Wellesley

ALDERSHOT

Appendix G

Trip Distribution Technical Note (TN2)

Appendix G

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Wellesley, Aldershot Urban Extension

Technical Note: Trip Distribution

Grainger PLC

December 2012

Wellesley
ALDERSHOT

Issue/revision	Issue 1	Revision 1	Revision 2	Revision 3
Remarks		Pre-application submission	Final	
Date	April 2012	August 2012	December 2012	
Prepared by	E Butler	E Butler	E Butler	
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Project number	11570364	11570364	11570364	
File reference	\\ser01bas1uk.uk.wspgroup.com\Development\Aldershot Urban Extension (2011)\TEXT\REPORTS\TECH NOTES\Tech note 4 - Trip Distribution\REV_3\AUE Trip Distribution_11122012.docx	\\ser01bas1uk.uk.wspgroup.com\Development\Aldershot Urban Extension (2011)\TEXT\REPORTS\TECH NOTES\Tech note 4 - Trip Distribution\REV_3\AUE Trip Distribution_11122012.docx	\\ser01bas1uk.uk.wspgroup.com\Development\Aldershot Urban Extension (2011)\TEXT\REPORTS\TECH NOTES\Tech note 4 - Trip Distribution\REV_3\AUE Trip Distribution_11122012.docx	

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Contents

1 Introduction

1.1 BACKGROUND

1.1.1 WSP has been commissioned by Grainger plc to provide transportation advice in support of a planning application for the proposed redevelopment of surplus land at Aldershot Military Town, Hampshire. Redevelopment of the site includes up to 3,850 residential units and ancillary uses. The proposed development will be known as Wellesley.

1.1.2 The Wellesley site is located on the northern edge of Aldershot Town Centre, which is located approximately four miles to the south of Farnborough and six miles to the south of the M3. It is bordered by existing residential properties in Aldershot to the south towards Wellington Avenue, the A325 Farnborough Road to the west, existing and retained military buildings to the east and north as well as the Basingstoke Canal.

1.2 PURPOSE AND BACKGROUND

1.2.1 This Trip Distribution Technical Note accompanies a 'Hybrid' planning application submitted by Grainger plc (hereafter known as the ' Applicant') to Rushmoor Borough Council (RBC) for the development of land within Aldershot known as the Aldershot Urban Extension (AUE), hereafter referred to as 'Wellesley'. The Applicant seeks outline planning permission for residential development of up to 3,850 dwellings with associated infrastructure including access, and Maida Zone - Phase 1 detail for 228 dwellings at Wellesley (the Hybrid Application). This Technical Note should be read in conjunction with the corresponding application forms and drawings, along with the suite of documents that support this Hybrid Application. For further details on the Hybrid Application please refer to the Planning Statement.

1.2.2 As part of the submission package some plans are for approval, whilst others are for information/illustrative purposes only. Plans that are not for approval are clearly labelled 'illustrative' or 'for information'. All other plans should be determined by the LPA as application drawings. The illustrative masterplan is one way of interpreting the site against the opportunities and constraints identified and tested in the parameter plans. The parameter plans are for approval. Detailed proposals, following consent granted pursuant to the Hybrid Application, will be submitted to RBC in accordance with the Development Zones identified by the Applicant, as one or more Reserved Matter Application per Development Zone, which will include Listed Building Applications and Conservation Area Applications as appropriate.

1.2.3 This Technical Note has been prepared to aid discussions and agreement between WSP, Hampshire County Council (HCC), Surrey County Council (SCC) and Rushmoor Borough Council (RBC) regarding the principles around the approach to developing a bespoke and robust vehicular distribution for the Wellesley development.

1.2.4 The indicative quantum and mix of development uses at Wellesley has been outlined and as such forms the basis of the trip generation presented in this note in accordance with the Trip Generation Technical Note.

1.2.5 A traffic simulation and assignment model has been developed to ascertain the impact of the Wellesley development on the local transport network, known as

the Aldershot Urban Extension Traffic Model (AUETM). The development, calibration of the base year model is set out in the AUETM Local Model Validation Report (March 2012). The development of the forecast matrices and highway network are detailed in the 'AUETM. Forecast Modelling Report (July 2012'). The Wellesley development matrices are formulated from the vehicular trips ascertained in the Trip Generation Technical Note and the vehicular development distribution outlined in this Note.

1.2.6 This Technical Note outlines the rationale behind the methodology adopted to determine residential and non-residential vehicular trip distribution associated with the proposed development. The Note also combines the bespoke distribution and Trip Generation Technical Note vehicular trips to produce the Wellesley development trip matrices and demonstrates the initial distribution of trips prior to assignment in the AUETM,

1.2.7 A number of revisions, responses and comments have been sent out and received in the formation of this Technical Note. For clarity the below outlines the consultation approach between WSP and reviewing bodies; A draft revision of this Technical Note was sent to the reviewing parties on 24 April 2012, all of which have kindly responded with comments.

- A draft revision of this Technical Note was sent to the reviewing parties (HCC, SCC and HA) on 24 April 2012 and the following comments were received:
  - HA provide detailed comments – *AUE Trip Generation, Distribution and Forecasting Review* – 15 May 2012
  - SCC provide comments via email – *AUE TA – WSP's Trip Gen Tech Note 3 & Technical Distribution Note* – 18 May 2012
  - HCC kindly send comments entitled – *AUE Transport Assessment Trip Gen and Distribution Tech Notes* – 24 May 2012
- Considering the above, WSP issued an interim technical response on 13 July 2012 and the following comments were received.
  - HCC provided comments on – *Wellesley, AUE Trip Generation and Trip Distribution* – 2 August 2012
  - HA responded with – *AUE Model Outputs and Supporting documents review* – 3 August 2012

1.2.8 This revision of the Technical Note responds to the comments raised with the exception of a request from the Highways Agency to provide a comparison of the Transport Assessment for the M3 Corridor J3-4a and the sources used to create the Wellesley bespoke distribution. This assessment is awaiting data from Surrey County Council and therefore will be provided in a separate response. This Technical Note provides updated assumptions and approaches to trip distribution to address the remaining comments accordingly.

1.3 REPORT STRUCTURE

- **Section 2** outlines the Wellesley development proposals;
- **Section 3** outlines the development internalisation;
- **Section 4** evaluates the Trip Distribution options, and the methods for determining the Trip Distribution for Wellesley, and distributes the trip generation to those destinations.

2 Development Proposals

2.1 DEVELOPMENT PROPOSALS

2.1.1 The Wellesley proposals comprise an outline application for the development of up to 3,850 dwellings including access plus other ancillary uses, a summary of which has been produced below;

- 3,850 new homes (35% affordable homes);
- Refurbishment of six listed buildings including 4th Div Head Quarters and the Cambridge Military Hospital as well as a number of local listed buildings;
- Heritage trail;
- Two new primary schools;
- Day care facilities;
- A local neighbourhood centre, providing new offices, pub and restaurant, and local shops;
- Household Waste Recycling Centre;
- Approx. 2.4Ha of employment area, equating to approximately 1250 new jobs;
- 110Ha of SANGS (Suitable Alternative Natural Green Space);
- New play areas and a local park;
- Allotments; and
- Public access to sports fields.

2.1.2 Through the provision of a mix of land uses, there is clear potential for some trips for specific journey purposes to be made 'internal' to Wellesley.

2.1.3 By allowing future residents access to local schools, services, amenities, employment and retail uses within the development area, the need to travel external to the development site by car is reduced. The land use proposals outlined above therefore have a strong potential to support more sustainable, low carbon travel patterns.

3 Development Internalisation

3.1 INTRODUCTION

3.1.1 The purpose of this Technical Note is to outline the methodology used to determine trip distribution from Wellesley. This section provides a rationale for the approach to the trip distribution and identifies the level of internalisation associated with the development.

3.2 INTERNALISATION

3.2.1 The mixed-use nature of Wellesley is expected to result in a number of trips undertaken by new residents to remain internal to the site, as described in Section 5.4 of the Trip Generation Technical Note.

3.2.2 To account for the internalised nature of the development the trip generation and distribution of Wellesley are considered in terms of three areas which are as follows;

- Area A – Internal to Wellesley;
- Area B – Internal to Aldershot and parts of Farnborough;
- Area C – External to all other areas not previously defined.

3.2.3 The Area boundaries used for this analysis are defined on Figure 1. The boundary for Area A is defined by the red line boundary of the site and incorporates the development model zones. The Trip Generation Technical Note details the proportion of internalised trips resulting from each land use purpose and the proportion attributed to car driver trips travelling within this area. Any reference to trip internalisation and associated mode share applied to the development in this Technical Note is the same as defined in the Trip Generation Technical Note.

3.2.4 To determine Area B, the key land uses within Aldershot and Farnborough, shown in Figure 2**,** were identified and those within a reasonable distance of the site (approximately 20-25 minute cycle) were incorporated. The boundary for Area B was defined by the railway lines to the north and east which provide natural barriers, although care was taken to incorporate Farnborough Main Rail Station to the North and Ash to the east due to the facility opportunities available. The western boundary was defined to incorporate Cody Technology Park and the managed access areas. The southern boundary of the site follows the County boundary separating Hampshire and Surrey. The Area B boundary follows the AUETM zone boundaries to avoid splitting existing zones.

3.2.5 Area C contains all other areas external to Area A and B in the AUETM coverage area.

3.2.6 The use of these areas allows for bespoke trip distributions to be created utilising a number of data sources to inform the underline distribution and through local knowledge of the area.

4 Development Trip Distribution

4.1 INTRODUCTION

4.1.1 The purpose of this Technical Note is to outline the methodology for deriving the trip distribution generated by and travelling external to Wellesley. This section provides rationale used to determine trip distribution and applies the trip generation detailed in the Trip Generation Technical Note to show the number of trips to each destination area.

4.1.2 The Trip Generation Technical Note outlines the total trips by purpose, and the expected internalisation of each travel purpose. The internalisation applied is discussed briefly in this section and the distribution adjusted for Area B and C movements.

4.1.3 The trip distribution for the development has been ascertained through firstly identifying the data sources available and assessing the most suitable distribution to apply.

4.2 AREA A – INTERNALISATION

4.2.1 The Trip Generation Technical Note (Section 5) applies an internalisation factor to each journey purpose to account for internalised trips attracted to land uses within the Wellesley development. A summary of the internalised trip proportions by purpose are listed below:

- Work trips – 10%
- Shopping trips – 0%
- Leisure/ visit trips – 20%
- Personal Business trips – 10%
- Education trips – 100% for primary schools, 0% for secondary and tertiary.
- Other trips – 20%

4.2.2 These proportions are applied to each of the journey purposes in the following sections, and a bespoke distribution formulated for the remaining trips travelling external to Wellesley.

4.3 METHODOLOGY

4.3.1 To ascertain the trip distribution for external trips from the development a number of sources have been analysed to provide a bespoke hybrid distribution for the Wellesley development.

4.3.2 The data sources used to inform the hybrid distribution are as follows;

- Rushmoor Transport Assessment of Core Strategy, Rushmoor Borough Council (RBC) - 2009
- Road Side Interview data – June 2010 and September 2011
- Travel to Work Census data – 2001
- Transport Assessment for the M3 Corridor J3-4A - 2011

4.3.3 Each of the data sources are discussed in more detail in the following section.

TRANSPORT ASSESSMENT OF CORE STRATEGY (RUSHMOOR BOROUGH COUNCIL 2009)

4.3.4 The Rushmoor Transport Assessment of Core Strategy was produced by Rushmoor Borough Council in 2009 to assess the cumulative impact of delivering the Local Development Framework housing target at various locations across the Borough.

4.3.5 The Local Development Framework Core Strategy was subject to an examination in public and found 'sound', and was subsequently adopted in October 2011.

4.3.6 The Core Strategy Transport Assessment (CSTA, 2009) calculated the trip generation and distribution for the Wellesley development using a methodology set out in the Aldershot Urban Extension Transport Assessment produced by Atkins in 2005.

4.3.7 The CSTA (2009) used data from the 2001 Population Census and Special Workplace Statistics (SWS) to establish the number of person trips to each destination for each journey purpose in accordance with the AUE TA (2005). The Journey purposes were categorised as follows:

- Work (including commuting and business)
- Shopping
- Leisure (including holidays and visits)
- Personal Business
- Education (including escort to education)
- Other

4.3.8 The CSTA (2009) calculated the destinations and distribution to the destinations by journey purpose based on the AUE TA (2005) methodology which applied various assumptions for each journey purpose, which are as follows:

- Workplace trips were distributed within the AUE TA (2005) based on SWS statistics which were adjusted in accordance with the 2001 SWS data for Camberley, Farnborough, Farnham and Guildford, all of which fall within 10-15km of Aldershot. This process was utilised to account for the travel patterns of those residents likely to reside in Wellesley. Additionally adjustments were made to reflect committed industrial/ commercial developments in Aldershot, Camberley, Farnborough and Farnham.
- Shopping trips within the AUE TA (2005) were distributed based on the type of shopping including convenience, food and comparison shopping. Convenience shopping was distributed with a 75% distribution internal to the development and 25% assigned to the surrounding area. Shopping trip applied a distribution of 38.54% travelling to Aldershot, 18.25% to Farnham, 15.74% to Farnborough, 14.21% to Fleet, and 12.76% to Camberley. Comparison shopping was split evenly across the Aldershot, Camberley, Farnborough, Farnham, Fleet and Guildford.
- Distribution of leisure trips were based on the assumption that 25% of holiday trips and 50% of visit trips would remain local with the remainder being distributed further afield.
- Personal business trips were distributed equally across each of the model zones.
- School purpose trips identify schools within the area and assume the proportion of trips travelling to each, although no consideration was given to number of school places available.

4.3.9 Work purpose distribution and food shopping provide for a robust distribution for these purposes, these datasets are either used or compared to the bespoke distribution and discussed in more detail in Section 4.5.

ROAD SIDE INTERVIEW DATASETS

4.3.10 The Road Side Interview data was obtained from two datasets. The first set of RSI data covering five sites around Aldershot and Farnborough was collected by Sky High Traffic Surveys on behalf of WSP between Tuesday 27 and Wednesday 28 September 2011. The second set of RSI data covering 28 sites was collected by Mouchel on behalf of the Highways Agency for the M4 / M3 study between October 2009 and September 2010. Both datasets are detailed further in the *Aldershot Urban Extension Traffic Model, Local Model Validation Report (March 2012)*. Both the Sky High and HA RSI datasets inform the base year matrix, as detailed in Chapter 5 of the AUE LMVR. Figure 3 illustrates the data collection points for the RSIs.

4.3.11 Both RSI datasets were examined to identify trips with either an origin or destination within Aldershot. The RSI trips for each dataset and purpose were grouped by destination and Area category A to C applied. The distributions are shown in Table 4.1 below.

Table 4.1 RSI datasets grouped by Area and destination

Area	Destination	Shopping		Leisure		Education		Personal Business		Other	
		SkyHigh	HA RSI	SkyHigh	HA RSI	SkyHigh RSI	HA RSI	SkyHigh	HA RSI	SkyHigh	HA RSI
A	Internalised										
B	Aldershot (Rushmoor)	90.91%		51.35%		28.57%		46.15%		25.00%	
	Farnborough (Rushmoor)			21.62%		33.33%		7.69%		50.00%	
C	Basingstoke & Deane										
	East Hampshire										
	Winchester										
	Fleet (Hart)			2.70%		14.29%					50.00%
	Rest of Hart										
	Rest of Hampshire										
	Inner London										
	Outer London										
	Bracknell Forest						50.00%				
	Reading				40.00%						50.00%
	Slough										
	West Berkshire										
	Windsor & Maidenhead								50.00%		
	Wokingham		66.67%				50.00%				
	Elmbridge		33.33%								
	Epsom & Ewell										
	Guildford			8.11%						25.00%	
	Mole Valley										
	Reigate & Banstead										
	Runnymede										
	Spelthorne										
	Woking								50.00%		
	Camberley (Surrey Heath)					4.76%					
	Rest of Surrey Heath										
	Farnham (Waverley)	9.09%		16.22%		14.29%		46.15%			
	Rest of Waverley										
	Tandridge										
	All					4.76%					
	All				60.00%						
	All										
		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

4.3.12 Following initial feedback from Hampshire County Council the HA RSI data was disregarded as a suitable dataset to inform the development distribution due to its strategic nature.

TRAVEL TO WORK CENSUS DATA

4.3.13 The Census Journey to Work (JTW) provides an indication of origin and destination trips to and from all wards across the UK gathered from the 2001 census. The Trip Generation Technical Note analysed each of the wards in the locality of the site, and established North Town to be most representative of the Wellesley development owing to the similar characteristics and mix of uses.

TRANSPORT ASSESSMENT FOR THE M3 CORRIDOR J3-4A (2011)

4.3.14 A review of this document reveals the M3 Corridor Study assesses the impact of future residential and commercial development proposed in the Core Strategies for Surrey Heath Borough Council, Rushmoor Borough Council and Hart District Council on the Strategic Route Network (SRN) and Local Road Network (LRN). The assessment utilised the Surrey County Transport Model (SINTRAM) to evaluate the highway impacts of the strategic development on the highway network.

4.3.15 The distribution applied to the Aldershot Urban Extension (Wellesley) future development trips used a 'smoothed' distribution, which is an average of the study area base matrix. The smoothed distribution was used in place of no other information regarding future trip distribution being available. The Wellesley development distribution is not directly associated with land use but an average of the overall study area distribution. This information source has been reviewed and compared to the Wellesley bespoke distribution in section 4.11.

4.4 DATA SOURCE SUMMARY

4.4.1 The most suitable datasets to inform the Wellesley development vehicular distribution are the CSTA (2009), Sky High RSI data and the Journey To Work Census Data. The Transport Assessment for the M3 Corridor J3-4 distribution will be considered and compared to the bespoke distribution later in this report. Each datasets taken forward will be assessed in the next section to establish which is the most suitable for each journey purpose.

4.5 DISTRIBUTION ANALYSIS

4.5.1 This section compares and analyses the data sources to identity a robust and representative bespoke distribution for Wellesley. Each journey purpose is considered in turn, firstly identifying the level of internalisation applied and adjusting the distribution accordingly.

WORK TRIP DISTRIBUTION

4.5.2 A comparison of each data source distribution for work trips are shown in Table 4.2 below.

Table 4.2 Comparison of TA, RSI and JTW workplace distribution (%)

Workplace Destination		TA % Distribution	Sky High RSI % Distribution	JTW % Distrubution
Area	District			
B	Aldershot (Rushmoor)	14.2%	47.4%	20.2%
	Farnborough (Rushmoor)	16.2%	16.3%	13.0%
C	Basingstoke & Deane	1.6%		2.1%
	East Hampshire	1.5%	2.2%	2.6%
	Winchester	0.3%		0.7%
	Fleet (Hart)	1.5%	3.0%	3.7%
	Rest of Hart	2.4%		3.0%
	Rest of Hampshire	0.4%	0.7%	0.4%
	Inner London	5.0%		0.9%
	Outer London	4.8%		4.3%
	Bracknell Forest	2.0%	0.7%	2.7%
	Reading	0.7%		0.5%
	Slough	0.5%		0.4%
	West Berkshire	0.3%		0.3%
	Windsor & Maidenhead	0.8%		1.0%
	Wokingham	0.8%		0.8%
	Elmbridge	1.1%		1.2%
	Epsom & Ewell	0.2%		0.2%
	Guildford	12.6%	6.7%	13.0%
	Mole Valley	0.7%		0.5%
	Reigate & Banstead	0.3%		0.3%
	Runnymede	1.4%		1.2%
	Spelthorne	0.5%		0.3%
	Woking	2.5%		2.3%
	Camberley (Surrey Heath)	6.0%	0.7%	5.1%
	Rest of Surrey Heath	7.1%		5.2%
	Farnham (Waverley)	9.7%	22.2%	8.2%
	Rest of Waverley	1.9%		2.4%
	Tandridge	0.1%		0.0%
	All	0.6%		0.7%
	All	2.2%		0.7%
	All	0.2%		0.7%
TOTAL		**100%**	**100%**	**100%**

4.5.3 The Area B and C distributions shown are applicable to trips travelling external to the development only. The JTW distribution shown in Table 4.2 above is based on car driver trips.

4.5.4 Examining the main employment areas within Aldershot and Farnborough shows that all of those in Aldershot and over 50% of those in Farnborough are contained within the Area B boundary. The bespoke employment distribution will split the distribution to Farnborough with 50% between Area B and C to account for location of employment in this area.

4.5.5 Table 4.2 above shows the CSTA (2009) distribution for Aldershot to be 14.2%, the JTW distribution is slightly higher at 20.2%, while the Sky High RSI distribution shows a larger proportion of trips travelling to Aldershot (47.4%). Comparatively the CSTA (2009) and Sky High RSI distribution show a distribution to Farnborough of 16%, with the JTW distribution being lower at 13%.

4.5.6 The AUE TA (2005) used within the CSTA (2009) is the accepted distribution utilised in the Rushmoor Core Strategy, and although as the distribution was compiled from 2001, some variation in trip distribution would be expected. The Sky High RSI confirms the Farnborough distribution figure although the dataset implies along with the JTW that distribution to this area should be higher.

4.5.7 Comparison of the destinations in Area C shows some variation between the TA, RSI and JTW datasets, with the HA RSI's showing increased proportions of trips to areas in Berkshire.

WORK PURPOSE BESPOKE DISTRIBUTION

4.5.8 The Trip Generation Technical Note identifies the number of internalised trips by mode using the North Town ward Journey to Work distribution, and applies a 10% internalisation of car driver trips.

4.5.9 The bespoke distribution shown in Table 4.3 below was determined from adjusting the AUE TA (2005) distribution to account for internalised movements (10%) within Wellesley as a result of employment opportunities that are to be provided and to accord with the Trip Generation Note. A distribution of 20.2% was applied to those travelling to Aldershot as the Sky High RSI distribution and the Census Journey to work distribution indicated that trips travelling within AUE should be higher than the CSTA (2009) distribution showed. These factors were applied to the CSTA (2009) and the remainder of the distribution adjusted accordingly.

Table 4.3 Bespoke Workplace Distribution (%)

Workplace Destination		
Area	**District**	**Bespoke distribution**
A	Internalised	10.0%
B	Aldershot (Rushmoor)	20.2%
	Farnborough (Rushmoor)	8.1%
C	Farnborough (Rushmoor)	8.1%
	Basingstoke & Deane	1.2%
	East Hampshire	1.2%
	Winchester	0.2%
	Fleet (Hart)	1.2%
	Rest of Hart	1.8%
	Rest of Hampshire	0.3%
	Inner London	3.8%
	Outer London	3.7%
	Bracknell Forest	1.5%
	Reading	0.5%
	Slough	0.4%
	West Berkshire	0.2%
	Windsor & Maidenhead	0.6%
	Wokingham	0.6%
	Elmbridge	0.8%
	Epsom & Ewell	0.2%
	Guildford	9.7%
	Mole Valley	0.5%
	Reigate & Banstead	0.2%
	Runnymede	1.1%
	Spelthorne	0.4%
	Woking	1.9%
	Camberley (Surrey Heath)	4.6%
	Rest of Surrey Heath	5.5%
	Farnham (Waverley)	7.5%
	Rest of Waverley	1.5%
	Tandridge	0.1%
	West Sussex	0.5%
	Rest of UK	1.7%
	Non UK	0.2%
TOTAL		**100.0%**

SHOPPING TRIP DISTRIBUTION

4.5.10 The Trip Generation Note identifies that no internalised trips are expected to be attracted to the food store and Local Centre within Area A. An assessment was carried out of Food shopping facilities within the surrounding area of the development to establish the likely use by residents. Facilities were identified in Aldershot, Farnham, Farnborough, Camberley and Fleet, each of the facilities within these areas has been assessed in terms of journey times and size to establish the likely attractiveness to the shopping facility. The analysis produced the distribution outlined in Table 4.4 below.

Table 4.4 Bespoke shopping distribution (%)

Area	District	Shopping facility	Distribution	Distance to facility (km)	Approximate journey time
A	Internalised		0%		
B	Aldershot	Tesco	54%	2.2	3 min
	Farnborough	Sainsbury	18%	4.7	7 min
C	Farnham	Asda	18%	5.7	10 min
	Camberley	Waitrose	5%	7.2	11 min
	Fleet	Waitrose and others	5%	6.8	10 min

4.5.11 Comparing Table 4.4 above with the AUE TA (2005) distribution shows the bespoke distribution broadly accords with 66% travelling within Aldershot and Farnborough, and the remainder of trips travelling to Farnham (13.7%), Fleet (11%), and Camberley (9.6%).

EDUCATION TRIP DISTRIBUTION

4.5.12 The education trip distribution is dependent on the location of Primary, Secondary and Tertiary (higher) educational establishments within Aldershot and the surrounding area.

4.5.13 The Trip Generation Technical Note notes the provision of two primary schools within Wellesley, and as a result assumes 100% of residential trips to the schools will be internalised from Area A. All teachers trips to the school are considered as non-residential trips and therefore will be discussed in section 4.7 of this note.

4.5.14 Two secondary schools are located in the proximity of Wellesley - Wavell (located north of the site) and Connaught (south west of the site). The designated secondary school for children living in Wellesley will be Connaught School, and therefore 100% of secondary school trips are distributed to this school. The application of 100% of trips to Connaught School does not account for the potential of parental choice, as some parents choose to send their child to a different school.

4.5.15 The Tertiary trip distribution involves destinations external to Area A. The CSTA (2009) splits the trip proportions evenly between Aldershot, Farnborough and Farnham. Comparison with the RSI datasets, show trips travelling to destinations further afield in Bracknell Forest, Wokingham, Hart, Camberley, Waverley, and West Sussex, although there is no breakdown of the phase of education however longer distance trips would be expected to be undertaken by older children or young adults.

4.5.16 The bespoke distribution in Table 4.5 was determined by assessing the higher education provision within Aldershot, Farnborough and Farnham. These areas of assessment accord with the areas defined in the CSTA (2009). The colleges includes in the assessment were Farnborough College, Farnborough College of Technology,

Farnborough Sixth Form College, and Farnham Sixth Form College. The distance travelled and size of each institution was reviewed and proportion of trips distributed accordingly, the revised bespoke distribution is shown in Table 4.5 below.

Table 4.5 Bespoke Education Distribution (%)

	Area	Bespoke Distribution	
Primary	A	Internalised	100%
	B		0%
	C		0%
Secondary	A	Internalised	0%
	B	Aldershot	100%
	C		0%
Tertiary	A	Internalised	0%
	B	Aldershot	15%
		Farnborough	45%
	C	Farnborough	25%
		Farnham	15%

PERSONAL BUSINESS TRIP DISTRIBUTION

4.5.17 The Personal Business trip distribution is primarily external to Area A, with 90% destined for external Areas B and C, to account for the commercial mix outlined in the development proposals, in accordance with the Trip Generation Technical Note. The CSTA (2009) took a generalised approach and distributed all personal business and other trips across all zones rather than those specific to personal business. The Sky High RSI distribution for Personal Business indicates most personal business trips to end in Aldershot (46%) and Waverley (46%).

4.5.18 The Sky High RSI data was used to distribute Personal business trips. The bespoke distribution for the development takes account of internalised trips and is shown in Table 4.6 below. Farnborough distribution has been split between the two areas using a 50% proportion split.

Table 4.6 Bespoke Personal Business Distribution (%)

Area	Destination	Bespoke Distribution
A	Internalised	20%
B	Aldershot	41%
	Farnborough	9%
C	Farnborough	9%
	Guildford	6%
	Hart	2%
	Waverley	13%

LEISURE TRIP DISTRIBUTION

4.5.19 The Trip Generation Note identifies 20% of leisure trips will remain within Area A, this takes account of the SANGS provision associated with Wellesley. The CSTA (2009) used a generalised approach distributing most leisure trips evenly between Aldershot, Camberley, Farnborough, Farnham, Fleet and Guildford. Comparatively the Sky High RSI distribution also shows leisure trip ends destined for Aldershot, Farnborough, Hart (Fleet), Guildford, and Waverley (Farnham).

4.5.20 The bespoke distribution has been compiled through using the Sky High RSI datasets and taking account of internalised trips as shown in Table 4.7 below. There are a number of leisure facilities in Farnborough within Areas B and C, and therefore the Farnborough distribution has been split evenly between these two areas.

Table 4.7 Bespoke Leisure distribution (%)

Area	Destination	Bespoke Distribution
A	Internalised	10%
B	Aldershot	41.5%
	Farnborough	3.5%
C	Farnborough	3.5%
	Waverley	41.5%

OTHER TRIP DISTRIBUTION

4.5.21 The Trip Generation Technical Note assumes that 20% of other trips will remain internal to the site and therefore will be distributed within Area A, with the remaining 80% distributed to Areas B and C.

4.5.22 As discussed in paragraph 4.4.18 above the CSTA (2009) took a generalised approach and distributed all personal business trips and other trips across all zones rather than those specific to other. By comparison the Sky High RSI distribution shows other trips travelling to Aldershot (51%), Farnborough (22%), Waverley (16%), Guildford (8%) and Hart (3%).

4.5.23 The RSI datasets are based on actual data and therefore provide an indication of realistic trip destinations. To provide a bespoke distribution the Sky High distribution was used with account taken for internalised trips, shown in Table 4.8 below. Farnborough distribution has been split between the two areas using a 50% proportion split.

Table 4.8 Bespoke Other distribution (%)

Area	Destination	Bespoke Distribution
A	Internalised	20.0%
B	Aldershot	17.8%
	Farnborough	17.8%
C	Farnborough	17.8%
	Guildford	26.7%

4.6 TRIP DISTRIBUTION TO THE DEVELOPMENT

4.6.1 Residential arrival trip distribution has been determined by transposing the departures trip distribution for each trip purpose, therefore the arrivals to the development use the same distribution as the departures.

4.6.2 Non-residential trips use the same distribution as the residential trip distribution for all purposes, adjusted to remove internalised trips within the development. The exception to this is Primary School trips which are made up of teachers travelling from home outside the development to work at each of the primary schools, and therefore the work purpose distribution has been used in this instance to determine where they would be travelling from.

4.7 TRIP DISTRIBUTION

4.7.1 To gain an understanding of the development total trip distribution for each purpose the total vehicular trip generation for residential and non-residential based trips were taken from the Trip Generation Technical Note have been applied to the associated distribution as shown in Table 4.9 and Table 4.10 below.

Table 4.9 Residential Trip Distribution and Total vehicular trips

Area	Destination		Work			Shopping			Leisure			Primary Education			Secondary Education			Higher Education			Personal Business			Other			All purposes	
			Distribution	AM	PM	Distribution	AM	PM	Distribution	AM	PM	Distribution	AM	PM	Distribution	AM	PM	Distribution	AM	PM	Distribution	AM	PM	Distribution	AM	PM	AM	PM
A		Internalised	10.0%	69	53	0.0%	0	0	20.0%	18	51	100%	186	10	0%	0	0	0.0%	0	0	10.0%	40	30	20.0%	18	16	330	160
B	Hampshire	Aldershot (Rushmoor)	20.2%	140	107	54.0%	72	82	41.1%	36	105	0%	0	0	100.00%	250	13	15.0%	17	1	41.5%	164	125	17.8%	16	14	695	447
		Farnborough (Rushmoor)	8.1%	56	43	18.0%	24	27	8.6%	8	22	0%	0	0	0.0%	0	0	45.0%	52	3	3.5%	14	10	17.8%	16	14	169	120
C		Farnborough (Rushmoor)	8.1%	56	43	0.0%	0	0	8.6%	8	22	0.0%	0	0	0.0%	0	0	25.0%	29	2	3.5%	14	10	17.8%	16	14	122	91
		Basingstoke & Deane	1.2%	9	7	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	9	7
		East Hampshire	1.2%	8	6	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	8	6
		Winchester	0.2%	2	1	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	2	1
		Fleet (Hart)	1.2%	8	6	5.0%	7	8	2.16%	2	6	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	17	19
		Rest of Hart	1.8%	13	10	0.0%	0	0		0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	13	10
		Rest of Hampshire	0.3%	2	2	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	2	2
	London	Inner London	3.8%	26	20	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	26	20
		Outer London	3.7%	25	19	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	25	19
	Berkshire	Bracknell Forest	1.5%	11	8	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	11	8
		Reading	0.5%	4	3	0.0%	0	0	0.00%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	4	3
		Slough	0.4%	3	2	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	3	2
		West Berkshire	0.2%	2	1	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	2	1
		Windsor & Maidenhead	0.6%	4	3	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	4	3
		Wokingham	0.6%	4	3	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	4	3
	Surrey	Elmbridge	0.8%	6	4	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	6	4
		Epsom & Ewell	0.2%	1	1	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	1	1
		Guildford	9.7%	67	52	0.0%	0	0	6.49%	6	17	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	26.7%	23	21	96	89
		Mole Valley	0.5%	4	3	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	4	3
		Reigate & Banstead	0.2%	2	1	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	2	1
		Runnymede	1.1%	7	6	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	7	6
		Spelthorne	0.4%	3	2	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	3	2
		Woking	1.9%	13	10	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	13	10
		Camberley (Surrey Heath)	4.6%	32	25	5.0%	7	8	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	39	32
		Rest of Surrey Heath	5.5%	38	29	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	38	29
		Farnham (Waverley)	7.5%	52	40	18.0%	24	27	12.97%	11	33	0.0%	0	0	0.0%	0	0	15.0%	17	1	41.5%	164	125	0.0%	0	0	279	234
		Rest of Waverley	1.5%	10	8	0.0%	0	0		0	0	0.0%	0	0	0.0%	0	0		0	0				0.0%	0	0		
		Tandridge	0.1%	1	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	1	0
	West Sussex	West Sussex	0.5%	3	2	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	3	2
	Rest of UK	Rest of UK	1.7%	12	9	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	12	9
	Non UK	Non UK	0.2%	1	1	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	1	1
Total	**TOTAL**		**100%**	**693**	**531**	**100%**	**133**	**151**	**100%**	**88**	**256**	**100%**	**186**	**10**	**100%**	**250**	**13**	**100%**	**115**	**7**	**100%**	**395**	**302**	**100%**	**88**	**78**	**1,948**	**1,348**

Table 4.10 Non Residential Trip Distribution and Total vehicular trips

Area	Destination		Work			Shopping			Leisure			Primary Education			Secondary Education			Higher Education			Personal Business			Other			All purposes	
			Distribution	AM	PM	Distribution	AM	PM	Distribution	AM	PM	Distribution	AM	PM	Distribution	AM	PM	Distribution	AM	PM	Distribution	AM	PM	Distribution	AM	PM	AM	PM
B	Hampshire	Aldershot (Rushmoor)	22.4%	43	32	54.0%	72	86	51.4%	7	21	22%	14	0	0.00%	0	0	0.0%	0	0	46.2%	24	16	22.2%	4	0	164	154
		Farnborough (Rushmoor)	9.0%	17	13	18.0%	24	29	10.8%	2	4	9%	5	0	0.0%	0	0	0.0%	0	0	3.8%	2	1	22.2%	4	0	54	47
C		Farnborough (Rushmoor)	9.0%	17	13	0.0%	0	0	10.8%	2	4	9.0%	5	0	0.0%	0	0	0.0%	0	0	3.8%	2	1	22.2%	4	0	31	19
		Basingstoke & Deane	1.4%	3	2	0.0%	0	0	0.0%	0	0	1.4%	1	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	3	2
		East Hampshire	1.3%	2	2	0.0%	0	0	0.0%	0	0	1.3%	1	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	3	2
		Winchester	0.3%	0	0	0.0%	0	0	0.0%	0	0	0.3%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	1	0
		Fleet (Hart)	1.3%	2	2	5.0%	7	8	2.70%	0	1	1.3%	1	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	10	11
		Rest of Hart	2.1%	4	3	0.0%	0	0		0	0	2.1%	1	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	5	3
		Rest of Hampshire	0.3%	1	0	0.0%	0	0	0.0%	0	0	0.3%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	1	0
	London	Inner London	4.2%	8	6	0.0%	0	0	0.0%	0	0	4.2%	3	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	11	6
		Outer London	4.1%	8	6	0.0%	0	0	0.0%	0	0	4.1%	2	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	10	6
	Berkshire	Bracknell Forest	1.7%	3	2	0.0%	0	0	0.0%	0	0	1.7%	1	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	4	2
		Reading	0.6%	1	1	0.0%	0	0	0.00%	0	0	0.6%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	2	1
		Slough	0.4%	1	1	0.0%	0	0	0.0%	0	0	0.4%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	1	1
		West Berkshire	0.3%	0	0	0.0%	0	0	0.0%	0	0	0.3%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	1	0
		Windsor & Maidenhead	0.7%	1	1	0.0%	0	0	0.0%	0	0	0.7%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	2	1
		Wokingham	0.7%	1	1	0.0%	0	0	0.0%	0	0	0.7%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	2	1
	Surrey	Elmbridge	0.9%	2	1	0.0%	0	0	0.0%	0	0	0.9%	1	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	2	1
		Epsom & Ewell	0.2%	0	0	0.0%	0	0	0.0%	0	0	0.2%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0	0
		Guildford	10.8%	21	15	0.0%	0	0	8.11%	1	3	10.8%	7	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	33.3%	6	0	35	19
		Mole Valley	0.6%	1	1	0.0%	0	0	0.0%	0	0	0.6%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	2	1
		Reigate & Banstead	0.3%	0	0	0.0%	0	0	0.0%	0	0	0.3%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	1	0
		Runnymede	1.2%	2	2	0.0%	0	0	0.0%	0	0	1.2%	1	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	3	2
		Spelthorne	0.4%	1	1	0.0%	0	0	0.0%	0	0	0.4%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	1	1
		Woking	2.1%	4	3	0.0%	0	0	0.0%	0	0	2.1%	1	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	5	3
		Camberley (Surrey Heath)	5.1%	10	7	5.0%	7	8	0.0%	0	0	5.1%	3	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	20	15
		Rest of Surrey Heath	6.1%	12	9	0.0%	0	0	0.0%	0	0	6.1%	4	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	15	9
		Farnham (Waverley)	8.3%	16	12	18.0%	24	29	16.22%	2	6	8.3%	5	0	0.0%	0	0	0.0%	0	0	46.2%	24	16	0.0%	0	0	71	63
		Rest of Waverley	1.6%	3	2	0.0%	0	0		0	0	1.6%	1	0	0.0%	0	0		0	0				0.0%	0	0		
		Tandridge	0.1%	0	0	0.0%	0	0	0.0%	0	0	0.1%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0		
	West Sussex	West Sussex	0.5%	1	1	0.0%	0	0	0.0%	0	0	0.5%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	1	1
	Rest of UK	Rest of UK	1.9%	4	3	0.0%	0	0	0.0%	0	0	1.9%	1	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	5	3
	Non UK	Non UK	0.2%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0	0
Total	**TOTAL**		**100%**	**193**	**144**	**100%**	**133**	**158**	**100%**	**14**	**40**	**100%**	**60**	**-**	**0%**	**-**	**-**	**0%**	**-**	**-**	**100%**	**52**	**34**	**100%**	**19**	**0**	**472**	**376**

4.7.2 The tables show the largest concentration of two way development trips to be travelling to and from Aldershot and Farnborough (Area B), and Farnham (Area C), during the AM peak. While the PM peak shows lower numbers of two way trips associated with Farnborough Area B than the AM peak. During the AM peak a total of 567 two way residential vehicular trips travel between the development and Area B, with 574 two way trips Area C. The PM peak shows 553 residential trips travelling to and from Area B and 621 associated with Area C. Non-residential trips account for 219 trips travelling to and from Area B, and 253 trips for Area C during the AM peak. The non-residential trips in the PM peak show 201 two way trips to and from Area B, and 175 two way trips to and from Area C.

4.8 HGV TRIP DISTRIBUTION

4.8.1 The HGV trips associated with the residential and non-residential development have been assigned to the model using the non-residential travel to work distribution. This adds an additional 76 trips to the AM peak and 43 to the PM peak.

4.9 SECTORING

4.9.1 To show the distribution of all development trips (including HGVs) the AUETM 12 sector system has been applied below, to maintain consistency with the model zoning and provide a more informative distribution of the development trips. The sectoring system shown in Appendix A is used to summarise the development movements:

Table 4.11 AM Development Trips Sectored

	Aldershot	Farnborough	Farnham	Ash & Ash Vale	Camberley, Frimley & Byfleet	Hart	Guildford, Horsham & SW London	South West England	Hampshire, Chichester & Worthing	Sandhurst, Crowthorne, South Wokingham, South Bracknell & Ascot	North Wales	Kent	Total
Aldershot	1128.36	222.05	204.68001	49.31	91.35	44.6	136.07	12.13	16.93	9.16	33.08	43.77	1991.49
Farnborough	149.19	0	0	0	0	0	0	0	0	0	0	0	149.19
Farnham	143.19	0	0	0	0	0	0	0	0	0	0	0	143.19
Ash & Ash Vale	35.99	0	0	0	0	0	0	0	0	0	0	0	35.99
Camberley, Frimley & Byfleet	45.19	0	0	0	0	0	0	0	0	0	0	0	45.19
Hart	27.21	0	0	0	0	0	0	0	0	0	0	0	27.21
Guildford, Horsham & SW London	71.62	0	0	0	0	0	0	0	0	0	0	0	71.62
South West England	5.54	0	0	0	0	0	0	0	0	0	0	0	5.54
Hampshire, Chichester & Worthing	7.65	0	0	0	0	0	0	0	0	0	0	0	7.65
Sandhurst, Crowthorne, South Wokingham, South Bracknell & Ascot	4.19	0	0	0	0	0	0	0	0	0	0	0	4.19
North Wales	15.06	0	0	0	0	0	0	0	0	0	0	0	15.06
Kent	19.96	0	0	0	0	0	0	0	0	0	0	0	19.96
Total	1653.15	222.05	204.68	49.31	91.35	44.60	136.07	12.13	16.93	9.16	33.08	43.77	2516.28

Table 4.12 PM Development Trips Sectored

	Aldershot	Farnborough	Farnham	Ash & Ash Vale	Camberley, Frimley & Byfleet	Hart	Guildford, Horsham & SW London	South West England	Hampshire, Chichester & Worthing	Sandhurst, Crowthorne, South Wokingham, South Bracknell & Ascot	North Wales	Kent	Total
Aldershot	685.15	107.62	147.14	44.53	32.48	26.13	50.14	3.46	4.75	2.66	9.63	12.82	1126.51
Farnborough	157.33	0	0	0	0	0	0	0	0	0	0	0	157.33
Farnham	146.06	0	0	0	0	0	0	0	0	0	0	0	146.06
Ash & Ash Vale	42.82	0	0	0	0	0	0	0	0	0	0	0	42.82
Camberley, Frimley & Byfleet	67.33	0	0	0	0	0	0	0	0	0	0	0	67.33
Hart	38.58	0	0	0	0	0	0	0	0	0	0	0	38.58
Guildford, Horsham & SW London	107.03	0	0	0	0	0	0	0	0	0	0	0	107.03
South West England	8.52	0	0	0	0	0	0	0	0	0	0	0	8.52
Hampshire, Chichester & Worthing	11.91	0	0	0	0	0	0	0	0	0	0	0	11.91
Sandhurst, Crowthorne, South Wokingham, South Bracknell & Ascot	6.36	0	0	0	0	0	0	0	0	0	0	0	6.36
North Wales	23.13	0	0	0	0	0	0	0	0	0	0	0	23.13
Kent	30.72	0	0	0	0	0	0	0	0	0	0	0	30.72
Total	1324.94	107.62	147.14	44.53	32.48	26.13	50.14	3.46	4.75	2.66	9.63	12.82	1766.30

4.9.2 Both the AM and PM peak development matrices show most movements from the development are contained within Aldershot, with Farnborough and Farnham being the most popular origins and destinations outside of Aldershot.

4.10 IMPACT ON THE STRATEGIC ROAD NETWORK (SRN)

4.10.1 At the request of the HA, this section summarised the development trips travelling on the SRN slip roads. To demonstrate the direct impact of the Wellesley development on the SRN, select link analyses have been carried out on Wellesley zones to extract development traffic utilising SRN links. These flows are presented in table 4.13 and table 4.14.

Table 4. 13: Wellesley Development Flows on SRN (PCUs) – AM Peak

Location	Direction	Total	Wellesley	%
M3 Junction 4 - WB On-Slip	WB	1,247	0	0.0%
M3 Junction 4 - WB Off-Slip	WB	1,895	26	1.4%
M3 Junction 4 - EB Off-Slip	EB	1,238	0	0.0%
M3 Junction 4 - EB On-Slip	EB	1,298	61	4.7%
M3 Junction 4a - EB On-Slip	EB	1,226	0	0.0%
M3 Junction 4a - WB Off-Slip	WB	998	0	0.0%
M3 Junction 4a - EB Off-Slip	EB	967	0	0.0%
M3 Junction 4a - WB On-Slip	WB	411	0	0.0%
M3 J4-J3	EB	5,407	61	1.1%
M3 J3-J4	WB	5,699	26	0.5%
M3 J4a-J4	EB	5,347	0	0.0%
M3 J4-J4a	WB	5,052	0	0.0%
M3 J5-J4a	EB	5,088	0	0.0%
M3 J4a-J5	WB	4,505	0	0.0%

Table 4.14: Wellesley Development Flows on SRN (PCUs) – PM Peak

Location	Direction	Total	Wellesley	%
M3 Junction 4 - WB On-Slip	WB	1,283	1	0.1%
M3 Junction 4 - WB Off-Slip	WB	1,756	36	2.1%
M3 Junction 4 - EB Off-Slip	EB	1,386	0	0.0%
M3 Junction 4 - EB On-Slip	EB	1,673	19	1.1%
M3 Junction 4a - EB On-Slip	EB	1,268	0	0.0%
M3 Junction 4a - WB Off-Slip	WB	1,424	0	0.0%
M3 Junction 4a - EB Off-Slip	EB	530	0	0.0%
M3 Junction 4a - WB On-Slip	WB	621	1	0.2%
M3 J4-J3	EB	5,726	19	0.3%
M3 J3-J4	WB	5,993	37	0.6%
M3 J4a-J4	EB	5,438	0	0.0%
M3 J4-J4a	WB	5,466	1	0.0%
M3 J5-J4a	EB	4,700	0	0.0%
M3 J4a-J5	WB	4,838	2	0.0%

4.10.2 As indicated above, the impact of the Wellesley development on the SRN is negligible with development flows accounting for 0-5% of flows.

4.11 COMPARISON OF DEVELOPMENT TRIP DISTRIBUTION

4.11.1 Comments for the HA requested a comparison of the AUETM Wellesley distribution and SINTRAM. A comparison is provided below.

Table 4.14 - Distribution Comparison – Wellesley (AUE)

Sector	SINTRAM	AUETM	Difference
Surrey Heath	245.8	83.9	-161.9
Rushmoor	247.1	923.8	+676.7
Hart	184.1	41.2	-142.9
East Surrey & London	125.1	169.9	+44.8
West Surrey	383.7	187.3	-196.4
RO Hants, Kent, Sussex	273.9	55.6	-218.3
Home counties	319.5	8.4	-311.1
RO Britain	2.0	41.4	+39.4
Total	1781	1511.3	-269.7
Trips using the M3 corridor	720.4	275.2	-445.2

4.11.2 The differences between the total numbers of development trips applied to each of the models are a result of the variations in development size and mix, together with the trip rate. The SINTRAM model included 4,578 dwellings to the Wellesley (AUE) development, while the AUETM included 3,850 dwellings, two primary schools, a neighbourhood centre, provision for circa. 1250 jobs and other leisure facilities.

4.11.3 Different approaches have been adopted to establish the development distribution. The SINTRAM utilised a smoothed distribution for the development trips which was an average of the 2005 base matrix distribution as no other information regarding future trip distribution was made available. The model was developed through Strategic RSIs for specific strategic model testing.

4.11.4 The AUETM Wellesley distribution has been agreed with Hampshire County Council for use in the model to carry out specific local testing of the development. The AUETM Wellesley distribution was created using a number of data sources including locally collected 2011 RSI data and taking account of the facilities available within the development and the surrounding area. The most suitable distribution for each journey purpose was applied to create a bespoke distribution, as detailed in this note. This approach takes account of changes to facilities surrounding the development over time for each journey purpose, and enables specific planning details associated with the development to be applied such as the education establishments the children from the development will attend.

4.11.5 The AUETM distribution considers the primary school facilities will be entirely catered for onsite resulting in 103 pcu travelling internally within the development. Most secondary (112 pcu), further education (38 pcu), shopping (68 pcu), personal business (130 pcu), and leisure (23 pcu) are catered for within or close to Rushmoor. This has resulted in a higher proportion of local trips travelling within Rushmoor and the immediate area compared to SINTRAM, and fewer trips utilising the M3.

5 Summary

5.1 SUMMARY

5.1.1 WSP has produced this Technical Note in support of the proposed development of Wellesley located in Aldershot.

5.1.2 This note outlines the methodology employed in deriving the development trip distribution based upon a variety of data sources. The bespoke distribution utilised a three area approach where Area A internalised trips within the development boundary, Area B distributed trips within Aldershot and part of Farnborough, and Area C included all areas not previously categorised. The Area A internalisation was calculated as part of the Trip Generation Technical Note. Work trips used similar distributions to the CSTA (2009), while other purposes utilised RSI data.

5.1.3 The Trip Generation Technical Note (2012) vehicular trips were applied to the distribution (presented in this Note) to create the Wellesley development matrices. Initial analysis of the distributed trips reveals Aldershot, Farnborough and Farnham to be the most popular destinations. The assignment of these trips within the AUETM is used to inform the Transport Assessment for the Wellesley development.

Appendices, Figures & Tables

KEY

- Area A
- Area A SANGS
- Area B
- Area C

WSP

TITLE:

TRIP DISTRIBUTION AREAS

FIGURE No: 1

N:\Aldershot Urban Extension (2011)\DRAWINGS\CORELL\Trip Distribution Areas.cdr

KEY

- Site Location
- Primary Schools
- Secondary Schools
- College + Further Education
- Employment Areas
- Retail Areas
- Leisure Centres
- Supermarkets
- Hampshire/Surrey Border
- Area A SANGS

Area A

Area B

Area C

0 500m 1Km

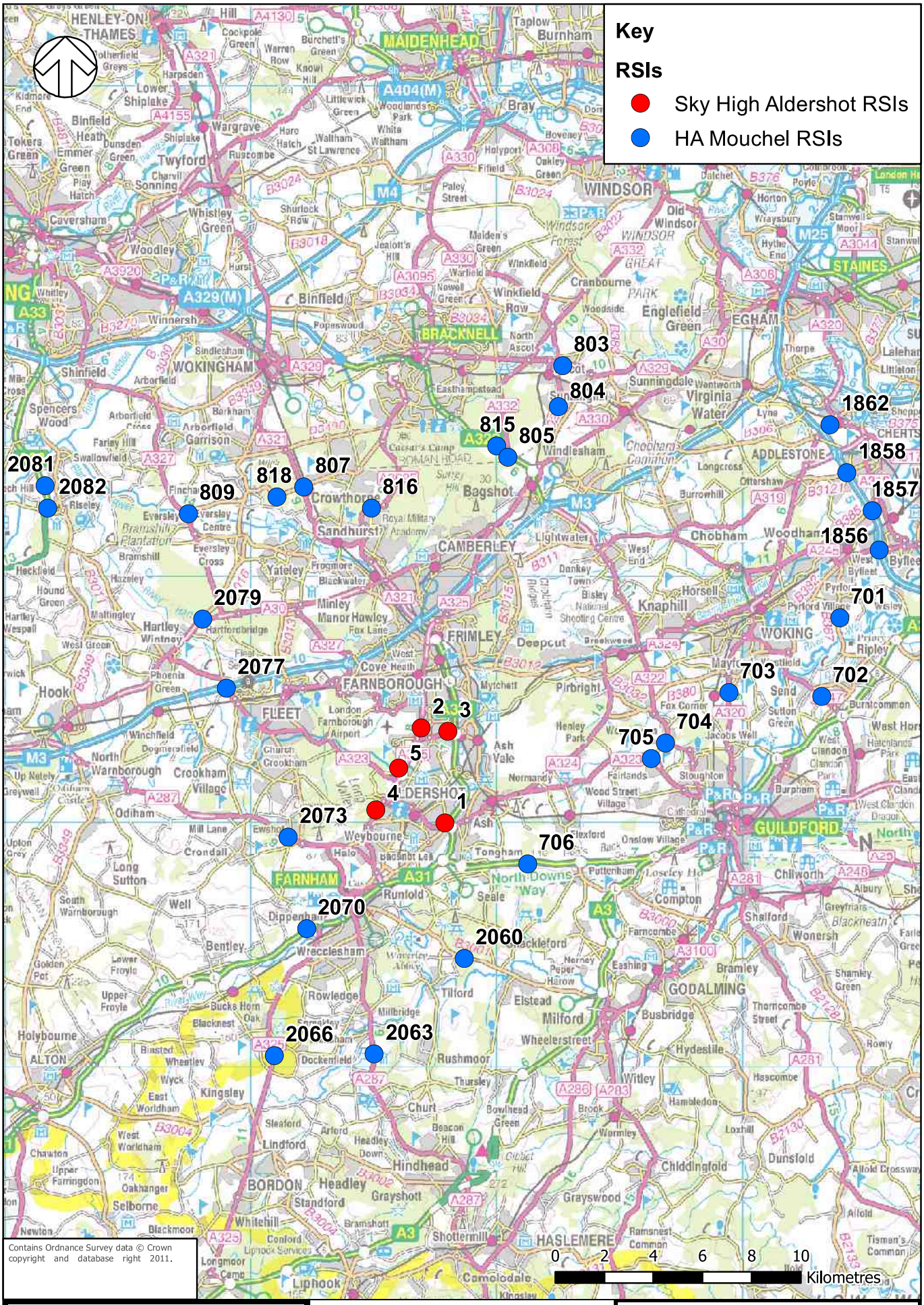
WSP

TITLE:

EXISTING LAND USES

FIGURE No: 2

N:\Aldershot urban Extension (2011)\DRAWINGS\CORELL\Land Uses.cdr



Drawn By: ukmdj002 Date Modified: 25/11/2011

File: Q:\WSP_UK\WSP_D\Basing\Aldershot Urban Extension 111XXXXX\Analysis\ArcGIS\MapDocuments\PT1\Modelling\RSIs\All RSIs.mxd

WSP

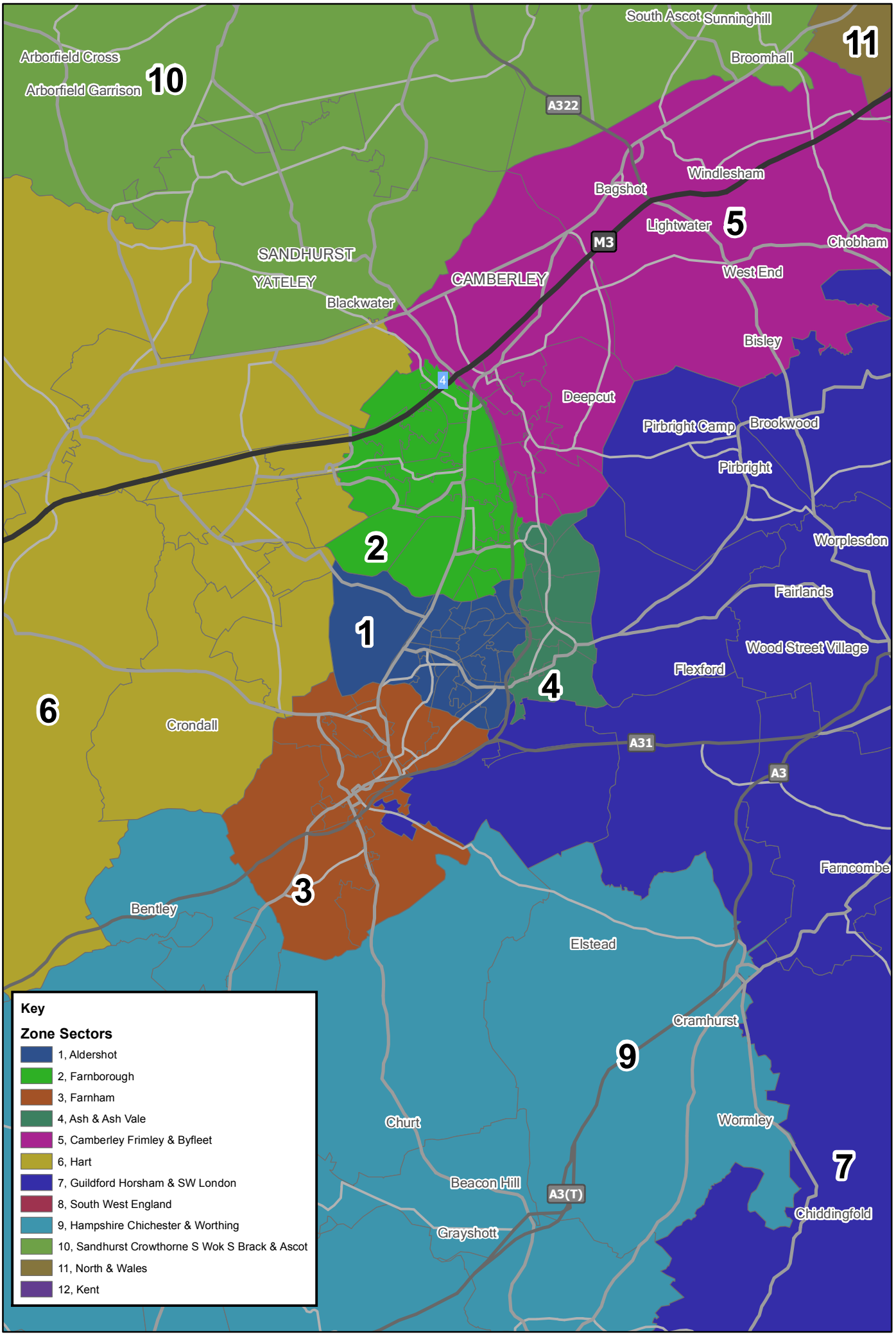
TITLE:

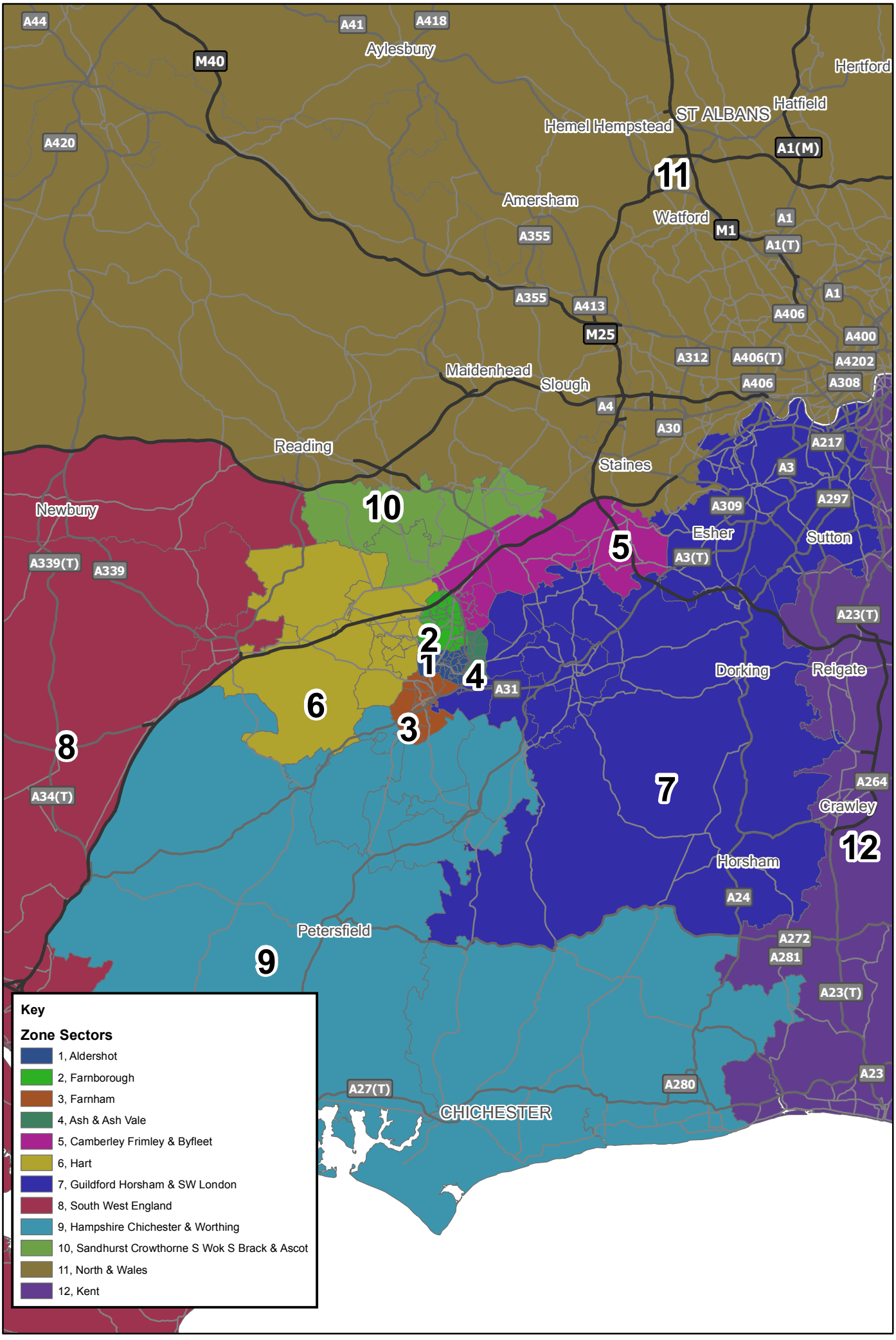
RSI LOCATIONS

FIGURE No:

3

Appendix A – Model Sector System


South Ascot
Sunninghill
11
Arborfield Cross
Arborfield Garrison
10
Broomhall
A322
Windlesham
Bagshot
Lightwater
5
M3
Chobham
SANDHURST
YATELEY
CAMBERLEY
West End
Blackwater
Bisley
Deepcut
Pirbright Camp
Brookwood
Pirbright
2
Worplesdon
Fairlands
1
Wood Street Village
Flexford
4
6
Crondall
A31
A3
Farncombe
3
Bentley
Elstead
Cramhurst
9
Churt
Wormley
7
Beacon Hill
A3(T)
Chiddingfold
Grayshott
Key
Zone Sectors
1, Aldershot
2, Farnborough
3, Farnham
4, Ash & Ash Vale
5, Camberley Frimley & Byfleet
6, Hart
7, Guildford Horsham & SW London
8, South West England
9, Hampshire Chichester & Worthing
10, Sandhurst Crowthorne S Wok S Brack & Ascot
11, North & Wales
12, Kent


A44
A41
A418
Aylesbury
M40
Hertford
Hatfield
ST ALBANS
Hemel Hempstead
A420
A1(M)
11
Amersham
Watford
M1
A1
A355
A1(T)
A355
A413
A1
A406
M25
A400
A312
A406(T)
A4202
Maidenhead
Slough
A406
A308
A4
A30
A217
Reading
Staines
A3
Newbury
10
A309
A297
Esher
Sutton
5
A339(T)
A339
A3(T)
A23(T)
2
1
4
Dorking
Reigate
A31
6
3
8
7
A264
A34(T)
Crawley
12
Horsham
A24
Petersfield
A272
9
A281
A23(T)
A23
A27(T)
A280
CHICHESTER
Key
Zone Sectors
1, Aldershot
2, Farnborough
3, Farnham
4, Ash & Ash Vale
5, Camberley Frimley & Byfleet
6, Hart
7, Guildford Horsham & SW London
8, South West England
9, Hampshire Chichester & Worthing
10, Sandhurst Crowthorne S Wok S Brack & Ascot
11, North & Wales
12, Kent

Wellesley

ALDERSHOT

Appendix H

Junction Capacity Assessments

Appendix H

Investing in homes since 1912

grainger plc

Run Information

Run with file:- **n:\Aldershot Urban Extension (2011)\ANALYSIS\JUNCTION ASSESSMENTS\A331 - A323 Grade Seperated Juction\A331 -A323 Grade Seperated Junction AM.vai**
At: **14:43:16 on Friday, November 30, 2012**
Mode: **Drive On The Left**
Units: **Metric**

Arm Labelling

Arm	Full Arm Names
Arm A	A331 SB on/off slip
Arm B	A323 Aldershot Road
Arm C	Oxedden Road
Arm D	A331 NB on/off slip
Arm E	A323 Ash Road

Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100
Arm D	100
Arm E	100

File Properties

Run Title	A331 North Arm AM - Unequal Lane Use - L2
Location	
Date	22/10/2012
Client	
Enumerator	
Job Number	1570364
Status	On-going
Description	

Errors and Warnings

WARNING ARM B Effective flare length is outside normal range.
Treat capacities with increasing caution.

Geometric Data

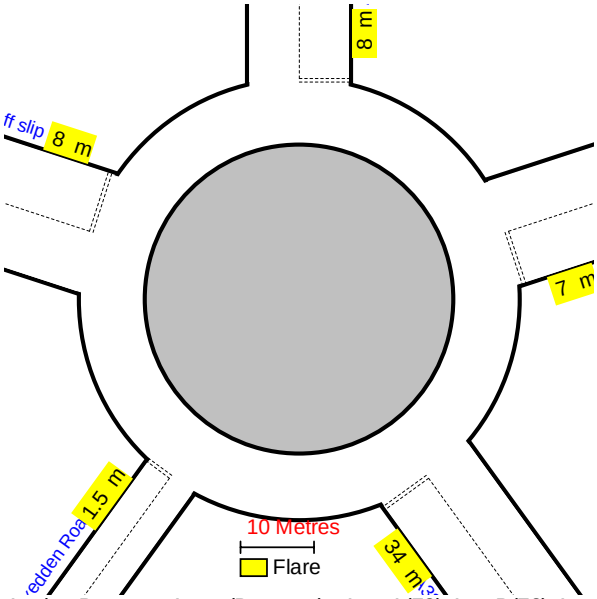
Data Item	Arm A	Arm B	Arm C	Arm D	Arm E
Approach Road Half-Width (m)	6.95	4.00	3.40	7.85	6.40
Entry Width (m)	7.60	7.40	4.00	8.60	7.10
Flare Length (m)	7.00	34.00	1.50	8.00	8.00
Entry Radius (m)	21.00	37.00	13.00	39.00	82.00
Inscribed Circle Diameter (m)	92.00	82.00	82.00	88.00	96.00
Entry Angle (degrees)	19.00	27.00	19.50	21.00	17.00
Slope	0.830	0.825	0.568	0.944	0.988
Intercept (PCU/Min)	44.355	42.231	25.843	51.308	48.083

Grade-separated/motorway factors apply to all arms

Large Roundabout Data

Arm	Circulating Flow (PCU/Min)	Separation (PCU)
Arm A	28.0	78.0
Arm B	25.0	21.0
Arm C	29.0	15.0
Arm D	26.0	58.0
Arm E	15.0	25.0

Junction Diagram: (View Extent = 80m)



Angles Between Arms (Degrees): Arm A(72) Arm B(72) Arm C(72) Arm D(72) Arm E(72)

Demand Data

Demand Profiles are Synthesised using **DIRECT** Data
Period of interest (for Queue and Delay calculations): **07:45 to 09:15**
Length of Time Period: **90 min**
Length of Time Segment: **15 min**

Direct Data for Demand Set: 2026 AM PEAK

Time Period	Arm	Demand Data (Veh/Min)
Segment : 1 - 07:45 to 08:00	A	10.98
	B	13.17
	C	4.45
	D	12.87
	E	25.12
Segment : 2 - 08:00 to 08:15	A	10.98
	B	13.17
	C	4.45
	D	12.87
	E	25.12
Segment : 3 - 08:15 to 08:30	A	10.98
	B	13.17
	C	4.45
	D	12.87
	E	25.12
Segment : 4 - 08:30 to 08:45	A	10.98
	B	13.17
	C	4.45
	D	12.87
	E	25.12
Segment : 5 - 08:45 to 09:00	A	10.98
	B	13.17
	C	4.45
	D	12.87
	E	25.12
Segment : 6 - 09:00 to 09:15	A	10.98
	B	13.17
	C	4.45
	D	12.87
	E	25.12

Turning Proportions for Demand Set: 2026 AM PEAK

Turning proportions vary over entry and calculated from turning count data (shaded)

Time Period	From/To	Arm A	Arm B	Arm C	Arm D	Arm E
07:45 to 09:15	Arm A	0.000	0.077	0.000	0.000	0.923
		0.0	38.0	0.0	0.0	456.0
	Arm B	0.113	0.000	0.000	0.135	0.752
		67.0	0.0	0.0	80.0	446.0
	Arm C	0.095	0.000	0.000	0.005	0.900
		19.0	0.0	0.0	1.0	181.0
	Arm D	0.000	0.202	0.000	0.000	0.798
		0.0	117.0	0.0	0.0	462.0
	Arm E	0.294	0.291	0.194	0.219	0.003
		332.0	329.0	219.0	248.0	3.0

Heavy Vehicle Percentages for Demand Set: 2026 AM PEAK

Vehicle percentages constant over time and entry

Time Period	From/To	Arm A	Arm B	Arm C	Arm D	Arm E
07:45 to 09:15	Arm A	0.0	0.0	0.0	0.0	0.0
	Arm B	0.0	0.0	0.0	0.0	0.0
	Arm C	0.0	0.0	0.0	0.0	0.0
	Arm D	0.0	0.0	0.0	0.0	0.0

Time Period	From/To	Arm A	Arm B	Arm C	Arm D	Arm E
	Arm E	0.0	0.0	0.0	0.0	0.0

Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 07:45 to 08:00	A	10.98	27.53	0.399	-	0.0	0.7	9.6	-	0.060
	B	13.17	25.32	0.520	-	0.0	1.1	15.5	-	0.081
	C	4.45	9.50	0.468	-	0.0	0.9	12.1	-	0.194
	D	12.87	26.90	0.478	-	0.0	0.9	13.2	-	0.071
	E	25.12	43.66	0.575	-	0.0	1.3	19.6	-	0.053
Segment : 2 - 08:00 to 08:15	A	10.98	27.47	0.400	-	0.7	0.7	9.9	-	0.061
	B	13.17	25.26	0.521	-	1.1	1.1	16.2	-	0.083
	C	4.45	9.43	0.472	-	0.9	0.9	13.1	-	0.201
	D	12.87	26.75	0.481	-	0.9	0.9	13.8	-	0.072
	E	25.12	43.63	0.576	-	1.3	1.4	20.2	-	0.054
Segment : 3 - 08:15 to 08:30	A	10.98	27.47	0.400	-	0.7	0.7	10.0	-	0.061
	B	13.17	25.26	0.521	-	1.1	1.1	16.3	-	0.083
	C	4.45	9.43	0.472	-	0.9	0.9	13.2	-	0.201
	D	12.87	26.75	0.481	-	0.9	0.9	13.8	-	0.072
	E	25.12	43.63	0.576	-	1.4	1.4	20.3	-	0.054
Segment : 4 - 08:30 to 08:45	A	10.98	27.47	0.400	-	0.7	0.7	10.0	-	0.061
	B	13.17	25.26	0.521	-	1.1	1.1	16.3	-	0.083
	C	4.45	9.43	0.472	-	0.9	0.9	13.3	-	0.201
	D	12.87	26.75	0.481	-	0.9	0.9	13.9	-	0.072
	E	25.12	43.63	0.576	-	1.4	1.4	20.3	-	0.054
Segment : 5 - 08:45 to 09:00	A	10.98	27.47	0.400	-	0.7	0.7	10.0	-	0.061
	B	13.17	25.26	0.521	-	1.1	1.1	16.3	-	0.083
	C	4.45	9.43	0.472	-	0.9	0.9	13.3	-	0.201
	D	12.87	26.75	0.481	-	0.9	0.9	13.9	-	0.072
	E	25.12	43.63	0.576	-	1.4	1.4	20.3	-	0.054
Segment : 6 - 09:00 to 09:15	A	10.98	27.47	0.400	-	0.7	0.7	10.0	-	0.061
	B	13.17	25.26	0.521	-	1.1	1.1	16.3	-	0.083
	C	4.45	9.43	0.472	-	0.9	0.9	13.3	-	0.201
	D	12.87	26.75	0.481	-	0.9	0.9	13.9	-	0.072
	E	25.12	43.63	0.576	-	1.4	1.4	20.3	-	0.054

Run Information

Run with file:- **n:\Aldershot Urban Extension (2011)\ANALYSIS\JUNCTION ASSESSMENTS\A331 - A323 Grade Seperated Juction\A331 -A323 Grade Seperated Junction PM.vai**
At: **14:43:50 on Friday, November 30, 2012**
Mode: **Drive On The Left**
Units: **Metric**

Arm Labelling

Arm	Full Arm Names
Arm A	A331 SB on/off slip
Arm B	A323 Aldershot Road
Arm C	Oxedden Road
Arm D	A331 NB on/off slip
Arm E	A323 Ash Road

Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100
Arm D	100
Arm E	100

File Properties

Run Title	A331 - A323 Ash Road Grade Seperated
Location	
Date	22/10/2012
Client	
Enumerator	
Job Number	1570364
Status	On-going
Description	

Errors and Warnings

WARNING ARM B Effective flare length is outside normal range.
Treat capacities with increasing caution.

Geometric Data

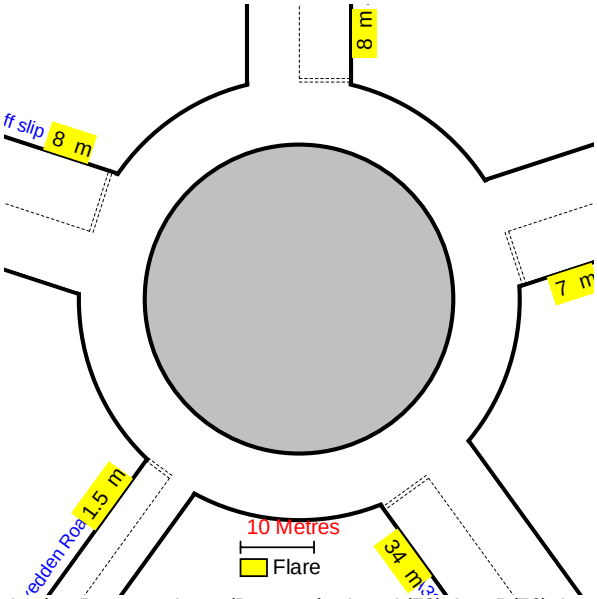
Data Item	Arm A	Arm B	Arm C	Arm D	Arm E
Approach Road Half-Width (m)	6.95	4.00	3.40	7.85	6.40
Entry Width (m)	7.60	7.40	4.00	8.60	7.10
Flare Length (m)	7.00	34.00	1.50	8.00	8.00
Entry Radius (m)	21.00	37.00	13.00	39.00	82.00
Inscribed Circle Diameter (m)	92.00	82.00	82.00	88.00	96.00
Entry Angle (degrees)	19.00	27.00	19.50	21.00	17.00
Slope	0.830	0.849	0.551	0.859	1.013
Intercept (PCU/Min)	44.355	42.695	25.379	49.916	48.547

Grade-separated/motorway factors apply to all arms

Large Roundabout Data

Arm	Circulating Flow (PCU/Min)	Separation (PCU)
Arm A	28.0	78.0
Arm B	23.0	21.0
Arm C	31.0	15.0
Arm D	32.0	58.0
Arm E	13.0	25.0

Junction Diagram: (View Extent = 80m)



Angles Between Arms (Degrees): Arm A(72) Arm B(72) Arm C(72) Arm D(72) Arm E(72)

Demand Data

Demand Profiles are Synthesised using **DIRECT** Data
Period of interest (for Queue and Delay calculations): **16:45 to 18:15**
Length of Time Period: **90 min**
Length of Time Segment: **15 min**

Direct Data for Demand Set: 2026 PM PEAK

Time Period	Arm	Demand Data (Veh/Min)
Segment : 1 - 16:45 to 17:00	A	14.52
	B	14.98
	C	4.42
	D	9.50
	E	26.30
Segment : 2 - 17:00 to 17:15	A	14.52
	B	14.98
	C	4.42
	D	9.50
	E	26.30
Segment : 3 - 17:15 to 17:30	A	14.52
	B	14.98
	C	4.42
	D	9.50
	E	26.30
Segment : 4 - 17:30 to 17:45	A	14.52
	B	14.98
	C	4.42
	D	9.50
	E	26.30
Segment : 5 - 17:45 to 18:00	A	14.52
	B	14.98
	C	4.42
	D	9.50
	E	26.30
Segment : 6 - 18:00 to 18:15	A	14.52
	B	14.98
	C	4.42
	D	9.50
	E	26.30

Turning Proportions for Demand Set: 2026 PM PEAK

Turning proportions vary over entry and calculated from turning count data (shaded)

Time Period	From/To	Arm A	Arm B	Arm C	Arm D	Arm E
16:45 to 18:15	Arm A	0.000	0.000	0.010	0.000	0.990
		0.0	0.0	9.0	0.0	862.0
	Arm B	0.069	0.000	0.000	0.115	0.816
		62.0	0.0	0.0	103.0	734.0
	Arm C	0.513	0.000	0.000	0.000	0.487
		136.0	0.0	0.0	0.0	129.0
	Arm D	0.000	0.165	0.000	0.000	0.835
		0.0	94.0	0.0	0.0	476.0
	Arm E	0.160	0.510	0.262	0.065	0.003
		252.0	805.0	414.0	103.0	4.0

Heavy Vehicle Percentages for Demand Set: 2026 PM PEAK

Vehicle percentages constant over time and entry

Time Period	From/To	Arm A	Arm B	Arm C	Arm D	Arm E
16:45 to 18:15	Arm A	0.0	0.0	0.0	0.0	0.0
	Arm B	0.0	0.0	0.0	0.0	0.0
	Arm C	0.0	0.0	0.0	0.0	0.0
	Arm D	0.0	0.0	0.0	0.0	0.0

Time Period	From/To	Arm A	Arm B	Arm C	Arm D	Arm E
	Arm E	0.0	0.0	0.0	0.0	0.0

Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 16:45 to 17:00	A	14.52	24.79	0.586	-	0.0	1.4	19.9	-	0.096
	B	14.98	23.09	0.649	-	0.0	1.8	25.4	-	0.120
	C	4.42	8.36	0.529	-	0.0	1.1	15.0	-	0.245
	D	9.50	22.55	0.421	-	0.0	0.7	10.5	-	0.076
	E	26.30	43.67	0.602	-	0.0	1.5	21.8	-	0.057
Segment : 2 - 17:00 to 17:15	A	14.52	24.71	0.588	-	1.4	1.4	21.1	-	0.098
	B	14.98	22.99	0.652	-	1.8	1.8	27.4	-	0.125
	C	4.42	8.24	0.536	-	1.1	1.1	16.7	-	0.261
	D	9.50	22.32	0.426	-	0.7	0.7	11.0	-	0.078
	E	26.30	43.62	0.603	-	1.5	1.5	22.6	-	0.058
Segment : 3 - 17:15 to 17:30	A	14.52	24.71	0.588	-	1.4	1.4	21.2	-	0.098
	B	14.98	22.99	0.652	-	1.8	1.9	27.7	-	0.125
	C	4.42	8.24	0.537	-	1.1	1.1	17.0	-	0.262
	D	9.50	22.32	0.426	-	0.7	0.7	11.1	-	0.078
	E	26.30	43.62	0.603	-	1.5	1.5	22.7	-	0.058
Segment : 4 - 17:30 to 17:45	A	14.52	24.71	0.588	-	1.4	1.4	21.3	-	0.098
	B	14.98	22.99	0.652	-	1.9	1.9	27.8	-	0.125
	C	4.42	8.24	0.537	-	1.1	1.1	17.2	-	0.262
	D	9.50	22.32	0.426	-	0.7	0.7	11.1	-	0.078
	E	26.30	43.62	0.603	-	1.5	1.5	22.7	-	0.058
Segment : 5 - 17:45 to 18:00	A	14.52	24.71	0.588	-	1.4	1.4	21.3	-	0.098
	B	14.98	22.99	0.652	-	1.9	1.9	27.9	-	0.125
	C	4.42	8.24	0.537	-	1.1	1.1	17.2	-	0.262
	D	9.50	22.32	0.426	-	0.7	0.7	11.1	-	0.078
	E	26.30	43.62	0.603	-	1.5	1.5	22.7	-	0.058
Segment : 6 - 18:00 to 18:15	A	14.52	24.71	0.588	-	1.4	1.4	21.3	-	0.098
	B	14.98	22.99	0.652	-	1.9	1.9	27.9	-	0.125
	C	4.42	8.24	0.537	-	1.1	1.2	17.2	-	0.262
	D	9.50	22.32	0.426	-	0.7	0.7	11.1	-	0.078
	E	26.30	43.62	0.603	-	1.5	1.5	22.7	-	0.058

ARCADY 6

GUI Version: 6.2 AG
Analysis Program: Release 7.0 (FEBRUARY 2010)

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Run Information

Run with file:- **n:\Aldershot Urban Extension (2011)\ANALYSIS\JUNCTION ASSESSMENTS\Lakeside Road - Old Farm Place\EXISTING\ARCADY\Existing Lakeside Road - Old Farm Place AM Peak.vai**
At: **12:14:57 on Tuesday, December 11, 2012**
Mode: **Drive On The Left**
Units: **Metric**

Arm Labelling

Arm	Full Arm Names
Arm A	Old Farm Place
Arm B	Lakeside Road (E)
Arm C	Lakeside Road (W)

Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100

File Properties

Run Title	Existing Lakeside Road - Old Farm Place Roundabout
Location	
Date	24/10/2012
Client	
Enumerator	ukddd001 [L12UK0360]
Job Number	
Status	
Description	

Geometric Data

Data Item	Arm A	Arm B	Arm C
Approach Road Half-Width (m)	3.65	3.25	3.50
Entry Width (m)	3.65	3.25	3.50
Flare Length (m)	0.00	0.00	0.00
Entry Radius (m)	21.00	23.00	22.00
Inscribed Circle Diameter (m)	36.00	36.00	36.00
Entry Angle (degrees)	31.00	48.00	28.00
Slope	0.529	0.477	0.527
Intercept (PCU/Min)	18.411	15.492	17.876

Demand Data

Demand Profiles are Synthesised using **DIRECT** Data
Period of interest (for Queue and Delay calculations): **07:45 to 09:15**
Length of Time Period: **90 min**
Length of Time Segment: **15 min**

Direct Data for Demand Set: 2026 Modelled Do Something AM Peak

Time Period	Arm	Demand Data (Veh/Min)
Segment : 1 - 07:45 to 08:00	A	6.90
	B	8.15
	C	5.33
Segment : 2 - 08:00 to 08:15	A	6.90
	B	8.15
	C	5.33
Segment : 3 - 08:15 to 08:30	A	6.90
	B	8.15
	C	5.33
Segment : 4 - 08:30 to 08:45	A	6.90
	B	8.15
	C	5.33
Segment : 5 - 08:45 to 09:00	A	6.90
	B	8.15
	C	5.33
Segment : 6 - 09:00 to 09:15	A	6.90
	B	8.15
	C	5.33

Turning Proportions for Demand Set: 2026 Modelled Do Something AM Peak

Turning proportions vary over entry and calculated from turning count data (shaded)

Time Period	From/To	Arm A	Arm B	Arm C
07:45 to 09:15	Arm A	0.002	0.376	0.622
		1.0	156.0	258.0
	Arm B	0.149	0.025	0.826
		73.0	12.0	404.0
	Arm C	0.216	0.784	0.000
		69.0	251.0	0.0

Heavy Vehicle Percentages for Demand Set: 2026 Modelled Do Something AM Peak

Vehicle percentages constant over time and entry

Time Period	From/To	Arm A	Arm B	Arm C
07:45 to 09:15	Arm A	0.0	0.0	0.0
	Arm B	0.0	0.0	0.0
	Arm C	0.0	0.0	0.0

Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 07:45 to 08:00	A	6.90	16.11	0.428	-	0.0	0.7	10.6	-	0.107
	B	8.15	13.45	0.606	-	0.0	1.5	20.7	-	0.182
	C	5.33	17.13	0.311	-	0.0	0.4	6.5	-	0.084
Segment : 2 - 08:00 to 08:15	A	6.90	16.09	0.429	-	0.7	0.7	11.2	-	0.109
	B	8.15	13.44	0.606	-	1.5	1.5	22.6	-	0.189
	C	5.33	17.12	0.311	-	0.4	0.5	6.7	-	0.085
Segment : 3 - 08:15 to 08:30	A	6.90	16.09	0.429	-	0.7	0.7	11.2	-	0.109
	B	8.15	13.44	0.606	-	1.5	1.5	22.8	-	0.189
	C	5.33	17.12	0.311	-	0.5	0.5	6.8	-	0.085
Segment : 4 - 08:30 to 08:45	A	6.90	16.09	0.429	-	0.7	0.7	11.2	-	0.109
	B	8.15	13.44	0.606	-	1.5	1.5	22.9	-	0.189
	C	5.33	17.12	0.311	-	0.5	0.5	6.8	-	0.085
Segment : 5 - 08:45 to 09:00	A	6.90	16.09	0.429	-	0.7	0.7	11.2	-	0.109
	B	8.15	13.44	0.606	-	1.5	1.5	23.0	-	0.189
	C	5.33	17.12	0.311	-	0.5	0.5	6.8	-	0.085
Segment : 6 - 09:00 to 09:15	A	6.90	16.09	0.429	-	0.7	0.7	11.2	-	0.109
	B	8.15	13.44	0.606	-	1.5	1.5	23.0	-	0.189
	C	5.33	17.12	0.311	-	0.5	0.5	6.8	-	0.085

Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
A	621.0	414.0	66.7	0.11	66.7	0.11
B	733.5	489.0	135.0	0.18	135.0	0.18
C	479.7	319.8	40.3	0.08	40.3	0.08
ALL	1834.2	1222.8	241.9	0.13	242.1	0.13

Delay is that occuring only within the time period.
Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.
These will only be significantly different if there is a large queue remaining at the end of the time period.

Errors and Warnings

[No errors or warnings]

ARCADY 6

GUI Version: 6.2 AG
Analysis Program: Release 7.0 (FEBRUARY 2010)

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Run Information

Run with file:- **n:\Aldershot Urban Extension (2011)\ANALYSIS\JUNCTION ASSESSMENTS\Lakeside Road - Old Farm Place\EXISTING\ARCADY\Existing Lakeside Road - Old Farm Place PM Peak.vai**
At: **12:15:44 on Tuesday, December 11, 2012**
Mode: **Drive On The Left**
Units: **Metric**

Arm Labelling

Arm	Full Arm Names
Arm A	Old Farm Place
Arm B	Lakeside Road (E)
Arm C	Lakeside Road (W)

Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100

File Properties

Run Title	Existing Lakeside Road - Old Farm Place Roundabout PM Peak
Location	
Date	24/10/2012
Client	
Enumerator	ukddd001 [L12UK0360]
Job Number	
Status	
Description	

Geometric Data

Data Item	Arm A	Arm B	Arm C
Approach Road Half-Width (m)	3.65	3.25	3.50
Entry Width (m)	3.65	3.25	3.50
Flare Length (m)	0.00	0.00	0.00
Entry Radius (m)	21.00	23.00	22.00
Inscribed Circle Diameter (m)	36.00	36.00	36.00
Entry Angle (degrees)	31.00	48.00	28.00
Slope	0.529	0.477	0.527
Intercept (PCU/Min)	18.411	15.492	17.876

Demand Data

Demand Profiles are Synthesised using **DIRECT** Data
Period of interest (for Queue and Delay calculations): **16:45 to 18:15**
Length of Time Period: **90 min**
Length of Time Segment: **15 min**

Direct Data for Demand Set: 2026 Modelled Do Something PM Peak

Time Period	Arm	Demand Data (Veh/Min)
Segment : 1 - 16:45 to 17:00	A	2.40
	B	7.85
	C	7.50
Segment : 2 - 17:00 to 17:15	A	2.40
	B	7.85
	C	7.50
Segment : 3 - 17:15 to 17:30	A	2.40
	B	7.85
	C	7.50
Segment : 4 - 17:30 to 17:45	A	2.40
	B	7.85
	C	7.50
Segment : 5 - 17:45 to 18:00	A	2.40
	B	7.85
	C	7.50
Segment : 6 - 18:00 to 18:15	A	2.40
	B	7.85
	C	7.50

Turning Proportions for Demand Set: 2026 Modelled Do Something PM Peak

Turning proportions vary over entry and calculated from turning count data (shaded)

Time Period	From/To	Arm A	Arm B	Arm C
16:45 to 18:15	Arm A	0.007	0.514	0.479
		1.0	74.0	69.0
	Arm B	0.270	0.057	0.673
		127.0	27.0	317.0
	Arm C	0.344	0.656	0.000
		155.0	295.0	0.0

Heavy Vehicle Percentages for Demand Set: 2026 Modelled Do Something PM Peak

Vehicle percentages constant over time and entry

Time Period	From/To	Arm A	Arm B	Arm C
16:45 to 18:15	Arm A	0.0	0.0	0.0
	Arm B	0.0	0.0	0.0
	Arm C	0.0	0.0	0.0

Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 16:45 to 17:00	A	2.40	15.59	0.154	-	0.0	0.2	2.6	-	0.076
	B	7.85	14.94	0.525	-	0.0	1.1	15.4	-	0.138
	C	7.50	16.53	0.454	-	0.0	0.8	11.8	-	0.109
Segment : 2 - 17:00 to 17:15	A	2.40	15.57	0.154	-	0.2	0.2	2.7	-	0.076
	B	7.85	14.94	0.526	-	1.1	1.1	16.4	-	0.141
	C	7.50	16.52	0.454	-	0.8	0.8	12.4	-	0.111
Segment : 3 - 17:15 to 17:30	A	2.40	15.57	0.154	-	0.2	0.2	2.7	-	0.076
	B	7.85	14.94	0.526	-	1.1	1.1	16.5	-	0.141
	C	7.50	16.52	0.454	-	0.8	0.8	12.4	-	0.111
Segment : 4 - 17:30 to 17:45	A	2.40	15.57	0.154	-	0.2	0.2	2.7	-	0.076
	B	7.85	14.94	0.526	-	1.1	1.1	16.5	-	0.141
	C	7.50	16.52	0.454	-	0.8	0.8	12.4	-	0.111
Segment : 5 - 17:45 to 18:00	A	2.40	15.57	0.154	-	0.2	0.2	2.7	-	0.076
	B	7.85	14.94	0.526	-	1.1	1.1	16.5	-	0.141
	C	7.50	16.52	0.454	-	0.8	0.8	12.4	-	0.111
Segment : 6 - 18:00 to 18:15	A	2.40	15.57	0.154	-	0.2	0.2	2.7	-	0.076
	B	7.85	14.94	0.526	-	1.1	1.1	16.6	-	0.141
	C	7.50	16.52	0.454	-	0.8	0.8	12.4	-	0.111

Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
A	216.0	144.0	16.3	0.08	16.3	0.08
B	706.5	471.0	97.9	0.14	97.9	0.14
C	675.0	450.0	73.8	0.11	73.9	0.11
ALL	1597.5	1065.0	188.0	0.12	188.1	0.12

Delay is that occuring only within the time period.
Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.
These will only be significantly different if there is a large queue remaining at the end of the time period.

Errors and Warnings

[No errors or warnings]

Run Information

Run with file:- **n:\Aldershot Urban Extension (2011)\ANALYSIS\JUNCTION ASSESSMENTS\Lakeside Road - Hollybush Lane\Existing\ARCADY\Existing Lakeside Road - Hollybush Lane AM Peak.vai**
At: **12:05:19 on Tuesday, December 11, 2012**
Mode: **Drive On The Left**
Units: **Metric**

Arm Labelling

Arm	Full Arm Names
Arm A	Hollybush lane
Arm B	Lakeside Road
Arm C	Government Road

Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100

File Properties

Run Title	Existing Lakeside Road - Hollybush Lane AM Peak
Location	
Date	24/10/2012
Client	
Enumerator	ukddd001 [L12UK0360]
Job Number	
Status	
Description	

Geometric Data

Data Item	Arm A	Arm B	Arm C
Approach Road Half-Width (m)	3.30 *	3.65	3.50 *
Entry Width (m)	3.30	4.40	3.50
Flare Length (m)	0.10	1.40	0.10
Entry Radius (m)	15.00	7.00	11.00
Inscribed Circle Diameter (m)	30.00	30.00	30.00
Entry Angle (degrees)	1.00	28.50	20.50
Slope	0.558	0.506	0.523
Intercept (PCU/Min)	18.070	18.130	17.550

Demand Data

Demand Profiles are Synthesised using **DIRECT** Data
Period of interest (for Queue and Delay calculations): **07:45 to 09:15**
Length of Time Period: **90 min**
Length of Time Segment: **15 min**

Direct Data for Demand Set: 2026 Modelled Do Something AM Peak

Time Period	Arm	Demand Data (Veh/Min)
Segment : 1 - 07:45 to 08:00	A	0.43
	B	10.48
	C	7.00
Segment : 2 - 08:00 to 08:15	A	0.43
	B	10.48
	C	7.00
Segment : 3 - 08:15 to 08:30	A	0.43
	B	10.48
	C	7.00
Segment : 4 - 08:30 to 08:45	A	0.43
	B	10.48
	C	7.00
Segment : 5 - 08:45 to 09:00	A	0.43
	B	10.48
	C	7.00
Segment : 6 - 09:00 to 09:15	A	0.43
	B	10.48
	C	7.00

Turning Proportions for Demand Set: 2026 Modelled Do Something AM Peak

Turning proportions vary over entry and calculated from turning count data (shaded)

Time Period	From/To	Arm A	Arm B	Arm C
07:45 to 09:15	Arm A	0.000	0.154	0.846
		0.0	4.0	22.0
	Arm B	0.019	0.000	0.981
		12.0	0.0	617.0
	Arm C	0.245	0.755	0.000
		103.0	317.0	0.0

Heavy Vehicle Percentages for Demand Set: 2026 Modelled Do Something AM Peak

Vehicle percentages constant over time and entry

Time Period	From/To	Arm A	Arm B	Arm C
07:45 to 09:15	Arm A	0.0	0.0	0.0
	Arm B	0.0	0.0	0.0
	Arm C	0.0	0.0	0.0

Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 07:45 to 08:00	A	0.43	15.14	0.028	-	0.0	0.0	0.4	-	0.068
	B	10.48	17.95	0.584	-	0.0	1.4	19.4	-	0.131
	C	7.00	17.45	0.401	-	0.0	0.7	9.6	-	0.095
Segment : 2 - 08:00 to 08:15	A	0.43	15.12	0.028	-	0.0	0.0	0.4	-	0.068
	B	10.48	17.95	0.584	-	1.4	1.4	20.7	-	0.134
	C	7.00	17.45	0.401	-	0.7	0.7	10.0	-	0.096
Segment : 3 - 08:15 to 08:30	A	0.43	15.12	0.028	-	0.0	0.0	0.4	-	0.068
	B	10.48	17.95	0.584	-	1.4	1.4	20.9	-	0.134
	C	7.00	17.45	0.401	-	0.7	0.7	10.0	-	0.096
Segment : 4 - 08:30 to 08:45	A	0.43	15.12	0.028	-	0.0	0.0	0.4	-	0.068
	B	10.48	17.95	0.584	-	1.4	1.4	20.9	-	0.134
	C	7.00	17.45	0.401	-	0.7	0.7	10.0	-	0.096
Segment : 5 - 08:45 to 09:00	A	0.43	15.12	0.028	-	0.0	0.0	0.4	-	0.068
	B	10.48	17.95	0.584	-	1.4	1.4	21.0	-	0.134
	C	7.00	17.45	0.401	-	0.7	0.7	10.0	-	0.096
Segment : 6 - 09:00 to 09:15	A	0.43	15.12	0.028	-	0.0	0.0	0.4	-	0.068
	B	10.48	17.95	0.584	-	1.4	1.4	21.0	-	0.134
	C	7.00	17.45	0.401	-	0.7	0.7	10.0	-	0.096

Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
A	38.7	25.8	2.6	0.07	2.6	0.07
B	943.2	628.8	123.9	0.13	124.0	0.13
C	630.0	420.0	59.7	0.09	59.7	0.09
ALL	1611.9	1074.6	186.2	0.12	186.2	0.12

Delay is that occuring only within the time period.
Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.
These will only be significantly different if there is a large queue remaining at the end of the time period.

Errors and Warnings

[No errors or warnings]

ARCADY 6

GUI Version: 6.2 AG
Analysis Program: Release 7.0 (FEBRUARY 2010)

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Run Information

Run with file:- **n:\Aldershot Urban Extension (2011)\ANALYSIS\JUNCTION ASSESSMENTS\Lakeside Road - Hollybush Lane\Existing\ARCADY\Existing Lakeside Road - Hollybush Lane PM Peak.vai**
At: **12:14:19 on Tuesday, December 11, 2012**
Mode: **Drive On The Left**
Units: **Metric**

Arm Labelling

Arm	Full Arm Names
Arm A	Hollybush lane
Arm B	Lakeside Road
Arm C	Government Road

Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100

File Properties

Run Title	Existing Lakeside Road - Hollybush Lane PM Peak
Location	
Date	24/10/2012
Client	
Enumerator	ukddd001 [L12UK0360]
Job Number	
Status	
Description	

Geometric Data

Data Item	Arm A	Arm B	Arm C
Approach Road Half-Width (m)	3.30 *	3.65	3.50 *
Entry Width (m)	3.30	4.40	3.50
Flare Length (m)	0.10	1.40	0.10
Entry Radius (m)	15.00	7.00	11.00
Inscribed Circle Diameter (m)	30.00	30.00	30.00
Entry Angle (degrees)	1.00	28.50	20.50
Slope	0.558	0.506	0.523
Intercept (PCU/Min)	18.070	18.130	17.550

Demand Data

Demand Profiles are Synthesised using **DIRECT** Data
Period of interest (for Queue and Delay calculations): **16:45 to 18:15**
Length of Time Period: **90 min**
Length of Time Segment: **15 min**

Direct Data for Demand Set: 2026 Modelled Do Something PM Peak

Time Period	Arm	Demand Data (Veh/Min)
Segment : 1 - 16:45 to 17:00	A	1.36
	B	6.18
	C	7.72
Segment : 2 - 17:00 to 17:15	A	1.36
	B	6.18
	C	7.72
Segment : 3 - 17:15 to 17:30	A	1.36
	B	6.18
	C	7.72
Segment : 4 - 17:30 to 17:45	A	1.36
	B	6.18
	C	7.72
Segment : 5 - 17:45 to 18:00	A	1.36
	B	6.18
	C	7.72
Segment : 6 - 18:00 to 18:15	A	1.36
	B	6.18
	C	7.72

Turning Proportions for Demand Set: 2026 Modelled Do Something PM Peak

Turning proportions vary over entry and calculated from turning count data (shaded)

Time Period	From/To	Arm A	Arm B	Arm C
16:45 to 18:15	Arm A	0.000	0.134	0.866
		0.0	11.0	71.0
	Arm B	0.022	0.000	0.978
		8.0	0.0	363.0
	Arm C	0.050	0.950	0.000
		23.0	440.0	0.0

Heavy Vehicle Percentages for Demand Set: 2026 Modelled Do Something PM Peak

Vehicle percentages constant over time and entry

Time Period	From/To	Arm A	Arm B	Arm C
16:45 to 18:15	Arm A	0.0	0.0	0.0
	Arm B	0.0	0.0	0.0
	Arm C	0.0	0.0	0.0

Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 16:45 to 17:00	A	1.36	14.00	0.097	-	0.0	0.1	1.6	-	0.079
	B	6.18	17.54	0.352	-	0.0	0.5	7.8	-	0.087
	C	7.72	17.48	0.442	-	0.0	0.8	11.3	-	0.101
Segment : 2 - 17:00 to 17:15	A	1.36	13.98	0.097	-	0.1	0.1	1.6	-	0.079
	B	6.18	17.53	0.352	-	0.5	0.5	8.1	-	0.088
	C	7.72	17.48	0.442	-	0.8	0.8	11.8	-	0.103
Segment : 3 - 17:15 to 17:30	A	1.36	13.98	0.097	-	0.1	0.1	1.6	-	0.079
	B	6.18	17.53	0.352	-	0.5	0.5	8.1	-	0.088
	C	7.72	17.48	0.442	-	0.8	0.8	11.8	-	0.103
Segment : 4 - 17:30 to 17:45	A	1.36	13.98	0.097	-	0.1	0.1	1.6	-	0.079
	B	6.18	17.53	0.352	-	0.5	0.5	8.1	-	0.088
	C	7.72	17.48	0.442	-	0.8	0.8	11.8	-	0.103
Segment : 5 - 17:45 to 18:00	A	1.36	13.98	0.097	-	0.1	0.1	1.6	-	0.079
	B	6.18	17.53	0.352	-	0.5	0.5	8.1	-	0.088
	C	7.72	17.48	0.442	-	0.8	0.8	11.8	-	0.103
Segment : 6 - 18:00 to 18:15	A	1.36	13.98	0.097	-	0.1	0.1	1.6	-	0.079
	B	6.18	17.53	0.352	-	0.5	0.5	8.2	-	0.088
	C	7.72	17.48	0.442	-	0.8	0.8	11.8	-	0.103

Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
A	122.4	81.6	9.6	0.08	9.6	0.08
B	556.2	370.8	48.5	0.09	48.5	0.09
C	694.8	463.2	70.3	0.10	70.3	0.10
ALL	1373.4	915.6	128.5	0.09	128.5	0.09

Delay is that occuring only within the time period.
Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.
These will only be significantly different if there is a large queue remaining at the end of the time period.

Errors and Warnings

[No errors or warnings]

ARCADY 6

GUI Version: 6.2 AG
Analysis Program: Release 7.0 (FEBRUARY 2010)

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Run Information

Run with file:- **n:\Aldershot Urban Extension (2011)\ANALYSIS\JUNCTION ASSESSMENTS\Ordnance Road - Louise Margret Road\2026 AM PROPOSED MINI.vai**
At: **14:45:57 on Friday, November 30, 2012**
Mode: **Drive On The Left**
Units: **Metric**

Arm Labelling

Arm	Full Arm Names
Arm A	Ordnance Road NB
Arm B	Louise Margret Road
Arm C	Ordnance Road SB

Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100

File Properties

Run Title	2026 AM - Ordnance Road / Louise Margret Proposed Road Mini Roundabout
Location	Aldershot
Date	25/10/2012
Client	
Enumerator	uktdm002 [W10UK0148]
Job Number	11570364
Status	Preliminary
Description	

Errors and Warnings

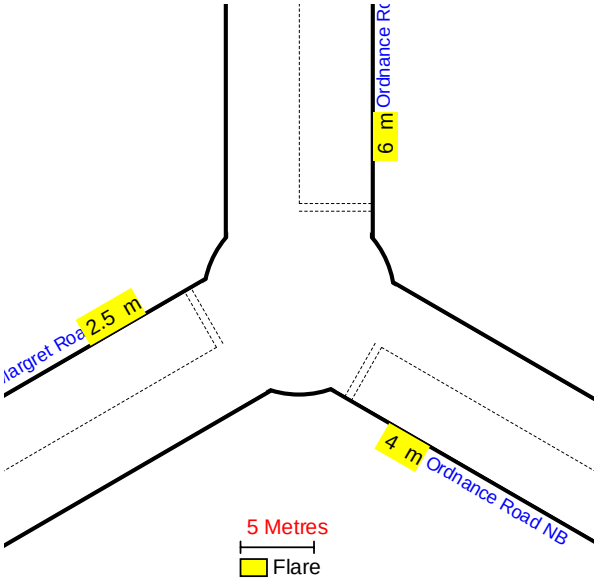
WARNING ARM C n Entry corner kerb line distance is in range 20m-40m
provided only for compatibility with accidents analysis.
Treat capacities with increasing caution.

Mini-Roundabout Geometric Data

Data Item	Arm A	Arm B	Arm C
Approach Road Half-Width (m)	3.50	3.50	3.70
Entry Width (m)	4.20	4.40	5.00
Flare Length (m)	4.00	2.50	6.00
Minimum Approach Half-Width (m)	3.50	3.50	3.70
Distance Between Arm and Next Arm (m)	17.00	14.00	20.00
Kerb Line Distance (m)	19.00	9.00	21.00
Gradient (%)	0.00	0.00	0.00
Kerbed Central Island	No	No	No
Slope	0.901	0.552	1.529
Intercept (PCU/Min)	19.973	11.561	31.157

Lighting Conditions: **Normal**
Road Surface Conditions: **Normal**

Junction Diagram: (View Extent = 40m)



Angles Between Arms (Degrees): Arm A(120) Arm B(120) Arm C(120)

Demand Data

Demand Profiles are Synthesised using **DIRECT** Data
Period of interest (for Queue and Delay calculations): **07:45 to 09:15**
Length of Time Period: **90 min**
Length of Time Segment: **15 min**

Direct Data for Demand Set: 2026 AM - Ordnance Road / Louise Margret Proposed Road Mini Roundabout

Time Period	Arm	Demand Data (Veh/Min)
Segment : 1 - 07:45 to 08:00	A	9.87
	B	4.67
	C	16.85
Segment : 2 - 08:00 to 08:15	A	9.87
	B	4.67
	C	16.85
Segment : 3 - 08:15 to 08:30	A	9.87
	B	4.67
	C	16.85
Segment : 4 - 08:30 to 08:45	A	9.87
	B	4.67
	C	16.85
Segment : 5 - 08:45 to 09:00	A	9.87
	B	4.67
	C	16.85
Segment : 6 - 09:00 to 09:15	A	9.87
	B	4.67
	C	16.85

Turning Proportions for Demand Set: 2026 AM - Ordnance Road / Louise Margret Proposed Road Mini Roundabout

Turning proportions vary over entry and calculated from turning count data (shaded)

Time Period	From/To	Arm A	Arm B	Arm C
07:45 to 09:15	Arm A	0.000	0.152	0.848
		0.0	90.0	502.0
	Arm B	0.143	0.000	0.857
		40.0	0.0	240.0
	Arm C	0.546	0.454	0.000
		552.0	459.0	0.0

Heavy Vehicle Percentages for Demand Set: 2026 AM - Ordnance Road / Louise Margret Proposed Road Mini Roundabout

Vehicle percentages constant over time and entry

Time Period	From/To	Arm A	Arm B	Arm C
07:45 to 09:15	Arm A	0.0	0.0	0.0
	Arm B	0.0	0.0	0.0
	Arm C	0.0	0.0	0.0

Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 07:45 to 08:00	A	9.87	13.11	0.753	-	0.0	2.8	37.1	-	0.278
	B	4.67	7.03	0.665	-	0.0	1.8	24.0	-	0.387
	C	16.85	30.16	0.559	-	0.0	1.3	18.1	-	0.074
Segment : 2 - 08:00 to 08:15	A	9.87	13.08	0.755	-	2.8	2.9	43.5	-	0.309
	B	4.67	6.94	0.673	-	1.8	2.0	28.6	-	0.435
	C	16.85	30.14	0.559	-	1.3	1.3	18.9	-	0.075
Segment : 3 - 08:15 to 08:30	A	9.87	13.08	0.755	-	2.9	3.0	44.6	-	0.310
	B	4.67	6.94	0.673	-	2.0	2.0	29.6	-	0.439
	C	16.85	30.14	0.559	-	1.3	1.3	18.9	-	0.075
Segment : 4 - 08:30 to 08:45	A	9.87	13.08	0.755	-	3.0	3.0	45.0	-	0.311
	B	4.67	6.94	0.673	-	2.0	2.0	30.0	-	0.439
	C	16.85	30.14	0.559	-	1.3	1.3	19.0	-	0.075
Segment : 5 - 08:45 to 09:00	A	9.87	13.08	0.755	-	3.0	3.0	45.3	-	0.311
	B	4.67	6.94	0.673	-	2.0	2.0	30.2	-	0.439
	C	16.85	30.14	0.559	-	1.3	1.3	19.0	-	0.075
Segment : 6 - 09:00 to 09:15	A	9.87	13.08	0.755	-	3.0	3.0	45.4	-	0.311
	B	4.67	6.94	0.673	-	2.0	2.0	30.3	-	0.439
	C	16.85	30.14	0.559	-	1.3	1.3	19.0	-	0.075

ARCADY 6

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Run Information

Run with file:- **n:\Aldershot Urban Extension (2011)\ANALYSIS\JUNCTION ASSESSMENTS\Ordnance Road - Louise Margret Road\2026 PM PROPOSED MINI.vai**
At: **14:47:28 on Friday, November 30, 2012**
Mode: **Drive On The Left**
Units: **Metric**

Arm Labelling

Arm	Full Arm Names
Arm A	Ordnance Road NB
Arm B	Louise Margret Road
Arm C	Ordnance Road SB

Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100

File Properties

Run Title	2026 PM - Ordnance Road / Louise Margret Proposed Road Mini Roundabout
Location	Aldershot
Date	25/10/2012
Client	
Enumerator	uktdm002 [W10UK0148]
Job Number	11570364
Status	Preliminary
Description	

Errors and Warnings

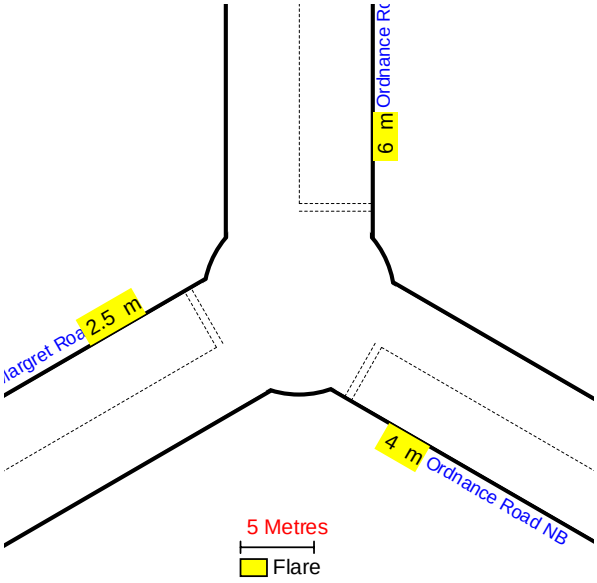
WARNING ARM C n Entry corner kerb line distance is in range 20m-40m
provided only for compatibility with accidents analysis.
Treat capacities with increasing caution.

Mini-Roundabout Geometric Data

Data Item	Arm A	Arm B	Arm C
Approach Road Half-Width (m)	3.50	3.50	3.70
Entry Width (m)	4.20	4.40	5.00
Flare Length (m)	4.00	2.50	6.00
Minimum Approach Half-Width (m)	3.50	3.50	3.70
Distance Between Arm and Next Arm (m)	17.00	14.00	20.00
Kerb Line Distance (m)	19.00	9.00	21.00
Gradient (%)	0.00	0.00	0.00
Kerbed Central Island	No	No	No
Slope	0.901	0.552	1.529
Intercept (PCU/Min)	19.973	11.561	31.157

Lighting Conditions: **Normal**
Road Surface Conditions: **Normal**

Junction Diagram: (View Extent = 40m)



Angles Between Arms (Degrees): Arm A(120) Arm B(120) Arm C(120)

Demand Data

Demand Profiles are Synthesised using **DIRECT** Data
Period of interest (for Queue and Delay calculations): **16:45 to 18:15**
Length of Time Period: **90 min**
Length of Time Segment: **15 min**

Direct Data for Demand Set: 2026 PM - Ordnance Road / Louise Margret Proposed Road Mini Roundabout

Time Period	Arm	Demand Data (Veh/Min)
Segment : 1 - 16:45 to 17:00	A	8.82
	B	5.02
	C	15.23
Segment : 2 - 17:00 to 17:15	A	8.82
	B	5.02
	C	15.23
Segment : 3 - 17:15 to 17:30	A	8.82
	B	5.02
	C	15.23
Segment : 4 - 17:30 to 17:45	A	8.82
	B	5.02
	C	15.23
Segment : 5 - 17:45 to 18:00	A	8.82
	B	5.02
	C	15.23
Segment : 6 - 18:00 to 18:15	A	8.82
	B	5.02
	C	15.23

Turning Proportions for Demand Set: 2026 PM - Ordnance Road / Louise Margret Proposed Road Mini Roundabout

Turning proportions vary over entry and calculated from turning count data (shaded)

Time Period	From/To	Arm A	Arm B	Arm C
16:45 to 18:15	Arm A	0.000	0.134	0.866
		0.0	71.0	458.0
	Arm B	0.040	0.000	0.960
		12.0	0.0	289.0
	Arm C	0.621	0.379	0.000
		568.0	346.0	0.0

Heavy Vehicle Percentages for Demand Set: 2026 PM - Ordnance Road / Louise Margret Proposed Road Mini Roundabout

Vehicle percentages constant over time and entry

Time Period	From/To	Arm A	Arm B	Arm C
16:45 to 18:15	Arm A	0.0	0.0	0.0
	Arm B	0.0	0.0	0.0
	Arm C	0.0	0.0	0.0

Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 16:45 to 17:00	A	8.82	14.80	0.596	-	0.0	1.4	20.1	-	0.162
	B	5.02	7.39	0.679	-	0.0	2.0	25.6	-	0.382
	C	15.23	30.86	0.494	-	0.0	1.0	14.1	-	0.064
Segment : 2 - 17:00 to 17:15	A	8.82	14.78	0.597	-	1.4	1.5	21.8	-	0.168
	B	5.02	7.34	0.683	-	2.0	2.1	30.3	-	0.427
	C	15.23	30.85	0.494	-	1.0	1.0	14.5	-	0.064
Segment : 3 - 17:15 to 17:30	A	8.82	14.78	0.597	-	1.5	1.5	22.0	-	0.168
	B	5.02	7.34	0.684	-	2.1	2.1	31.2	-	0.430
	C	15.23	30.85	0.494	-	1.0	1.0	14.6	-	0.064
Segment : 4 - 17:30 to 17:45	A	8.82	14.78	0.597	-	1.5	1.5	22.0	-	0.168
	B	5.02	7.34	0.684	-	2.1	2.1	31.5	-	0.430
	C	15.23	30.85	0.494	-	1.0	1.0	14.6	-	0.064
Segment : 5 - 17:45 to 18:00	A	8.82	14.78	0.597	-	1.5	1.5	22.1	-	0.168
	B	5.02	7.34	0.684	-	2.1	2.1	31.7	-	0.430
	C	15.23	30.85	0.494	-	1.0	1.0	14.6	-	0.064
Segment : 6 - 18:00 to 18:15	A	8.82	14.78	0.597	-	1.5	1.5	22.1	-	0.168
	B	5.02	7.34	0.684	-	2.1	2.1	31.9	-	0.430
	C	15.23	30.85	0.494	-	1.0	1.0	14.6	-	0.064

Run Information

Run with file:- **n:\Aldershot Urban Extension (2011)\ANALYSIS\JUNCTION ASSESSMENTS\Thornhill Road - Government Road\PROPOSED\ARCADY - roundabout\Thornhill Rd - Government Rd AM Peak.vai**
At: **12:30:01 on Tuesday, December 11, 2012**
Mode: **Drive On The Left**
Units: **Metric**

Arm Labelling

Arm	Full Arm Names
Arm A	Gallwey Road
Arm B	Thornhill Road
Arm C	Government Road
Arm D	Ordnance Road

Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100
Arm D	100

File Properties

Run Title	Thornhill Road - Government Road Junction AM Peak
Location	Aldershot
Date	10/07/2012
Client	
Enumerator	
Job Number	
Status	
Description	

Geometric Data

Data Item	Arm A	Arm B	Arm C	Arm D
Approach Road Half-Width (m)	3.50	3.50	3.50	3.50
Entry Width (m)	4.50	6.60	6.30	7.30
Flare Length (m)	2.80	13.10	15.40	11.30
Entry Radius (m)	15.00	18.00	20.00	18.00
Inscribed Circle Diameter (m)	40.00	40.00	40.00	40.00
Entry Angle (degrees)	23.50	23.50	36.00	27.50
Slope	0.546	0.632	0.608	0.627
Intercept (PCU/Min)	20.157	27.039	26.060	27.006

Demand Data

Demand Profiles are Synthesised using **DIRECT** Data
Period of interest (for Queue and Delay calculations): **07:45 to 09:15**
Length of Time Period: **90 min**
Length of Time Segment: **15 min**

Direct Data for Demand Set: 2026 Modelled Do Something AM Peak

Time Period	Arm	Demand Data (Veh/Min)
Segment : 1 - 07:45 to 08:00	A	2.53
	B	12.41
	C	9.20
	D	21.21
Segment : 2 - 08:00 to 08:15	A	2.53
	B	12.41
	C	9.20
	D	21.21
Segment : 3 - 08:15 to 08:30	A	2.53
	B	12.41
	C	9.20
	D	21.21
Segment : 4 - 08:30 to 08:45	A	2.53
	B	12.41
	C	9.20
	D	21.21
Segment : 5 - 08:45 to 09:00	A	2.53
	B	12.41
	C	9.20
	D	21.21
Segment : 6 - 09:00 to 09:15	A	2.53
	B	12.41
	C	9.20
	D	21.21

Turning Proportions for Demand Set: 2026 Modelled Do Something AM Peak

Turning proportions vary over entry and calculated from turning count data (shaded)

Time Period	From/To	Arm A	Arm B	Arm C	Arm D
07:45 to 09:15	Arm A	0.000	0.026	0.816	0.158
		0.0	4.0	124.0	24.0
	Arm B	0.005	0.000	0.505	0.490
		4.0	0.0	376.0	365.0
	Arm C	0.120	0.462	0.000	0.418
		66.0	255.0	0.0	231.0
	Arm D	0.018	0.332	0.650	0.000
		23.0	423.0	827.0	0.0

Heavy Vehicle Percentages for Demand Set: 2026 Modelled Do Something AM Peak

Vehicle percentages constant over time and entry

Time Period	From/To	Arm A	Arm B	Arm C	Arm D
07:45 to 09:15	Arm A	0.0	0.0	0.0	0.0
	Arm B	0.0	0.0	0.0	0.0
	Arm C	0.0	0.0	0.0	0.0
	Arm D	0.0	0.0	0.0	0.0

Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 07:45 to 08:00	A	2.53	6.74	0.375	-	0.0	0.6	8.2	-	0.233
	B	12.41	17.00	0.730	-	0.0	2.6	34.8	-	0.203
	C	9.20	22.14	0.416	-	0.0	0.7	10.2	-	0.077
	D	21.21	23.63	0.898	-	0.0	7.2	86.9	-	0.308
Segment : 2 - 08:00 to 08:15	A	2.53	6.50	0.390	-	0.6	0.6	9.2	-	0.252
	B	12.41	16.80	0.739	-	2.6	2.7	40.1	-	0.227
	C	9.20	22.08	0.417	-	0.7	0.7	10.6	-	0.078
	D	21.21	23.61	0.898	-	7.2	7.9	113.6	-	0.392
Segment : 3 - 08:15 to 08:30	A	2.53	6.48	0.390	-	0.6	0.6	9.4	-	0.253
	B	12.41	16.79	0.739	-	2.7	2.8	41.2	-	0.227
	C	9.20	22.08	0.417	-	0.7	0.7	10.7	-	0.078
	D	21.21	23.61	0.898	-	7.9	8.1	120.2	-	0.402
Segment : 4 - 08:30 to 08:45	A	2.53	6.48	0.391	-	0.6	0.6	9.5	-	0.253
	B	12.41	16.79	0.739	-	2.8	2.8	41.7	-	0.228
	C	9.20	22.08	0.417	-	0.7	0.7	10.7	-	0.078
	D	21.21	23.61	0.898	-	8.1	8.3	123.4	-	0.405
Segment : 5 - 08:45 to 09:00	A	2.53	6.47	0.391	-	0.6	0.6	9.5	-	0.253
	B	12.41	16.79	0.739	-	2.8	2.8	41.9	-	0.228
	C	9.20	22.08	0.417	-	0.7	0.7	10.7	-	0.078
	D	21.21	23.61	0.898	-	8.3	8.4	125.3	-	0.408
Segment : 6 - 09:00 to 09:15	A	2.53	6.47	0.391	-	0.6	0.6	9.6	-	0.253
	B	12.41	16.78	0.739	-	2.8	2.8	42.0	-	0.228
	C	9.20	22.08	0.417	-	0.7	0.7	10.7	-	0.078
	D	21.21	23.61	0.898	-	8.4	8.5	126.5	-	0.409

Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
A	227.7	151.8	55.5	0.24	55.5	0.24
B	1116.9	744.6	241.7	0.22	241.9	0.22
C	828.0	552.0	63.6	0.08	63.6	0.08
D	1908.9	1272.6	695.9	0.36	697.4	0.37
ALL	4081.5	2721.0	1056.6	0.26	1058.4	0.26

Delay is that occuring only within the time period.
Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.
These will only be significantly different if there is a large queue remaining at the end of the time period.

Errors and Warnings

[No errors or warnings]

Run Information

Run with file:- **n:\Aldershot Urban Extension (2011)\ANALYSIS\JUNCTION ASSESSMENTS\Thornhill Road - Government Road\PROPOSED\ARCADY - roundabout\Thornhill Rd - Government Rd PM Peak.vai**
At: **12:31:58 on Tuesday, December 11, 2012**
Mode: **Drive On The Left**
Units: **Metric**

Arm Labelling

Arm	Full Arm Names
Arm A	Gallwey Road
Arm B	Thornhill Road
Arm C	Government Road
Arm D	Ordnance Road

Flow Scaling Factor

Arm	Flow Scaling Factor (%)
Arm A	100
Arm B	100
Arm C	100
Arm D	100

File Properties

Run Title	Thornhill Road - Government Road Junction PM Peak
Location	Aldershot
Date	10/07/2012
Client	
Enumerator	
Job Number	
Status	
Description	

Geometric Data

Data Item	Arm A	Arm B	Arm C	Arm D
Approach Road Half-Width (m)	3.50	3.50	3.50	3.50
Entry Width (m)	4.50	6.60	6.30	7.30
Flare Length (m)	2.80	13.10	15.40	11.30
Entry Radius (m)	15.00	18.00	20.00	18.00
Inscribed Circle Diameter (m)	40.00	40.00	40.00	40.00
Entry Angle (degrees)	23.50	23.50	36.00	27.50
Slope	0.546	0.632	0.608	0.627
Intercept (PCU/Min)	20.157	27.039	26.060	27.006

Demand Data

Demand Profiles are Synthesised using **DIRECT** Data
Period of interest (for Queue and Delay calculations): **16:45 to 18:15**
Length of Time Period: **90 min**
Length of Time Segment: **15 min**

Direct Data for Demand Set: 2026 Modelled Do Something PM Peak

Time Period	Arm	Demand Data (Veh/Min)
Segment : 1 - 16:45 to 17:00	A	5.28
	B	12.15
	C	6.53
	D	18.85
Segment : 2 - 17:00 to 17:15	A	5.28
	B	12.15
	C	6.53
	D	18.85
Segment : 3 - 17:15 to 17:30	A	5.28
	B	12.15
	C	6.53
	D	18.85
Segment : 4 - 17:30 to 17:45	A	5.28
	B	12.15
	C	6.53
	D	18.85
Segment : 5 - 17:45 to 18:00	A	5.28
	B	12.15
	C	6.53
	D	18.85
Segment : 6 - 18:00 to 18:15	A	5.28
	B	12.15
	C	6.53
	D	18.85

Turning Proportions for Demand Set: 2026 Modelled Do Something PM Peak

Turning proportions vary over entry and calculated from turning count data (shaded)

Time Period	From/To	Arm A	Arm B	Arm C	Arm D
16:45 to 18:15	Arm A	0.000	0.009	0.741	0.249
		0.0	3.0	235.0	79.0
	Arm B	0.003	0.000	0.431	0.567
		2.0	0.0	314.0	413.0
	Arm C	0.092	0.564	0.000	0.344
		36.0	221.0	0.0	135.0
	Arm D	0.025	0.255	0.721	0.000
		28.0	288.0	815.0	0.0

Heavy Vehicle Percentages for Demand Set: 2026 Modelled Do Something PM Peak

Vehicle percentages constant over time and entry

Time Period	From/To	Arm A	Arm B	Arm C	Arm D
16:45 to 18:15	Arm A	0.0	0.0	0.0	0.0
	Arm B	0.0	0.0	0.0	0.0
	Arm C	0.0	0.0	0.0	0.0
	Arm D	0.0	0.0	0.0	0.0

Queues and Delay:

Segment	Arm	Demand (Veh / Min)	Capacity (Veh / Min)	Demand / Capacity (RFC)	Ped Flow (Ped / Min)	Start Queue (Veh)	End Queue (Veh)	Delay (Veh.Min / Time Segment)	Geometric Delay (Veh.Min / Time Segment)	Arrival Delay (Min / Veh)
Segment : 1 - 16:45 to 17:00	A	5.28	8.24	0.641	-	0.0	1.7	22.5	-	0.315
	B	12.15	15.33	0.793	-	0.0	3.5	45.4	-	0.277
	C	6.53	21.15	0.309	-	0.0	0.4	6.5	-	0.068
	D	18.85	24.31	0.775	-	0.0	3.3	44.4	-	0.170
Segment : 2 - 17:00 to 17:15	A	5.28	8.12	0.651	-	1.7	1.8	26.3	-	0.350
	B	12.15	15.17	0.801	-	3.5	3.8	55.1	-	0.325
	C	6.53	21.06	0.310	-	0.4	0.4	6.7	-	0.069
	D	18.85	24.30	0.776	-	3.3	3.4	50.0	-	0.183
Segment : 3 - 17:15 to 17:30	A	5.28	8.11	0.651	-	1.8	1.8	27.1	-	0.352
	B	12.15	15.16	0.801	-	3.8	3.9	57.5	-	0.329
	C	6.53	21.06	0.310	-	0.4	0.4	6.7	-	0.069
	D	18.85	24.30	0.776	-	3.4	3.4	50.8	-	0.183
Segment : 4 - 17:30 to 17:45	A	5.28	8.11	0.651	-	1.8	1.8	27.3	-	0.352
	B	12.15	15.16	0.801	-	3.9	3.9	58.5	-	0.330
	C	6.53	21.06	0.310	-	0.4	0.4	6.7	-	0.069
	D	18.85	24.30	0.776	-	3.4	3.4	51.1	-	0.183
Segment : 5 - 17:45 to 18:00	A	5.28	8.11	0.651	-	1.8	1.8	27.5	-	0.352
	B	12.15	15.16	0.801	-	3.9	3.9	59.0	-	0.330
	C	6.53	21.06	0.310	-	0.4	0.4	6.7	-	0.069
	D	18.85	24.30	0.776	-	3.4	3.4	51.3	-	0.183
Segment : 6 - 18:00 to 18:15	A	5.28	8.11	0.651	-	1.8	1.8	27.6	-	0.352
	B	12.15	15.16	0.801	-	3.9	4.0	59.3	-	0.330
	C	6.53	21.06	0.310	-	0.4	0.4	6.7	-	0.069
	D	18.85	24.30	0.776	-	3.4	3.4	51.4	-	0.183

Queuing Delay Information Over Whole Period

Arm	Total Demand		Queueing Delay		Inclusive Queueing Delay	
	(Veh)	(Veh/Hr)	(Min)	(Min/Veh)	(Min)	(Min/Veh)
A	475.2	316.8	158.2	0.33	158.5	0.33
B	1093.5	729.0	334.8	0.31	335.3	0.31
C	587.7	391.8	40.1	0.07	40.1	0.07
D	1696.5	1131.0	298.8	0.18	299.1	0.18
ALL	3852.9	2568.6	831.9	0.22	832.9	0.22

Delay is that occuring only within the time period.
Inclusive delay includes delay suffered by vehicles that are still queueing after the end of the time period.
These will only be significantly different if there is a large queue remaining at the end of the time period.

Errors and Warnings

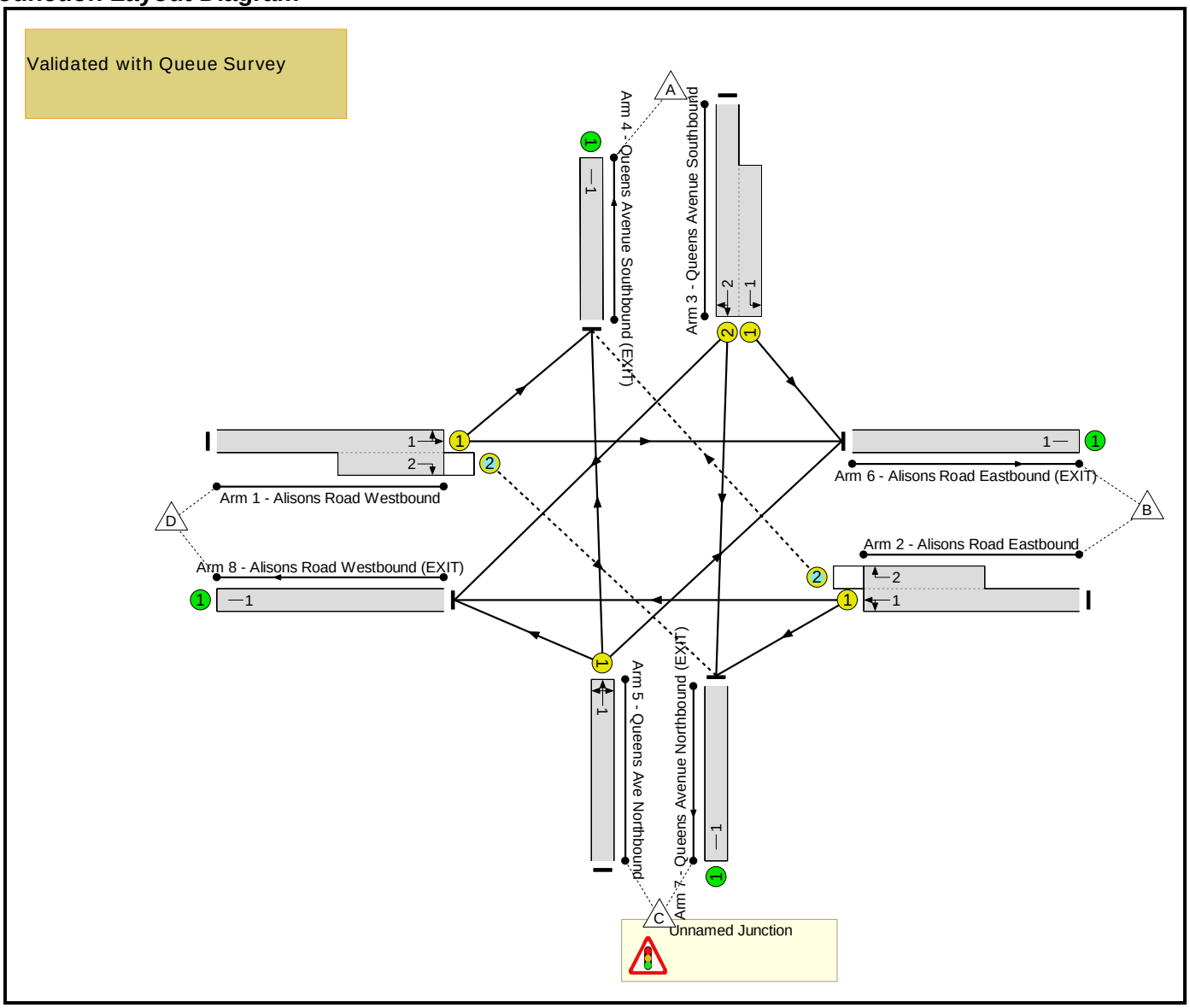
[No errors or warnings]

TA Report

User and Project Details

Project:	**AUE TA**
Title:	**Queen's Ave / Alison's Road**
Location:	
File name:	Proposed Queens Avenue - Alison's Road.lsg3x
Author:	DDD001
Company:	WSP Development and Transportation
Address:	Basingstoke
Notes:	

Junction Layout Diagram

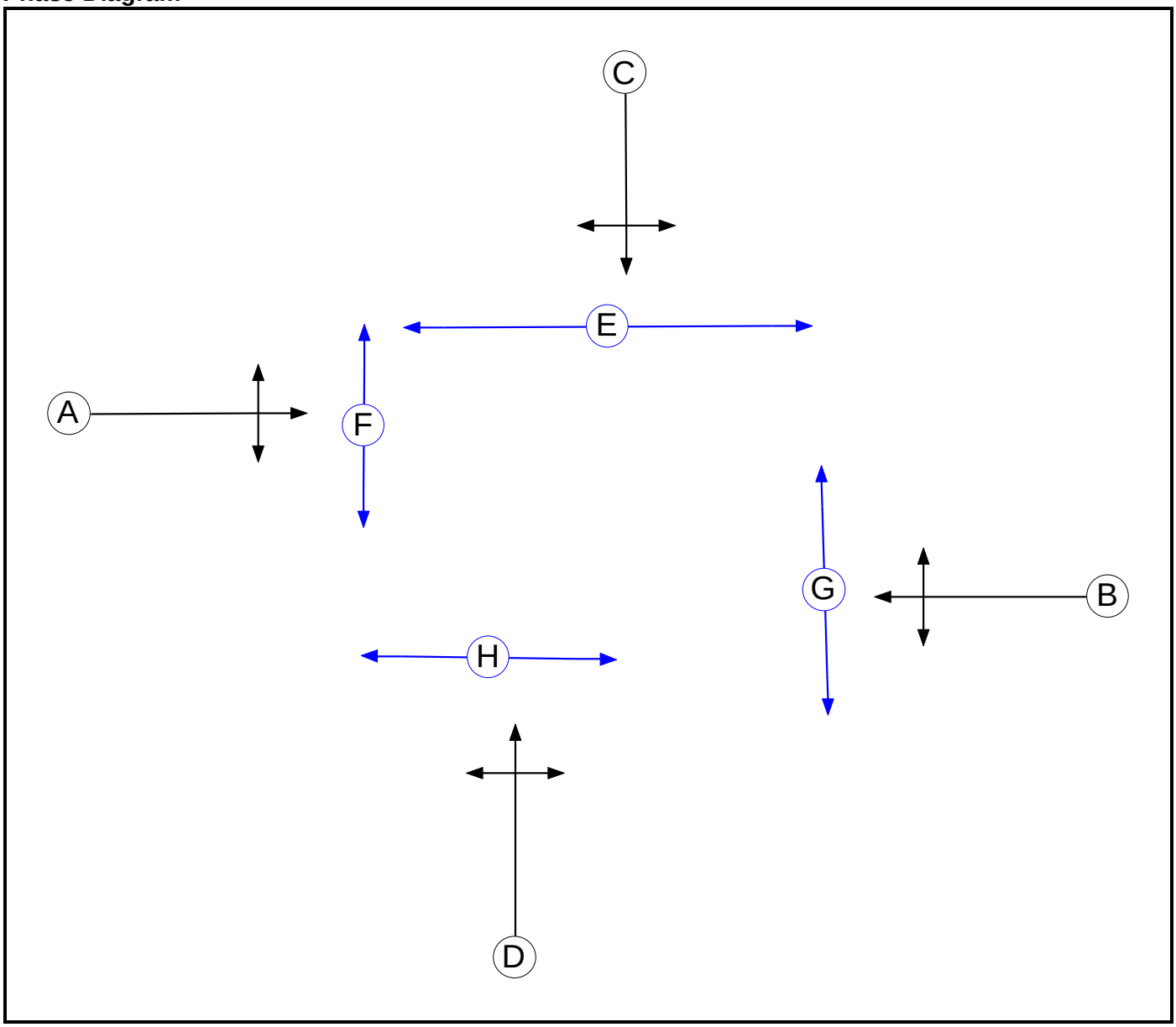


Lane Input Data

Junction: Unnamed Junction

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Alisons Road Westbound)	U	A	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 4 Left	11.00
											Arm 6 Ahead	Inf
1/2 (Alisons Road Westbound)	O	A	2	3	7.0	Geom	-	3.65	0.00	Y	Arm 7 Right	15.00
2/1 (Alisons Road Eastbound)	U	B	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 7 Left	10.00
											Arm 8 Ahead	Inf
2/2 (Alisons Road Eastbound)	O	B	2	3	8.0	Geom	-	3.65	0.00	Y	Arm 4 Right	15.00
3/1 (Queens Avenue Southbound)	U	C	2	3	10.0	Geom	-	3.65	0.00	Y	Arm 6 Left	12.00
3/2 (Queens Avenue Southbound)	U	C	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 7 Ahead	Inf
											Arm 8 Right	12.00
4/1 (Queens Avenue Southbound (EXIT))	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (Queens Ave Northbound)	U	D	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 4 Ahead	Inf
											Arm 6 Right	10.00
											Arm 8 Left	10.00
6/1 (Alisons Road Eastbound (EXIT))	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (Queens Avenue Northbound (EXIT))	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (Alisons Road Westbound (EXIT))	U		2	3	60.0	Inf	-	-	-	-	-	-

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Pedestrian		6	6
F	Pedestrian		6	6
G	Pedestrian		6	6
H	Pedestrian		6	6

Phase Intergreens Matrix

		Starting Phase							
		A	B	C	D	E	F	G	H
Terminating Phase	A		-	6	6	8	5	8	8
	B	-		6	6	8	8	5	8
	C	6	6		6	5	8	8	8
	D	6	6	6		8	8	8	5
	E	14	14	14	14		-	-	-
	F	14	14	14	14	-		-	-
	G	14	14	14	14	-	-		-
	H	14	14	14	14	-	-	-	

Scenario 1: '2026 Baseline AM Peak' (FG1: '2026 Modelled Do Something AM Peak ', Plan 1: 'Staging Plan No. 1')

Phase Timings

Phase Name	Description	Phase	Green Period 1		
			Total Green	Start Time	End Time
A	Alisons Road Westbound Left Ahead Right	Traffic	50	28	78
B	Alisons Road Eastbound Right Left Ahead	Traffic	50	28	78
C	Queens Avenue Southbound Left Ahead Right	Traffic	13	84	97
D	Queens Ave Northbound Ahead Right Left	Traffic	7	103	0
E	Pedestrians across	Pedestrian	6	8	14
F	Pedestrians across	Pedestrian	6	8	14
G	Pedestrians across	Pedestrian	6	8	14
H	Pedestrians across	Pedestrian	9	5	14

TA Report

Link Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network: Queen's Ave / Alison's Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**87.1%**	**-**
Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**87.1%**	**-**
1/1+1/2	Alisons Road Westbound Left Ahead Right	U+O	N/A	N/A	A		1	50	-	614	1980:1800	914	67.2%	614
2/1+2/2	Alisons Road Eastbound Right Left Ahead	U+O	N/A	N/A	B		1	50	-	841	1980:1800	965	87.1%	841
3/2+3/1	Queens Avenue Southbound Left Ahead Right	U	N/A	N/A	C		1	13	-	371	1980:1760	426	87.1%	371
5/1	Queens Ave Northbound Ahead Right Left	U	N/A	N/A	D		1	7	-	84	1980	144	58.3%	84

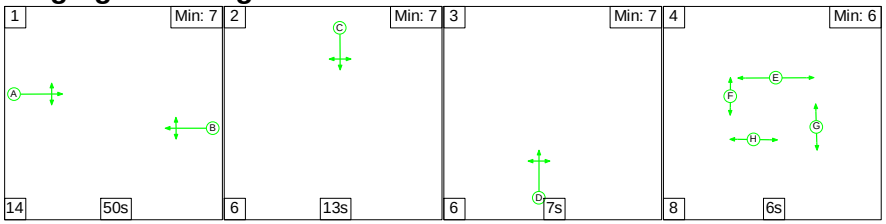
Item	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	Start Green (s)	End Green (s)
Network: Queen's Ave / Alison's Road	**-**	**171**	**0**	**6**	**15.9**	**7.9**	**0.7**	**24.6**	**-**	**-**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**171**	**0**	**6**	**15.9**	**7.9**	**0.7**	**24.6**	**-**	**-**	**-**	**-**	**-**	**-**
1/1+1/2	614	2	0	0	3.9	1.0	0.0	5.0	29.0	14.5	1.0	15.5	28	78
2/1+2/2	841	169	0	6	6.0	3.2	0.7	10.0	42.7	20.6	3.2	23.8	28	78
3/2+3/1	371	-	-	-	4.8	3.0	-	7.8	76.0	5.8	3.0	8.8	84	97
5/1	84	-	-	-	1.2	0.7	-	1.8	78.7	2.5	0.7	3.2	103	0

C1 PRC for Signalled Lanes (%): 3.3 Total Delay for Signalled Lanes (pcuHr): 24.60 Cycle Time (s): 110

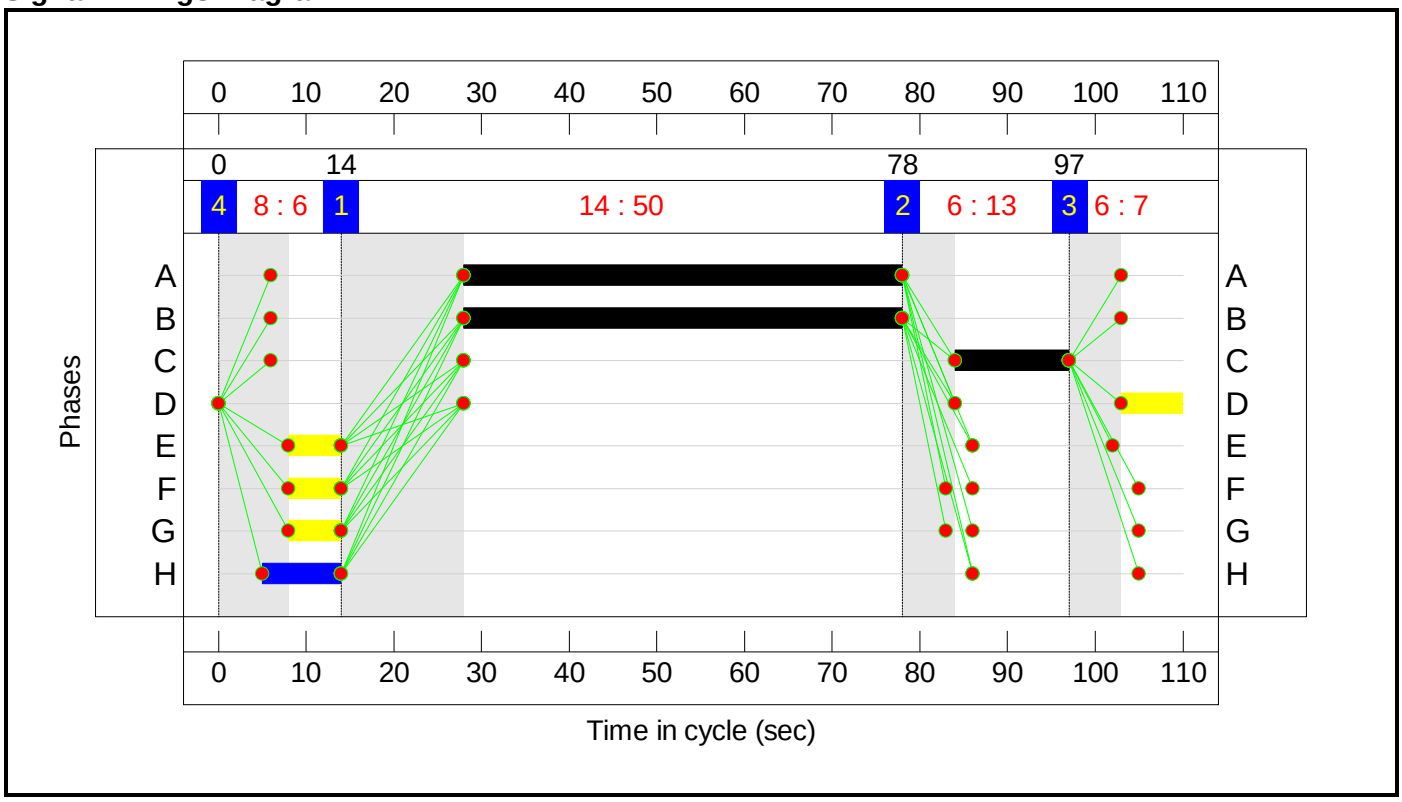
PRC Over All Lanes (%): 3.3 Total Delay Over All Lanes(pcuHr): 24.60

TA Report

Staging Plan Diagram



Signal Timings Diagram



Scenario 2: '2026 Baseline PM Peak' (FG2: '2026 Modelled Do Something PM Peak', Plan 1: 'Staging Plan No. 1')

Phase Timings

Phase Name	Description	Phase	Green Period 1		
			Total Green	Start Time	End Time
A	Alisons Road Westbound Left Ahead Right	Traffic	32	14	46
B	Alisons Road Eastbound Right Left Ahead	Traffic	32	14	46
C	Queens Avenue Southbound Left Ahead Right	Traffic	11	52	63
D	Queens Ave Northbound Ahead Right Left	Traffic	7	69	76
E	Pedestrians across	Pedestrian	6	84	0
F	Pedestrians across	Pedestrian	6	84	0
G	Pedestrians across	Pedestrian	6	84	0
H	Pedestrians across	Pedestrian	9	81	0

TA Report

Link Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network: Queen's Ave / Alison's Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**82.5%**	**-**
Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**82.5%**	**-**
1/1+1/2	Alisons Road Westbound Left Ahead Right	U+O	N/A	N/A	A		1	32	-	567	1980:1980	720	78.8%	567
2/1+2/2	Alisons Road Eastbound Right Left Ahead	U+O	N/A	N/A	B		1	32	-	627	1980:1800	760	82.5%	627
3/2+3/1	Queens Avenue Southbound Left Ahead Right	U	N/A	N/A	C		1	11	-	387	1980:1760	499	77.6%	387
5/1	Queens Ave Northbound Ahead Right Left	U	N/A	N/A	D		1	7	-	58	1980	176	33.0%	58

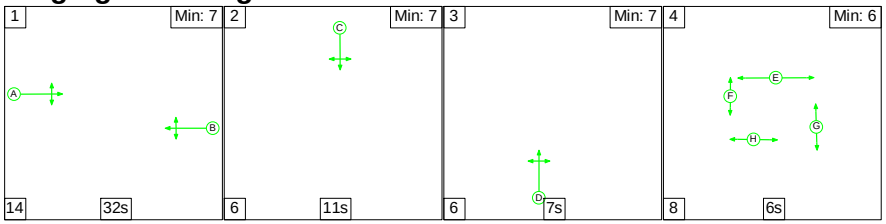
Item	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	Start Green (s)	End Green (s)
Network: Queen's Ave / Alison's Road	**-**	**84**	**0**	**0**	**13.0**	**6.0**	**0.4**	**19.4**	**-**	**-**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**84**	**0**	**0**	**13.0**	**6.0**	**0.4**	**19.4**	**-**	**-**	**-**	**-**	**-**	**-**
1/1+1/2	567	0	0	0	4.0	1.8	0.0	5.8	36.9	12.6	1.8	14.4	14	46
2/1+2/2	627	84	0	0	4.3	2.3	0.4	7.0	40.2	12.7	2.3	15.0	14	46
3/2+3/1	387	-	-	-	4.1	1.7	-	5.7	53.4	5.1	1.7	6.8	52	63
5/1	58	-	-	-	0.6	0.2	-	0.9	53.7	1.4	0.2	1.6	69	76

C1 PRC for Signalled Lanes (%): 9.1 Total Delay for Signalled Lanes (pcuHr): 19.42 Cycle Time (s): 90

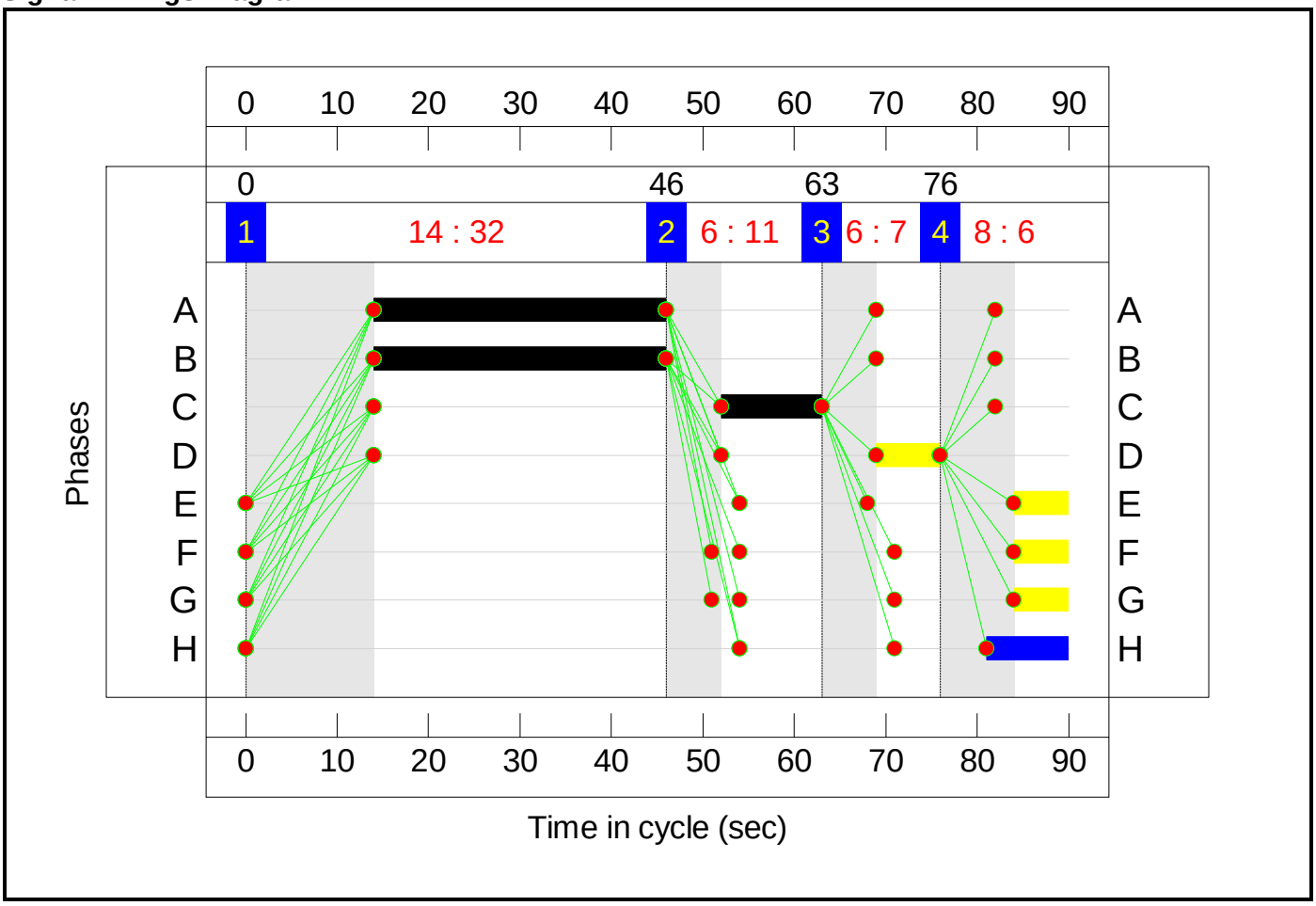
PRC Over All Lanes (%): 9.1 Total Delay Over All Lanes(pcuHr): 19.42

TA Report

Staging Plan Diagram



Signal Timings Diagram



PICADY

GUI Version: 5.1 AE
Analysis Program Release: 5.0 (MAY 2010)

For sales and distribution information, program advice and maintenance, contact:

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E-mail: software@trl.co.uk
Web: www.trlsoftware.co.uk

Run Analysis

Parameter	Values
File Run	N:\..\PICADY\A325 Farnborough Road - Pennefathers Road Proposed Left In-Left Out.vpi
Date Run	11 December 2012
Time Run	13:39:56
Driving Side	Drive On The Left

Arm Names and Flow Scaling Factors

Arm	Arm Name	Flow Scaling Factor (%)
Arm A	A325 Fanrborough Road (SB)	100
Arm B	Pennefathers Road	100
Arm C	A325 Farnborough Road (NB)	100

Stream Labelling Convention

Stream A-B contains traffic going from A to B etc.

Run Information

Parameter	Values
Run Title	A325 Farnborough Road - Pennefathers
Location	Aldershot
Date	12 July 2012
Enumerator	-
Job Number	-
Status	-
Client	-
Description	-

Errors and Warnings

Parameter	Values
Warning	No Errors Or Warnings

Geometric Data

Geometric Parameters

Parameter	Minor Arm B
Major Road Carriageway Width (m)	7.30
Major Road Kerbed Central Reserve Width (m)	0.00
Major Road Right Turning Lane Width (m)	2.20
Minor Road First Lane Width (m)	4.00
Minor Road Visibility To Right (m)	150
Minor Road Visibility To Left (m)	89
Major Road Right Turn Visibility (m)	250
Major Road Right Turn Blocks Traffic	Yes (if over 0 veh)

Slope and Intercept Values

Stream	Intercept for Stream	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	640.771	0.110	0.278	0.175	0.398
B-C	790.287	0.114	0.289	-	-
C-B	718.741	0.263	0.263	-	-

Note: Streams may be combined in which case capacity will be adjusted
These values do not allow for any site-specific corrections

Demand Data

Modelling Periods

Parameter	Period	Duration (min)	Segment Length (min)
First Modelling Period	07:45-09:15	90	15
Second Modelling Period	16:45-18:15	90	15

Direct Entry Flows

Demand Set: 2026 Modelled Do Something AM Peak
Modelling Period: 07:45-09:15

Segment: 07:45-08:00

Arm	Flow (veh/min)
Arm A	22.45
Arm B	3.01
Arm C	24.80

Segment: 08:00-08:15

Arm	Flow (veh/min)
Arm A	22.45
Arm B	3.01
Arm C	24.80

Segment: 08:15-08:30

Arm	Flow (veh/min)
Arm A	22.45
Arm B	3.01
Arm C	24.80

Segment: 08:30-08:45

Arm	Flow (veh/min)
Arm A	22.45
Arm B	3.01
Arm C	24.80

Segment: 08:45-09:00

Arm	Flow (veh/min)
Arm A	22.45
Arm B	3.01
Arm C	24.80

Segment: 09:00-09:15

Arm	Flow (veh/min)
Arm A	22.45
Arm B	3.01
Arm C	24.80

Demand Set: 2026 Modelled Do Something PM Peak
Modelling Period: 16:45-18:15

Segment: 16:45-17:00

Arm	Flow (veh/min)
Arm A	24.32
Arm B	2.40
Arm C	21.93

Segment: 17:00-17:15

Arm	Flow (veh/min)
Arm A	24.32
Arm B	2.40
Arm C	21.93

Segment: 17:15-17:30

Arm	Flow (veh/min)
Arm A	24.32
Arm B	2.40
Arm C	21.93

Segment: 17:30-17:45

Arm	Flow (veh/min)
Arm A	24.32
Arm B	2.40
Arm C	21.93

Segment: 17:45-18:00

Arm	Flow (veh/min)
Arm A	24.32
Arm B	2.40
Arm C	21.93

Segment: 18:00-18:15

Arm	Flow (veh/min)
Arm A	24.32
Arm B	2.40
Arm C	21.93

Turning Counts

Demand Set: 2026 Modelled Do Something AM Peak
Modelling Period: 07:45-09:15

From/To	Arm A	Arm B	Arm C
Arm A	-	98	1249
Arm B	0	-	181
Arm C	1488	0	-

Demand Set: 2026 Modelled Do Something PM Peak
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	-	160	1299
Arm B	0	-	144
Arm C	1316	0	-

Turning proportions are calculated from turning count data

Turning Proportions

Demand Set: 2026 Modelled Do Something AM Peak
Modelling Period: 07:45-09:15

From/To	Arm A	Arm B	Arm C
Arm A	0.000	0.073	0.927
Arm B	0.000	0.000	1.000
Arm C	1.000	0.000	0.000

Demand Set: 2026 Modelled Do Something PM Peak
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	0.000	0.110	0.890
Arm B	0.000	0.000	1.000
Arm C	1.000	0.000	0.000

eavy Vehicles Percentages

Demand Set: 2026 Modelled Do Something AM Peak
Modelling Period: 07:45-09:15

From / To	Arm A	Arm B	Arm C
Arm A	-	0.0	0.0
Arm B	0.0	-	0.0
Arm C	0.0	0.0	-

Demand Set: 2026 Modelled Do Something PM Peak
Modelling Period: 16:45-18:15

From / To	Arm A	Arm B	Arm C
Arm A	-	0.0	0.0
Arm B	0.0	-	0.0
Arm C	0.0	0.0	-

ueues Delays

Demand Set: 2026 Modelled Do Something AM Peak
Modelling Period: 07:45-09:15

Segment	Stream	Demand (veh / min)	Capacity (veh / min)	RFC	Ped Flow (ped / min)	Start ueue (veh)	End ueue (veh)	Geometric Delay (veh min / segment)	Delay (veh min / segment)	Mean Arriving Vehicle Delay (min)
07:45-08:00	B-AC	3.01	6.97	0.432	-	0.00	0.74	-	10.3	0.25
	C-AB	0.00	5.53	0.000	-	0.00	0.00	-	0.0	0.00
	C-A	24.80	-	-	-	-	-	-	-	-
	A-B	1.63	-	-	-	-	-	-	-	-
	A-C	20.82	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh / min)	Capacity (veh / min)	RFC	Ped Flow (ped / min)	Start ueue (veh)	End ueue (veh)	Geometric Delay (veh min / segment)	Delay (veh min / segment)	Mean Arriving Vehicle Delay (min)
08:00-08:15	B-AC	3.01	6.97	0.432	-	0.74	0.75	-	11.2	0.25
	C-AB	0.00	5.53	0.000	-	0.00	0.00	-	0.0	0.00
	C-A	24.80	-	-	-	-	-	-	-	-
	A-B	1.63	-	-	-	-	-	-	-	-
	A-C	20.82	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped Flow (ped/min)	Start ueue (veh)	End ueue (veh)	Geometric Delay (veh min/segment)	Delay (veh min/segment)	Mean Arriving Vehicle Delay (min)
08:15-08:30	B-AC	3.01	6.97	0.432	-	0.75	0.75	-	11.3	0.25
	C-AB	0.00	5.53	0.000	-	0.00	0.00	-	0.0	0.00
	C-A	24.80	-	-	-	-	-	-	-	-
	A-B	1.63	-	-	-	-	-	-	-	-
	A-C	20.82	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped Flow (ped/min)	Start ueue (veh)	End ueue (veh)	Geometric Delay (veh min/segment)	Delay (veh min/segment)	Mean Arriving Vehicle Delay (min)
08:30-08:45	B-AC	3.01	6.97	0.432	-	0.75	0.75	-	11.3	0.25
	C-AB	0.00	5.53	0.000	-	0.00	0.00	-	0.0	0.00
	C-A	24.80	-	-	-	-	-	-	-	-
	A-B	1.63	-	-	-	-	-	-	-	-
	A-C	20.82	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped Flow (ped/min)	Start ueue (veh)	End ueue (veh)	Geometric Delay (veh min/segment)	Delay (veh min/segment)	Mean Arriving Vehicle Delay (min)
08:45-09:00	B-AC	3.01	6.97	0.432	-	0.75	0.76	-	11.3	0.25
	C-AB	0.00	5.53	0.000	-	0.00	0.00	-	0.0	0.00
	C-A	24.80	-	-	-	-	-	-	-	-
	A-B	1.63	-	-	-	-	-	-	-	-
	A-C	20.82	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped Flow (ped/min)	Start ueue (veh)	End ueue (veh)	Geometric Delay (veh min/segment)	Delay (veh min/segment)	Mean Arriving Vehicle Delay (min)
09:00-09:15	B-AC	3.01	6.97	0.432	-	0.76	0.76	-	11.3	0.25
	C-AB	0.00	5.53	0.000	-	0.00	0.00	-	0.0	0.00
	C-A	24.80	-	-	-	-	-	-	-	-
	A-B	1.63	-	-	-	-	-	-	-	-
	A-C	20.82	-	-	-	-	-	-	-	-

Demand Set: 2026 Modelled Do Something PM Peak
Modelling Period: 16:45-18:15

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped Flow (ped/min)	Start ueue (veh)	End ueue (veh)	Geometric Delay (veh min/segment)	Delay (veh min/segment)	Mean Arriving Vehicle Delay (min)
16:45-17:00	B-AC	2.40	6.61	0.363	-	0.00	0.56	-	7.8	0.23
	C-AB	0.00	5.08	0.000	-	0.00	0.00	-	0.0	0.00
	C-A	21.93	-	-	-	-	-	-	-	-
	A-B	2.67	-	-	-	-	-	-	-	-
	A-C	21.65	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped Flow (ped/min)	Start ueue (veh)	End ueue (veh)	Geometric Delay (veh min/segment)	Delay (veh min/segment)	Mean Arriving Vehicle Delay (min)
17:00-17:15	B-AC	2.40	6.61	0.363	-	0.56	0.56	-	8.4	0.24
	C-AB	0.00	5.08	0.000	-	0.00	0.00	-	0.0	0.00
	C-A	21.93	-	-	-	-	-	-	-	-
	A-B	2.67	-	-	-	-	-	-	-	-

	A-C	21.65	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped Flow (ped/min)	Start ueue (veh)	End ueue (veh)	Geometric Delay (veh min/segment)	Delay (veh min/segment)	Mean Arriving Vehicle Delay (min)
17:15-17:30	B-AC	2.40	6.61	0.363	-	0.56	0.57	-	8.5	0.24
	C-AB	0.00	5.08	0.000	-	0.00	0.00	-	0.0	0.00
	C-A	21.93	-	-	-	-	-	-	-	-
	A-B	2.67	-	-	-	-	-	-	-	-
	A-C	21.65	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped Flow (ped/min)	Start ueue (veh)	End ueue (veh)	Geometric Delay (veh min/segment)	Delay (veh min/segment)	Mean Arriving Vehicle Delay (min)
17:30-17:45	B-AC	2.40	6.61	0.363	-	0.57	0.57	-	8.5	0.24
	C-AB	0.00	5.08	0.000	-	0.00	0.00	-	0.0	0.00
	C-A	21.93	-	-	-	-	-	-	-	-
	A-B	2.67	-	-	-	-	-	-	-	-
	A-C	21.65	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped Flow (ped/min)	Start ueue (veh)	End ueue (veh)	Geometric Delay (veh min/segment)	Delay (veh min/segment)	Mean Arriving Vehicle Delay (min)
17:45-18:00	B-AC	2.40	6.61	0.363	-	0.57	0.57	-	8.5	0.24
	C-AB	0.00	5.08	0.000	-	0.00	0.00	-	0.0	0.00
	C-A	21.93	-	-	-	-	-	-	-	-
	A-B	2.67	-	-	-	-	-	-	-	-
	A-C	21.65	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped Flow (ped/min)	Start ueue (veh)	End ueue (veh)	Geometric Delay (veh min/segment)	Delay (veh min/segment)	Mean Arriving Vehicle Delay (min)
18:00-18:15	B-AC	2.40	6.61	0.363	-	0.57	0.57	-	8.5	0.24
	C-AB	0.00	5.08	0.000	-	0.00	0.00	-	0.0	0.00
	C-A	21.93	-	-	-	-	-	-	-	-
	A-B	2.67	-	-	-	-	-	-	-	-
	A-C	21.65	-	-	-	-	-	-	-	-

Entry capacities marked with an '(X)' are dominated by a pedestrian crossing in that time segment.
In time segments marked with a '(B)', traffic leaving the junction may block back from a crossing so impairing normal operation of the junction.
Delays marked with '##' could not be calculated.

verall ueues Delays

ueueing Delay Information ver Whole Period

Demand Set: 2026 Modelled Do Something AM Peak
Modelling Period: 07:45-09:15

Stream	Total Demand (veh)	Total Demand (veh/h)	ueueing Delay (min)	ueueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	270.9	180.6	66.7	0.2	66.7	0.2
C-AB	0.0	0.0	0.0	0.0	0.0	0.0
C-A	2232.0	1488.0	-	-	-	-
A-B	147.0	98.0	-	-	-	-
A-C	1873.5	1249.0	-	-	-	-
All						

Demand Set: 2026 Modelled Do Something PM Peak
Modelling Period: 16:45-18:15

Stream	Total Demand (veh)	Total Demand (veh/h)	ueueing Delay (min)	ueueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	216.0	144.0	50.2	0.2	50.2	0.2
C-AB	0.0	0.0	0.0	0.0	0.0	0.0
C-A	1973.7	1315.8	-	-	-	-
A-B	240.0	160.0	-	-	-	-
A-C	1948.8	1299.2	-	-	-	-
All						

Delay is that occurring only within the time period.
Inclusive delay includes delay suffered by vehicles which are still queuing after the end of the time period.
These will only be significantly different if there is a large queue remaining at the end of the time period.

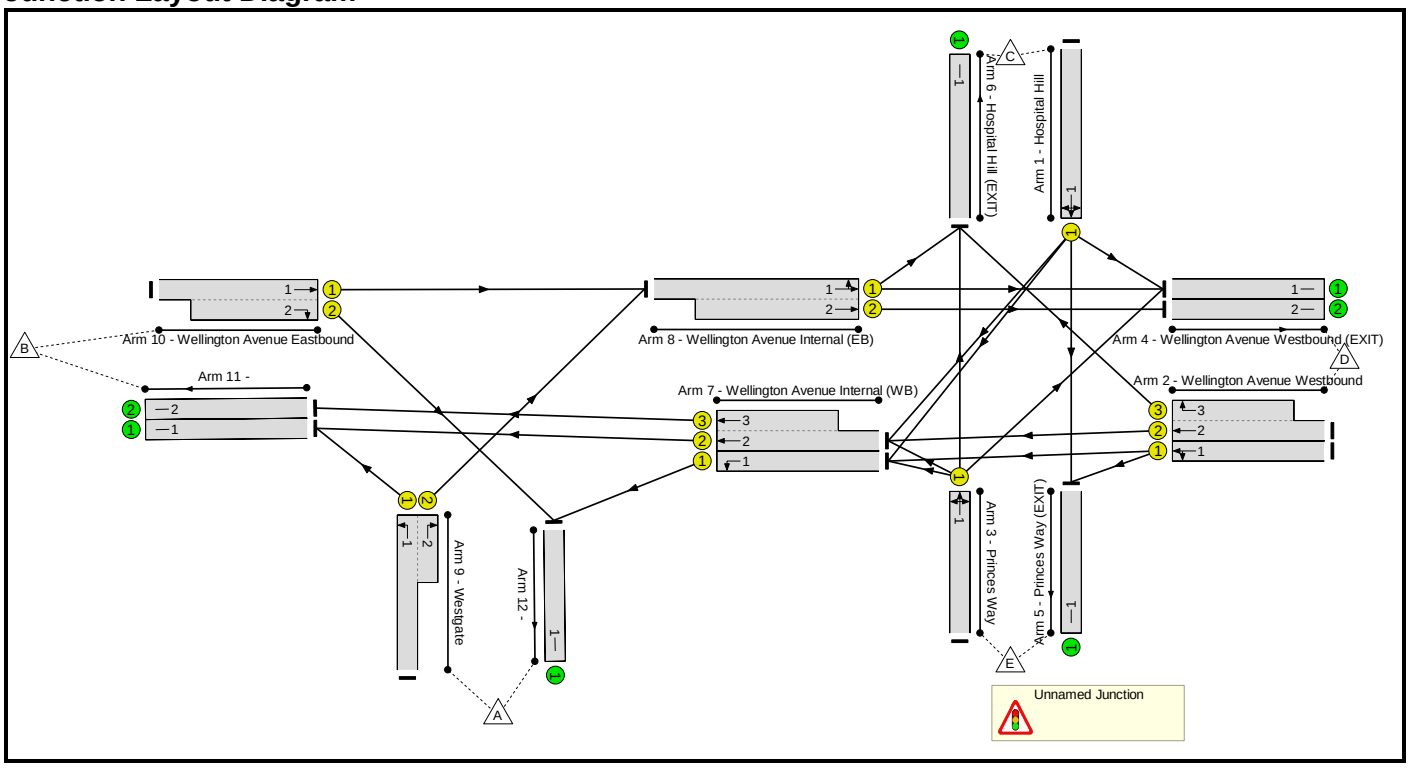
PICADY Run Successful

TA Report

User and Project Details

Project:	**AUE TA**
Title:	
Location:	
File name:	Hospital Hill - Wellington Ave all red with Westgate.lsg3x
Author:	DDD001
Company:	WSP Development and Transportation
Address:	Basingstoke
Notes:	

Junction Layout Diagram



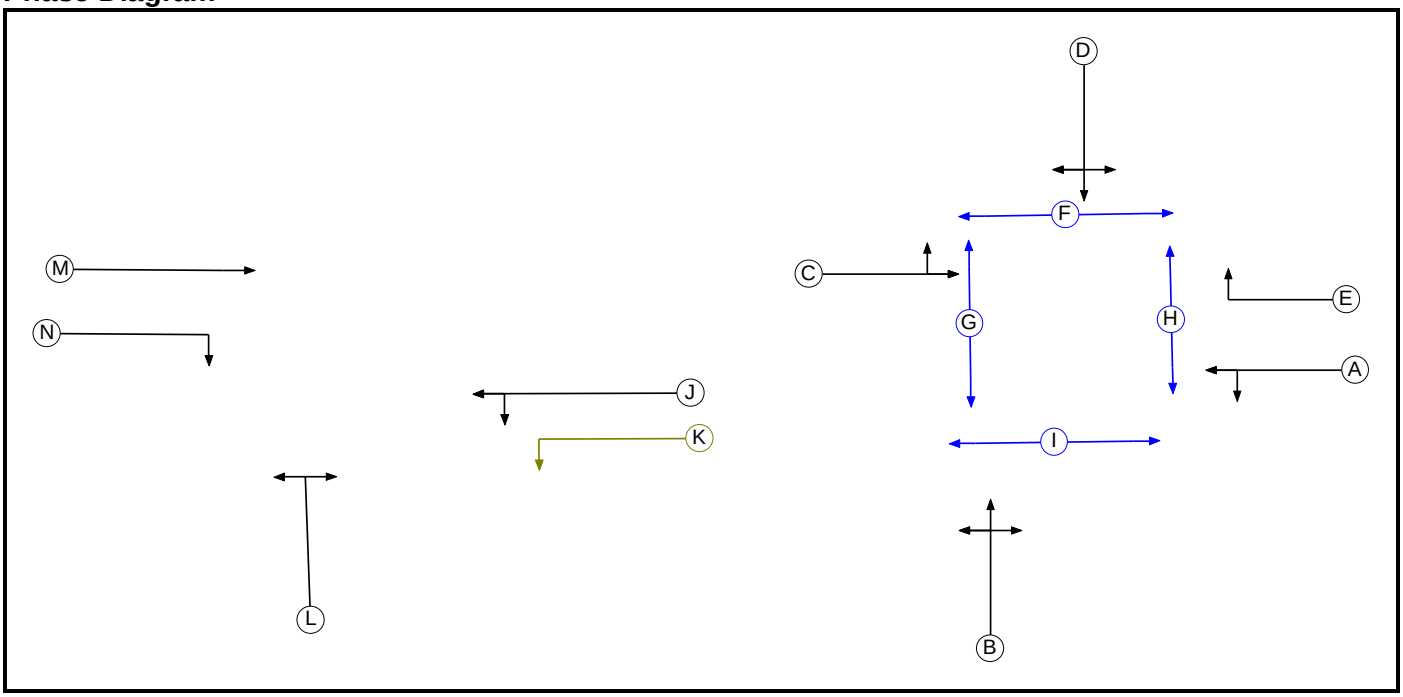
Lane Input Data

Junction: Unnamed Junction

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Hospital Hill)	U	D	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 4 Left	12.00
											Arm 5 Ahead	Inf
											Arm 7 Right	15.00
2/1 (Wellington Avenue Westbound)	U	A	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 5 Left	8.20
											Arm 7 Ahead	Inf
2/2 (Wellington Avenue Westbound)	U	A	2	3	60.0	Geom	-	3.10	0.00	N	Arm 7 Ahead	Inf
2/3 (Wellington Avenue Westbound)	U	E	2	3	10.0	Geom	-	3.80	0.00	Y	Arm 6 Right	15.00
3/1 (Princes Way)	U	B	2	3	60.0	Geom	-	4.40	0.00	Y	Arm 4 Right	12.00
											Arm 6 Ahead	Inf
											Arm 7 Left	9.00
4/1 (Wellington Avenue Westbound (EXIT))	U		2	3	60.0	Inf	-	-	-	-	-	-
4/2 (Wellington Avenue Westbound (EXIT))	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (Princes Way (EXIT))	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Hospital Hill (EXIT))	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (Wellington Avenue Internal (WB))	U	J K	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 12 Left	15.00
7/2 (Wellington Avenue Internal (WB))	U	J	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 11 Ahead	Inf

7/3 (Wellington Avenue Internal (WB))	U	J	2	3	9.0	Geom	-	3.00	0.00	Y	Arm 11 Ahead	Inf
8/1 (Wellington Avenue Internal (EB))	U	C	2	3	60.0	Geom	-	2.90	0.00	Y	Arm 4 Ahead	Inf
											Arm 6 Left	12.00
8/2 (Wellington Avenue Internal (EB))	U	C	2	3	17.0	Geom	-	2.90	0.00	N	Arm 4 Ahead	Inf
9/1 (Westgate)	U	L	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 11 Left	14.00
9/2 (Westgate)	U	L	2	3	5.0	Geom	-	3.50	0.00	Y	Arm 8 Right	13.00
10/1 (Wellington Avenue Eastbound)	U	M	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 8 Ahead	Inf
10/2 (Wellington Avenue Eastbound)	U	N	2	3	12.0	Geom	-	3.50	0.00	Y	Arm 12 Right	13.00
11/1	U		2	3	60.0	Inf	-	-	-	-	-	-
11/2	U		2	3	60.0	Inf	-	-	-	-	-	-
12/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	1		7	7
D	Traffic	1		7	7
E	Traffic	1		7	7
F	Pedestrian	1		6	6
G	Pedestrian	1		6	6
H	Pedestrian	1		6	6
I	Pedestrian	1		6	6
J	Traffic	2		7	7
K	Filter	2	J	4	0
L	Traffic	2		7	7
M	Traffic	2		7	7
N	Traffic	2		7	7

Phase Intergreens Matrix

		Starting Phase													
		A	B	C	D	E	F	G	H	I	J	K	L	M	N
Terminating Phase	A		6	-	5	-	-	8	5	7	-	-	-	-	-
	B	7		9	7	7	8	7	9	5	-	-	-	-	-
	C	-	5		6	6	7	5	8	9	-	-	-	-	-
	D	7	8	7		7	5	9	7	8	-	-	-	-	-
	E	-	5	7	6		8	-	5	-	-	-	-	-	-
	F	-	12	12	12	12		-	-	-	-	-	-	-	-
	G	17	17	17	17	-	-		-	-	-	-	-	-	-
	H	17	17	17	17	17	-	-		-	-	-	-	-	-
	I	11	11	11	11	-	-	-	-		-	-	-	-	-
	J	-	-	-	-	-	-	-	-	-		-	8	-	7
	K	-	-	-	-	-	-	-	-	-	-		-	-	5
	L	-	-	-	-	-	-	-	-	-	6	-		5	6
	M	-	-	-	-	-	-	-	-	-	-	-	5		-
	N	-	-	-	-	-	-	-	-	-	7	7	6	-	

Scenario 1: '2026 Modelled Do Something AM Peak' (FG3: '2026 Modelled Do Something AM Peak', Plan 1: 'Staging Plan No. 1')

Phase Timings

Phase Name	Description	Phase	Stage Stream	Green Period 1		
				Total Green	Start Time	End Time
A	Wellington Avenue Westbound Left Ahead	Traffic	1	43	17	60
B	Princes Way Right Ahead Left	Traffic	1	7	88	95
C	Wellington Avenue Internal (EB) Ahead Left	Traffic	1	30	17	47
D	Hospital Hill Left Ahead Right	Traffic	1	14	66	80
E	Wellington Avenue Westbound Right	Traffic	1	7	53	60
F	Pedestrians across	Pedestrian	1	7	103	0
G	Pedestrians across	Pedestrian	1	8	102	0
H	Pedestrians across	Pedestrian	1	6	104	0
I	Pedestrians across	Pedestrian	1	10	100	0
J	Wellington Avenue Internal (WB) Ahead Left	Traffic	2	52	14	66
K	Wellington Avenue Internal (WB) Left Filter	Filter	2	28	96	14
L	Westgate Right Left	Traffic	2	23	95	8
M	Wellington Avenue Eastbound Ahead	Traffic	2	76	13	89
N	Wellington Avenue Eastbound Right	Traffic	2	16	73	89

TA Report

Link Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**88.1%**	-
Unnamed Junction	-	-	**N/A**	-	-		-	-	-	-	-	-	**88.1%**	-
1/1	Hospital Hill Left Ahead Right	U	1	N/A	D		1	14	-	212	1888	257	82.3%	212
2/1	Wellington Avenue Westbound Left Ahead	U	1	N/A	A		1	43	-	142	1915	766	18.5%	142
2/2+2/3	Wellington Avenue Westbound Right Ahead	U	1	N/A	A E		1	43:7	-	457	2065:1814	864	52.9%	457
3/1	Princes Way Right Ahead Left	U	1	N/A	B		1	7	-	0	2055	149	0.0%	0
7/1	Wellington Avenue Internal (WB) Left	U	2	N/A	J	K	1	80	28	160	1741	1282	12.5%	160
7/2+7/3	Wellington Avenue Internal (WB) Ahead	U	2	N/A	J		1	52	-	438	1915:1915	1216	36.0%	438
8/1+8/2	Wellington Avenue Internal (EB) Ahead Left	U	1	N/A	C		1	30	-	660	1773:2045	749	88.1%	660
9/1+9/2	Westgate Right Left	U	2	N/A	L		1	23	-	237	1775:1762	416	57.0%	237
10/1+10/2	Wellington Avenue Eastbound Ahead Right	U	2	N/A	M N		1	76:16	-	797	1965:1762	1419	56.2%	797

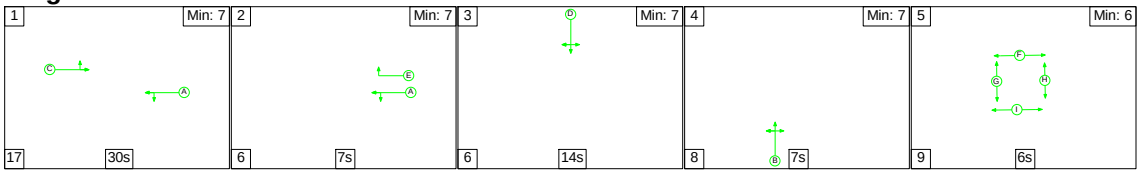
TA Report

Item	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	Start Green (s)	End Green (s)
Network	**-**	**0**	**0**	**0**	**19.1**	**7.9**	**0.0**	**26.9**	**-**	**-**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**0**	**0**	**0**	**19.1**	**7.9**	**0.0**	**26.9**	**-**	**-**	**-**	**-**	**-**	**-**
1/1	212	-	-	-	2.7	2.1	-	4.9	82.4	6.3	2.1	8.4	66	80
2/1	142	-	-	-	0.8	0.1	-	1.0	24.3	2.8	0.1	2.9	17	60
2/2+2/3	457	-	-	-	3.4	0.6	-	4.0	31.5	9.4	0.6	9.9	17:53	60
3/1	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	88	95
7/1	160	-	-	-	0.1	0.1	-	0.2	4.4	0.8	0.1	0.9	96	66
7/2+7/3	438	-	-	-	0.7	0.3	-	1.0	8.3	16.6	0.3	16.8	14	66
8/1+8/2	660	-	-	-	5.4	3.4	-	8.8	48.1	23.5	3.4	26.9	17	47
9/1+9/2	237	-	-	-	2.5	0.7	-	3.1	47.5	5.6	0.7	6.2	95	8
10/1+10/2	797	-	-	-	3.3	0.6	-	4.0	17.9	8.4	0.6	9.0	13:73	89

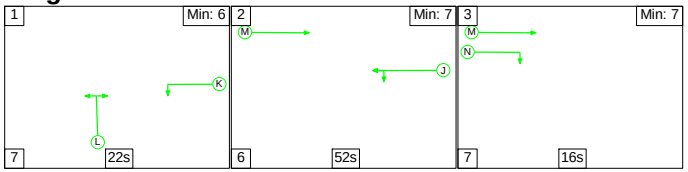
C1	Stream: 1 PRC for Signalled Lanes (%):	2.2	Total Delay for Signalled Lanes (pcuHr):	18.64	Cycle Time (s):	110
C1	Stream: 2 PRC for Signalled Lanes (%):	57.9	Total Delay for Signalled Lanes (pcuHr):	8.30	Cycle Time (s):	110
	PRC Over All Lanes (%):	2.2	Total Delay Over All Lanes(pcuHr):	26.94		

Staging Plan Diagram

Stage Stream: 1

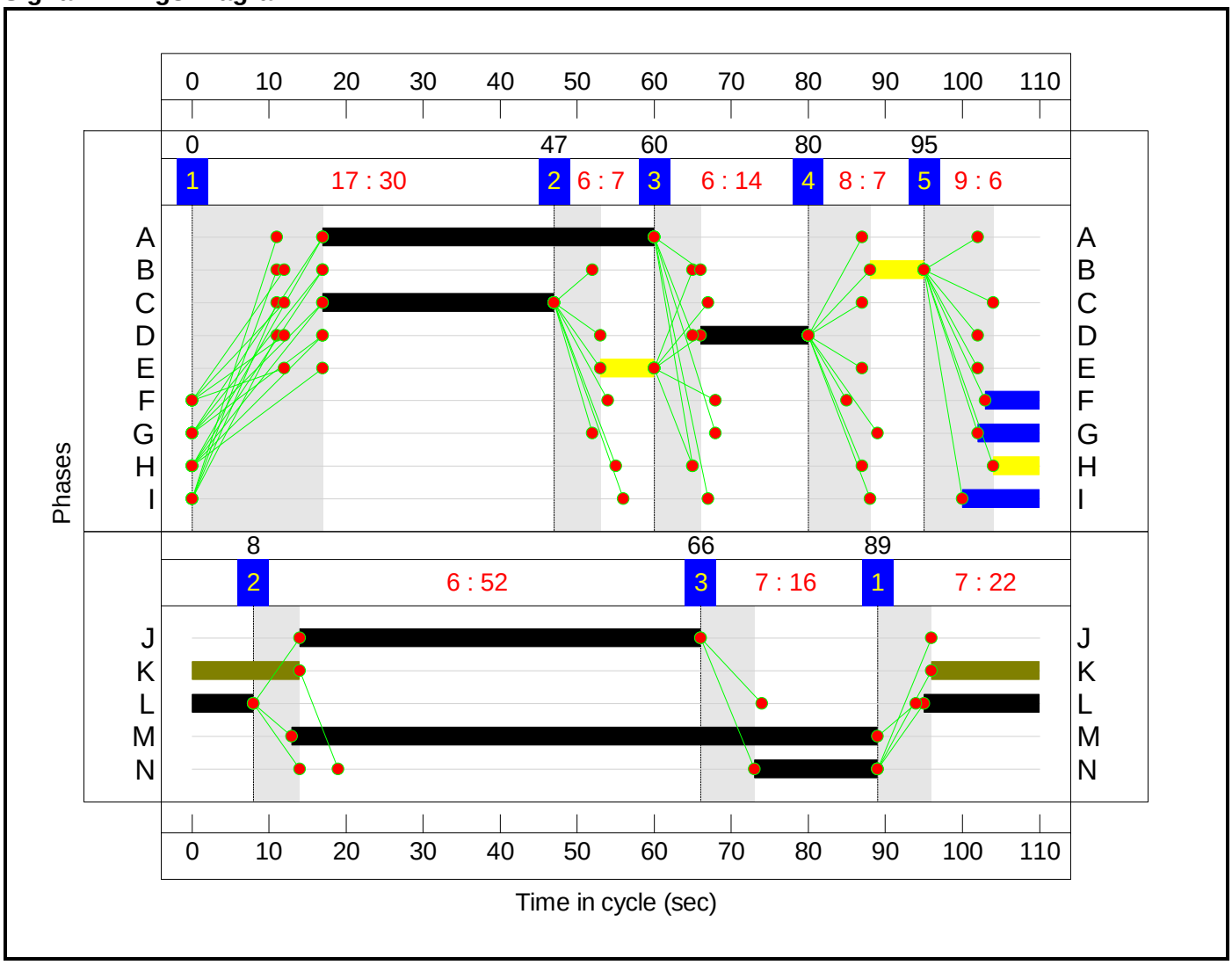


Stage Stream: 2



TA Report

Signal Timings Diagram



Scenario 2: '2026 Modelled Do Something PM Peak' (FG4: '2026 Modalled Do Something PM Peak', Plan 1: 'Staging Plan No. 1')

Phase Timings

Phase Name	Description	Phase	Stage Stream	Green Period 1		
				Total Green	Start Time	End Time
A	Wellington Avenue Westbound Left Ahead	Traffic	1	34	17	51
B	Princes Way Right Ahead Left	Traffic	1	7	93	100
C	Wellington Avenue Internal (EB) Ahead Left	Traffic	1	21	17	38
D	Hospital Hill Left Ahead Right	Traffic	1	28	57	85
E	Wellington Avenue Westbound Right	Traffic	1	7	44	51
F	Pedestrians across	Pedestrian	1	7	108	0
G	Pedestrians across	Pedestrian	1	8	107	0
H	Pedestrians across	Pedestrian	1	6	109	0
I	Pedestrians across	Pedestrian	1	10	105	0
J	Wellington Avenue Internal (WB) Ahead Left	Traffic	2	19	36	55
K	Wellington Avenue Internal (WB) Left Filter	Filter	2	44	107	36
L	Westgate Right Left	Traffic	2	39	106	30
M	Wellington Avenue Eastbound Ahead	Traffic	2	65	35	100
N	Wellington Avenue Eastbound Right	Traffic	2	38	62	100

TA Report

Link Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Arriving (pcu)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**89.7%**	-
Unnamed Junction	-	-	**N/A**	-	-		-	-	-	-	-	-	**89.7%**	-
1/1	Hospital Hill Left Ahead Right	U	1	N/A	D		1	28	-	399	1894	478	83.5%	399
2/1	Wellington Avenue Westbound Left Ahead	U	1	N/A	A		1	34	-	85	1915	583	14.6%	85
2/2+2/3	Wellington Avenue Westbound Right Ahead	U	1	N/A	A E		1	34:7	-	489	2065:1814	661	74.0%	489
3/1	Princes Way Right Ahead Left	U	1	N/A	B		1	7	-	43	2055	143	30.1%	43
7/1	Wellington Avenue Internal (WB) Left	U	2	N/A	J	K	1	63	44	135	1741	969	13.9%	135
7/2+7/3	Wellington Avenue Internal (WB) Ahead	U	2	N/A	J		1	19	-	537	1915:1915	612	87.7%	537
8/1+8/2	Wellington Avenue Internal (EB) Ahead Left	U	1	N/A	C		1	21	-	545	1705:2045	672	81.1%	545
9/1+9/2	Westgate Right Left	U	2	N/A	L		1	39	-	642	1775:1762	730	87.9%	642
10/1+10/2	Wellington Avenue Eastbound Ahead Right	U	2	N/A	M N		1	65:38	-	655	1965:1762	730	89.7%	655

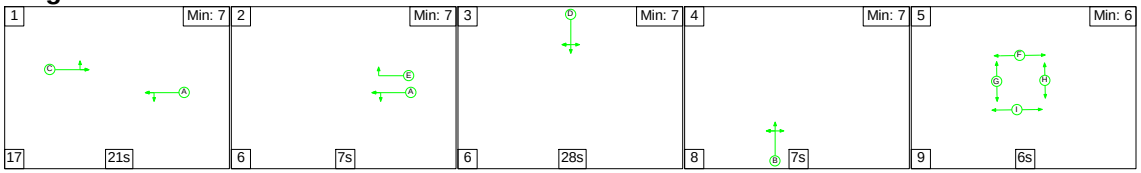
TA Report

Item	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	Start Green (s)	End Green (s)
Network	**-**	**0**	**0**	**0**	**30.0**	**16.9**	**0.0**	**46.8**	**-**	**-**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**0**	**0**	**0**	**30.0**	**16.9**	**0.0**	**46.8**	**-**	**-**	**-**	**-**	**-**	**-**
1/1	399	-	-	-	4.5	2.4	-	6.9	62.3	12.0	2.4	14.4	57	85
2/1	85	-	-	-	0.7	0.1	-	0.8	32.8	2.0	0.1	2.0	17	51
2/2+2/3	489	-	-	-	5.0	1.4	-	6.4	47.1	13.0	1.4	14.4	17:44	51
3/1	43	-	-	-	0.6	0.2	-	0.8	68.8	1.3	0.2	1.5	93	100
7/1	135	-	-	-	0.5	0.1	-	0.5	14.3	1.8	0.1	1.9	107	55
7/2+7/3	537	-	-	-	3.2	3.3	-	6.5	43.4	14.3	3.3	17.6	36	55
8/1+8/2	545	-	-	-	4.5	2.1	-	6.5	43.2	19.2	2.1	21.3	17	38
9/1+9/2	642	-	-	-	5.8	3.4	-	9.2	51.4	15.1	3.4	18.5	106	30
10/1+10/2	655	-	-	-	5.3	4.0	-	9.2	50.6	15.3	4.0	19.2	35:62	100

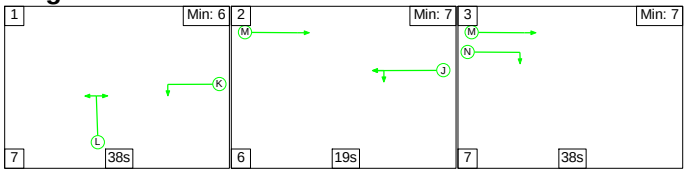
C1	Stream: 1 PRC for Signalled Lanes (%):	7.7	Total Delay for Signalled Lanes (pcuHr):	21.45	Cycle Time (s):	115
C1	Stream: 2 PRC for Signalled Lanes (%):	0.3	Total Delay for Signalled Lanes (pcuHr):	25.38	Cycle Time (s):	115
	PRC Over All Lanes (%):	0.3	Total Delay Over All Lanes(pcuHr):	46.84		

Staging Plan Diagram

Stage Stream: 1

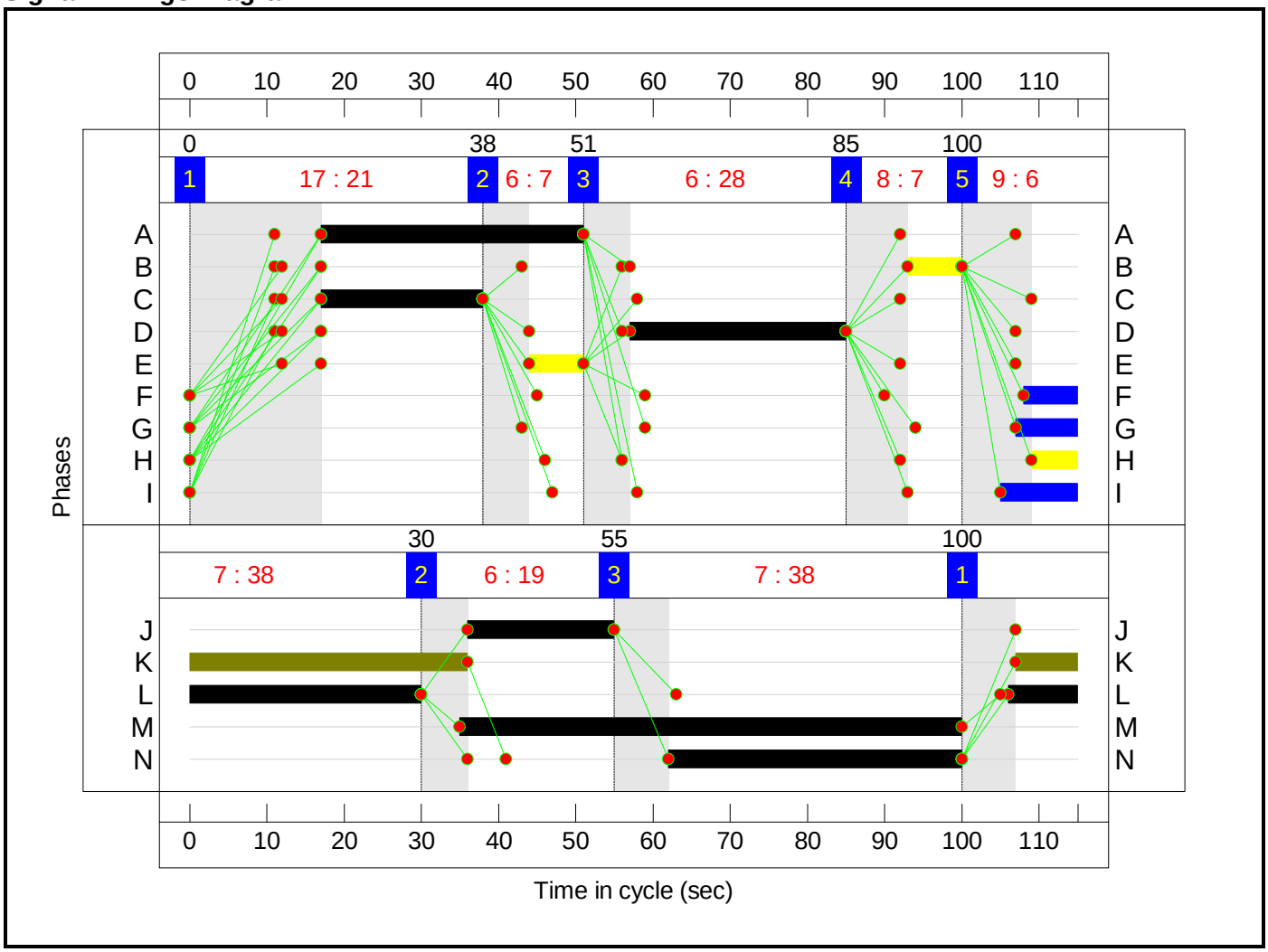


Stage Stream: 2



TA Report

Signal Timings Diagram



PICADY
GUI Version: 5.1 AE Analysis Program Release: 5.0 (MAY 2010)
For sales and distribution information, program advice and maintenance, contact:
TRL Limited Crowthorne House Nine Mile Ride Wokingham, Berks. RG40 3GA, UK Tel: +44 (0)1344 770758 Fax: +44 (0)1344 770864 E-mail: software@trl.co.uk Web: www.trlsoftware.co.uk

Run Analysis

Parameter	Values
File Run	N:\..\PICADY\Hope Grants Rd - Queens Avenue Proposed Junctions.vpi
Date Run	07 December 2012
Time Run	12:04:59
Driving Side	Drive On The Left

Arm Names and Flow Scaling Factors

Arm	Arm Name	Flow Scaling Factor (%)
Arm A	Queens Avenue (SB)	100
Arm B	Hope Grants Road	100
Arm C	Queens Avenue (NB)	100

Stream Labelling Convention

Stream A-B contains traffic going from A to B etc.

Run Information

Parameter	Values
Run Title	Proposed Phase 1 - Hope Grants Rd - Queens Avenue Access
Location	Aldershot
Date	18 July 2012
Enumerator	UKDDD001 [W11UK0063]
Job Number	-
Status	-
Client	-
Description	-

Errors and Warnings

Parameter	Values
Warning	No Errors Or Warnings

Geometric Data

Geometric Parameters

Parameter	Minor Arm B
Major Road Carriageway Width (m)	7.00
Major Road Kerbed Central Reserve Width (m)	0.00
Major Road Right Turning Lane Width (m)	2.20
Minor Road First Lane Width (m)	3.25
Minor Road Visibility To Right (m)	25
Minor Road Visibility To Left (m)	25
Major Road Right Turn Visibility (m)	250
Major Road Right Turn Blocks Traffic	Yes (if over 0 veh)

Slope and Intercept Values

Stream	Intercept for Stream	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	510.445	0.089	0.225	0.141	0.321
B-C	655.686	0.096	0.243	-	-
C-B	718.741	0.266	0.266	-	-

Note: Streams may be combined in which case capacity will be adjusted
These values do not allow for any site-specific corrections

Demand Data

Modelling Periods

Parameter	Period	Duration (min)	Segment Length (min)
First Modelling Period	07:45-09:15	90	15
Second Modelling Period	16:45-18:15	90	15

ODTAB Turning Counts

Demand Set: 2014 Phase 1 Only AM Peak
Modelling Period: 07:45-09:15

From/To	Arm A	Arm B	Arm C
Arm A	0.0	20.0	408.0
Arm B	37.0	0.0	41.0
Arm C	369.0	18.0	0.0

Demand Set: 2014 Phase 1 Only PM Peak
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	0.0	29.0	383.0
Arm B	13.0	0.0	16.0
Arm C	305.0	23.0	0.0

ODTAB Synthesised Flows

Demand Set: 2014 Phase 1 Only AM Peak
Modelling Period: 07:45-09:15

Arm	Rising Time	Rising Flow (veh/min)	Peak Time	Peak Flow (veh/min)	Falling Time	Falling Flow (veh/min)
Arm A	08:00	5.350	08:30	8.025	09:00	5.350
Arm B	08:00	0.975	08:30	1.463	09:00	0.975
Arm C	08:00	4.838	08:30	7.256	09:00	4.838

Heavy Vehicles Percentages

Demand Set: 2014 Phase 1 Only AM Peak
Modelling Period: 07:45-09:15

From/To	Arm A	Arm B	Arm C
Arm A	-	10.0	10.0
Arm B	10.0	-	10.0
Arm C	10.0	10.0	-

Demand Set: 2014 Phase 1 Only PM Peak
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	-	10.0	10.0
Arm B	10.0	-	10.0
Arm C	10.0	10.0	-

Default proportions of heavy vehicles are used

Queues & Delays

Demand Set: 2014 Phase 1 Only AM Peak
Modelling Period: 07:45-09:15

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
07:45-08:00	B-AC	0.98	7.04	0.139	-	0.00	0.16	-	2.3	0.16
	C-AB	0.35	12.41	0.028	-	0.00	0.04	-	0.5	0.08
	C-A	4.51	-	-	-	-	-	-	-	-
	A-B	0.25	-	-	-	-	-	-	-	-
	A-C	5.12	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
08:00-08:15	B-AC	1.17	6.70	0.174	-	0.16	0.21	-	3.0	0.18
	C-AB	0.45	12.73	0.035	-	0.04	0.05	-	0.7	0.08
	C-A	5.35	-	-	-	-	-	-	-	-
	A-B	0.30	-	-	-	-	-	-	-	-
	A-C	6.11	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
08:15-08:30	B-AC	1.43	6.22	0.230	-	0.21	0.29	-	4.3	0.21
	C-AB	0.62	13.17	0.047	-	0.05	0.07	-	1.0	0.08
	C-A	6.48	-	-	-	-	-	-	-	-
	A-B	0.37	-	-	-	-	-	-	-	-
	A-C	7.49	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
08:30-08:45	B-AC	1.43	6.22	0.230	-	0.29	0.30	-	4.4	0.21
	C-AB	0.62	13.17	0.047	-	0.07	0.07	-	1.1	0.08
	C-A	6.48	-	-	-	-	-	-	-	-
	A-B	0.37	-	-	-	-	-	-	-	-
	A-C	7.49	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
08:45-09:00	B-AC	1.17	6.70	0.174	-	0.30	0.21	-	3.3	0.18
	C-AB	0.45	12.73	0.035	-	0.07	0.05	-	0.7	0.08
	C-A	5.35	-	-	-	-	-	-	-	-
	A-B	0.30	-	-	-	-	-	-	-	-
	A-C	6.11	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
09:00-09:15	B-AC	0.98	7.04	0.139	-	0.21	0.16	-	2.5	0.17
	C-AB	0.35	12.41	0.028	-	0.05	0.04	-	0.5	0.08
	C-A	4.51	-	-	-	-	-	-	-	-
	A-B	0.25	-	-	-	-	-	-	-	-
	A-C	5.12	-	-	-	-	-	-	-	-

Demand Set: 2014 Phase 1 Only PM Peak
Modelling Period: 16:45-18:15

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
16:45-17:00	B-AC	0.36	7.24	0.050	-	0.00	0.05	-	0.8	0.15
	C-AB	0.41	11.96	0.035	-	0.00	0.05	-	0.7	0.09
	C-A	3.70	-	-	-	-	-	-	-	-
	A-B	0.36	-	-	-	-	-	-	-	-
	A-C	4.81	-	-	-	-	-	-	-	-

		Demand	Capacity		Ped.	Start	End	Geometric Delay	Delay	Mean Arriving

Segment	Stream	(veh/min)	(veh/min)	RFC	Flow (ped/min)	Queue (veh)	Queue (veh)	(veh.min/segment)	(veh.min/segment)	Vehicle Delay (min)
17:00-17:15	B-AC	0.43	6.93	0.063	-	0.05	0.07	-	1.0	0.15
	C-AB	0.53	12.20	0.044	-	0.05	0.06	-	0.9	0.09
	C-A	4.38	-	-	-	-	-	-	-	-
	A-B	0.43	-	-	-	-	-	-	-	-
	A-C	5.74	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
17:15-17:30	B-AC	0.53	6.49	0.082	-	0.07	0.09	-	1.3	0.17
	C-AB	0.72	12.52	0.057	-	0.06	0.09	-	1.4	0.08
	C-A	5.30	-	-	-	-	-	-	-	-
	A-B	0.53	-	-	-	-	-	-	-	-
	A-C	7.03	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
17:30-17:45	B-AC	0.53	6.49	0.082	-	0.09	0.09	-	1.3	0.17
	C-AB	0.72	12.53	0.058	-	0.09	0.09	-	1.4	0.08
	C-A	5.30	-	-	-	-	-	-	-	-
	A-B	0.53	-	-	-	-	-	-	-	-
	A-C	7.03	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
17:45-18:00	B-AC	0.43	6.93	0.063	-	0.09	0.07	-	1.0	0.15
	C-AB	0.53	12.20	0.044	-	0.09	0.06	-	1.0	0.09
	C-A	4.38	-	-	-	-	-	-	-	-
	A-B	0.43	-	-	-	-	-	-	-	-
	A-C	5.74	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/segment)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
18:00-18:15	B-AC	0.36	7.24	0.050	-	0.07	0.05	-	0.8	0.15
	C-AB	0.42	11.96	0.035	-	0.06	0.05	-	0.7	0.09
	C-A	3.70	-	-	-	-	-	-	-	-
	A-B	0.36	-	-	-	-	-	-	-	-
	A-C	4.81	-	-	-	-	-	-	-	-

Entry capacities marked with an '(X)' are dominated by a pedestrian crossing in that time segment.
In time segments marked with a '(B)', traffic leaving the junction may block back from a crossing so impairing normal operation of the junction.
Delays marked with '##' could not be calculated.

Overall Queues & Delays

Queueing Delay Information Over Whole Period

Demand Set: 2014 Phase 1 Only AM Peak
Modelling Period: 07:45-09:15

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	107.4	71.6	19.9	0.2	19.9	0.2
C-AB	42.5	28.3	4.6	0.1	4.6	0.1
C-A	490.2	326.8	-	-	-	-
A-B	27.5	18.4	-	-	-	-
A-C	561.6	374.4	-	-	-	-
All	.	.	.	.	.	.

Demand Set: 2014 Phase 1 Only PM Peak
Modelling Period: 16:45-18:15

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	39.9	26.6	6.2	0.2	6.2	0.2
C-AB	50.0	33.3	6.1	0.1	6.1	0.1
C-A	401.5	267.6	-	-	-	-
A-B	39.9	26.6	-	-	-	-
A-C	527.2	351.4	-	-	-	-
All	.	.	.	.	.	.

Delay is that occurring only within the time period.
Inclusive delay includes delay suffered by vehicles which are still queuing after the end of the time period.
These will only be significantly different if there is a large queue remaining at the end of the time period.

PICADY Run Successful

Wellesley

ALDERSHOT

Appendix I

AUETM Model Output V/C Tables

Investing in homes since 1912

grainger plc

Junction	Junction Arm	DM AM	DS AM	DM PM	DS PM
A31 Hog's Back / White Lane	White Lane (south from A31)	72.48	79.14	83.13	85.85
	A31 Hog's Back eastbound	72.39	70.57	63.11	63.22
A323 Guildford Road / Ash Hill Road	A323 Guildford Road (south)	74.2	75.95	100.29	98.61
	Ash Hill Road	70.85	78.8	64.09	70.95
	A323 Guildford Road (east)	70.72	78.58	75.06	79.06
Poyle Road / The Street / Grange Road	Poyle Road	114.63	118.47	73.15	82.18
	The Street (north)	46.25	50.6	35.31	39.51
	The Street (south)	52.68	50.69	39	43.7
A331 southbound off-slip / A331 slip roads roundabout	A331 southbound off-slip	93.25	97.34	109.19	110.08
	A323 slip roads roundabout	35.61	38.65	43.98	43.33
A31 Farnham by-pass / B3001 South Street / B3001 Station Hill	A31 Farnham by-pass northbound	101.65	103.03	98.73	85.74
	B3001 South Street	98.38	93.08	89.44	98.44
	A31 Farnham by-pass southbound	100.47	100.21	93.17	86.55
	B3001 Station Hill	111.57	110.15	102.92	103.98
A325 The Borough / A325 West Street / A287 Downing Street	A325 The Borough (east)	92.17	94.31	87.13	83.34
	A325 West Street	93.14	94.1	98.44	96.29
	A287 Downing Street	95.15	97.66	97.95	99.11
A325 The Borough / A325 East Street / A287 South Street	A325 The Borough (west)	87.5	87.4	89.11	81.24
	A325 East Street	86.78	85.02	88.09	81.66
A325 Hale Road / B3007 Hale Road / B3007 Weybourne Road	B3007 Weybourne Road	92.02	94.65	85.16	85.4
	B3007 Hale Road (south)	57	65.79	79.12	81.58
	A325 Hale Road (north)	82.85	83.47	92.58	90.61
	A325 (south)	50.17	58.71	79.48	79.03
Monkton Lane / B3208 Monkton Lane / B3208 Water Lane	Monkton Lane (west)	91.58	91.96	48.86	51.42
	B3208 Water Lane	17.58	17.16	12.68	13.38
	B3208 Monkton Lane (east)	39.12	43.14	33.37	36.61
A3016 Upper Hale Road / A325 Farnborough Road / A325 Hale Road	A3016 Upper Hale Road	86.79	92.64	69.8	72
	A325 Farnborough Road	63.09	61.27	69.39	71.26
	A325 Hale Road	85.56	90.52	67.6	70.59
A3016 Upper Hale Road / B3005 Alma Lane	B3005 Alma Lane	96.76	99.26	80.1	75.82
	A3016 Upper Hale Road (west)	100.23	100.25	87.78	84.55
	A3016 Upper Hale Road (east)	27.88	38.27	48.85	46.83
A287 Odiham Road / A3016 Upper Hale Road / A287 Folly Hill	A287 Odiham Road	108.75	107.45	103.87	103.65
	A3016 Upper Hale Road	104.76	91.77	107.99	107.69
	A287 Folly Hill	51.34	65.11	95.3	91.96
A287 Odiham Road / B3013 Beacon Hill Road	B3013 Beacon Hill Road	108.15	107.24	105.6	104.89
	A287 Odiham Road (east)	83.21	95.03	101.5	101.18
	A287 Odiham Road (west)	108.64	111.4	112.35	112.25
A287 Odiham Road / Dora's Green Lane	A287 Odiham Road (east)	81.4	88.12	83.09	83.09
	A287 Odiham Road (west)	37.66	36.39	44.52	44.96
	Dora's Green Lane (south)	27.8	27.27	23.18	21.12
A325 Farnborough Road / B3005 Alma Lane	A325 Farnborough Road (north)	75.52	74.26	76.91	84.54
	A325 Farnborough Road (south)	72.36	71.85	67.13	54.36
	B3005 Alma Lane	43.88	53.71	49.03	66.53
Upper Weybourne Lane / A325 Farnborough Road	Upper Weybourne Lane	101.07	99.62	95.61	94.45
	A325 Farnborough Road (north)	68.42	70.73	85.53	86.59
	A325 Farnborough Road (south)	63.02	75.39	85.18	86.71
A323 Ash Road / North Lane	A323 Ash Road (east)	95.93	96.1	91.44	92.73
	A323 Ash Road (west)	94.53	95.53	90.78	93.31
	North Lane	85.35	53.74	87.78	68.19
A323 High Street / Ordanance Road / Windsor Way	A323 High Street (east)	94.56	100.24	61.81	99.77
	A323 High Street (west)	64.69	96.39	98.33	103.64
	Ordnance Road	46.95	78.51	61.1	89.47
	Windsor Way	30.09	74.9	41.53	101.08
B3007 Grosvenor Road / B3008 Queen's Road / Victoria Road	B3007 Grosvenor Road (north)	93.38	95.63	96.31	93.38
	B3007 Grosvenor Road (south)	89.56	92.27	94.87	89.12
	B3008 Queens Road (west)	17.04	40.84	47.05	71.25
A325 Farnborough Road / B3008 Cranmore Lane	A325 Farnborough Road (north)	72.94	82.14	102.1	100.76
	A325 Farnborough Road (south)	64.18	71.16	58.05	64.38
	Cranmore Lane	40.71	35.94	58.85	59.53
Oberursel Way / Alexandra Road / Lime Street	Oberursel Way	55.35	48.65	100.82	90.07
	Lime Street	80.73	79.8	92.29	61.36
A323 Wellington Avenue / Hospital Hill / B3007 Princes Way	Hospital Hill	81.94	84.04	87.54	94.04
	B3007 Princes Way	34.51	9.48	82.6	44.84
	A323 Wellington Avenue (west)	71.81	84.16	80.96	97.72
	A323 Wellington Avenue (east)	64.21	41.25	64.69	48.35
A325 Farnborough Road / A323 Wellington Avenue / Wellesley Road	A325 Farnborough Road (north)	85.43	101.44	99.37	103.95
	A325 Farnborough Road (south)	80.09	87.62	50.29	64.64
	A323 Wellington Avenue	63.25	68.3	70.38	78.63
	Wellesley Road	96.13	100.78	72.28	87.76
Thornhill Road / Government Road / Ordnance Road	Thornhill Road	31.2	85.24	33.4	100.4
	Government Road	108.1	42.58	92.63	31.97
	Ordnance Road	55.43	91.32	74.19	78.44
	Gallwey Road	Not in DM	73.62	Not in DM	82.22
A31 Guildford Road / Shepherd and Flock Roundabout	A31 Guildford Road southbound	102.24	102.22	102.26	102.35
	Shepherd and Flock Roundabout	22.88	21.91	24.5	29.61
A31 Guildford Road / Shepherd and Flock Roundabout	A31 Guildford Road southbound	94.09	92	91.64	97.94
	Shepherd and Flock Roundabout	43.34	44.06	42.74	41.32
Shepherd and Flock Roundabout / A31 Farnham By-Pass	Shepherd and Flock Roundabout	94.8	90.7	93.49	90.39
	A31 Farnham By-Pass	90.34	90.26	94.86	94.73
A325 Guildford Road / Shepherd and Flock Roundabout	A325 Guildford Road (west)	96.7	97.91	96.72	98.39
	Shepherd and Flock Roundabout	67.44	66.26	68.76	67.42
A325 / Shepherd and Flock Roundabout (A31/A325)	A325 (north)	84.58	79.52	73.98	85.1
	Shepherd and Flock Roundabout	40.11	39.42	35.82	33.98
A331 / A31 slip roads roundabout	A331 southbound	100.69	101.6	101.54	101.3
	A31 slip roads roundabout	0	0	0	0
A31 Guildford Road / A31 slip roads roundabout	A31 Hog's Back westbound	102.41	102.14	91.73	93.47
	A31 slip roads roundabout	25.82	28.14	24.84	24.6
A31 Guildford Road / A31 slip roads roundabout	A31 Guildford Road eastbound	103.92	101.06	96.73	86.69
	A31 slip roads roundabout	49.97	47.71	45.33	46.13

A323 Aldershot Road / A331 slip roads roundabout	A323 Aldershot Road (east)	105.72	104.23	60.6	101.27
	A331 slip roads roundabout	33.03	32.89	50.05	43.3
A323 Aldershot Road / A331 slip roads roundabout	A323 Aldershot Road (east)	101.38	101.5	100.9	101.22
	A331 slip roads roundabout	44.11	46.01	37.24	41.27
Oxenden Road / A331 slip roads roundabout	Oxenden Road	108.89	103.94	15.71	100.88
	A331 slip roads roundabout	18.27	24.99	18.18	19.7
Oxenden Road / A331 slip roads roundabout	Oxenden Road	100	100	88.73	100
	A331 slip roads roundabout	57.87	54.12	56.79	56.45
A331 northbound off-slip / A331 slip roads roundabout	A331 northbound off-slip	83.91	95.97	95.43	101.96
	A331 slip roads roundabout	50.13	49.65	57.19	58.66
B3411 Ash Hill Road / B3206 Shawfield Road / B3411 Vale Road / Wharf Road	B3411 Ash Hill Road	74.43	79.67	90.43	98.7
	B3411 Vale Road	46.15	52.08	43.13	51.47
	Wharf Road	36.2	40.1	30.69	35.09
	B3206 Shawfield Road	70.84	72.83	55.53	63.55
Vale Road / Lakeside Road	Vale Road (east)	91.47	98.4	92.98	99.46
	Lakeside Road	95.81	90.31	85.18	81.65
	Vale Road (north)	56.67	58.59	55.14	56.21
Lakeside Road / Old Farm Place	Lakeside Road (east)	92.48	108.71	94.92	104.84
	Lakeside Road (west)	42.19	71.23	90.39	99.87
	Old Farm Place	28.18	27.97	10	9.97
Lakeside Road / Government Road / Hollybush Lane	Lakeside Road	71.69	99.9	44.6	58.87
	Government Road	54.43	21.72	84.86	23.93
	Hollybush Lane	2.31	1.69	8.42	5.25
B3013 Beacon Hill Road / Bourley Road	B3013 Beacon Hill Road (north)	106.82	105.25	113.13	113.66
	B3013 Beacon Hill Road (south)	119.38	113.98	100.34	101.11
A323 Aldershot Road / Reading Road S	A323 Reading Road S (north)	96.17	93.98	94.57	87.46
	A323 Aldershot Road	84.93	77.36	94.49	99.58
	Reading Road S (south)	43.46	42.79	58.71	57.37
A323 Aldershot Road / A323 Norris Hill Road / B3010 Kings Road	A323 Aldershot Road	91.42	87.18	60.25	51.21
	A323 Norris Hill Road	61.72	60.27	75.7	72.98
	B3010 Kings Road (north)	89.52	87.59	30.1	31.63
B3010 Kings Road / A3013 Fleet Road	B3010 Kings Road (south)	91.89	88.31	80.96	78.11
	A3013 Fleet Road (north)	67.32	66.28	84.23	86.33
	A3013 Fleet Road (south)	101.12	99.78	75.75	76.78
A3013 Fleet Road / A323 Reading Road S / A323 Reading Road N	A3013 Fleet Road	107.77	106.43	108.4	110.16
	Reading Road N	105.21	104.58	103.19	105.35
	Reading Road S	110.18	109.77	108.61	106.48
Ively Road / A323 Norris Hill Road roundabout	Ively Road (south)	90.46	90.53	48.47	50.78
	Ively Road (north)	33.46	34.1	76.78	78.42
A323 Fleet Road / Ively Road	Ively Road (north)	42.85	43	84.31	87.01
	A323 Fleet Road	76.82	78.02	101.89	100.22
A323 Norris Hill Road / A323 Fleet Road	A323 Norris Hill Road	89.58	86.57	34.21	35.03
	A323 Fleet Road	29.37	28.72	63.72	60.44
A325 Farnborough Road / Alison's Road / Clubhouse Road	A325 Farnborough Road (north)	50.87	62.31	102.67	101.47
	Alison's Road	41.06	51.29	37.78	50.08
	Clubhouse Road	40.38	51.04	44.93	62.55
A323 Ash Road / Lower Newport Road / B3208 Lower Farnham Road	A323 Ash Road	97.35	89	81.42	86.84
	Lower Newport Road	97.4	91.49	77.49	85.51
	B3208 Lower Farnham Road	99.36	91.21	80.56	94.68
A3011 Lynchford Road / B3403 Alexandra Road / Queen's Avenue	A3011 Lynchford Road (east)	94.86	95.5	69.62	78.42
	B3403 Alexandra Road	80.61	78.49	100.08	99.39
	Queen's Avenue	69.59	63.07	50.54	33.05
	A3011 Lynchford Road (west)	61.55	56.04	78.09	70.59
A3011 Lynchford Road / Queens Roundabout	A3011 Lynchford Road	86.43	92.41	54.99	52.31
	Queens Roundabout	29.96	31.63	31.52	33.82
A325 Farnborough Road / Queens Roundabout	A325 Farnborough Road	100.05	99.07	36.58	35.38
	Queens Roundabout	35.4	34.57	11.9	10.52
A325 Farnborough Road / Queens Roundabout	A325 Farnborough Road (north)	77.96	76.85	102.4	102.4
	Queens Roundabout	67.69	69.57	40.67	39.81
B3411 Mytchett Road / B3411 Frimley Road / B3166 Stratford Road	B3411 Mytchett Road	100.14	100.63	100.06	99.91
	B3411 Frimley Road	29.68	28.86	46.1	45.09
	B3166 Stratford Road	91.82	88.66	103.07	102.85
B3411 Mytchett Road / Coleford Bridge Road	B3411 Mytchett Road (north)	94.27	91.37	98.4	97.06
	Coleford Bridge Road	27.98	31.78	60.24	57.85
	B3411 Mytchett Road (south)	104.51	103.16	100.38	99.44
B3411 Sturt Road / B3411 Mytchett Road / Hamesmoor Road	B3411 Sturt Road	88.69	86.22	102.57	102.82
	B3411 Mytchett Road	67.44	67.4	48.7	49.5
	Hamesmoor Road	79	78.7	83.55	83.87
Rectory Road / Avenue Road	Rectory Road (east)	96.27	97.94	95.78	97.23
	Avenue Road	87.28	88.4	111.76	110.99
	Rectory Road (west)	99.88	100.21	105.21	104.38
Marrowbrook Lane / B3014 Cove Road / B3014 Victoria Road	Marrowbrook Lane	90.52	90.87	99.95	100.16
	B3014 Victoria Road	47.23	45.75	40.29	38.78
	B3014 Cove Road	51.97	48.61	39.23	39.81
Union Street / Prospect Road	Union Street	75.22	72.92	90.07	84.98
	Prospect Road (north)	73.06	62.84	83.08	67.83
	Prospect Road (south)	72.01	67.5	86.37	79.96
Prospect Road / Mayfield Road	Prospect Road (north)	76.93	69.69	100.41	100.09
	Mayfield Road	69.31	60.13	71.58	77.25
	Prospect Road (south)	37.28	28.87	48.04	44.79
A325 Farnborough Road / Pinehurst Roundabout	A325 Farnborough Road (north)	94.47	92.65	84.36	84.62
	Pinehurst Roundabout	36.37	38.06	46.78	48.84
N Gate Road / A325 Farnborough Road / B3403 Boundary Road	N Gate Road	63.21	62.26	110.72	111.96
	B3403 Boundary Road	64.32	64.92	104.28	101.51
	A325 Farnborough Road (south)	65.7	67.53	103.76	100.83
A325 Farnborough Road / Pinehurst Roundabout	A325 Farnborough Road (south)	101.16	101.18	107.18	108.8
	Pinehurst Roundabout	23.4	22.89	18.93	17.97
A327 Meudon Avenue / Pinehurst Roundabout	A327 Meudon Avenue (west)	87.13	87.4	103.67	103.32
	Pinehurst Roundabout	13.61	13.72	14.47	13.93
A327 Elles Road / Sulzers Roundabout	A327 Elles Road (east)	88.79	87.61	49.01	49.04
	Sulzers Roundabout	19.25	19.44	22.53	23.11
A327 Elles Road / Elles Road roundabout	A327 Elles Road (west)	87.11	86.54	65.25	66.15

A327 Elles Road / Elles Road roundabout	Elles Road roundabout	4.89	4.56	10.55	9.97
	A327 Elles Road (west)	87.11	86.54	58.26	59.91
	Elles Road roundabout	48.73	46.56	75.27	74.09
A327 Ively Road / A327 Elles Road / Ively Road	A327 Ively Road (north)	101.91	101.73	61.75	63.16
	A327 Elles Road	53.61	51.19	81.01	80.13
	Ively Road (west)	71.23	68.42	70.14	70.08
Ively Road / Kennels Lane	Ively Road	87.27	87.33	46.76	48.98
	Kennels Lane (east)	22.34	22.06	65.32	66.56
	Kennels Lane (north)	67.66	66.32	39.5	40.71
Kennels Lane / A327 Summit Avenue	Kennels Lane (south)	102.68	102.19	68.1	72.16
	A327 Summit Avenue (east)	71.86	70.82	63.75	65.2
	A327 Summit Avenue (west)	88.03	87.27	66.75	67.22
A327 / A327 Summit Avenue / Ively Lane	A327 (north)	97.56	96.89	57.92	56.71
	A327 Summit Avenue (east)	65.34	65.12	50.47	52.31
	Ively Lane (south)	43.89	43.15	69.84	70.61
A327 / A327 roundabout (north of Fleet Road)	A327 (from M3)	100	100	94.89	92.83
	A327 (from Summit Avenue)	99.05	96.26	75.77	75.78
	A3013 Fleet Road	66.72	65.72	100.65	100.5
B3411 Frimley Road	B3411 Frimley Road (south)	99.31	99.31	70.99	72.37
	B3411 Frimley Road (south)	99.31	99.31	70.99	72.37
A325 Portsmouth Road	A325 Portsmouth Road (south)	85.41	84.52	92.23	92.96
	A325 Portsmouth Road (north)	0	0.15	0.68	0.69
A325 Portsmouth Road / B3411 Grove Cross Road	A325 Portsmouth Road (south)	85.42	84.52	92.23	92.95
	A325 Portsmouth Road (north)	104.5	103.28	104	104.12
	B3411 Grove Cross Road	0	0	0	0
B3411 / B3411 Church Lane / Frimley High Street	B3411 Chruch Lane (north)	86.05	82.42	103.23	103.35
	B3411 Church Lane (east)	73.57	71.39	85.62	84.96
	Frimley High Street	38.52	37.95	42.34	44.43
B3411 Frimley Road	B3411 Frimley Road (south)	100	100	71.72	73.1
	B3411 Frimley Road (north)	71.84	72.58	96.18	97.03
M3 Junction 4a / eastbound off-slip	M3 eastbound off-slip	86.32	85.66	79.56	79.13
M3 Junction 4a / westbound off-slip	M3 westbound off-slip	85.55	85.05	92.2	92.03
A3011 Lynchford Road / A331 slip roads	A331 northbound off-slip	89.2	99.84	73.49	92.49
	A3011 Lynchford Road (east)	97.54	97.51	72.1	79.81
	A3011 Lynchford Road (west)	85.41	77.64	103.4	102.27
A3011 Lynchford Road / A331 slip roads / B3166 Stratford Road	B3166 Stratford Road	100	100	81.88	83.11
	A331 southbound off-slip	57.67	56.75	55.26	59.66
	A3011 Lynchford Road (west)	52.95	53.41	53.84	60.31
	Lynchford Lane (north)	28.07	26.29	39.34	43.66
	Hollybush Lane	57.12	14.02	0	0
Coleford Bridge Road / A331 Southbound slip road	Coleford Bridge Road	102.29	100.9	83.42	82.24
	A331 Southbound slip road	61.77	63.21	70.74	70.93
A325 Portsmouth Road / B3411 Church Lane	A325 Portsmouth Road	87.5	87.78	83.42	83.31
	B3411 Church Lane (south)	54.76	54.03	58.77	60.33
	B3411 Frimley Road (north)	71.84	72.58	96.18	97.04
B3411 Frimley Road / A325 Farnborough Road	B3411 Frimley Road (north)	71.84	72.58	96.18	97.03
	A325 Farnborough Road (west)	62.25	61.38	40.2	39.76
A325 Farnborough Road / B3272 Hawley Lane (North - Circulatory / A325 Farnborough Road NB exit)	A325 Farnborough Road roundabout (circulating)	82.03	80.62	85.97	86.19
A325 Farnborough Road roundabout	A325 Farnborough Road (north)	100.71	76.04	101.52	101.84
	A325 Farnborough Road roundabout	58.04	41.57	44.33	44.44
Frimley High Street / A325 Farnborough Road	Frimley High Street (from western roundabout)	82.35	83.54	104.01	105.59
	A325 Farnborough Road roundabout	31.25	32.85	77.21	82.19
A325 Farnborough Road roundabout	A325 Farnborough Road roundabout	98.9	100.38	100.76	100.76
B3272 Hawley Lane / A325 Farborough Road roundabout	B3272 Hawley Lane	87.78	88.77	48.96	48.73
	A325 Farborough Road roundabout	51.39	50.14	49.08	49.6
A331 northbound off-slip	A331	96.53	98.12	89.33	93.09
Frimley High Street (eastern roundabout) / A331 southbound off-slip	Frimley High Street (north)	103.54	101.97	91.37	87.33
	Frimley High Street (from western roundabout)	51.37	52.18	50.66	51.43
	A331 southbound off-slip	60.67	60.05	40.18	37.36
A331 northbound off-slip / Frimley High Street (western roundabout)	A331 northbound off-slip	88.39	87.86	99.96	99.99
	Frimley High Street (from eastern roundabout)	41.63	41.49	38.29	35.56
	B3272 Frimley High Street	91.46	92.16	103.62	103.39
A325 Farnborough Road / Rectory Road / Victoria Road	Rectory Road	100.61	101.03	84.26	82.54
	A325 Farnborough Road roundabout	32.33	31.77	24.44	23.16
A325 Farnborough Road / Rectory Road / Victoria Road	A325 Farnborough Road roundabout	89.64	91.12	96.16	96.47
	Victoria Road	58.9	60.08	80.2	78.76
Hamesmoor Road / Coleford Bridge Road	Hamesmoor Road (west)	82.12	81.5	100.23	100.31
	Hamesmoor Road (south)	0	0	0	0
	Hamesmoor Road (east)	100.23	20.54	15.35	15.47
Coleford Bridge Road / Hamesmoor Road	Hamesmoor Road (east)	100.31	98.9	90.26	88.48
	Coleford Bridge Road (south)	44.83	43.81	45.57	44.7
	Coleford Bridge Road (west)	14.37	16.22	32.63	31.26
B3013 Beacon Hill Road / Sandy Lane	B3013 Beacon Hill Road (north)	68.48	68.27	91.34	91.19
	B3013 Beacon Hill Road (south)	68.57	69.82	65.77	66.48
A327 Summit Avenue / Kennels Lane	A327 Summit Avenue (west)	99.11	98.25	75.15	75.68
	A327 Summit Avenue (east)	55.11	54.33	51.2	52.05
M3 Junction 4 / A331 northern roundabout	A331 (north)	70.98	70	95.58	93.78
	A331 northern roundabout	33.86	33.76	39.21	38.44
M3 Junction 4 eastbound off-slip / A331 northern roundabout	M3 eastbound off-slip	100.52	100.23	60.9	60.2
	A331 northern roundabout	52	51.67	31.16	31.41
M3 Junction 4 / A331 southern roundabout	A331 (northern to southern roundabout)	77.56	76.63	89.87	89.69
	A331 southern roundabout	77.02	79.36	87.02	87.09
M3 Junction 4 eastbound off-slip	M3 eastbound	90.21	90.02	91.79	91.56
M3 Junction 4 westbound off-slip	M3 westbound	95.25	95.94	100.9	100.89
M3 Junction 4a / A327 northern roundabout / A327 Minley Road	A327 Minley Road	92.71	92.68	84.05	81.95
	A327 northern roundabout	46.66	47.57	43.42	44.55
M3 Junction 4a westbound slip roads / A327 southern roundabout	A327 southern roundabout	100.39	100.34	82.91	81.11
M3 Junction 4a westbound slip roads / A327 southern roundabout	A327 (south)	101.14	100.16	100.97	100.97
	A327 southern roundabout	0.89	0.87	5.2	5.28
M3 Junction 4a westbound slip roads / A327 southern roundabout	A327 southern roundabout	100.7	100.7	94.89	92.83
	A327 (south)	100.35	85.61	103.78	103.44
A323 Norris Hill Road / Volmead Road	A323 Norris Hill Road (west)	94.17	91.01	35.96	36.83

A325 Norris Hill Road / Velmead Road	A323 Norris Hill Road (east)	30.98	30.3	67.21	63.75
A325 Farnborough Road / B3403 Boundary Road (A325 SB off-slip)	A325 Farnborough Road off-slip	92.63	94.01	96.19	97.77
A325 South Street / B3001 South Street	A325 South Street (north)	98.84	95.74	96.5	95.59
	B3001 South Street (south)	92.85	91.88	97.75	93.83
A325 Union Road / A287 Long Bridge / A325 Downing Street	A325 Union Road	105.41	104.3	112.52	110.78
	A287 Long Bridge	112.13	110.82	113.79	117.03
North Lane (mid link between Ordnance Road & Deadbrook Lane)	North Lane (west)	69.52	87.08	66.61	84.12
	North Lane (south)	71	87.87	66.2	88.22
B3411 Frimley Road	B3411 Frimley Road (south)	100	100	71.72	73.1
	B3411 Frimley Road (north)	71.84	72.58	96.18	97.03
B3012 Guildford Road	B3012 Guildford Road (west)	115.19	116.18	119.49	120.27
	B3012 Guildford Road (east)	118.34	119.21	116.75	117.24
B3411 Frimley Road	B3411 Frimley Road (south)	108.48	108.54	71.72	73.1
	B3411 Frimley Road (north)	71.84	72.58	96.18	97.03
A31 Farnham by-pass / Weydon Lane	A31 Farnham by-pass (South)	107.23	105.87	105.73	103.06
	Weydon Lane	108.46	108.01	104.35	113.35
M3 Junction 4a westbound slip roads	M3 westbound	85.55	85.05	92.2	92.03
Sandy Lane / Fernhill Road	Sandy Lane	108.44	107.53	106.84	104.05
	Fernhill Road (south)	24.48	23.16	63.66	62.32
	Fernhill Road (north)	77.64	76.75	104.14	104.5
M3 Junction 4a / A327 northern roundabout / A327 Minley Road	A327 northern roundabout (circulating)	100.64	100.72	93.32	91.6
	Minley Road	0	0	0	0
M3 Junction 4 / A331 southern roundabout	A331 southern roundabout	80.36	81.45	82.9	85.57
	Frimley Business Park access roundabout	40.25	44.51	793.09	1001.92
North Lane / Lower Newport Road	North Lane (north)	77.09	92.14	96.22	88.84
	North Lane (south)	43.47	50.35	42.36	48.11
Park Road / Reading Road / Sycamore Road	Park Road	101.33	101.52	77.65	85.46
	Sycamore Road	13.14	12.6	8.18	8.11
	Reading Road	36.08	34.11	2.56	0.52
B3403 Alexandra road / Queens Road	B3403 Alexandra road (north)	71.84	73.27	89.64	88.95
	B3403 Alexandra road (south)	55.64	55.08	80.77	76.11
	Queens Road	28.19	26.96	62.25	53.54
Park Road / Queens Road	Park Road (south)	85.33	87.1	69.89	77.09
	Park Road (north)	39.28	37.9	22.02	22.76
	Queens Road	0.11	0	12.61	9.94
Peabody Road / A3011 Lynchford Road	Peabody Road	89.29	86.1	102.76	101.65
	A3011 Lynchford Road (east)	94.86	95.5	69.62	78.42
	A3011 Lynchford Road (west)	77.77	68.53	97.89	95.47
Kennels Lane / Ively Road / Concorde Road	Kennels Lane	89.75	87.37	45.35	46.22
	Ively Road	49.94	48.62	56.03	56.34
	Concorde Road	36.19	35.01	56.66	56.74
B3007 Grosvenor Road / Birchett Road	B3007 Grosvenor Road (south)	55.97	89.46	40.84	34.83
	B3007 Grosvenor Road (north)	38.25	42.25	33.32	41.93
Southwood Lane / A327 Summit Avenue / A327 Ively Road / Southwood Road	Southwood Lane	100.56	95.79	83.67	80.7
	A327 Ively Road	45.28	43.4	79.48	75.94
	A327 Summit Avenue	86.15	83.78	62.74	59.27
	Southwood Road	77.84	79.45	43.25	43.37
A327 Elles Road / Elles Road roundabout / Templar Avenue	Templar Avenue	88.93	87.61	43.34	43.03
Frimley High Street	Frimley High Street (south)	59.56	58.43	85.24	86.64
	Frimley High Street (north)	55.58	54.43	71.17	70.75
B3272 Hawley Lane / Grange Road	B3272 Hawley Lane	90.13	89.06	81.2	80.74
	Grange Road	55.82	49.19	0	0
B3013 Reading Road S / Florence Road	Florence Road	118.19	113.33	105.93	103.12
	B3013 Reading Road S (north)	49.5	49.61	69.22	67.78
	B3013 Reading Road S (south)	68.26	66.57	77.24	76.22
Ordnance Road	Ordnance Road (south)	45.78	84.92	42.27	75
	Ordnance Road (north)	30.12	32.23	32.29	31.84
A3016 Upper Hale Road / Bishops Road	A3016 Upper Hale Road (west)	103.66	101.49	61.33	58.25
	A3016 Upper Hale Road (east)	49.18	56.99	63.31	60.65
	Bishops Road	93.84	36.21	0	0
B3208 Lower Farnham Road / Tongham Road	B3208 Lower Farnham Road (south)	78.27	86.85	52.59	57.4
	B3208 Lower Farnham Road (north)	72.24	94.2	102.82	100.47
	Tongham Road	41.06	62.59	75.48	75.59
A323 High Street / Windsor Way	A323 High Street (east)	67.06	100.39	49.8	63.67
	A323 High Street (west)	47.24	42.52	69.73	59.58
Windsor Way / A323 High Street	Windsor Way (south)	15.34	34.26	26.79	100.77
	Windsor Way (north)	5.85	10.67	2.23	2.82
	A323 High Street (east)	41.27	29.55	38.35	35.18
Ordnance Road / Louise Margaret Road	Louise Margaret Road	15.66	91.46	18.6	99.63
	Ordnance Road (west)	14.55	58.5	22.04	51.79
	Ordnance Road (east)	19.83	48.77	17.69	40.28
Louise Margaret Road / Gallwey Road / Hospital Road	Gallwey Road (south)	6.94	86.72	7.12	54.56
	Gallwey Road (east)	9.89	2.45	11.54	1.15
	Hospital Road	13.96	15.75	25.3	22.28
A331 southern roundabout / A325 Farnborough Road	A331 (north)	73.29	74.01	88.3	87.59
A331 southbound / Frimley High Street - SB on-slip merge	A331 SB	81.58	82.22	94.99	95.57
A331 northbound slip roads / Coleford Bridge Road	A331 northbound slip road	96.53	98.12	89.33	93.09
M3 Junction 4 eastbound slip road merge	M3 Junction 4 eastbound slip road	81.41	82.3	85.46	87.15
A331 slip roads eastern roundabout / B3166 Stratford Road	B3166 Stratford Road	101.52	100.53	57.25	56.28
	A331 slip roads eastern roundabout	1.26	1.15	1.17	1.83
Aldershot Road / B3013 Reading Road S	Aldershot Road (east)	77.65	69.88	99.51	99.5
	B3013 Reading Road S (north)	83.74	83.06	81.02	80.11
	B3013 Beacon Hill Road (south)	57.59	59.4	59.22	59.84
A323 Fleet Road / Aldershot Road	Aldershot Road (west)	105.36	107.27	79.72	78.93
	A323 Fleet Road (north)	96.63	91.95	111.07	112.82
	A323 Fleet Road (east)	61.39	59.89	77.16	80.55
A31 Guildford Road / Shepherd and Flock Roundabout	A31 Guildford Road	114.36	115.7	107.77	110.27
A323 Wellington Avenue / Hospital Hill	A323 Wellington Avenue (south)	91.25	51.76	110.14	85.88
	A323 Wellington Avenue (east)	56.73	38.46	106.75	63.05
	AUE New Road (south)	90.94	26.68	170.03	68.3
Alison's Road / AUE New Road	AUE New Road (north)	Not in DM	68.44	Not in DM	95.6
	Alison's Road (west)	70.44	37.96	99.07	38.91

	Alison's Road (east)	41.06	39.25	37.78	32.53
Alison's Road / AUE New Road	Alison's Road (west)	70.44	71.99	99.07	88.15
	Alison's Road (east)	41.06	37.4	37.78	43.31
	AUE New Road (south)	Not in DM	70.63	Not in DM	47.18
A31 Farnham By-pass / A31 Alton Road / A325 West Street / A325 Wrecclesham Road	A31 Farnham By-pass approach	102.65	100.94	104.27	106.07
	A31 Farnham By-pass approach (circulatory)	25.82	25.42	26.35	23.75
A31 Farnham By-pass / A31 Alton Road / A325 West Street / A325 Wrecclesham Road	A325 Wrecclesham Road approach (prior to split	119.06	116.85	106.3	109.05
A31 Farnham By-pass / A31 Alton Road / A325 West Street / A325 Wrecclesham Road	A325 Wrecclesham Road approach	101.66	101.62	101.46	101.5
	A325 Wrecclesham Road approach (circulatory)	53.81	53.25	50.15	51.12
A31 Farnham By-pass / A31 Alton Road / A325 West Street / A325 Wrecclesham Road	A31 Alton Road approach	123.5	122.92	107.55	109.58
	A31 Alton Road approach (circulatory)	15.95	16.97	15.6	16.56
A31 Farnham By-pass / A31 Alton Road / A325 West Street / A325 Wrecclesham Road	A325 West Street approach)	95.19	93.07	79.57	80.7
	A325 West Street approach (circulatory)	57.98	57.72	56.24	56.39
A325 Farnborough Road / Hawley Lane / Frimley High Street	Frimley High Street exit (circulatory)	100.82	100.68	84.17	83.03
A331 SB / Coleford Bridge Road off-slip	A331 SB mainline	81.58	82.22	94.99	95.57

Wellesley

ALDERSHOT

Appendix J

A325 Speed Surveys

Appendix J

Investing in homes since 1912

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advanced transport research

Job Number & Name:	3235 Aldershot
Site Number/Name:	Farnborough Road
Client:	WSP
Date:	29/05/2012
Weather:	Cloudy, Dry
Comments:	None

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Site Plan	*Date:*	Tuesday 29 May 2012

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
10:01	Northbound	40	
10:03	Northbound	40	
10:05	Northbound	46	
10:11	Northbound	38	
10:15	Northbound	37	
10:16	Northbound	41	
10:20	Northbound	44	
10:24	Northbound	39	
10:28	Northbound	36	
10:29	Northbound	30	
10:29	Northbound	34	
10:30	Northbound	34	
10:30	Northbound	40	
10:30	Northbound	33	
10:30	Northbound	32	
10:31	Northbound	43	
10:31	Northbound	44	
10:31	Northbound	54	
10:32	Northbound	46	
10:32	Northbound	59	
10:32	Northbound	53	
10:32	Northbound	42	
10:33	Northbound	48	
10:33	Northbound	48	
10:33	Northbound	46	
10:34	Northbound	41	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
10:34	Northbound	42	
10:34	Northbound	45	
10:34	Northbound	46	
10:34	Northbound	41	
10:34	Northbound	35	
10:34	Northbound	42	
10:34	Northbound	50	
10:35	Northbound	40	
10:35	Northbound	53	
10:35	Northbound	39	
10:36	Northbound	40	
10:36	Northbound	38	
10:36	Northbound	36	
10:36	Northbound	48	
10:37	Northbound	40	
10:37	Northbound	38	
10:37	Northbound	38	
10:37	Northbound	43	
10:37	Northbound	41	
10:37	Northbound	36	
10:37	Northbound	44	
10:38	Northbound	38	
10:38	Northbound	36	
10:38	Northbound	46	
10:38	Northbound	51	
10:39	Northbound	52	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
10:39	Northbound	50	
10:39	Northbound	47	
10:39	Northbound	44	
10:39	Northbound	39	
10:39	Northbound	37	
10:39	Northbound	30	
10:39	Northbound	32	
10:39	Northbound	41	
10:40	Northbound	36	
10:40	Northbound	38	
10:40	Northbound	39	
10:40	Northbound	41	
10:40	Northbound	40	
10:41	Northbound	47	
10:41	Northbound	45	
10:41	Northbound	34	
10:41	Northbound	40	
10:41	Northbound	46	
10:41	Northbound	46	
10:41	Northbound	38	
10:41	Northbound	45	
10:42	Northbound	46	
10:42	Northbound	35	
10:42	Northbound	42	
10:42	Northbound	41	
10:42	Northbound	44	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
10:42	Northbound	46	
10:43	Northbound	43	
10:43	Northbound	38	
10:44	Northbound	34	
10:44	Northbound	40	
10:44	Northbound	41	
10:44	Northbound	52	
10:44	Northbound	46	
10:45	Northbound	38	
10:45	Northbound	46	
10:45	Northbound	44	
10:45	Northbound	45	
10:45	Northbound	46	
10:46	Northbound	40	
10:46	Northbound	37	
10:46	Northbound	37	
10:46	Northbound	30	
10:46	Northbound	42	
10:46	Northbound	33	
10:46	Northbound	36	
10:47	Northbound	28	
10:47	Northbound	44	
10:47	Northbound	50	
10:48	Northbound	40	
10:48	Northbound	49	
10:48	Northbound	41	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
10:48	Northbound	40	
10:49	Northbound	46	
10:50	Northbound	32	
10:50	Northbound	32	
10:50	Northbound	37	
10:50	Northbound	30	
10:50	Northbound	33	
10:50	Northbound	33	
10:50	Northbound	37	
10:51	Northbound	43	
10:51	Northbound	44	
10:51	Northbound	45	
10:51	Northbound	49	
10:51	Northbound	39	
10:51	Northbound	43	
10:52	Northbound	41	
10:52	Northbound	33	
10:52	Northbound	39	
10:52	Northbound	38	
10:52	Northbound	42	
10:52	Northbound	52	
10:53	Northbound	40	
10:53	Northbound	48	
10:53	Northbound	51	
10:53	Northbound	53	
10:53	Northbound	40	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
10:54	Northbound	38	
10:54	Northbound	40	
10:54	Northbound	39	
10:54	Northbound	35	
10:55	Northbound	34	
10:55	Northbound	33	
10:56	Northbound	43	
10:56	Northbound	38	
10:56	Northbound	44	
10:56	Northbound	42	
10:56	Northbound	41	
10:57	Northbound	42	
10:57	Northbound	40	
10:57	Northbound	41	
10:58	Northbound	30	
10:58	Northbound	41	
10:58	Northbound	33	
10:58	Northbound	40	
10:58	Northbound	39	
10:58	Northbound	41	
10:59	Northbound	45	
10:59	Northbound	43	
10:59	Northbound	46	
10:59	Northbound	33	
10:59	Northbound	44	
10:59	Northbound	41	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
10:59	Northbound	42	
10:59	Northbound	44	
11:00	Northbound	46	
11:00	Northbound	50	
11:00	Northbound	44	
11:00	Northbound	32	
11:00	Northbound	52	
11:01	Northbound	45	
11:01	Northbound	43	
11:01	Northbound	33	
11:01	Northbound	35	
11:01	Northbound	37	
11:02	Northbound	45	
11:03	Northbound	21	
11:03	Northbound	21	
11:03	Northbound	25	
11:03	Northbound	40	
11:03	Northbound	43	
11:04	Northbound	39	
11:04	Northbound	37	
11:04	Northbound	39	
11:04	Northbound	31	
11:04	Northbound	43	
11:04	Northbound	42	
11:04	Northbound	40	
11:04	Northbound	43	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
11:05	Northbound	42	
11:05	Northbound	47	
11:05	Northbound	49	
11:06	Northbound	42	
11:06	Northbound	36	
11:06	Northbound	44	
11:06	Northbound	46	
11:06	Northbound	44	
11:06	Northbound	42	
11:07	Northbound	46	
11:07	Northbound	50	
11:07	Northbound	48	
11:08	Northbound	45	
11:08	Northbound	48	
11:08	Northbound	44	
11:08	Northbound	45	
11:08	Northbound	46	
11:09	Northbound	43	
11:09	Northbound	41	
11:09	Northbound	37	
11:09	Northbound	49	
11:09	Northbound	54	
14:00	Northbound	36	
14:01	Northbound	36	
14:01	Northbound	43	
14:01	Northbound	40	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
14:02	Northbound	36	
14:02	Northbound	41	
14:02	Northbound	41	
14:02	Northbound	43	
14:02	Northbound	51	
14:02	Northbound	40	
14:02	Northbound	44	
14:02	Northbound	39	
14:03	Northbound	54	
14:03	Northbound	32	
14:03	Northbound	41	
14:03	Northbound	34	
14:04	Northbound	36	
14:04	Northbound	53	
14:04	Northbound	51	
14:04	Northbound	38	
14:04	Northbound	36	
14:05	Northbound	44	
14:05	Northbound	55	
14:06	Northbound	51	
14:06	Northbound	48	
14:06	Northbound	47	
14:06	Northbound	45	
14:06	Northbound	43	
14:06	Northbound	44	
14:07	Northbound	45	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
14:07	Northbound	43	
14:07	Northbound	47	
14:07	Northbound	51	
14:07	Northbound	52	
14:08	Northbound	48	
14:08	Northbound	47	
14:08	Northbound	39	
14:08	Northbound	42	
14:08	Northbound	41	
14:09	Northbound	56	
14:09	Northbound	48	
14:09	Northbound	44	
14:09	Northbound	43	
14:09	Northbound	45	
14:09	Northbound	43	
14:09	Northbound	47	
14:10	Northbound	51	
14:10	Northbound	52	
14:10	Northbound	50	
14:10	Northbound	49	
14:10	Northbound	50	
14:11	Northbound	49	
14:11	Northbound	41	
14:11	Northbound	44	
14:11	Northbound	36	
14:11	Northbound	37	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
14:11	Northbound	37	
14:12	Northbound	39	
14:12	Northbound	38	
14:12	Northbound	42	
14:12	Northbound	38	
14:13	Northbound	49	
14:13	Northbound	47	
14:13	Northbound	49	
14:13	Northbound	44	
14:13	Northbound	40	
14:13	Northbound	37	
14:13	Northbound	43	
14:13	Northbound	35	
14:14	Northbound	36	
14:14	Northbound	37	
14:15	Northbound	40	
14:15	Northbound	44	
14:15	Northbound	53	
14:16	Northbound	45	
14:16	Northbound	47	
14:16	Northbound	37	
14:16	Northbound	44	
14:16	Northbound	39	
14:16	Northbound	48	
14:17	Northbound	50	
14:17	Northbound	51	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
14:17	Northbound	53	
14:18	Northbound	38	
14:18	Northbound	49	
14:18	Northbound	47	
14:18	Northbound	44	
14:18	Northbound	42	
14:18	Northbound	44	
14:18	Northbound	42	
14:18	Northbound	42	
14:18	Northbound	43	
14:19	Northbound	39	
14:31	Northbound	45	
14:31	Northbound	39	
14:31	Northbound	52	
14:31	Northbound	36	
14:32	Northbound	44	
14:32	Northbound	51	
14:32	Northbound	31	
14:32	Northbound	29	
14:32	Northbound	34	
14:32	Northbound	36	
14:33	Northbound	32	
14:33	Northbound	46	
14:33	Northbound	44	
14:33	Northbound	41	
14:33	Northbound	42	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
14:33	Northbound	46	
14:33	Northbound	45	
14:34	Northbound	38	
14:34	Northbound	46	
14:34	Northbound	51	
14:34	Northbound	57	
14:34	Northbound	57	
14:35	Northbound	49	
14:35	Northbound	46	
14:35	Northbound	45	
14:35	Northbound	45	
14:36	Northbound	40	
14:38	Northbound	43	
14:38	Northbound	46	
14:39	Northbound	46	
14:39	Northbound	45	
14:39	Northbound	43	
14:40	Northbound	40	
14:40	Northbound	37	
14:40	Northbound	37	
14:41	Northbound	48	
14:41	Northbound	46	
14:41	Northbound	50	
14:41	Northbound	53	
14:41	Northbound	36	
14:42	Northbound	49	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
14:42	Northbound	46	
14:42	Northbound	43	
14:42	Northbound	31	
14:43	Northbound	37	
14:43	Northbound	42	
14:43	Northbound	37	
14:43	Northbound	33	
14:43	Northbound	50	
14:43	Northbound	43	
14:43	Northbound	38	
14:43	Northbound	35	
14:43	Northbound	37	
14:43	Northbound	42	
14:43	Northbound	41	
14:43	Northbound	39	
14:43	Northbound	40	
14:43	Northbound	46	
14:43	Northbound	40	
14:43	Northbound	41	
14:43	Northbound	36	
14:43	Northbound	48	
14:43	Northbound	43	
14:47	Northbound	49	
14:47	Northbound	52	
14:47	Northbound	44	
14:47	Northbound	44	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
14:47	Northbound	42	
14:48	Northbound	44	
14:48	Northbound	40	
14:49	Northbound	39	
14:49	Northbound	39	
14:49	Northbound	38	
14:49	Northbound	36	
14:49	Northbound	35	
14:49	Northbound	40	
14:50	Northbound	67	Ambulance
14:50	Northbound	34	
14:50	Northbound	47	
14:51	Northbound	45	
14:51	Northbound	39	
14:52	Northbound	39	
14:52	Northbound	36	
14:53	Northbound	22	
14:53	Northbound	38	
14:53	Northbound	50	
14:53	Northbound	45	
14:53	Northbound	41	
14:53	Northbound	37	
14:53	Northbound	41	
14:54	Northbound	45	
14:54	Northbound	47	
14:54	Northbound	36	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
14:54	Northbound	45	
14:54	Northbound	28	
14:54	Northbound	25	
14:54	Northbound	33	
14:55	Northbound	40	
14:56	Northbound	32	
14:56	Northbound	46	
14:57	Northbound	47	
14:57	Northbound	46	
14:57	Northbound	45	
14:57	Northbound	48	
14:58	Northbound	38	
14:58	Northbound	40	
14:58	Northbound	49	
14:58	Northbound	43	
14:58	Northbound	42	
14:58	Northbound	43	
14:59	Northbound	32	
14:59	Northbound	37	
14:59	Northbound	39	
14:59	Northbound	44	
14:59	Northbound	62	
14:59	Northbound	42	
14:59	Northbound	41	
14:59	Northbound	40	
11:19	Southbound	44	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
11:20	Southbound	45	
11:20	Southbound	38	
11:20	Southbound	42	
11:20	Southbound	40	
11:20	Southbound	45	
11:20	Southbound	39	
11:20	Southbound	48	
11:20	Southbound	40	
11:20	Southbound	40	
11:21	Southbound	33	
11:21	Southbound	48	
11:21	Southbound	44	
11:21	Southbound	43	
11:22	Southbound	36	
11:22	Southbound	44	
11:22	Southbound	42	
11:22	Southbound	45	
11:22	Southbound	37	
11:22	Southbound	39	
11:22	Southbound	36	
11:23	Southbound	45	
11:23	Southbound	37	
11:23	Southbound	43	
11:23	Southbound	39	
11:23	Southbound	38	
11:23	Southbound	52	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
11:23	Southbound	61	
11:24	Southbound	35	
11:24	Southbound	48	
11:24	Southbound	38	
11:24	Southbound	43	
11:24	Southbound	39	
11:24	Southbound	38	
11:25	Southbound	59	
11:25	Southbound	44	
11:25	Southbound	50	
11:25	Southbound	38	
11:25	Southbound	38	
11:26	Southbound	44	
11:26	Southbound	43	
11:26	Southbound	44	
11:26	Southbound	43	
11:26	Southbound	38	
11:26	Southbound	48	
11:26	Southbound	52	
11:27	Southbound	48	
11:27	Southbound	44	
11:27	Southbound	38	
11:27	Southbound	36	
11:27	Southbound	34	
11:28	Southbound	41	
11:28	Southbound	45	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
11:28	Southbound	38	
11:28	Southbound	41	
11:28	Southbound	39	
11:29	Southbound	43	
11:29	Southbound	47	
11:29	Southbound	46	
11:30	Southbound	46	
11:30	Southbound	38	
11:30	Southbound	44	
11:30	Southbound	47	
11:30	Southbound	54	
11:30	Southbound	37	
11:31	Southbound	52	
11:31	Southbound	49	
11:31	Southbound	44	
11:31	Southbound	39	
11:31	Southbound	50	
11:31	Southbound	39	
11:32	Southbound	40	
11:32	Southbound	46	
11:32	Southbound	45	
11:32	Southbound	45	
11:32	Southbound	48	
11:32	Southbound	43	
11:32	Southbound	46	
11:32	Southbound	41	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
11:32	Southbound	35	
11:32	Southbound	39	
11:33	Southbound	42	
11:33	Southbound	47	
11:33	Southbound	37	
11:33	Southbound	37	
11:34	Southbound	42	
11:34	Southbound	45	
11:34	Southbound	48	
11:34	Southbound	36	
11:35	Southbound	43	
11:35	Southbound	41	
11:35	Southbound	40	
11:35	Southbound	43	
11:35	Southbound	46	
11:36	Southbound	47	
11:36	Southbound	34	
11:36	Southbound	54	
11:37	Southbound	49	
11:37	Southbound	48	
11:37	Southbound	49	
11:37	Southbound	45	
11:37	Southbound	47	
11:37	Southbound	49	
11:37	Southbound	46	
11:38	Southbound	39	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
11:38	Southbound	40	
11:38	Southbound	42	
11:38	Southbound	42	
11:38	Southbound	42	
11:38	Southbound	34	
11:39	Southbound	46	
11:39	Southbound	43	
11:39	Southbound	43	
11:39	Southbound	51	
11:39	Southbound	37	
11:39	Southbound	36	
11:39	Southbound	37	
11:39	Southbound	34	
11:39	Southbound	34	
11:40	Southbound	37	
11:40	Southbound	38	
11:40	Southbound	40	
11:40	Southbound	34	
11:40	Southbound	38	
11:40	Southbound	42	
11:40	Southbound	45	
11:41	Southbound	39	
11:41	Southbound	51	
11:41	Southbound	41	
11:41	Southbound	36	
11:41	Southbound	47	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
11:41	Southbound	42	
11:42	Southbound	47	
11:42	Southbound	37	
11:42	Southbound	46	
11:42	Southbound	39	
11:42	Southbound	47	
11:43	Southbound	44	
11:43	Southbound	42	
11:43	Southbound	44	
11:43	Southbound	36	
11:43	Southbound	48	
11:43	Southbound	45	
11:44	Southbound	50	
11:44	Southbound	39	
11:44	Southbound	55	
11:44	Southbound	40	
11:44	Southbound	42	
11:44	Southbound	38	
11:45	Southbound	32	
11:45	Southbound	40	
11:45	Southbound	47	
11:45	Southbound	31	
11:46	Southbound	47	
11:46	Southbound	50	
11:46	Southbound	40	
11:46	Southbound	46	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
11:46	Southbound	44	
11:46	Southbound	40	
11:46	Southbound	45	
11:46	Southbound	41	
11:47	Southbound	47	
11:47	Southbound	42	
11:47	Southbound	48	
11:47	Southbound	45	
11:47	Southbound	39	
11:47	Southbound	45	
11:48	Southbound	46	
11:48	Southbound	35	
11:48	Southbound	41	
11:48	Southbound	42	
11:48	Southbound	39	
11:48	Southbound	38	
11:48	Southbound	38	
11:48	Southbound	36	
11:49	Southbound	43	
11:49	Southbound	35	
11:49	Southbound	41	
11:49	Southbound	43	
11:49	Southbound	45	
11:49	Southbound	44	
11:49	Southbound	43	
11:50	Southbound	40	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
11:50	Southbound	50	
11:50	Southbound	42	
11:50	Southbound	41	
11:50	Southbound	35	
11:50	Southbound	43	
11:50	Southbound	39	
11:50	Southbound	47	
11:51	Southbound	42	
11:51	Southbound	36	
11:51	Southbound	47	
11:51	Southbound	39	
11:51	Southbound	48	
11:51	Southbound	42	
11:51	Southbound	42	
11:51	Southbound	36	
11:52	Southbound	39	
11:52	Southbound	45	
11:52	Southbound	40	
15:02	Southbound	32	
15:02	Southbound	34	
15:03	Southbound	40	
15:03	Southbound	43	
15:03	Southbound	35	
15:03	Southbound	26	
15:03	Southbound	35	
15:04	Southbound	44	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
15:04	Southbound	35	
15:04	Southbound	35	
15:04	Southbound	27	
15:04	Southbound	21	
15:05	Southbound	47	
15:05	Southbound	44	
15:05	Southbound	42	
15:05	Southbound	40	
15:05	Southbound	42	
15:05	Southbound	46	
15:05	Southbound	40	
15:06	Southbound	43	
15:06	Southbound	48	
15:06	Southbound	39	
15:06	Southbound	48	
15:06	Southbound	37	
15:06	Southbound	41	
15:06	Southbound	42	
15:07	Southbound	46	
15:07	Southbound	48	
15:07	Southbound	44	
15:07	Southbound	48	
15:07	Southbound	41	
15:07	Southbound	28	
15:07	Southbound	43	
15:07	Southbound	42	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
15:08	Southbound	33	
15:08	Southbound	33	
15:08	Southbound	32	
15:08	Southbound	24	
15:08	Southbound	40	
15:08	Southbound	39	
15:08	Southbound	40	
15:09	Southbound	38	
15:09	Southbound	42	
15:09	Southbound	39	
15:09	Southbound	46	
15:09	Southbound	45	
15:09	Southbound	38	
15:09	Southbound	38	
15:10	Southbound	35	
15:10	Southbound	35	
15:10	Southbound	34	
15:10	Southbound	48	
15:11	Southbound	51	
15:11	Southbound	51	
15:11	Southbound	40	
15:11	Southbound	36	
15:11	Southbound	44	
15:11	Southbound	34	
15:12	Southbound	36	
15:12	Southbound	50	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
15:12	Southbound	35	
15:12	Southbound	42	
15:23	Southbound	43	
15:23	Southbound	41	
15:23	Southbound	43	
15:23	Southbound	46	
15:24	Southbound	37	
15:24	Southbound	32	
15:24	Southbound	53	
15:24	Southbound	55	
15:25	Southbound	57	
15:25	Southbound	46	
15:25	Southbound	38	
15:25	Southbound	35	
15:25	Southbound	35	
15:25	Southbound	44	
15:26	Southbound	52	
15:26	Southbound	48	
15:26	Southbound	48	
15:26	Southbound	42	
15:26	Southbound	39	
15:26	Southbound	47	
15:27	Southbound	41	
15:27	Southbound	46	
15:27	Southbound	31	
15:27	Southbound	33	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
15:27	Southbound	50	
15:27	Southbound	47	
15:27	Southbound	37	
15:27	Southbound	45	
15:28	Southbound	43	
15:28	Southbound	42	
15:28	Southbound	37	
15:28	Southbound	38	
15:28	Southbound	35	
15:28	Southbound	37	
15:28	Southbound	41	
15:28	Southbound	40	
15:28	Southbound	37	
15:28	Southbound	40	
15:28	Southbound	42	
15:29	Southbound	43	
15:29	Southbound	45	
15:29	Southbound	39	
15:29	Southbound	50	
15:29	Southbound	51	
15:30	Southbound	40	
15:30	Southbound	35	
15:30	Southbound	35	
15:30	Southbound	37	
15:30	Southbound	43	
15:30	Southbound	35	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
15:30	Southbound	40	
15:30	Southbound	46	
15:30	Southbound	40	
15:31	Southbound	40	
15:31	Southbound	42	
15:31	Southbound	42	
15:31	Southbound	48	
15:31	Southbound	48	
15:31	Southbound	44	
15:31	Southbound	43	
15:31	Southbound	36	
15:32	Southbound	41	
15:32	Southbound	44	
15:32	Southbound	51	
15:32	Southbound	49	
15:32	Southbound	37	
15:32	Southbound	53	
15:32	Southbound	42	
15:32	Southbound	37	
15:32	Southbound	38	
15:33	Southbound	40	
15:33	Southbound	47	
15:33	Southbound	41	
15:33	Southbound	42	
15:33	Southbound	43	
15:33	Southbound	44	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
15:33	Southbound	36	
15:34	Southbound	36	
15:34	Southbound	37	
15:34	Southbound	42	
15:34	Southbound	37	
15:34	Southbound	36	
15:34	Southbound	39	
15:34	Southbound	44	
15:34	Southbound	37	
15:34	Southbound	45	
15:35	Southbound	39	
15:35	Southbound	40	
15:35	Southbound	36	
15:35	Southbound	43	
15:35	Southbound	43	
15:35	Southbound	42	
15:36	Southbound	39	
15:36	Southbound	40	
15:36	Southbound	33	
15:36	Southbound	41	
15:36	Southbound	41	
15:36	Southbound	45	
15:37	Southbound	53	
15:37	Southbound	40	
15:37	Southbound	59	
15:37	Southbound	33	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
15:37	Southbound	34	
15:38	Southbound	39	
15:38	Southbound	32	
15:38	Southbound	34	
15:38	Southbound	37	
15:38	Southbound	43	
15:38	Southbound	40	
15:38	Southbound	42	
15:38	Southbound	41	
15:38	Southbound	47	
15:39	Southbound	48	
15:39	Southbound	49	
15:39	Southbound	38	
15:39	Southbound	52	
15:39	Southbound	56	
15:39	Southbound	45	
15:39	Southbound	44	
15:40	Southbound	37	
15:40	Southbound	35	
15:50	Southbound	44	
15:50	Southbound	49	
15:50	Southbound	45	
15:50	Southbound	36	
15:50	Southbound	34	
15:50	Southbound	32	
15:50	Southbound	27	

Advanced Transport Research	*Job Number & Name:*	3235 Aldershot
Farnborough Road	*Client:*	WSP
Radar Speed Recordings	*Date:*	Tuesday 29 May 2012

Time (HH:MM)	Direction	Speed (MPH)	Comments
15:50	Southbound	36	
15:50	Southbound	36	
15:50	Southbound	35	
15:50	Southbound	42	
15:50	Southbound	40	
15:51	Southbound	43	
15:51	Southbound	37	
15:51	Southbound	51	
15:51	Southbound	39	
15:51	Southbound	38	
15:51	Southbound	45	
15:51	Southbound	45	
15:52	Southbound	53	
15:52	Southbound	47	
15:52	Southbound	43	
15:52	Southbound	49	
15:52	Southbound	45	
15:52	Southbound	49	
15:52	Southbound	48	
15:52	Southbound	46	
15:52	Southbound	55	
15:53	Southbound	45	

Wellesley

ALDERSHOT

Appendix K

Maida Zone – Phase 1 Master plan

Appendix K

Investing in homes since 1912

grainger plc

Key to unit codes:

Unit Code	Bedrooms	Storeys	Sq. ft.
A	5	3	1777
B	4	3	1352
C (FOG)	1	2	585
D	4	2	1252
F	3	2.5	1047
G	3	2.5	1308
H	3	2	1033
I	4	2	1326
J	3	2	1049
K	2	2	826
L	4	2.5	1190
L1	3	2	927
M	4	2	1403
N	3	2.5	1208
O	3	2	895

Wellesley
ALDERSHOT

grainger plc
Investing in homes since 1912

Scale 1:500

Phase I Plan

Rev. Date Description Initials

Title Unit Mix
Drawing No. 5510/HPA xx
Scale 1:500 @ A0
Date 09.11.2012
Drawn by GB,AM,BP

ADAM URBANISM