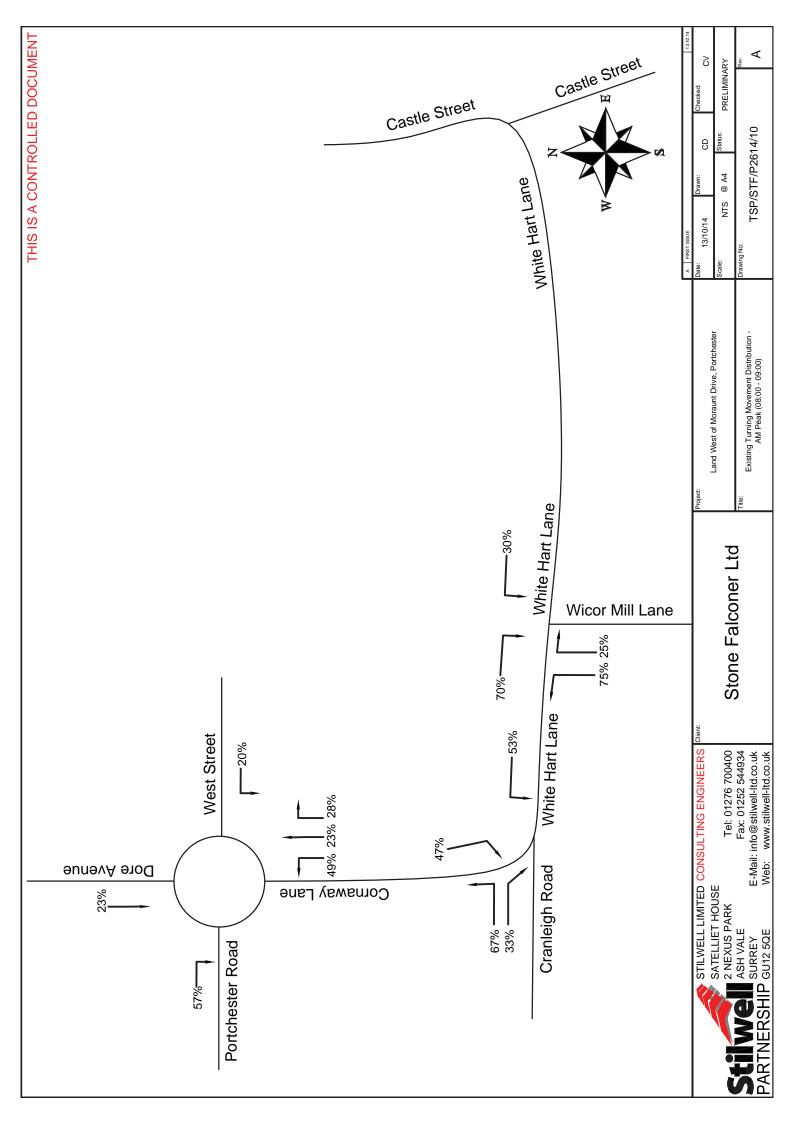
### Existing AM and PM Peak Hour Flows

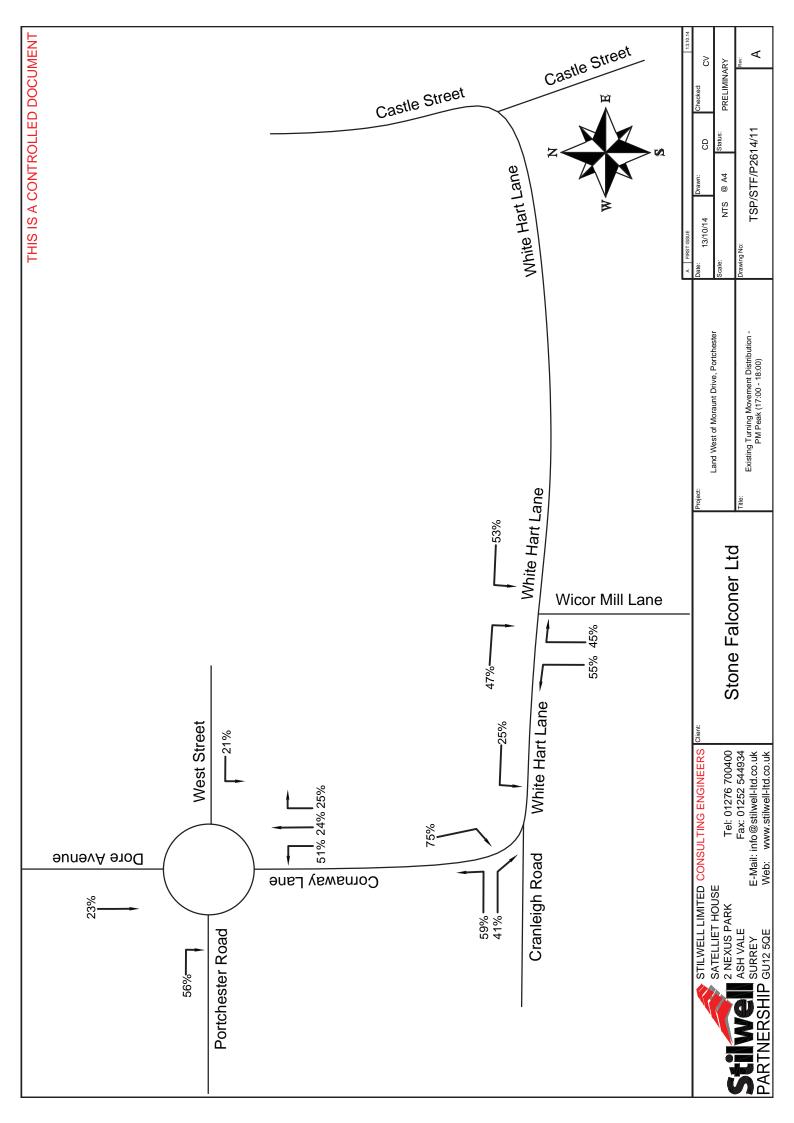




### **APPENDIX N**

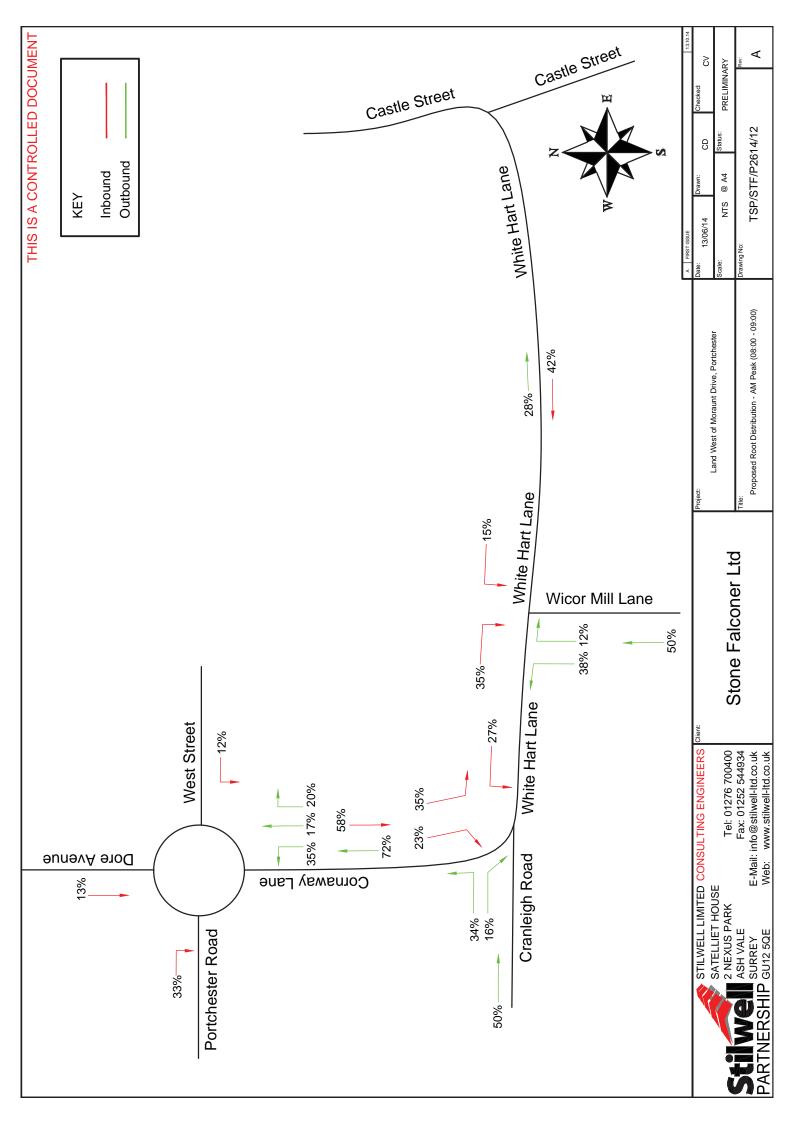
### Existing AM and PM Root Distribution Diagrams

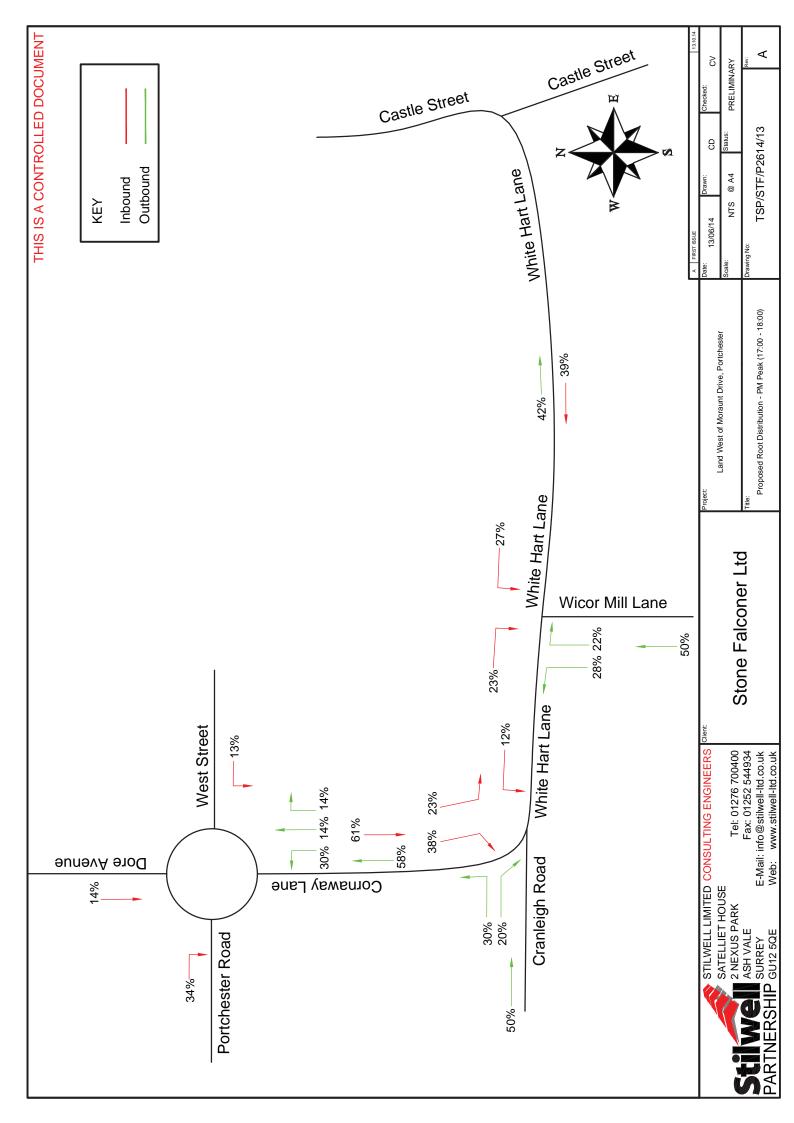




### **APPENDIX P**

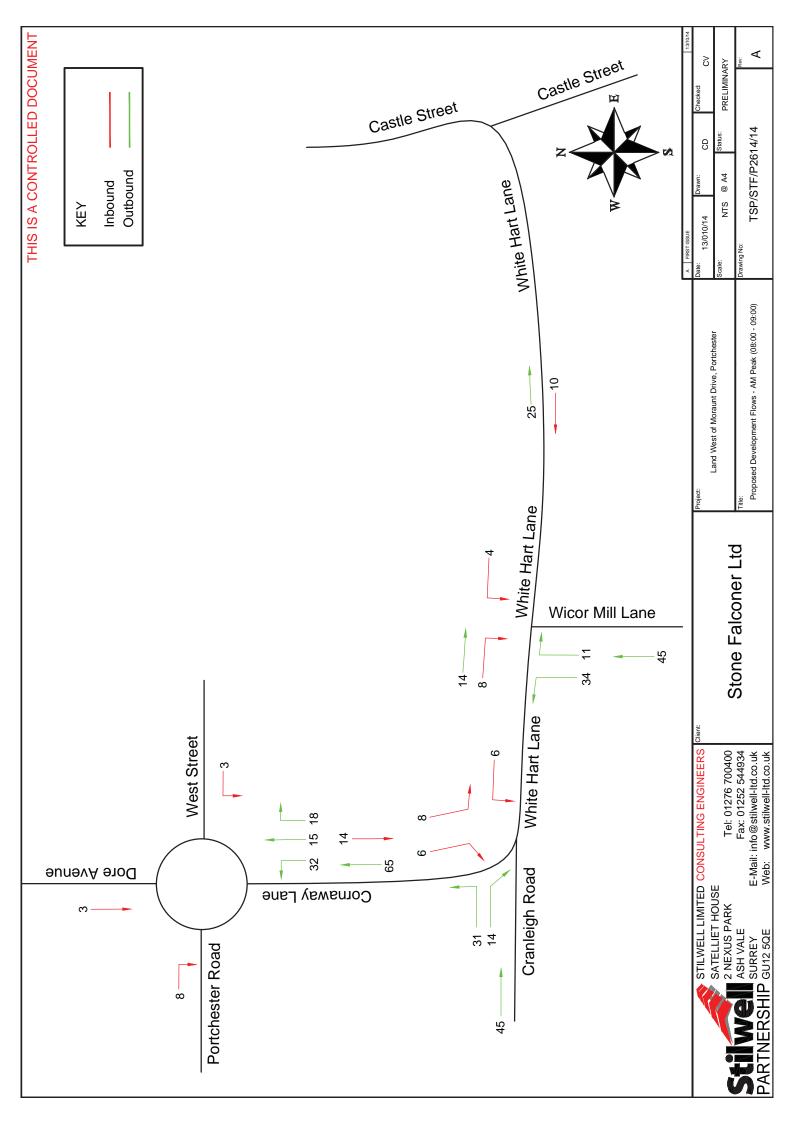
### Proposed AM and PM Root Distribution Diagrams

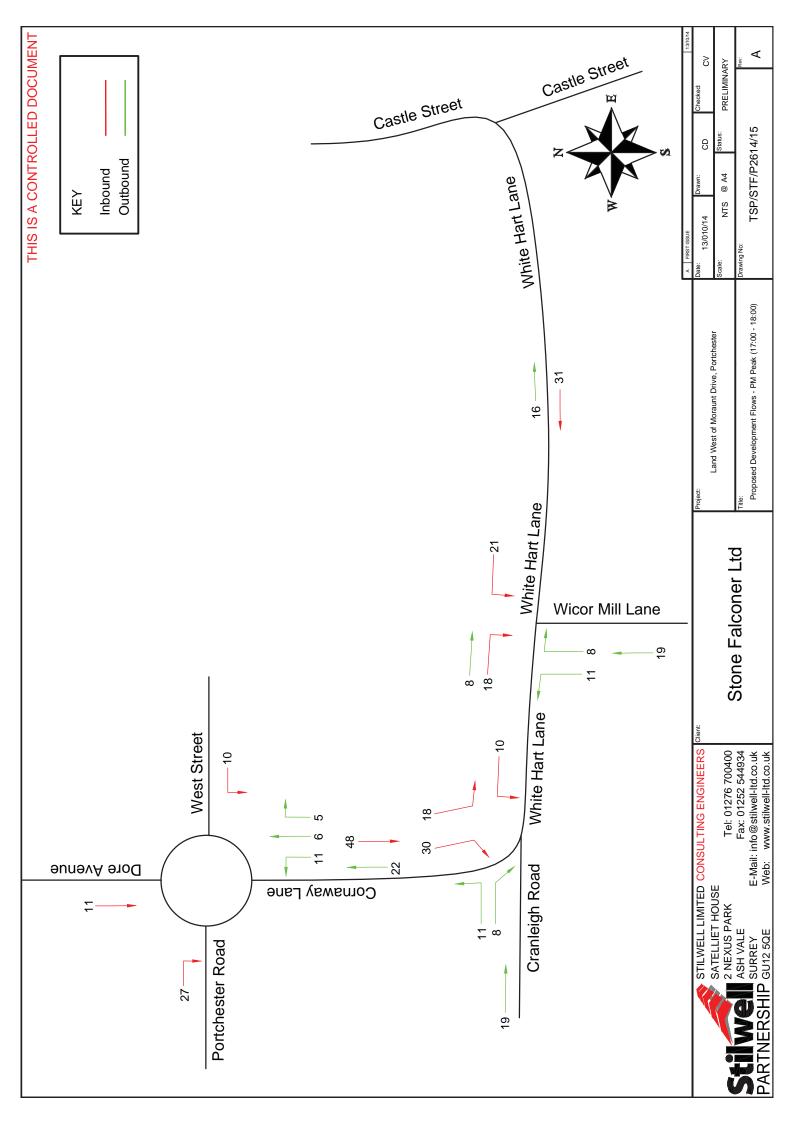




### APPENDIX Q

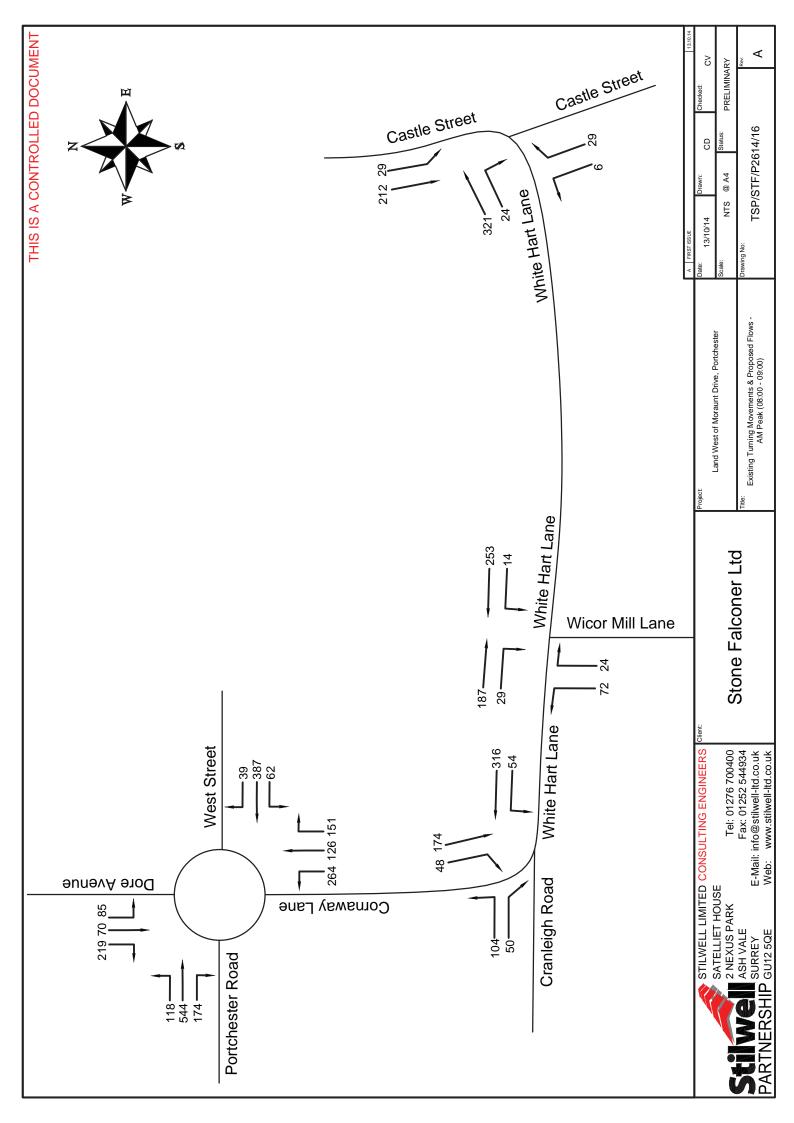
### Proposed AM and PM Peak Hour Flows

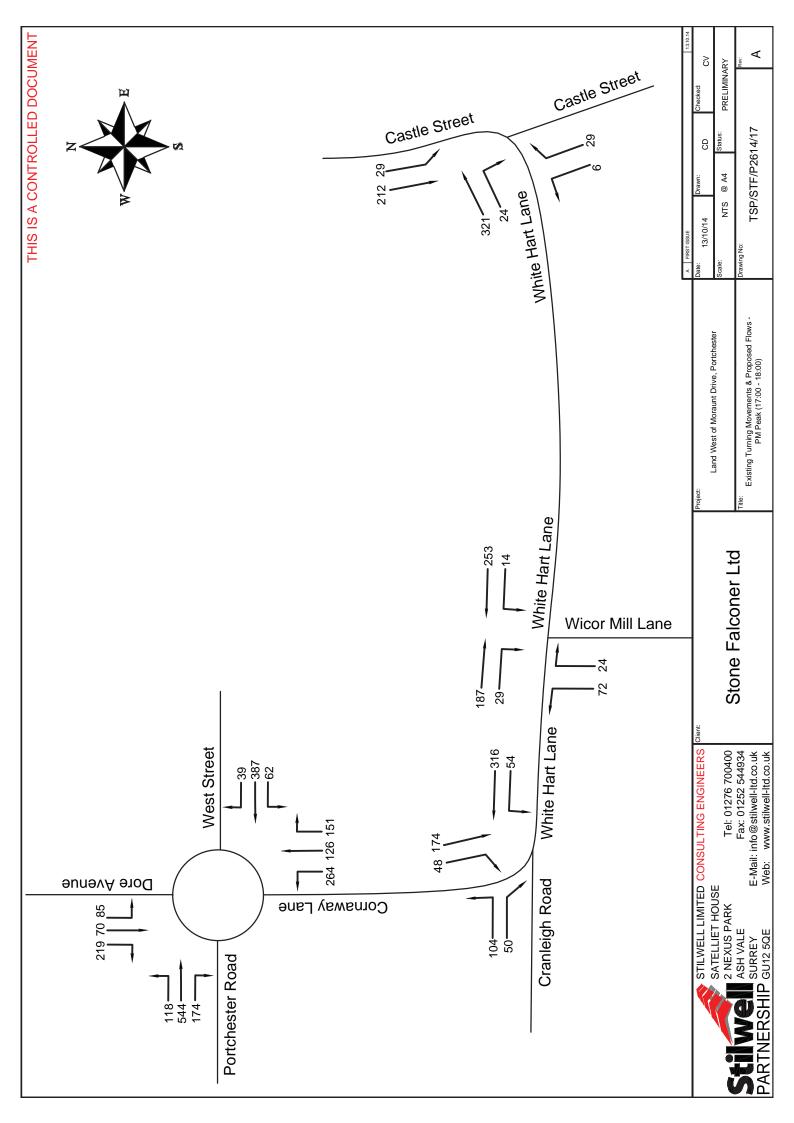




## **APPENDIX** R

# 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 Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1, AM	Scenario 1	АМ		ONE 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 carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
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 Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
в	One lane	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 (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for 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 Vehicle Mix	Vehicle Mix Varies Over Time		Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		~	~	HV 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	- 	ं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 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	- 		-	-	-

## 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	- 	- e 1	-	-	-



# 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 14:30:28

- « (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 Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2, PM	Scenario 2	PM		ONE 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 carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
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 Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
в	One lane	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 (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for 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 Vehicle Mix	Vehicle Mix Varies Over Time		Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
1		~	~	HV 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 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 Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1, AM	Scenario 1	АМ		ONE 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 carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
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 Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
в	One lane	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 (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for 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 Vehicle Mix	Vehicle Mix Varies Over Time		Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		~	~	HV 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	- 		-	-	-

## 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	- 		-	-	-

## 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	- 	ਿਫ਼	-	-	-



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

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 Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2, PM	Scenario 2	PM		ONE 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 carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
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 Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
в	One lane	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 (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for 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 Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		~	~	HV 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 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	- 		-	-	-

## 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	-	-	-



# 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 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	

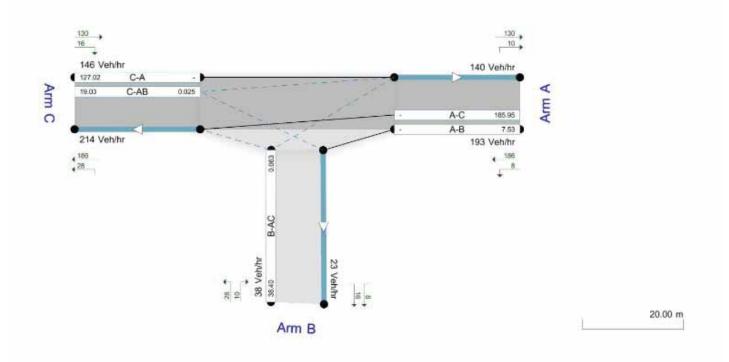


## **Analysis Options**

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 Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1, AM	Scenario 1	АМ		ONE 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 carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
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 Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
в	One lane	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 (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for 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 Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		~	<b>V</b> :	HV 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] © 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	

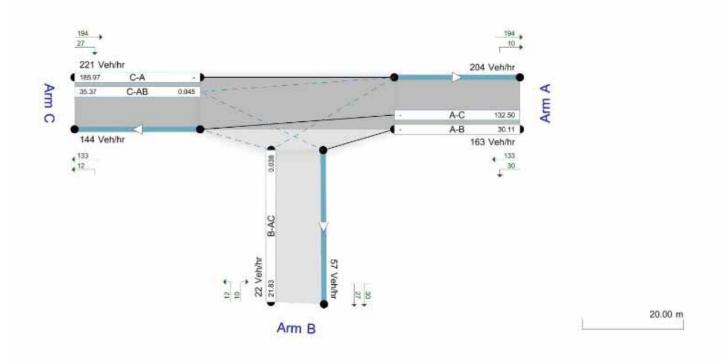


## **Analysis Options**

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 Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2, PM	Scenario 2	PM		ONE 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 carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
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 Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
в	One lane	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 (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for 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 Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		~	<b>V</b> :	HV 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 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	

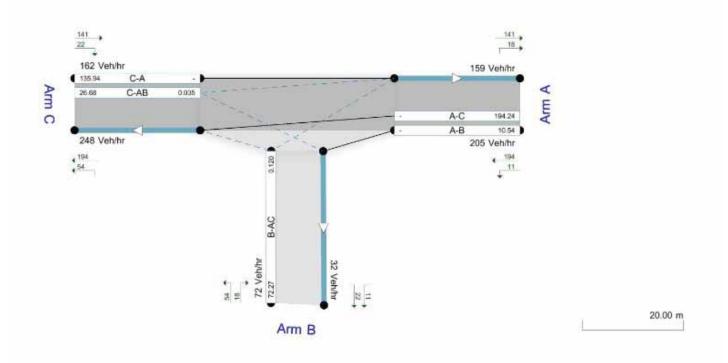


# **Analysis Options**

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 Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1, AM	Scenario 1	АМ		ONE 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 carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
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 Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
в	One lane	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 (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for 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 Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		~	<b>V</b> :	HV 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
Version: 8.0.2.316 [14 Feb 2013] © Copyright TRL Limited, 2014
For sales and distribution information, program advice and maintenance, contact TRL:
el: +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: 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 second second sec second second sec second second sec
Site Number	
Date	13/10/2014
Version	
Status	(new file)
Identifier	CEU COM UNU
Client	
Jobnumber	
Enumerator	
Description	

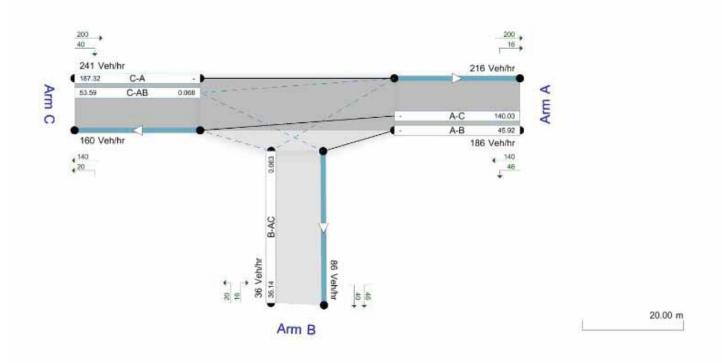


# **Analysis Options**

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 Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2, PM	Scenario 2	PM		ONE 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 carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
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 Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
в	One lane	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 (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for 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 Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		~	<b>V</b> :	HV 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]
© Copyright TRL Limited, 2014
For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 770758 E-mail: software@trl.co.uk Web: http://www.trlsoftware.co.uk

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 Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1, AM	Scenario 1	АМ		ONE 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 carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
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 Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
в	One lane	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 (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for 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 Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		~	~	HV 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 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 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	- 		-	-	-

## 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	- 		-	-	-

# 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	- 	ਿਫ਼	-	-	-



# 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: 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 Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2, PM	Scenario 2	PM		ONE 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 carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
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 Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
в	One lane	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 (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for 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 Vehicle Mix	Vehicle Mix Varies Over Time		Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		~	~	HV 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 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	- 	ਿ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	-		-		-



# 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: 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 Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1, AM	Scenario 1	АМ		ONE 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 carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
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 Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
в	One lane	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 (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for 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 Vehicle Mix	Vehicle Mix Varies Over Time		Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		~	~	HV 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 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	- 		-	-	-

## 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	- 		-	-	-

# 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 Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2, PM	Scenario 2	PM		ONE 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 carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
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 Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
в	One lane	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 (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for 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 Vehicle Mix	Vehicle Mix Varies Over Time		Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
1		~	~	HV 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	- 		-	-	-

## 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	- 		-	-	-

# 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

