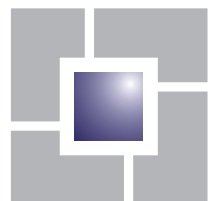


***Change of Use of E Block, Elettra Avenue,
Waterlooville***

Transport Assessment



david tucker associates
transport planning consultants

Change of Use of E Block, Elettra Avenue, Waterloooville

Transport Assessment

9th July 2015

SKP/NES 17144-02b E Block Transport Assessment

Prepared by:

David Tucker Associates

Forester House, Doctors Lane,
Henley-in-Arden, Warwickshire
B95 5AW

Tel: 01564 793598

Fax: 01564 793983

inmail@dtatransportation.co.uk

www.dtatransportation.co.uk

Prepared For:

Hargreaves Properties Limited

© **David Tucker Associates**

No part of this publication may be reproduced by any means without the prior permission of David Tucker Associates

Table of Contents

1	INTRODUCTION	2
2	PLANNING POLICY	4
2.1	National Guidance	4
2.2	Local Guidance	7
3	EXISTING CONDITIONS	9
3.1	Site Location	9
3.2	Local and Wider Road Network	9
3.3	Traffic Data	10
3.4	Baseline Traffic Generation	10
3.5	Personal Injury Collision Data	11
3.6	Walking and Cycling	12
3.7	Bus Services	13
3.8	Committed Development	14
4	DEVELOPMENT PROPOSALS	15
4.1	Site Proposals	15
4.2	Vehicular Access	15
4.3	Pedestrian and Cycle Access	15
4.4	Car Parking	16
4.5	Cycle Parking	18
4.6	Servicing	19
4.7	Travel Plan	19
5	TRAFFIC GENERATION AND DISTRIBUTION	20
5.1	Introduction	20
5.2	Proposed Traffic Generation for E Block	20
5.3	E Block Traffic Distribution and Assignment	23
5.4	Other Land Uses Traffic Generation	24
5.5	Other Land Uses Traffic Distribution and Assignment	26
6	JUNCTION CAPACITY ASSESSMENTS	28
6.1	Assessment Traffic Flows and Scenarios	28
6.2	Junction Assessments	31
7	SUMMARY AND CONCLUSIONS	36

Figures

Figure 1 Site Location

Appendices

Appendix A	Indicative Masterplan
Appendix B	TRICS Outputs – Baseline E Block
Appendix C	PIC Data
Appendix D	TRICS Outputs – Gym, Bowling Alley and Cinema
Appendix E	TRICS Outputs – Non-food Retail
Appendix F	TRICS Outputs – Other On-site Land Uses
Appendix G	Junction Capacity Assessment Results – Site Access/ Elettra Avenue/ Waterberry Drive – E Block and Other Future Land Uses
Appendix H	Junction Capacity Assessment Results – Hambledon Road/ Elettra Avenue/ Milton Road – E Block and Other Future Land Uses

1 INTRODUCTION

- 1.1 David Tucker Associates (DTA) has been commissioned by Hargreaves Properties Limited to assess the traffic and transport implications to support the change of use of E Block at the former BAE Systems Technology Park (“The Park”) on Elettra Avenue, Waterlooville. A copy of the Park masterplan is attached at **Appendix A**.
- 1.2 The Park currently comprises one structure, known as E Block. The other former buildings were demolished in 2013. The Park as a whole comprises 5.15ha of research and development land use and an ancillary restaurant. The Park comprised an extensive parking area totalling 863 parking spaces.
- 1.3 The Park has been subject to a number of planning permissions including a mixed-use development in 2012 (application number APP/12/00652) for Class B Uses, hotel, restaurant, drive through and car showroom. In 2014 the planning committee resolved to grant planning permission for a mixed-use retail development (application number APP/13/00893). The development proposals comprised of a discount foodstore, bowling alley, gym, cinema, hotel, drive through, restaurants and a public house.
- 1.4 The site is also subject to a separate planning application regarding the construction of a vehicular route through the site from the Elettra Avenue/ Waterberry Drive roundabout to Silverthorne Way.
- 1.5 This Assessment supports the application for the change of use of the Block E site for either D2 (Leisure) or A1 (Non Food Retail) with floorspace of 4,725.3sqm. It therefore separately assesses the impact of D2 (Leisure) and A1 (Non Food Retail) uses.
- 1.6 This Transport Assessment has been prepared in accordance with the National Planning Policy Framework (NPPF) and best practice. The NPPF document states that all developments that generate significant amounts of movements should be supported by a Transport Statement or Transport Assessment. The TA will be based on the following headings:

Chapter 1:	Introduction
Chapter 2:	National and Local Policy
Chapter 3:	Existing Conditions
Chapter 4:	Development Proposals
Chapter 5:	Traffic Generation and Distribution
Chapter 6:	Junction Capacity Assessments
Chapter 7:	Summary and Conclusions

1.7 A Framework Travel Plan has also been prepared for the site and this is included under a separate cover.

1.8 The Park comprises 5.15ha which is envisaged to be comprehensively redeveloped in due course. To the east of the Park, it is currently envisaged that development would comprise the following:

Block A	-	a discount food retail unit (c. 1,908sqm);
Block B	-	a drive through facility (Use Class A3/A5) of c. 546sqm;
Block C and D	-	a hotel and/or units within Use Class A3 of c.516.9sqm floorspace (C) and c.328.3sqm floorspace (D);

1.9 The development on the western part of the Park is likely to be considered following the eastern park. The eventual land use on this western part is liable to be employment at a similar quantum of floorspace to that permitted under a 2014 planning permission (i.e. approximately 8,593sqm). The indicative layout plan setting out the land uses is attached at **Appendix A**. These land uses will be subject to separate planning applications.

1.10 Given the close proximity of these proposed land uses to E Block, this Transport Assessment will also assess the cumulative impacts of The Park proposals.

1.11 Discussions have been held with Hampshire County Council regarding the scope of works. It was agreed with HCC that material used within the PBA Transport Assessment dated 2013 would be utilised for the purposes of assessing the development impacts.

2 PLANNING POLICY

2.1 National Guidance

National Planning Policy Framework

- 2.1.1 In March 2012, the DCLG published the NPPF. The NPPF confirms that the Government will continue to encourage sustainable development and in relation to the transport issues it notes that:

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

Para 29

- 2.1.2 It confirms that:

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

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

Para 31

- 2.1.3 The policy test in terms of new development in the NPPF relates to the need to ensure that development impacts are minimised and the use of sustainable transport modes are maximised. NPPF confirms that:

“Plans and decisions should ensure developments that generate significant movement are located where the need to travel will be minimised and the use of sustainable transport modes can be maximised. However this needs to take account of policies set out elsewhere in this Framework, particularly in rural areas”.

Para 34

“In rural areas, exercising the duty to cooperate with neighbouring authorities, local planning authorities should be responsive to local circumstances and plan housing development to reflect local needs, particularly for affordable housing, including through rural exception sites where appropriate. Local planning authorities should in particular consider whether allowing some market housing would facilitate the provision of significant additional affordable housing to meet local needs”.

Para 54

Department for Transport – Guidance on Transport Assessment

- 2.1.4 The GTA document was issued by the DfT and DCLG in March 2007. In October 2014, the GTA document was archived; however it is still referred to in assisting the preparation of Transport Assessments and Transport Statements.
- 2.1.5 It is intended to assist stakeholders in determining if an Assessment is required for a particular development and provides guidance on the content. The methodology used for this report takes account of best practice guidance set out in the NPPF. As with the NPPF, this document should be reviewed in conjunction with other relevant statements of national planning policy.
- 2.1.6 In preparing this Transport Assessment (TA) the following three key areas have been identified:

Encouraging environmental sustainability

- ***Reducing the need to travel, especially by car*** – reducing the need for travel, reducing the length of trips, and promoting multi-purpose or linked trips by

promoting more sustainable patterns of development and more sustainable communities that reduce the physical separation of key land uses.

- **Tackling the environmental impact of travel** – by improving sustainable transport choices, and by making it safer and easier for people to access jobs, shopping, leisure facilities and services by public transport, walking, and cycling.
- **The accessibility of the location** – the extent to which a site is, or is capable of becoming, accessible by non car modes, particularly for large developments that involve major generators of travel demand.
- **Other measures which may assist in influencing travel behaviour (ITB)** – achieving reductions in car usage (particularly single occupancy vehicles), by measures such as car sharing/pooling, High Occupancy Vehicle (HOV) lanes and parking control

Managing the existing network

- **Making best possible use of existing transport infrastructure** – for instance by low-cost improvements to the local public transport network and using advanced signal control systems, public transport priority measures (bus lanes), or other forms of Intelligent Transport Systems (ITS) to improve operations on the highway network. It should be noted that the capacity of the existing public transport infrastructure and footpaths is finite, and in some areas overcrowding already exists.
- **Managing access to the highway network** – taking steps to maximise the extent to which the development can be made to 'fit' within the available capacity by managing access from developments onto the highway network.

Mitigating residual impacts

- **Through demand management** – using traffic control measures across a wide network to regulate flows.
- **Through improvements to the local public transport network, and walking and cycling facilities** – for example, by extending bus routes and increasing bus frequencies, and designing sites to facilitate walking and cycling.
- **Through minor physical improvements to existing roads** – it may be possible in some circumstances to improve the capacity of existing roads by relatively minor physical adjustments such as improving the geometry of junctions etc. within the existing highway boundary.

- ***Through provision of new or expanded roads*** – *it is considered good transport planning practice to demonstrate that the other opportunities above have been fully explored before considering the provision of additional road space such as new roads or major junction upgrades.*

2.1.7 The methodology used for the TA is in accordance with best practice outlined above.

2.2 Local Guidance

Hampshire Local Transport Plan (2011-2031)

2.2.1 The third Hampshire Local Transport Plan (LTP3) sets out the highway authority's detailed policies and proposals for developing an integrated transport strategy from 2011 to 2031. On 6 May 2014 the Executive Member for Environment and Transport approved a rolled forward three year Implementation Plan as part of a process of annual review and revision which is carried out each spring.

2.2.2 The LTP3 is a step towards realising the County's vision of 'safe, efficient and reliable ways to get around a prospering and sustainable Hampshire'. Hampshire has three main transport priorities over the next 20 years:

- To support economic growth by ensuring the safety, soundness and efficiency of the transport network in Hampshire;
- Provide a safe, well-maintained, and more resilient road network in Hampshire; and
- Manage traffic to maximise the efficiency of existing network capacity.

2.2.3 Relevant to the proposed site are the following targets and indicators:

- Road safety: to reduce the number of people killed or seriously injured in road traffic accidents on Hampshire's roads by 20% from 2004 to 2008 average by 2020. To reduce the number of children killed or seriously injured in road



traffic accidents on Hampshire's roads by 20% from the 2004 to 2008 average by 2020;

- Level of congestion at local priority sites: to address issues within local priority areas with congestion using a programme of practical interventions;
- Reduce carbon emissions;
- Increase public transport usage; and
- Good local accessibility: to reduce the need to travel in terms of trip length and frequency.

Havant Core Strategy (March 2011)

- 2.2.4 The Core Strategy was adopted in March 2011 and is the principal document in Havant Borough Council's Local Development Framework. The Core Strategy outlines the Council's vision for the spatial development of the borough up to 2026 setting out policies and objectives at a strategic level. The Core Strategy states that improved public transport is an important aspiration for the future of the area of Waterloooville which is separated by the rest of the Borough by the A3(M).

3 EXISTING CONDITIONS

3.1 Site Location

3.1.1 The site is located within the Brambles Business Park to the north-west of Waterloooville town centre as shown on **Figure 1**. The site is approximately 2km to the west of the A3(M) and 10km north of Portsmouth.

3.1.2 The Park currently comprises one structure, known as E Block. The other former buildings were demolished in 2013. The primary means of access to the Park is via a four arm roundabout to the north onto Elettra Avenue at its junction with Waterberry Drive. The Park also benefits from two additional access locations onto Silverthorne Way, in the south central and south east parts of the Park. These were gated for security purposes given the sensitivity of the BAE systems operation, but are not subject to restrictive operation by planning control.

3.2 Local and Wider Road Network

3.2.1 Elettra Avenue, between the Elettra Avenue/ Waterberry Drive/ Site Access roundabout and the B2150 Hambledon Roaf/ Milton Road/ Elettra Avenue roundabout, is a 10m wide carriageway with three lanes. In both the eastbound and westbound direction, a single exit lane is provided from each roundabout which flares to two lanes on the approach to the next roundabout.

3.2.2 Elettra Avenue continues west of the roundabout with Waterberry Drive/ site access as a single lane carriageway approximately 7.3m in width and subject to a 30mph speed limit. The B2150 Hambledon Road runs adjacent to the eastern boundary of the site and provides a key strategic link via connections with the A3(M), to the east of Waterloooville.

3.2.3 The B2150 Hambledon Road to the north of the roundabout with Elettra Avenue/ Milton Road is a single lane carriageway approximately 7.3m in width and subject to a 30mph speed limit. The B2150 Hambledon Road to the south of the roundabout with Milton Road/ Elettra Avenue is a dual carriageway of approximately 7.3m in width and subject to a 40mph speed limit.

- 3.2.4 Silverthorne Way also routes around the southern and western part of the site connecting into Elettra Avenue to the north. Along the southern part of The Park, Silverthorne Way connects onto the B2150 Hambledon Road via a left in/ left out priority junction.

3.3 Traffic Data

- 3.3.1 DTA has utilised the observed traffic survey data undertaken in 2012 from the PBA Transport Assessment report for the previously consented mixed-use development. Manual Classified Counts (MCCs) and Queue Length surveys were undertaken for a weekday AM period of 07:00-10:00 and PM period of 16:00-19:00, for the following two junctions:

- Elettra Avenue/ Waterberry Drive/ Site Access roundabout; and
- B2150 Hambledon Road/ Milton Road/ Elettra Avenue roundabout.

3.4 Baseline Traffic Generation

- 3.4.1 Planning consent was granted at the former BAE site in 1982 for 28,300m² of light industrial, and research and development uses with ancillary buildings. The uses on site included:

- Main Building (C Block) – 19,498sqm of B1b land use;
- E Block – 6,726sqm of B1c land use;
- Beam Plot – 927sqm of B1c land use; and
- Restaurant – for employees on site.

- 3.4.2 The Park currently comprises one structure, known as E Block. The existing E Block site is significantly under-occupied and there is no data available from when it was fully operational. As such the TRICS database has been reviewed to identify appropriate trip rates for B1c. A summary of the vehicular trip rates and traffic

generation is set out in **Table 1** below with the TRICS outputs attached at **Appendix B**.

Table 1 – Baseline E Block Trip Rates and Vehicular Traffic Generation

	Vehicle Trip Rate			Vehicular Traffic Generation		
	In	Out	Total	In	Out	Total
AM Peak (08:00 – 09:00)	1.300	0.35	1.650	87	24	111
PM Peak (17:00 – 18:00)	0.200	0.983	1.183	13	66	80

3.5 Personal Injury Collision Data

3.5.1 Personal Injury Collision (PIC) data has been obtained from Hampshire Constabulary for the last five year period from 01/02/2010 to 31/01/2015. A copy of the PIC data is attached at **Appendix C** and summarised in **Table 2** below.

Table 2 – PIC Data Summary

	Fatal	Serious	Slight	Total
Motor Vehicles (excl. 2-wheels)	0	0	11	11
2-wheeled motor vehicles	0	3	4	7
Pedal Cycles	0	3	5	8
Horses & Other	0	0	0	0
Total	0	6	20	26

3.5.2 A review of the PIC data shows that there were 26 recorded collisions in the last five year period, of which 6 were recorded as “serious” in severity and 20 as “slight” in severity.

3.5.3 There was one recorded collision on Waterberry Drive/ Elettra Avenue roundabout resulting in a “slight” injury. The collision was recorded as vehicle stopped and another vehicle hit rear of vehicle.

3.5.4 There were 11 recorded collisions at the Hambledon Road/ Elettra Avenue/ Milton Road roundabout, one of which was “serious” in severity and the remaining were “slight” in severity. The collisions were recorded as:

-
- Motorcyclist lost control;
 - Vehicle fails to give way and motorcyclist enters junction colliding with vehicle;
 - Vehicle enters roundabout failing to judge motorcyclist on roundabout and collisions occurs;
 - Vehicle enters roundabout, failed to see motorcyclist and collision occurred;
 - Vehicle exited roundabout, failing to see static traffic ahead and collided with rear of another vehicle;
 - Vehicle entered roundabout and collided with pedal cycle turning right;
 - Vehicle entered roundabout, failed to see another vehicle already on roundabout and collided;
 - Vehicle (bus) stopping at the roundabout when the seat on the bus becomes dislodged and collided with passenger;
 - Vehicle entering roundabout, failed to give way and collided with pedal cycle;
 - Vehicle entering roundabout, fails to give way and collided with another vehicle; and
 - Vehicle entering roundabout, failed to give way and collided with pedal cycle.

3.5.5 Of the 11 recorded serious collisions, 7 involved a motorcyclist or pedal cycle. Whilst some of these collisions were attributed to motorcycle/ pedal cycle error, it may be that this roundabout could benefit from some minor improvements by way of signage.

3.6 Walking and Cycling

3.6.1 The Brambles Business Park and adjacent local community is served by an extensive network of footways. Existing off-road pedestrian and cycle routes are provided on both sides of Elettra Avenue providing good links into/ out of Brambles Business Park.

- 3.6.2 The off-road pedestrian and cycle route adjacent to the southern carriageway of Elettra Avenue continues in a southerly direction adjacent to the south carriageway of Hambledon Road all the way through to the toucan crossing north of the Maurepas Way/ A3 London Road/ Rockville Drive roundabout.
- 3.6.3 The town centre can be accessed more directly via the signalised crossing at the B2150 Hambledon Road/ Aston Road junction which provides a connection to the off-road pedestrian and cycle route that runs through the Wellington Retail Park connecting to Waterlooville town centre via a subway.
- 3.6.4 The pedestrian and cycle route adjacent to the northern carriageway of Elettra Avenue provides a link to the residential areas accessed off Milton Road via the signalised crossing to the north of the B2150 Hambledon Road/ Milton Road/ Elettra Avenue roundabout.

3.7 Bus Services

- 3.7.1 Bus stops are located on the B2150 Hambledon Road which serve Brambles Business Park via Waterberry Drive. Bus lay-bys and bus shelters are provided at both of the B2150 Hambledon Road bus stops. A bus stop flag with service and timetable information is provided at the Milton Road stop. A summary of the bus services is detailed in **Table 3** below.

Table 3 – Summary of Bus Services

Service No.	Operator	Route	Frequency	
			Mon - Sat	Sun
39	Stagecoach	Havant – Wecock Farm	10-20 minutes	60 minutes
7	First	Southsea - Wecock	10-60 minutes	20-60 minutes
8/8X	First	Gunwharf - Clanfield	20-60 minutes	20-60 minutes
X9	First	Gunwharf - Denmead	30-60 minutes	No service
300	Emsworth & District	Denmead - Chichester	One Service - Weds	No service

- 3.7.2 The site is well connected to major local destinations with 10 buses per hour to Waterlooville town centre, 4 per hour to Portsmouth and Southsea and 4 per hour to Havant.



3.8 Committed Development

- 3.8.1 There are two committed development sites in close proximity to the proposed site; namely Sainsbury's and the West of Waterloooville MDA site. Details of the traffic generation from these two sites are discussed in further detail in Section 6.1.

4 DEVELOPMENT PROPOSALS

4.1 Site Proposals

- 4.1.1 The proposed land use for E Block is either D2 (Leisure) or A1 (Non Food Retail) with floorspace of 4,725.3sqm. It is likely that the building would be occupied by a number of occupiers or a range of uses. In the first instance E Block will be promoted as a leisure opportunity with potential users comprising either a cinema, bowling alley or gym. In the event that a leisure end user cannot be found, E Block will be promoted as retail.

4.2 Vehicular Access

- 4.2.1 The primary means of access to the Park is via a four arm roundabout to the north onto Elettra Avenue at its junction with Waterberry Drive. The Park also benefits from two additional access locations onto Silverthorne Way, in the south central and south east parts of the Park.
- 4.2.2 Vehicular access to E Block will be achieved via a two way through route for vehicles within the eastern part of the Park, as shown on the indicative Park masterplan attached at **Appendix A**. The road is also subject of a separate planning application. The new road will route from the Elettra Avenue/ Waterberry Drive roundabout and connect to Silverthorne Way via a priority junction arrangement.
- 4.2.3 Some sections of footway are also included, but these would be supplemented by additional pedestrian routes secured by conditions.
- 4.2.4 The road would not be offered for adoption, and hence would remain under private ownership and control.

4.3 Pedestrian and Cycle Access

- 4.3.1 The main point of access for pedestrians and cyclists will be maintained from the Elettra Avenue/ Waterberry Drive/ Site Access roundabout through the continuation

of the existing route into the site. A further pedestrian and cycle access will be provided off Hambledon Road into the site.

4.4 Car Parking

- 4.4.1 The indicative masterplan for E Block envisages 157 car parking spaces. The exact number of spaces will however be secured via conditions.
- 4.4.2 Car parking standards are set out in Hampshire's Car Parking Standards. The standards for non-food retail and general retail (covered retail areas) are set at a maximum of 1 space per 20sqm covered areas. Parking levels for leisure uses are bespoke, relying on fine detail in forms of content. At this point it is not practicable to identify a standard compliant appraisal. In terms of parking standards, the maximum retail provision is calculated to be 236 spaces.
- 4.4.3 Disabled parking spaces will be provided in accordance with the standards.
- 4.4.4 An assessment of the potential accumulation for the proposed uses has been undertaken based on daily trip rate profiles of similar sites to ensure the number of spaces proposed is adequate. The accumulation for the non-food retail has been undertaken using trip rates for a weekday and weekend. The accumulation for the leisure use assumes a gym as the highest traffic generator (as discussed in detail in Section 5) has been undertaken using trip rates for a weekday as trip rates are unavailable for a weekend period.
- 4.4.5 The total parking accumulation associated with the non-food retail and the gym are summarised in **Tables 4 – 6** below.

Table 4 – Weekday Non-Food Retail Car Park Accumulation

Car Parking Accumulation – Weekend Non-Food Retail				
Time Period	In	Out	Total	Accumulation
08:00-09:00	11	2	13	9
09:00-10:00	75	36	111	47
10:00-11:00	113	88	201	71
11:00-12:00	130	117	247	85
12:00-13:00	104	115	219	74
13:00-14:00	134	121	255	87
14:00-15:00	114	126	240	76
15:00-16:00	83	105	188	54
16:00-17:00	51	68	118	37
17:00-18:00	62	59	121	40
18:00-19:00	17	31	48	26
19:00-20:00	6	17	24	16
20:00-21:00	0	16	0	0

Table 5 – Weekend Non-Food Retail Car Park Accumulation

Car Parking Accumulation – Weekend Non-Food Retail				
Time Period	In	Out	Total	Accumulation
08:00-09:00	15	2	17	14
09:00-10:00	80	42	122	51
10:00-11:00	141	116	257	76
11:00-12:00	181	133	314	124
12:00-13:00	187	175	361	135
13:00-14:00	156	171	327	120
14:00-15:00	218	202	421	136
15:00-16:00	179	204	384	111
16:00-17:00	128	144	272	95
17:00-18:00	68	122	191	41
18:00-19:00	22	63	85	0
19:00-20:00	0	1	1	0
20:00-21:00	0	0	0	0

Table 6 – Weekday Gym Car Park Accumulation

Car Parking Accumulation – Weekday Gym				
Time Period	In	Out	Total	Accumulation
06:00-07:00	45	1	47	51
07:00-08:00	31	45	76	37
08:00-09:00	52	45	98	44
09:00-10:00	86	28	114	101
10:00-11:00	54	55	109	100
11:00-12:00	31	66	96	65
12:00-13:00	37	45	82	57
13:00-14:00	32	37	69	52
14:00-15:00	46	42	88	56
15:00-16:00	66	52	118	70
16:00-17:00	88	61	149	96
17:00-18:00	117	81	197	132
18:00-19:00	91	89	180	135
19:00-20:00	47	94	141	88
20:00-21:00	41	58	99	71
21:00-22:00	4	61	65	14

- 4.4.6 The analysis demonstrates that the maximum accumulation within the car park for the non-food retail for a weekday is 87 spaces and 136 spaces for a weekend. The accumulation for the gym for a weekday is 135 spaces.
- 4.4.7 On this basis, it is considered that the number of car parking spaces proposed for E Block are appropriate for the land use options.

4.5 Cycle Parking

- 4.5.1 Cycle parking will be provided in accordance with the cycle parking standards set out in Hampshire's Car Parking Standards. For non-food retail, the standards state 1 space per 200sqm GEA and for gyms 1 space per 20sqm. The exact number of spaces will however be secured via conditions.



4.6 Servicing

- 4.6.1 Details of servicing will be secured via conditions since the requirements would vary depending upon eventual land use. It is envisaged that the main vehicular access to the site will be taken from the Site Access/ Elettra Avenue/ Waterberry Drive roundabout.

4.7 Framework Travel Plan

- 4.7.1 A Framework Travel Plan has been prepared for the whole Park site under a separate cover. The Framework Travel Plan will include objectives and targets, and set out measures to encourage staff to travel to the site by sustainable modes of transport thus reducing travel by single occupancy car driver trips.

5 TRAFFIC GENERATION AND DISTRIBUTION

5.1 Introduction

5.1.1 The proposed land use for E Block is to be confirmed, however it is to be promoted as either D2 (Leisure) or A1 (Non Food Retail) with floorspace of 4,725.3sqm. This section therefore sets out the traffic generation for both proposed uses of E Block.

5.1.2 There are further proposals to develop land to the east of E Block for a discount foodstore, drive through facilities, and a restaurant or hotel; and to the west for employment. These land uses will be subject to separate planning applications. Given the proximity of these land uses to E Block, it is appropriate to provide a cumulative assessment of the impacts of all the proposed land uses with The Park. This section also sets out the proposed traffic generation for these land uses.

5.2 Proposed Traffic Generation for E Block

D2 (Leisure)

5.2.1 There are three options considered most feasible for the D2 (Leisure) use; gym or a bowling alley or a cinema. As either uses are yet to be confirmed, a traffic generation assessment for both uses has been undertaken below. Other uses which fall under the land use class are liable to generate significantly less traffic.

Fitness Centre

5.2.2 In order to assess the potential impact of a gym (4,725.3sqm) a TRICS (online 2015 7.2.1) analysis was undertaken to derive suitable trip rates. Sites in Greater London were excluded from the analysis. A copy of the TRICS outputs is attached at **Appendix D** and summarised in **Table 7** below.

Table 7 – Trip Rates and Traffic Generation – Gym

	Person Trip Rate			Vehicle Trip Rate		
	In	Out	Total	In	Out	Total
AM Peak (08:00 – 09:00)	1.400	1.053	2.453	1.107	0.96	2.067
PM Peak (17:00 – 18:00)	3.387	2.573	5.96	2.467	1.707	4.174
	Person Traffic Generation			Vehicle Traffic Generation		
	In	Out	Total	In	Out	Total
AM Peak (08:00 – 09:00)	66	50	116	52	45	98
PM Peak (17:00 – 18:00)	160	122	282	117	81	197

Bowling Alley

- 5.2.3 In order to assess the potential impact of a bowling alley (4,725.3sqm) a TRICS (online 2015 7.2.1) analysis was undertaken to derive suitable trip rates. Sites in Greater London were excluded from the analysis. A copy of the TRICS outputs is attached at **Appendix D** and summarised in **Table 8** below.

Table 8 – Trip Rates and Traffic Generation – Bowling Alley

	Person Trip Rate			Vehicle Trip Rate		
	In	Out	Total	In	Out	Total
AM Peak (08:00 – 09:00)	0.000	0.000	0.000	0.000	0.000	0.000
PM Peak (17:00 – 18:00)	4.303	3.762	8.065	0.997	1.026	2.023
	Person Traffic Generation			Vehicle Traffic Generation		
	In	Out	Total	In	Out	Total
AM Peak (08:00 – 09:00)	0	0	0	0	0	0
PM Peak (17:00 – 18:00)	203	178	381	47	49	96

Cinema

- 5.2.4 In order to assess the potential impact of a cinema (4,725.3sqm) a TRICS (online 2015 7.2.1) analysis was undertaken to derive suitable trip rates. Sites in Greater London were excluded from the analysis. A copy of the TRICS outputs is attached at **Appendix D** and summarised in **Table 9** below.

Table 9 – Trip Rates and Traffic Generation – Cinema

	Person Trip Rate			Vehicle Trip Rate		
	In	Out	Total	In	Out	Total
AM Peak (08:00 – 09:00)	0.000	0.000	0.000	0.000	0.000	0.000
PM Peak (17:00 – 18:00)	4.333	2.638	6.971	1.754	1.159	2.913
	Person Traffic Generation			Vehicle Traffic Generation		
	In	Out	Total	In	Out	Total
AM Peak (08:00 – 09:00)	0	0	0	0	0	0
PM Peak (17:00 – 18:00)	205	125	330	83	55	138

5.3 Summary

- 5.3.1 As can be seen from the tables above, it is clear that the gym would generate more traffic. For the purposes of assessing the potential traffic impacts of D2 Leisure uses, the higher vehicular flows associated with the gym will therefore be used. For the purposes of a robust highway network appraisal, it is considered that the gym will generate 100% 'new' trips onto the local road network, and therefore no allowance has been made for pass-by or linked trips.
- 5.3.2 This is considered a worst-case scenario as it is likely that the end user will comprise a mixture of leisure occupiers and or retails units.

A1 (Non Food Retail)

- 5.3.3 In order to assess the potential impact of a non-food retail (4,725.3sqm) development a TRICS (online 2015 7.2.1) analysis was undertaken to derive suitable trip rates. Sites in Greater London were excluded from the analysis. A copy of the TRICS outputs is attached at **Appendix E** and summarised in **Table 10** below.

Table 10 – Trip Rates and Traffic Generation – Weekday Non Food Retail

	Person Trip Rate			Vehicle Trip Rate		
	In	Out	Total	In	Out	Total
AM Peak (08:00 – 09:00)	0.317	0.045	0.362	0.226	0.045	0.271
PM Peak (17:00 – 18:00)	2.203	2.203	4.406	1.313	1.252	2.565
	Person Traffic Generation			Vehicle Traffic Generation		
	In	Out	Total	In	Out	Total
AM Peak (08:00 – 09:00)	15	2	17	11	2	13
PM Peak (17:00 – 18:00)	104	104	208	62	59	121

5.3.4 As can be seen in **Table 10** above, proposed non-food retail would generate 13 two-way vehicular trips during the AM peak and 121 two-way trips during the PM peak. For the purposes of a robust highway network appraisal, it is considered that the non-food retail will generate 100% 'new' trips onto the local road network, and therefore no allowance has been made for pass-by or linked trips.

5.3.5 This is considered a worst-case scenario as it is likely that the end user will comprise a mixture of leisure occupiers and or retails units.

5.4 E Block Traffic Distribution and Assignment

5.4.1 The traffic generation for both possible land use outcomes (D2 Leisure and A1 Non Food Retail) have been distributed and assigned to the network based on the distribution previously agreed with Hampshire County Council in the Transport Assessment (2013) prepared by PBA for the consented mixed-use retail development.

5.4.2 As set out in the PBA report, the traffic has been distributed based on the population at the ward level within a local distribution study area. It is anticipated that the core catchment area would be Waterlooville and Denmead. The resulting percentage proportion of each ward is set out below:

- Cowplain – 17%;
- Hart Plain – 18%;
- Purbrook – 17%;
- Stakes – 18%;
- Waterloo – 17%; and
- Denmead – 12%.

5.4.3 Based on the above ward proportions, the traffic has been assigned to/ from the site based on the most direct route to each ward. The resulting assignments are summarised in **Table 11** below.

Table 11 – Traffic Assignment

Road	Assignment
Milton Road	32.5%
B2150 Hambledon Road North	18%
B2150 Hambledon Road South	49.5%

5.4.4 In addition to the above it is also assumed that the 49.5% of inbound movements from the B2150 Hambledon Road South will route via Silverthorne Way with the remaining movements from Milton Road and the B2150 Hambledon Road North.

5.4.5 For appraisal purposes, it is assumed that all outbound movements associated with E Block will route via the Elettra Avenue/ Waterberry Drive/ Site Access roundabout.

5.5 Other Land Uses Traffic Generation

5.5.1 The Park as a whole comprises 5.15ha. To the east of the Park, it is currently envisaged that development would comprise the following:

- Block A – a discount food retail unit (1,908sqm);
- Block B – a drive through facility (Use Class A3/ A5) (546sqm);
- Block C – a hotel and/ or units within Use Class A3 (516.9sqm); and
- Block D – a drive through facility (Use Class A3/ A5 (328.3sqm).

5.5.2 The development on the western part of the Park will be considered following the eastern park. The eventual land use on this western part is liable to be employment at a similar quantum of floorspace to that permitted under a 2013 planning permission (i.e. approximately 8,593sqm).

5.5.3 To understand the overall impact of the proposals on The Park, it is necessary to assess the traffic generation from the land uses identified above. The trip rates and traffic generation for the discount foodstore (Block A), drive through facilities (Block B and D), A3 restaurant (Block C) and employment (west block) have been extracted from the previously agreed Transport Assessment (2013) report for the consented mixed-use development. A copy of the TRICS outputs are attached at **Appendix F**

with the person and vehicular trip rates and traffic generation summarised in the tables below.

- 5.5.4 It is understood that Block C will be promoted as either an A3 restaurant or hotel. A TRICS assessment has been undertaken for the hotel based on a floorspace of 516.9sqm. The TRICS outputs are attached at **Appendix F** with the person and vehicular trip rates and traffic generation summarised in the tables below.

Table 12 – Vehicular Trip Rates

Land Use	Weekday AM Peak (08:00-09:00)			Weekday PM Peak (17:00-18:00)		
	In	Out	Two-way	In	Out	Two-way
Discount Foodstore	1.06	0.67	1.73	3.36	4.04	7.40
Drive Through	5.94	4.41	10.35	10.78	10.49	21.27
A3 Restaurant	0.000	0.000	0.000	2.919	2.342	5.261
Hotel*	0.228	0.645	0.873	0.407	0.159	0.566
Drive Through	5.94	4.41	10.35	10.78	10.49	21.27
Employment	1.30	0.35	1.65	0.20	0.983	1.183

*Note – Vehicular trip rates provided for both Restaurant and Hotel

Table 13 – Person Trip Rates

Land Use	Weekday AM Peak (08:00-09:00)			Weekday PM Peak (17:00-18:00)		
	In	Out	Two-way	In	Out	Two-way
Discount Foodstore	1.746	1.197	2.943	6.374	7.210	13.584
Drive Through	5.94	4.41	10.35	12.008	11.718	23.726
A3 Restaurant	0.000	0.000	0.000	6.667	4.360	11.027
Hotel*	0.318	1.013	1.331	0.735	0.338	1.073
Drive Through	5.94	4.41	10.35	12.008	11.718	23.726
Employment	1.534	0.384	1.918	0.20	1.116	1.316

*Note – Person trip rates provided for both Restaurant and Hotel

Table 14 – Vehicular Traffic Generation

Land Use	Weekday AM Peak (08:00-09:00)			Weekday PM Peak (17:00-18:00)		
	In	Out	Two-way	In	Out	Two-way
Discount Foodstore	20	13	33	64	77	140
Drive Through	32	24	56	59	57	116
A3 Restaurant or Hotel	0	0	0	15	12	27
	1	3	5	2	1	3
Drive Through	19	14	34	35	34	69
Employment	112	30	142	17	84	102
Total*	170	71	241	166	241	407

* Note – Total includes restaurant traffic generation as the highest traffic generator

Table 15 – Person Generation

Land Use	Weekday AM Peak (08:00-09:00)			Weekday PM Peak (17:00-18:00)		
	In	Out	Two-way	In	Out	Two-way
Discount Foodstore	33	23	56	121	137	258
Drive Through	32	24	56	66	64	130
A3 Restaurant or Hotel	0	0	0	34	23	57
	2	5	7	4	2	6
Drive Through	19	14	34	39	38	77
Employment	132	33	165	17	96	113
Total*	165	56	221	180	264	444

* Note – Total includes restaurant person generation as the highest person generator

5.6 Other Land Uses Traffic Distribution and Assignment

- 5.6.1 The traffic distribution for the discount foodstore, two drive through facilities and restaurant or hotel have been based on the methodology adopted in the PBA Transport Assessment report for the previously consented mixed use development.
- 5.6.2 Research on discount foodstores has shown that people are more likely to undertake a trip between a discount foodstore and other foodstores such as Tesco's, ASDA, Sainsbury's, and Waitrose. Accordingly, the proximity of the proposed discount foodstore to Sainsbury's store and the foodstores located in Waterloooville town centre increase the prospect for linked trips. Against this background, it is considered that 50% of trips associated with the proposed discount foodstore are assumed to be a linked or pass-by trip, and the remaining trips are assumed to be new trips.

5.6.3 With regards to the drive through facilities, restaurant or hotel, it is considered that a 20% reduction in vehicular trips is appropriate given the close proximity of these land uses to one another.

5.6.4 The adjusted level of vehicular trip generation predicted to arise from these land uses is summarised in **Table 16** below. For completeness, the table includes the vehicular flows for E Block (assuming gym as the highest vehicular generator).

Table 16 – Adjusted Vehicular Traffic Generation

Land Use	Weekday AM Peak (08:00-09:00)			Weekday PM Peak (17:00-18:00)		
	In	Out	Two-way	In	Out	Two-way
Discount Foodstore	10	6	16	32	38	70
Drive Through	26	19	46	47	46	93
A3 Restaurant*	0	0	0	24	10	34
Drive Through	16	12	27	28	28	56
Gym (E Block)**	52	45	98	117	81	197
Employment***	112	30	142	17	84	102

* Note – Assumes Restaurant as the highest vehicular generator

** Note – Assumes Gym as the highest vehicular generator and 100% new trips

*** Note – Assumes 100% new trips

5.6.5 The vehicular flows have been distributed onto the local road network using the population at ward level within a local distribution study area, as discussed in **Section 5.3** above.

6 JUNCTION CAPACITY ASSESSMENTS

6.1 Assessment Traffic Flows and Scenarios

6.1.1 As agreed with HCC, DTA has utilised the observed traffic survey data undertaken in 2012 from the PBA Transport Assessment report for the following junctions, during the AM (08:00-09:00) and PM (16:45-17:45) peaks:

- Elettra Avenue/ Waterberry Drive/ Site Access roundabout; and
- B2150 Hambledon Road/ Milton Road/ Elettra Avenue roundabout.

6.1.2 The 2012 survey flows have been factored to 2015 to take account of background traffic growth. There are a number of committed developments in close proximity to the proposed site, namely Sainsbury's and West of Waterloooville MDA which comprises of Taylor Wimpey 'Wellington Park' and Newlands Common. As such the traffic generation from these developments has been considered as appropriate background growth and are included within the 2015 and 2020 base scenario, and are considered in more detail below.

Sainsbury's

6.1.3 When the traffic surveys were undertaken in 2012 the Sainsbury's development to the south-east of the site on Hambledon Road had not been built, and therefore the traffic movements associated with Sainsbury's had not been accounted for within the 2012 traffic surveys. The store opened in December 2014 and as such the full development traffic associated with the site has been accounted for in the 2015 Base flows. The traffic generation figures have been taken from Sainsbury's Transport Assessment, dated October 2010.

West of Waterloooville MDA

6.1.4 The Taylor Wimpey 'Wellington Park' site comprises of around 450 residential dwellings, employment and other mixed use land. The Newlands development comprises of around 2,500 residential dwellings, 19.25 hectares of employment land,

local community centre, healthcare and elderly care facilities, two primary schools and a nursery.

6.1.5 It is understood that approximately 144 dwellings of the approved 450 were occupied in 2012 at Wellington Park. Therefore the traffic generated by 144 dwellings was already accounted for in the 2012 traffic survey data. Accordingly, the trips generated by the 144 dwellings have been removed from the total proposed residential traffic generated by the Taylor Wimpey site.

6.1.6 In 2012 the construction at the Newlands Common development had not commenced, and therefore it is assumed that the traffic counts did not include any traffic associated with development.

6.1.7 At the end of December 2014, there were approximately 370 occupied homes at the West of Waterloooville MDA site. This includes the 144 dwellings included within the traffic survey data. In addition, the Berewood Primary School opened in 2014.

6.1.8 In summary the following assessment scenarios include:

- 2015 Base comprising:
 - 2012 Observed flows;
 - Baseline E Block flows (assuming E Block is fully occupied using traffic generation from **Table 1**);
 - Sainsbury's development proposals; and
 - 226 dwellings and Berewood Primary School at West of Waterloooville MDA.
- 2020 Base comprising:
 - 2012 Observed flows;
 - Baseline E Block flows (assuming E Block is fully occupied using traffic generation from **Table 1**);

-
- Sainsbury's development proposals; and
 - West of Waterloooville MDA (full development).
 - 2020 Base + Development (E Block Proposals) comprising:
 - 2012 Observed flows;
 - E Block proposals (assuming gym as the highest trip generator);
 - Sainsbury's development proposals; and
 - West of Waterloooville MDA (full development).
 - 2020 Base + Development (E Block Proposals plus East side of "Park" redevelopment) comprising:
 - 2012 Observed flows;
 - E Block proposals (assuming gym as the highest trip generator);
 - Sainsbury's development proposals;
 - West of Waterloooville MDA (full development); and
 - Discount Foodstore, Drive through Facilities, Restaurant (assessed as the highest trip generator).
 - 2020 Base + Development (E Block Proposals plus East and West "Park" redevelopment) comprising:
 - 2012 Observed flows;
 - E Block proposals (assuming gym as the highest trip generator);
 - Sainsbury's development proposals;
 - West of Waterloooville MDA (full development);

- Discount Foodstore, Drive through Facilities, Restaurant (assessed as the highest trip generator); and
- West Block Buildings (B1 land use).

6.2 Junction Assessments

6.2.1 The following junctions have been modelled using the ARCADY module within Junctions 8:

- Elettra Avenue/ Waterberry Drive/ Site Access roundabout
- B2150 Hambledon Road/ Milton Road/ Elettra Avenue roundabout

6.2.2 The assessed junctions have been modelled for a weekday AM and PM network peak hours, determined from the 2012 observed traffic flows as 08:00-09:00 and 16:45-17:45.

Site Access/ Elettra Avenue/ Waterberry Drive

6.2.3 This junction is a four-arm roundabout with two lane approaches on all arms. Elettra Avenue forms the east and west arms, Waterberry Drive the north arm and Site Access the south arm. The Waterberry Drive arm provides access to The Brambles Business Park. The Elettra Avenue east arm connects to the Hambledon Road/ Milton Road roundabout while the Elettra Avenue west arm routes around the site connecting to Silverthorne Way.

6.2.4 A summary of the junction capacity results for the E Block proposals is summarised in **Table 17** below with the modelling outputs attached at **Appendix G**.

Table 17 – Site Access/ Elettra Avenue/ Waterberry Drive Junction Capacity Assessment Results – E Block Proposals

Junction	AM Peak			PM Peak		
	RFC	MMQ	Max Delay (sec)	RFC	MMQ	Max Delay (sec)
2015 Base						
Elettra Av (east)	0.30	0.4	2.58	0.10	0.1	2.03
Site Access	0.03	0.0	1.85	0.03	0.0	1.66
Elettra Av (west)	0.03	0.0	2.21	0.08	0.1	2.14
Waterberry Drive	0.11	0.1	2.21	0.26	0.4	2.78
2020 Base						
Elettra Av (east)	0.32	0.5	2.65	0.10	0.1	2.03
Site Access	0.03	0.0	1.87	0.03	0.0	1.66
Elettra Av (west)	0.03	0.0	2.24	0.08	0.1	2.14
Waterberry Drive	0.11	0.1	2.21	0.27	0.4	2.82
2020 Base + Development (E Block Proposals)						
Elettra Av (east)	0.29	0.4	2.53	0.13	0.1	2.08
Site Access	0.02	0.0	1.86	0.04	0.0	1.67
Elettra Av (west)	0.03	0.0	2.23	0.08	0.1	2.15
Waterberry Drive	0.11	0.1	2.20	0.27	0.4	2.84

- 6.2.5 As can be seen in **Table 17** the junction capacity assessment results for the Site Access/ Elettra Avenue/ Waterberry Drive roundabout shows the roundabout operates within capacity on all arms with minimal queuing and delay in the 2015 and 2020 base scenarios.
- 6.2.6 With the addition of the proposals for E Block, the roundabout will continue to operate within capacity on all arms with minimal increases in queuing and delay.
- 6.2.7 An additional assessment has also been undertaken of the vehicular flows associated with the East side of The Park development and vehicular flows associated with the whole Park site.
- 6.2.8 The results of the junction assessments are summarised in **Table 18** below and attached at **Appendix G**.

Table 18 – Site Access/ Elettra Avenue/ Waterberry Drive Junction Capacity Assessment Results – Other Land Uses

Junction	AM Peak			PM Peak		
	RFC	MMQ	Max Delay (sec)	RFC	MMQ	Max Delay (sec)
2020 Base + Development (E Block + East side of “Park” redevelopment)						
Elettra Av (east)	0.30	0.4	2.59	0.17	0.2	2.18
Site Access	0.04	0.0	1.89	0.07	0.1	1.74
Elettra Av (west)	0.03	0.0	2.26	0.09	0.1	2.23
Waterberry Drive	0.11	0.1	2.23	0.28	0.4	2.98
2020 Base + Development (E Block + East and West “Park” redevelopment)						
Elettra Av (east)	0.36	0.6	2.82	0.18	0.2	2.21
Site Access	0.05	0.1	1.92	0.11	0.1	1.81
Elettra Av (west)	0.03	0.0	2.29	0.09	0.1	2.32
Waterberry Drive	0.11	0.1	2.26	0.29	0.4	3.13

6.2.9 With the addition of the traffic generated by the East side of The Park land uses the roundabout continues to operate within capacity on all arms with minimal queuing and delay.

6.2.10 With the addition of the traffic generated by the employment on the West side of The Park, the roundabout will continue to operate within capacity on all arms with minimal increases in queuing and delay.

Hambleton Road/ Milton Road/ Elettra Avenue

6.2.11 This junction is a four-arm roundabout with two lane approaches on Hambleton Road North and South arms, and Elettra Avenue. The Hambleton Road North arm routes north-west of Waterloooville towards Denmead. The Hambleton Road South arm routes towards Waterloooville town centre connecting to the A3 Maurepas Way.

6.2.12 A summary of the junction capacity results for the E Block proposals is summarised in **Table 19** below with the modelling outputs attached at **Appendix H**.

Table 19 – Hambledon Road/ Milton Road/ Elettra Avenue Junction Capacity Assessment Results – E Block Proposals

Junction	AM Peak			PM Peak		
	RFC	MMQ	Max Delay (sec)	RFC	MMQ	Max Delay (sec)
2015 Base						
Milton Road	0.65	1.8	10.52	0.42	0.7	5.86
Hambledon Road (South)	0.40	0.7	2.03	0.62	1.6	3.87
Elettra Avenue	0.20	0.3	3.10	0.75	3.0	16.67
Hambledon Road (North)	0.52	1.1	4.34	0.68	2.1	12.06
2020 Base						
Milton Road	0.73	2.7	14.08	0.48	0.9	6.92
Hambledon Road (South)	0.41	0.7	2.07	0.63	1.7	4.02
Elettra Avenue	0.21	0.3	3.16	0.77	3.3	18.30
Hambledon Road (North)	0.55	1.2	4.64	0.77	3.4	17.10
2020 Base + Development (E Block Proposals)						
Milton Road	0.73	2.6	13.67	0.52	1.1	7.51
Hambledon Road (South)	0.39	0.6	2.00	0.64	1.8	4.22
Elettra Avenue	0.20	0.3	3.13	0.79	3.6	19.79
Hambledon Road (North)	0.55	1.2	4.58	0.79	3.7	18.53

6.2.13 As can be seen in **Table 19** the Hambledon Road/ Milton Road/ Elettra Avenue roundabout operates within capacity on all arms in the 2015 base scenario. In the 2020 future year without the development proposals, the junction is predicted to operate within capacity on all arms in the AM and PM peak periods.

6.2.14 With the addition of the development proposals for E Block the queuing and delay will reduce during the AM peak but will increase slightly in the PM peak. The roundabout will continue to operate within capacity in both peak periods.

6.2.15 An additional assessment has also been undertaken of the vehicular flows associated with the East side of The Park development and vehicular flows associated with the whole Park site.

6.2.16 The results of the junction assessments are summarised in **Table 20** below and attached at **Appendix H**.

Table 20 – Hambledon Road/ Milton Road/ Elettra Avenue Junction Capacity Assessment Results – Other Land Uses

Junction	AM Peak			PM Peak		
	RFC	MMQ	Max Delay (sec)	RFC	MMQ	Max Delay (sec)
2020 Base + Development (E Block + East side of “Park” redevelopment)						
Milton Road	0.76	3.1	15.71	0.56	1.3	8.21
Hambledon Road (South)	0.40	0.7	2.05	0.65	1.9	4.48
Elettra Avenue	0.22	0.3	3.22	0.71	2.4	14.66
Hambledon Road (North)	0.56	1.3	4.72	0.81	4.0	19.43
2020 Base + Development (E Block + East and West “Park” redevelopment)						
Milton Road	0.80	3.9	18.84	0.62	1.6	10.27
Hambledon Road (South)	0.42	0.7	2.19	0.69	2.2	4.95
Elettra Avenue	0.21	0.3	3.19	1.01	30.7	134.02
Hambledon Road (North)	0.57	1.3	4.78	0.87	6.3	30.90

6.2.17 As can be seen in **Table 20**, with the addition of the East side of The Park development proposals the roundabout will operate within capacity in both the AM and PM peak periods.

6.2.18 With the addition of the traffic generated by the employment on the West side of The Park, the roundabout will continue to operate within capacity during the AM peak but will operate over capacity on the Elettra Avenue arm during the PM peak.



7 SUMMARY AND CONCLUSIONS

- 7.1 This Transport Assessment has assessed the traffic and transport implications of the proposals for the change of use of E Block at the former BAE Systems Technology Park on Elettrqa Avenue, Waterloooville.
- 7.2 The development site is located within the Brambles Business Park to the north-west of Waterloooville town centre. The proposed site benefits from being located in a highly accessible area with excellent pedestrian and cycle connections, high frequency bus services and good road links to Waterloooville town centre.
- 7.3 The trip generation has been undertaken using TRICS and the distribution undertaken in conjunction with Census data.
- 7.4 The site will be accessed off an existing roundabout on Elettra Avenue and a new priority junction arrangement will be created onto Silverthorne Way.
- 7.5 The traffic impact analysis has set out the potential impacts at the Elettra Avenue/ Waterberry Drive roundabout and the Elettra Avenue/ Milton Road/ Hambledon Road roundabout. The junction modelling results confirm that the proposed development will have modest impacts on both roundabouts. The Elettra Avenue/ Waterberry Drive roundabout and the Elettra Avenue/ Milton Road/ Hambledon Road roundabout are predicted to operate within capacity with the addition of the development proposals for E Block.
- 7.6 A Framework Travel Plan has also been prepared under a separate cover which aims to encourage sustainable travel.
- 7.7 This Transport Assessment has demonstrated that the development is fully in accordance with NPPF and the related adopted and emerging Development Plan policies. On this basis it is concluded that there are no grounds for refusal on highway grounds.

Figures



David Tucker Associates
 Transport Planning Consultancy
 Forester House, Doctors Lane, Henley-in-Arden
 Warwickshire, B95 5AW
 Tel: +44(0) 1564 793598 Fax: +44(0) 1564 793983
 www.dtatransportation.co.uk

Key:

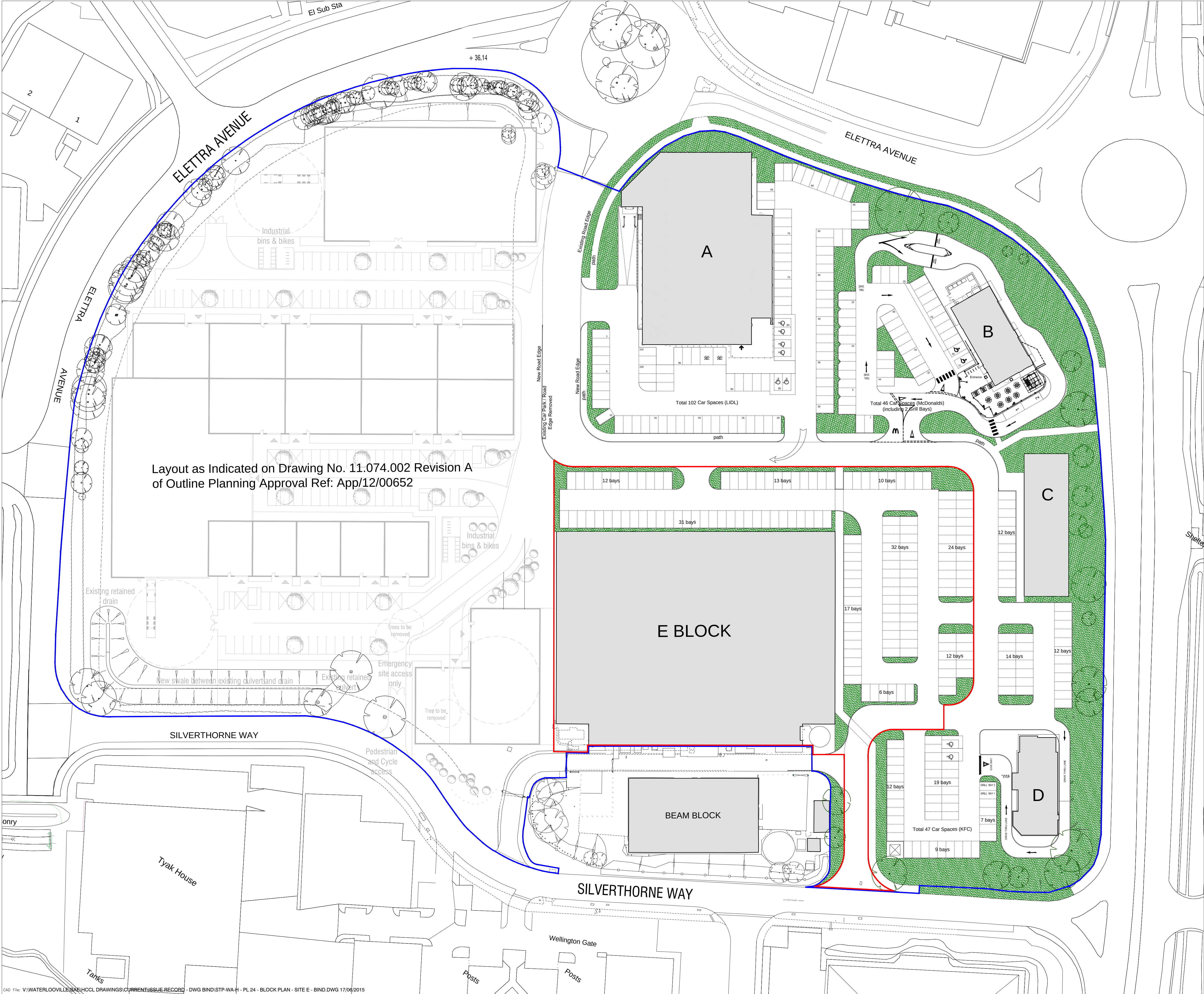
- ★ Site Location
- Local Bus Routes
- Bus Stops
- Shared Pedestrian/ Cycle Route
- Off Road Cycle Route
- Footways around Business Park

Figure 1
 Drawing Title
 Job Title
 Client

Drawing No : 17144-01
 Site Location and Accessibility
 Redevelopment of E Block, Waterlooville
 Hargreaves

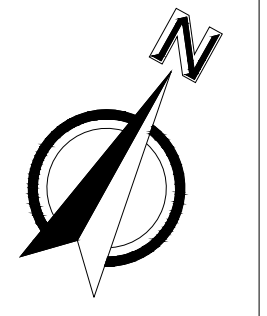
Scale : NTS

Appendix A



Do not scale from this drawing, work to figured dimensions only. All dimensions to be confirmed on site. This drawing is to be read in conjunction with other drawings in this series and all relevant consultants drawings and documentation where applicable. Please report any discrepancy on this drawing to Hargreaves Construction Co. Ltd. for clarification. © Copyright Hargreaves Construction Co. Ltd.

Scale Bar
0 5 10 15 20 25 30m



REV	DESCRIPTION	DATE
REVISION		
SYSTEMS TECHNOLOGY PARK WATERLOOVILLE HAMPSHIRE RETAIL SITE DEVELOPMENT PLAN Block Plan Plot E		
Job no.	Drawing no.	rev.
STP-WA-H	PL 24	-
Scale	Drawn	Date
1:500	@ A1 A.J.C.	16.06.2015
 Hargreaves		
Rustington House, Worthing Road, Rustington, West Sussex, BN16 3PS Tel No: (01903) 777777 Fax No: (01903) 777700		

Appendix B

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : D - INDUSTRIAL ESTATE
MULTI-MODAL VEHICLES

Selected regions and areas:

Filtering Stage 2 selection:

Parameter: Gross floor area
Actual Range: 6000 to 6000 (units: sqm)
Range Selected by User: 6000 to 6000 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 20/10/09 to 20/10/09

Selected survey days:

Tuesday 1 days

Selected survey types:

Manual count 1 days
Directional ATC Count 0 days

Selected Locations:

Suburban Area (PPS6 Out of Centre) 1

Selected Location Sub Categories:

Industrial Zone 1

Peter Brett Associates Queen Square Bristol

Licence No: 706710

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

MULTI-MODAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30	0	0	0.000	0	0	0.000	0	0	0.000
00:30 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 01:30	0	0	0.000	0	0	0.000	0	0	0.000
01:30 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 02:30	0	0	0.000	0	0	0.000	0	0	0.000
02:30 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 03:30	0	0	0.000	0	0	0.000	0	0	0.000
03:30 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 04:30	0	0	0.000	0	0	0.000	0	0	0.000
04:30 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 05:30	0	0	0.000	0	0	0.000	0	0	0.000
05:30 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 06:30	0	0	0.000	0	0	0.000	0	0	0.000
06:30 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 07:30	1	6000	0.183	1	6000	0.083	1	6000	0.266
07:30 - 08:00	1	6000	0.433	1	6000	0.067	1	6000	0.500
08:00 - 08:30	1	6000	0.633	1	6000	0.100	1	6000	0.733
08:30 - 09:00	1	6000	0.667	1	6000	0.250	1	6000	0.917
09:00 - 09:30	1	6000	0.483	1	6000	0.183	1	6000	0.666
09:30 - 10:00	1	6000	0.250	1	6000	0.250	1	6000	0.500
10:00 - 10:30	1	6000	0.400	1	6000	0.250	1	6000	0.650
10:30 - 11:00	1	6000	0.233	1	6000	0.183	1	6000	0.416
11:00 - 11:30	1	6000	0.250	1	6000	0.300	1	6000	0.550
11:30 - 12:00	1	6000	0.183	1	6000	0.233	1	6000	0.416
12:00 - 12:30	1	6000	0.250	1	6000	0.350	1	6000	0.600
12:30 - 13:00	1	6000	0.300	1	6000	0.233	1	6000	0.533
13:00 - 13:30	1	6000	0.283	1	6000	0.317	1	6000	0.600
13:30 - 14:00	1	6000	0.367	1	6000	0.250	1	6000	0.617
14:00 - 14:30	1	6000	0.183	1	6000	0.417	1	6000	0.600
14:30 - 15:00	1	6000	0.217	1	6000	0.200	1	6000	0.417
15:00 - 15:30	1	6000	0.117	1	6000	0.250	1	6000	0.367
15:30 - 16:00	1	6000	0.200	1	6000	0.117	1	6000	0.317
16:00 - 16:30	1	6000	0.183	1	6000	0.400	1	6000	0.583
16:30 - 17:00	1	6000	0.133	1	6000	0.417	1	6000	0.550
17:00 - 17:30	1	6000	0.067	1	6000	0.450	1	6000	0.517
17:30 - 18:00	1	6000	0.133	1	6000	0.533	1	6000	0.666
18:00 - 18:30	1	6000	0.017	1	6000	0.183	1	6000	0.200
18:30 - 19:00	1	6000	0.000	1	6000	0.017	1	6000	0.017
19:00 - 19:30	0	0	0.000	0	0	0.000	0	0	0.000
19:30 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 20:30	0	0	0.000	0	0	0.000	0	0	0.000
20:30 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 21:30	0	0	0.000	0	0	0.000	0	0	0.000
21:30 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 22:30	0	0	0.000	0	0	0.000	0	0	0.000
22:30 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 23:30	0	0	0.000	0	0	0.000	0	0	0.000
23:30 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			6.165			6.033			12.198

Parameter summary

Trip rate parameter range selected:	6000 - 6000 (units: sqm)
Survey date date range:	20/10/09 - 20/10/09
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

Peter Brett Associates Queen Square Bristol

Licence No: 706710

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30	0	0	0.000	0	0	0.000	0	0	0.000
00:30 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 01:30	0	0	0.000	0	0	0.000	0	0	0.000
01:30 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 02:30	0	0	0.000	0	0	0.000	0	0	0.000
02:30 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 03:30	0	0	0.000	0	0	0.000	0	0	0.000
03:30 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 04:30	0	0	0.000	0	0	0.000	0	0	0.000
04:30 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 05:30	0	0	0.000	0	0	0.000	0	0	0.000
05:30 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 06:30	0	0	0.000	0	0	0.000	0	0	0.000
06:30 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 07:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
07:30 - 08:00	1	6000	0.033	1	6000	0.033	1	6000	0.066
08:00 - 08:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
08:30 - 09:00	1	6000	0.050	1	6000	0.000	1	6000	0.050
09:00 - 09:30	1	6000	0.067	1	6000	0.050	1	6000	0.117
09:30 - 10:00	1	6000	0.000	1	6000	0.017	1	6000	0.017
10:00 - 10:30	1	6000	0.033	1	6000	0.050	1	6000	0.083
10:30 - 11:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
11:00 - 11:30	1	6000	0.017	1	6000	0.000	1	6000	0.017
11:30 - 12:00	1	6000	0.000	1	6000	0.033	1	6000	0.033
12:00 - 12:30	1	6000	0.017	1	6000	0.017	1	6000	0.034
12:30 - 13:00	1	6000	0.033	1	6000	0.017	1	6000	0.050
13:00 - 13:30	1	6000	0.000	1	6000	0.017	1	6000	0.017
13:30 - 14:00	1	6000	0.017	1	6000	0.017	1	6000	0.034
14:00 - 14:30	1	6000	0.017	1	6000	0.017	1	6000	0.034
14:30 - 15:00	1	6000	0.000	1	6000	0.017	1	6000	0.017
15:00 - 15:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
15:30 - 16:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
16:00 - 16:30	1	6000	0.033	1	6000	0.017	1	6000	0.050
16:30 - 17:00	1	6000	0.000	1	6000	0.017	1	6000	0.017
17:00 - 17:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
17:30 - 18:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
18:00 - 18:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
18:30 - 19:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
19:00 - 19:30	0	0	0.000	0	0	0.000	0	0	0.000
19:30 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 20:30	0	0	0.000	0	0	0.000	0	0	0.000
20:30 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 21:30	0	0	0.000	0	0	0.000	0	0	0.000
21:30 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 22:30	0	0	0.000	0	0	0.000	0	0	0.000
22:30 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 23:30	0	0	0.000	0	0	0.000	0	0	0.000
23:30 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			0.317			0.319			0.636

Parameter summary

Trip rate parameter range selected:	6000 - 6000 (units: sqm)
Survey date date range:	20/10/09 - 20/10/09
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

Peter Brett Associates Queen Square Bristol

Licence No: 706710

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

MULTI-MODAL CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30	0	0	0.000	0	0	0.000	0	0	0.000
00:30 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 01:30	0	0	0.000	0	0	0.000	0	0	0.000
01:30 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 02:30	0	0	0.000	0	0	0.000	0	0	0.000
02:30 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 03:30	0	0	0.000	0	0	0.000	0	0	0.000
03:30 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 04:30	0	0	0.000	0	0	0.000	0	0	0.000
04:30 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 05:30	0	0	0.000	0	0	0.000	0	0	0.000
05:30 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 06:30	0	0	0.000	0	0	0.000	0	0	0.000
06:30 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 07:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
07:30 - 08:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
08:00 - 08:30	1	6000	0.033	1	6000	0.000	1	6000	0.033
08:30 - 09:00	1	6000	0.017	1	6000	0.000	1	6000	0.017
09:00 - 09:30	1	6000	0.017	1	6000	0.000	1	6000	0.017
09:30 - 10:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
10:00 - 10:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
10:30 - 11:00	1	6000	0.017	1	6000	0.000	1	6000	0.017
11:00 - 11:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
11:30 - 12:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
12:00 - 12:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
12:30 - 13:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
13:00 - 13:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
13:30 - 14:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
14:00 - 14:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
14:30 - 15:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
15:00 - 15:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
15:30 - 16:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
16:00 - 16:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
16:30 - 17:00	1	6000	0.000	1	6000	0.017	1	6000	0.017
17:00 - 17:30	1	6000	0.000	1	6000	0.017	1	6000	0.017
17:30 - 18:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
18:00 - 18:30	1	6000	0.000	1	6000	0.017	1	6000	0.017
18:30 - 19:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
19:00 - 19:30	0	0	0.000	0	0	0.000	0	0	0.000
19:30 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 20:30	0	0	0.000	0	0	0.000	0	0	0.000
20:30 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 21:30	0	0	0.000	0	0	0.000	0	0	0.000
21:30 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 22:30	0	0	0.000	0	0	0.000	0	0	0.000
22:30 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 23:30	0	0	0.000	0	0	0.000	0	0	0.000
23:30 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			0.084			0.051			0.135

Parameter summary

Trip rate parameter range selected:	6000 - 6000 (units: sqm)
Survey date date range:	20/10/09 - 20/10/09
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

Peter Brett Associates Queen Square Bristol

Licence No: 706710

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30	0	0	0.000	0	0	0.000	0	0	0.000
00:30 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 01:30	0	0	0.000	0	0	0.000	0	0	0.000
01:30 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 02:30	0	0	0.000	0	0	0.000	0	0	0.000
02:30 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 03:30	0	0	0.000	0	0	0.000	0	0	0.000
03:30 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 04:30	0	0	0.000	0	0	0.000	0	0	0.000
04:30 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 05:30	0	0	0.000	0	0	0.000	0	0	0.000
05:30 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 06:30	0	0	0.000	0	0	0.000	0	0	0.000
06:30 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 07:30	1	6000	0.183	1	6000	0.083	1	6000	0.266
07:30 - 08:00	1	6000	0.433	1	6000	0.067	1	6000	0.500
08:00 - 08:30	1	6000	0.633	1	6000	0.100	1	6000	0.733
08:30 - 09:00	1	6000	0.667	1	6000	0.250	1	6000	0.917
09:00 - 09:30	1	6000	0.533	1	6000	0.183	1	6000	0.716
09:30 - 10:00	1	6000	0.250	1	6000	0.300	1	6000	0.550
10:00 - 10:30	1	6000	0.467	1	6000	0.267	1	6000	0.734
10:30 - 11:00	1	6000	0.283	1	6000	0.217	1	6000	0.500
11:00 - 11:30	1	6000	0.333	1	6000	0.300	1	6000	0.633
11:30 - 12:00	1	6000	0.200	1	6000	0.283	1	6000	0.483
12:00 - 12:30	1	6000	0.267	1	6000	0.367	1	6000	0.634
12:30 - 13:00	1	6000	0.333	1	6000	0.250	1	6000	0.583
13:00 - 13:30	1	6000	0.317	1	6000	0.350	1	6000	0.667
13:30 - 14:00	1	6000	0.400	1	6000	0.267	1	6000	0.667
14:00 - 14:30	1	6000	0.183	1	6000	0.433	1	6000	0.616
14:30 - 15:00	1	6000	0.217	1	6000	0.200	1	6000	0.417
15:00 - 15:30	1	6000	0.117	1	6000	0.250	1	6000	0.367
15:30 - 16:00	1	6000	0.200	1	6000	0.117	1	6000	0.317
16:00 - 16:30	1	6000	0.183	1	6000	0.467	1	6000	0.650
16:30 - 17:00	1	6000	0.167	1	6000	0.433	1	6000	0.600
17:00 - 17:30	1	6000	0.067	1	6000	0.467	1	6000	0.534
17:30 - 18:00	1	6000	0.133	1	6000	0.567	1	6000	0.700
18:00 - 18:30	1	6000	0.017	1	6000	0.217	1	6000	0.234
18:30 - 19:00	1	6000	0.000	1	6000	0.033	1	6000	0.033
19:00 - 19:30	0	0	0.000	0	0	0.000	0	0	0.000
19:30 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 20:30	0	0	0.000	0	0	0.000	0	0	0.000
20:30 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 21:30	0	0	0.000	0	0	0.000	0	0	0.000
21:30 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 22:30	0	0	0.000	0	0	0.000	0	0	0.000
22:30 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 23:30	0	0	0.000	0	0	0.000	0	0	0.000
23:30 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			6.583			6.468			13.051

Parameter summary

Trip rate parameter range selected:	6000 - 6000 (units: sqm)
Survey date date range:	20/10/09 - 20/10/09
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

Peter Brett Associates Queen Square Bristol

Licence No: 706710

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30	0	0	0.000	0	0	0.000	0	0	0.000
00:30 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 01:30	0	0	0.000	0	0	0.000	0	0	0.000
01:30 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 02:30	0	0	0.000	0	0	0.000	0	0	0.000
02:30 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 03:30	0	0	0.000	0	0	0.000	0	0	0.000
03:30 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 04:30	0	0	0.000	0	0	0.000	0	0	0.000
04:30 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 05:30	0	0	0.000	0	0	0.000	0	0	0.000
05:30 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 06:30	0	0	0.000	0	0	0.000	0	0	0.000
06:30 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 07:30	1	6000	0.033	1	6000	0.000	1	6000	0.033
07:30 - 08:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
08:00 - 08:30	1	6000	0.067	1	6000	0.017	1	6000	0.084
08:30 - 09:00	1	6000	0.050	1	6000	0.017	1	6000	0.067
09:00 - 09:30	1	6000	0.017	1	6000	0.000	1	6000	0.017
09:30 - 10:00	1	6000	0.000	1	6000	0.017	1	6000	0.017
10:00 - 10:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
10:30 - 11:00	1	6000	0.067	1	6000	0.050	1	6000	0.117
11:00 - 11:30	1	6000	0.033	1	6000	0.000	1	6000	0.033
11:30 - 12:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
12:00 - 12:30	1	6000	0.000	1	6000	0.050	1	6000	0.050
12:30 - 13:00	1	6000	0.033	1	6000	0.000	1	6000	0.033
13:00 - 13:30	1	6000	0.017	1	6000	0.067	1	6000	0.084
13:30 - 14:00	1	6000	0.017	1	6000	0.000	1	6000	0.017
14:00 - 14:30	1	6000	0.017	1	6000	0.000	1	6000	0.017
14:30 - 15:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
15:00 - 15:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
15:30 - 16:00	1	6000	0.017	1	6000	0.000	1	6000	0.017
16:00 - 16:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
16:30 - 17:00	1	6000	0.000	1	6000	0.017	1	6000	0.017
17:00 - 17:30	1	6000	0.000	1	6000	0.033	1	6000	0.033
17:30 - 18:00	1	6000	0.000	1	6000	0.017	1	6000	0.017
18:00 - 18:30	1	6000	0.000	1	6000	0.033	1	6000	0.033
18:30 - 19:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
19:00 - 19:30	0	0	0.000	0	0	0.000	0	0	0.000
19:30 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 20:30	0	0	0.000	0	0	0.000	0	0	0.000
20:30 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 21:30	0	0	0.000	0	0	0.000	0	0	0.000
21:30 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 22:30	0	0	0.000	0	0	0.000	0	0	0.000
22:30 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 23:30	0	0	0.000	0	0	0.000	0	0	0.000
23:30 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			0.368			0.318			0.686

Parameter summary

Trip rate parameter range selected:	6000 - 6000 (units: sqm)
Survey date date range:	20/10/09 - 20/10/09
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

Peter Brett Associates Queen Square Bristol

Licence No: 706710

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30	0	0	0.000	0	0	0.000	0	0	0.000
00:30 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 01:30	0	0	0.000	0	0	0.000	0	0	0.000
01:30 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 02:30	0	0	0.000	0	0	0.000	0	0	0.000
02:30 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 03:30	0	0	0.000	0	0	0.000	0	0	0.000
03:30 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 04:30	0	0	0.000	0	0	0.000	0	0	0.000
04:30 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 05:30	0	0	0.000	0	0	0.000	0	0	0.000
05:30 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 06:30	0	0	0.000	0	0	0.000	0	0	0.000
06:30 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 07:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
07:30 - 08:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
08:00 - 08:30	1	6000	0.033	1	6000	0.000	1	6000	0.033
08:30 - 09:00	1	6000	0.033	1	6000	0.000	1	6000	0.033
09:00 - 09:30	1	6000	0.017	1	6000	0.000	1	6000	0.017
09:30 - 10:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
10:00 - 10:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
10:30 - 11:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
11:00 - 11:30	1	6000	0.017	1	6000	0.000	1	6000	0.017
11:30 - 12:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
12:00 - 12:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
12:30 - 13:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
13:00 - 13:30	1	6000	0.017	1	6000	0.000	1	6000	0.017
13:30 - 14:00	1	6000	0.000	1	6000	0.017	1	6000	0.017
14:00 - 14:30	1	6000	0.017	1	6000	0.000	1	6000	0.017
14:30 - 15:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
15:00 - 15:30	1	6000	0.000	1	6000	0.017	1	6000	0.017
15:30 - 16:00	1	6000	0.000	1	6000	0.017	1	6000	0.017
16:00 - 16:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
16:30 - 17:00	1	6000	0.017	1	6000	0.000	1	6000	0.017
17:00 - 17:30	1	6000	0.000	1	6000	0.017	1	6000	0.017
17:30 - 18:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
18:00 - 18:30	1	6000	0.000	1	6000	0.033	1	6000	0.033
18:30 - 19:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
19:00 - 19:30	0	0	0.000	0	0	0.000	0	0	0.000
19:30 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 20:30	0	0	0.000	0	0	0.000	0	0	0.000
20:30 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 21:30	0	0	0.000	0	0	0.000	0	0	0.000
21:30 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 22:30	0	0	0.000	0	0	0.000	0	0	0.000
22:30 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 23:30	0	0	0.000	0	0	0.000	0	0	0.000
23:30 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			0.151			0.101			0.252

Parameter summary

Trip rate parameter range selected:	6000 - 6000 (units: sqm)
Survey date date range:	20/10/09 - 20/10/09
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

Peter Brett Associates Queen Square Bristol

Licence No: 706710

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30	0	0	0.000	0	0	0.000	0	0	0.000
00:30 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 01:30	0	0	0.000	0	0	0.000	0	0	0.000
01:30 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 02:30	0	0	0.000	0	0	0.000	0	0	0.000
02:30 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 03:30	0	0	0.000	0	0	0.000	0	0	0.000
03:30 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 04:30	0	0	0.000	0	0	0.000	0	0	0.000
04:30 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 05:30	0	0	0.000	0	0	0.000	0	0	0.000
05:30 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 06:30	0	0	0.000	0	0	0.000	0	0	0.000
06:30 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 07:30	1	6000	0.217	1	6000	0.083	1	6000	0.300
07:30 - 08:00	1	6000	0.433	1	6000	0.067	1	6000	0.500
08:00 - 08:30	1	6000	0.767	1	6000	0.117	1	6000	0.884
08:30 - 09:00	1	6000	0.767	1	6000	0.267	1	6000	1.034
09:00 - 09:30	1	6000	0.583	1	6000	0.183	1	6000	0.766
09:30 - 10:00	1	6000	0.250	1	6000	0.317	1	6000	0.567
10:00 - 10:30	1	6000	0.467	1	6000	0.267	1	6000	0.734
10:30 - 11:00	1	6000	0.367	1	6000	0.267	1	6000	0.634
11:00 - 11:30	1	6000	0.383	1	6000	0.300	1	6000	0.683
11:30 - 12:00	1	6000	0.200	1	6000	0.283	1	6000	0.483
12:00 - 12:30	1	6000	0.267	1	6000	0.417	1	6000	0.684
12:30 - 13:00	1	6000	0.367	1	6000	0.250	1	6000	0.617
13:00 - 13:30	1	6000	0.350	1	6000	0.417	1	6000	0.767
13:30 - 14:00	1	6000	0.417	1	6000	0.283	1	6000	0.700
14:00 - 14:30	1	6000	0.217	1	6000	0.433	1	6000	0.650
14:30 - 15:00	1	6000	0.217	1	6000	0.200	1	6000	0.417
15:00 - 15:30	1	6000	0.117	1	6000	0.267	1	6000	0.384
15:30 - 16:00	1	6000	0.217	1	6000	0.133	1	6000	0.350
16:00 - 16:30	1	6000	0.183	1	6000	0.467	1	6000	0.650
16:30 - 17:00	1	6000	0.183	1	6000	0.467	1	6000	0.650
17:00 - 17:30	1	6000	0.067	1	6000	0.533	1	6000	0.600
17:30 - 18:00	1	6000	0.133	1	6000	0.583	1	6000	0.716
18:00 - 18:30	1	6000	0.017	1	6000	0.300	1	6000	0.317
18:30 - 19:00	1	6000	0.000	1	6000	0.033	1	6000	0.033
19:00 - 19:30	0	0	0.000	0	0	0.000	0	0	0.000
19:30 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 20:30	0	0	0.000	0	0	0.000	0	0	0.000
20:30 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 21:30	0	0	0.000	0	0	0.000	0	0	0.000
21:30 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 22:30	0	0	0.000	0	0	0.000	0	0	0.000
22:30 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 23:30	0	0	0.000	0	0	0.000	0	0	0.000
23:30 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			7.186			6.934			14.120

Parameter summary

Trip rate parameter range selected:	6000 - 6000 (units: sqm)
Survey date date range:	20/10/09 - 20/10/09
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

Appendix C

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambledon Road, Waterloooville")

Selected Polygon:MC Hambledon Road, Waterloooville

120123308 28/03/2012 Time 1800 Vehicles 2 Casualties 1 Serious
E:467865 N: 109435 First Road: A 3 Road Type Dual carriageway
Speed limit: 40 Junction Detail: Roundabout Give way or controlled B 2150
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to judge other persons path or speed	Vehicle 2	Possible
2nd:	Sudden braking	Vehicle 2	Possible
3rd:			
4th:			
5th:			
6th:			

VEH 2 (CAR) TRAVELLING NW ALONG A3 MAUREPAS WAY OVERTOOK VEH 1 (M/CYCLE) TRAVELLING IN FRONT THEN BRAKED HARD CAUSING VEH 1 TO TAKE EVASIVE ACTION AND COLLIDE WITH KERB. VEH 2 FAILED TO STOP.

Occurred on A3 MAUREPAS WAY AT JUNCTION WITH B2150 HAMBLEDON ROAD, WINCHESTER, HAMPSHIRE

Vehicle Reference 1 Motorcycle 50cc and under Going ahead other
Vehicle movement from SE to NW No tow / articulation Leaving the main road
On main carriageway Skidded
Location at impact Jct Approach First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 33 Male
Not hit and run Breath test Not requested
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 33 Male Driver/rider Severity: Serious
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Vehicle Reference 2 Car Overtaking moving vehicle O/S
Vehicle movement from SE to NW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Did not impact Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver Female
Non-stop, not hit Breath test Driver not contacted
Left hand drive: No

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambledon Road, Waterloooville")

100505669 30/11/2010 Time 1310 Vehicles 3 Casualties 1 Slight
E:467865 N: 109449 First Road: A 3 Road Type Single carriageway
Speed limit: 40 Junction Detail: Roundabout Give way or controlled A 3
Crossing: Control None Facilities: None within 50m Road surface Snow
Daylight: no street lighting Snowing without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Following too close	Vehicle 3	Very Likely
2nd:	Failed to judge other persons path or speed	Vehicle 3	Very Likely
3rd:	Rain, sleet, snow, or fog	Vehicle 3	
4th:			
5th:			
6th:			

VEH 1 (CAR) TRAVELLING N ALONG MAUREPAS WAY APPROACHES RBT WITH MAUREPAS WAY AND SLOWS. VEH 2 (CAR) TRAVELLING BEHIND VEH 1 SLOWS BEHIND. VEH 3 (CAR) TRAVELLING BEHIND VEH 2 FAILS TO SLOW IN TIME AND COLLIDES CAUSING SHUNT COLLISION.

Occurred on A3 MAUREPAS ROAD AT JUNCTION WITH A3 MAUREPAS ROAD, WATERLOOVILLE, HAMPSHIRE

Vehicle Reference 1 Car Going ahead but held up
Vehicle movement from S to N No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Back Hit vehicle: 2
Hit object in road None Off road: None
Did not leave carr Age of Driver 73 Male
Not hit and run Breath test Negative
Left hand drive:

Vehicle Reference 2 Car Going ahead but held up
Vehicle movement from S to N No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Back Hit vehicle: 3
Hit object in road None Off road: None
Did not leave carr Age of Driver 48 Female
Not hit and run Breath test Negative
Left hand drive:

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambledon Road, Waterloooville")

Vehicle Reference	3	Car	Going ahead other
Vehicle movement from	S	to N	No tow / articulation
On main carriageway			Leaving the main road
Location at impact	Jct Approach		No skidding, jack-knifing or overturning
Hit object in road	None		First impact Front
			Off road: None
Did not leave carr			Hit vehicle: 2
Not hit and run			Age of Driver 82
	Breath test	Negative	Female
			Left hand drive:

Casualty Reference:	1	Vehicle:	3	Age:	82	Female	Driver/rider	Severity:	Slight
Not a pupil									
Seatbelt	Not Applicable								
		Cycle helmet:							

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambledon Road, Waterlooville")

130476212 20/12/2013 Time 0720 Vehicles 2 Casualties 1 Slight
E:467861 N: 109457 First Road: A 3 Road Type 1 A 2150
Speed limit: 40 Junction Detail: Roundabout Give way or controlled
Crossing: Control None Facilities: None within 50m Road surface Wet/Damp
Darkness: street lighting unknown Raining without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 1	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH 1 (CAR) TRAVELLING NW ALONG A3 MAUREPAS WAY, FAILS TO SEE AND ENTERS TO RBT ACROSS
THE PATH OF VEH 2 (P/CYCLE) TRAVELLING NW AROUND A3 MAUREPAS WAY RBT INTENDING TO EXIT
ONTO B2150 HAMBLEDON ROAD AND COLLIDES, RIDER FALLS OFF.

Occurred on A3 MAUREPAS WAY AT JUNCTION WITH B2150 HAMBLEDON ROAD, WATERLOOVILLE,
HAMPSHIRE

Vehicle Reference 1 Car Starting
Vehicle movement from SE to NW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or r First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 24 Female
Not hit and run Breath test Driver not contacted
Left hand drive: No

Vehicle Reference 2 Pedal Cycle Going ahead right bend
Vehicle movement from E to NW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or r First impact Nearside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 23 Female
Not hit and run Breath test Not applicable
Left hand drive: No

Casualty Reference: 1 Vehicle: 2 Age: 23 Female Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Yes

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambledon Road, Waterlooville")

140098527 20/03/2014 Time 1815 Vehicles 2 Casualties 1 Serious
E:467861 N: 109459 First Road: A 3 Road Type 1 B 2150
Speed limit: 40 Junction Detail: Roundabout Give way or controlled
Crossing: Control None Facilities: None within 50m Road surface Wet/Damp
Darkness: street lights present and lit Raining without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 2	Very Likely
2nd:	Failed to judge other persons path or speed	Vehicle 2	Very Likely
3rd:			
4th:			
5th:			
6th:			

VEH 2 (CAR) TRAVELLING N ALONG A3 MAUREPAS WAY ENTERED RBT AND COLLIDED WITH VEH 1
(P/CYCLE) TRAVELLING W AROUND A3 MAUREPAS WAY RBT.

Occurred on A3 MAUREPAS WAY AT JUNCTION WITH B2150 HAMBLEDON ROAD, DENMEAD, HAMPSHIRE

Vehicle Reference 1 Pedal Cycle Turning right
Vehicle movement from E to N No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or i First impact Nearside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 53 Male
Not hit and run Breath test Not applicable Left hand drive: No
Casualty Reference: 1 Vehicle: 1 Age: 53 Male Driver/rider Severity: Serious
Not a pupil
Seatbelt Not Applicable Cycle helmet: Yes

Vehicle Reference 2 Car Starting
Vehicle movement from S to N No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or i First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 34 Female
Not hit and run Breath test Negative Left hand drive: No

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambledon Road, Waterlooville")

110033859 21/01/2011 Time 1500 Vehicles 2 Casualties 1 Serious
E:467879 N: 109463 First Road: A 3 Road Type 1
Speed limit: 40 Junction Detail: Roundabout Give way or controlled B 2150
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight:street lights present Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: Elsewhere DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Poor turn or manoeuvre	Vehicle 2	Possible
2nd:	Failed to judge other persons path or speed	Vehicle 1	Possible
3rd:	Passing too close to cyclist, horse rider or pedestrian	Vehicle 2	
4th:			
5th:			
6th:			

VEH 2 (CAR) TRAVELLING W ALONG MAUREPAS WAY ENTERED THE RBT INTENDING TO TURN RIGHT INTO HAMBLEDON ROAD AND ATTEMPTED TO OVERTAKE VEH 1 (P/CYCLE). VEH 2 STRUCK VEH 1 IN THE PROCESS CAUSING THE RIDER TO FALL.

Occurred on MAUREPAS WAY AT JUNCTION WITH HAMBLEDON ROAD, DENMEAD, HAMPSHIRE

Vehicle Reference 1 Pedal Cycle Turning right
Vehicle movement from E to N No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or r First impact Offside Hit vehicle: 2
Hit object in road None Off road: None
Did not leave carr Age of Driver 18 Male
Not hit and run Breath test Not applicable
Left hand drive:

Casualty Reference: 1 Vehicle: 1 Age: 18 Male Driver/rider Severity: Serious
Not a pupil
Seatbelt Not Applicable Cycle helmet:

Vehicle Reference 2 Car Turning right
Vehicle movement from E to N No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or r First impact Front Hit vehicle: 1
Hit object in road None Off road: None
Did not leave carr Age of Driver Male
Hit and run Breath test Driver not contacted
Left hand drive:

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambledon Road, Waterlooville")

110080871 24/02/2011 Time 0730 Vehicles 2 Casualties 1 Serious
E:467895 N: 109471 First Road: A 3 Road Type 1
Speed limit: 40 Junction Detail: Roundabout Give way or controlled B 2150
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight:street lights present Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: Elsewhere DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to judge other persons path or speed	Vehicle 1	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH 1 (CAR) TRAVELLING W ALONG B2150 MAUREPAS WAY ENTERS RBT TO TURN LEFT ONTO A3
MAUREPAS WAY FAILING TO SEE VEH 2 (P/CYCLE) TRAVELLING S ALONG RBT AND COLLIDES.
Occurred on A3 MAUREPAS WAY AT JUNCTION WITH B2150 HAMBLEDON ROAD, DENMEAD, HAMPSHIRE

Vehicle Reference 1 Car Turning left
Vehicle movement from E to S No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or i First impact Front Hit vehicle: 2
Hit object in road None Off road: None
Did not leave carr Age of Driver 33 Male
Not hit and run Breath test Driver not contacted
Left hand drive:

Vehicle Reference 2 Pedal Cycle Going ahead other
Vehicle movement from N to S No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or i First impact Nearside Hit vehicle: 1
Hit object in road None Off road: None
Did not leave carr Age of Driver 40 Male
Not hit and run Breath test Driver not contacted
Left hand drive:

Casualty Reference: 1 Vehicle: 2 Age: 40 Male Driver/rider Severity: Serious
Not a pupil
Seatbelt Not Applicable Cycle helmet:

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambleton Road, Waterlooville")

150022387 21/01/2015 Time 0745 Vehicles 2 Casualties 1 Slight
E:467898 N: 109478 First Road: A 3 Road Type Single carriageway
Speed limit: 30 Junction Detail: Roundabout Give way or controlled B 2150
Crossing: Control None Facilities: None within 50m Road surface Wet/Damp
Darkness: street lights present and lit Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 1	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH 1 (CAR) TRAVELLING W ALONG A3 MAUREPAS WAY ENTERED THE RBT AT B2150 HAMBLEDON ROAD AND COLLIDED WITH THE NEARSIDE OF VEH 2 (P/CYCLE) TRAVELLING S ACROSS THE RBT, CAUSING THE RIDER TO FALL.

Occurred on A3 MAUREPAS WAY AT JUNCTION WITH B2150 HAMBLEDON ROAD, WATERLOOVILLE, HAMPSHIRE

Vehicle Reference 1 Car Starting
Vehicle movement from E to W No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Entering roundabout First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 37 Male
Not hit and run Breath test Negative
Left hand drive: No

Vehicle Reference 2 Pedal Cycle Going ahead other
Vehicle movement from N to S No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or r First impact Nearside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 63 Male
Not hit and run Breath test Not applicable
Left hand drive: No

Casualty Reference: 1 Vehicle: 2 Age: 63 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Yes

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambleton Road, Waterloooville")

100257068 22/06/2010 Time 1057 Vehicles 1 Casualties 1 Slight
E:467908 N: 109481 First Road: A 3 Road Type Single carriageway
Speed limit: 30 Junction Detail: Roundabout Give way or controlled B 2150
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight:street lights present Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: Elsewhere DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Junction overshoot	Vehicle 1	Very Likely
2nd:	Failed to judge other persons path or speed	Vehicle 1	Very Likely
3rd:			
4th:			
5th:			
6th:			

VEH 1 (TAXI) TRAVELLING W ALONG MAUREPAS WAY APPROACHES RBT WITH MAUREPAS WAY SOUTH.
VEH 1 ENTERS JUNCTION WITHOUT GIVING WAY AND BRAKES SUDDENLY TO AVOID COLLISION
CAUSING PASSENGER TO STRIKE HEAD AGAINST WINDOW.

Occurred on A3 MAUREPAS WAY AT JUNCTION WITH B2150 HAMBLETON ROAD, WATERLOOVILLE,
HAMPSHIRE

Vehicle Reference 1 Taxi/Private hire car Turning left
Vehicle movement from E to S No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Entering roundabout First impact Did not impact Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 30 Male
Not hit and run Breath test Not requested
Left hand drive:

Casualty Reference: 1 Vehicle: 1 Age: 51 Female Passenger Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet:
Front seat

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambledon Road, Waterlooville")

110398001 18/09/2011 Time 2022 Vehicles 2 Casualties 1 Slight
E:467870 N: 109521 First Road: A 3 Road Type 1
Speed limit: 30 Junction Detail: Roundabout Give way or controlled B 2150
Crossing: Control None Facilities: None within 50m Road surface Dry
Darkness: street lights present and lit Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: Elsewhere DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 2	Possible
2nd:	Disobeyed Give Way or Stop sign or markings	Vehicle 2	Possible
3rd:	Careless/Reckless/In a hurry	Vehicle 2	
4th:			
5th:			
6th:			

VEH 2 (CAR) TRAVELLING S ALONG B2150 HAMBLEDON ROAD PULLED OUT ONTO A3 MAUREPAS WAY
RBT INTO PATH OF VEH 1 (M/CYCLE) TRAVELLING E AROUND RBT. VEH 1 SWERVED TO AVOID
COLLISION CAUSING RIDER TO FALL OFF.

Occurred on A3 MAUREPAS WAY AT JUNCTION WITH B2150 HAMBLEDON ROAD, DENMEAD, HAMPSHIRE

Vehicle Reference 1 Motorcycle 50cc and under Going ahead right bend
Vehicle movement from W to E No tow / articulation Leaving the main road
On main carriageway Skidded
Location at impact Mid Junction - on roundabout or r First impact Offside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 17 Male
Not hit and run Breath test Not requested
Left hand drive:

Casualty Reference: 1 Vehicle: 1 Age: 17 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet:

Vehicle Reference 2 Car Starting
Vehicle movement from N to E No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or r First impact Did not impact Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver Not traced
Non-stop, not hit Breath test Not requested
Left hand drive:

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambledon Road, WaterlooVille")

120024866 18/01/2012 Time 0635 Vehicles 2 Casualties 1 Slight
E:467848 N: 109729 First Road: B 2150 Road Type Dual carriageway
Speed limit: 40 Junction Detail: T & Stag Jct Automatic traffic signal Unclassified
Crossing: Control None Facilities: None within 50m Road surface Wet/Damp
Darkness: street lights present and lit Raining without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Disobeyed automatic traffic signal	Vehicle 1	Very Likely
2nd:	Careless/Reckless/In a hurry	Vehicle 1	Possible
3rd:	Inadequate/Masked signs or road markings	Vehicle 1	
4th:			
5th:			
6th:			

VEH 1 (VAN) TRAV N ALONG B2150 HAMBLEDON ROAD TURNED RIGHT FOR ASTON ROAD ON A RED TRAFFIC LIGHT AND HAD AN OFFSET HEAD-ON COLLISION WITH VEH 2 (CAR) TRAV S ALONG HAMBLEDON ROAD. VEH 2 CONTINUED ALONG THE ROAD AND LEFT THE CARRIAGEWAY TO THE NEARSIDE

Occurred on B2150 HAMBLEDON ROAD AT JUNCTION WITH ASTON ROAD, WATERLOOVILLE, HAMPSHIRE

Vehicle Reference 1 Van or Goods 3.5 tonnes mgw and under Turning right
Vehicle movement from S to E No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Leaving main road First impact Front Hit vehicle: 2
Hit object in road None Off road: None
Did not leave carr Age of Driver 51 Male
Not hit and run Breath test Negative
Left hand drive:

Vehicle Reference 2 Car Going ahead other
Vehicle movement from N to S No tow / articulation Leaving the main road
On main carriageway Skidded
Location at impact Jct Approach First impact Front Hit vehicle: 1
Hit object in road None Off road: None
Nearside Age of Driver 22 Male
Not hit and run Breath test Not applicable
Left hand drive:

Casualty Reference: 1 Vehicle: 2 Age: 22 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet:

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambledon Road, Waterlooville")

110492162 21/11/2011 Time 0655 Vehicles 2 Casualties 1 Serious
E:467850 N: 109730 First Road: B 2150 Road Type Dual carriageway
Speed limit: 40 Junction Detail: T & Stag Jct Automatic traffic signal Unclassified
Crossing: Control None Facilities: Ped. phase at traffic signal junction Road surface Wet/Damp
Darkness: street lights present and lit Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Disobeyed automatic traffic signal	Vehicle 1	Possible
2nd:	Failed to look properly	Vehicle 1	Possible
3rd:			
4th:			
5th:			
6th:			

VEH 1 (M/CYCLE) TRAVELLING SOUTH ALONG B2150 HAMBLEDON ROAD, FAILS TO STOP AT LIGHTS AND COLLIDES WITH VEH 2 (VAN) TURNING RIGHT INTO ASTON ROAD FROM B2150 HAMBLEDON ROAD.

Occurred on B2150 HAMBLEDON ROAD AT JUNCTION WITH ASTON ROAD, WATERLOOVILLE, HAMPSHIRE

Vehicle Reference 1 Motorcycle over 500cc Going ahead other
Vehicle movement from N to S No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or i First impact Front Hit vehicle: 2
Hit object in road None Off road: None
Did not leave carr Age of Driver 46 Male
Not hit and run Breath test Not applicable
Left hand drive:
Casualty Reference: 1 Vehicle: 1 Age: 46 Male Driver/rider Severity: Serious
Not a pupil
Seatbelt Not Applicable Cycle helmet:

Vehicle Reference 2 Van or Goods 3.5 tonnes mgw and under Turning right
Vehicle movement from S to E No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or i First impact Nearside Hit vehicle: 1
Hit object in road None Off road: None
Did not leave carr Age of Driver 33 Male
Not hit and run Breath test Negative
Left hand drive:

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambledon Road, Waterlooville")

140093912 17/03/2014 Time 1230 Vehicles 2 Casualties 1 Slight
E:467846 N: 109738 First Road: B 2150 Road Type Dual carriageway
Speed limit: 40 Junction Detail: T & Stag Jct Automatic traffic signal Unclassified
Crossing: Control None Facilities: Ped. phase at traffic signal junction Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Following too close	Vehicle 2	Possible
2nd:	Sudden braking	Vehicle 1	Very Likely
3rd:	Careless/Reckless/In a hurry	Vehicle 2	Possible
4th:	Failed to judge other persons path or speed	Vehicle 2	Possible
5th:			
6th:			

VEH 2 (BUS) TRAVELLING S ALONG B2150 HAMBLEDON ROAD IN LANE 2 FAILED TO BRAKE IN TIME AND COLLIDED WITH REAR OF VEH 1 (VAN) TRAVELLING IN FRONT WHICH HAD BRAKED SUDDENLY DUE TO VEH IN FRONT BRAKING SUDDENLY FOR AN AMBER TRAFFIC LIGHT.

Occurred on B2150 HAMBLEDON ROAD AT JUNCTION WITH ASTON ROAD, WATERLOOVILLE, HAMPSHIRE

Vehicle Reference 1 Van or Goods 3.5 tonnes mgw and under Stopping
Vehicle movement from N to S No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Back Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 41 Male
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 41 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Vehicle Reference 2 Bus or coach Changing lane to right
Vehicle movement from N to S No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 54 Male
Not hit and run Breath test Negative
Left hand drive: No

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambledon Road, Waterlooville")

100264159 26/06/2010 Time 1000 Vehicles 2 Casualties 1 Slight
E:467541 N: 110004 First Road: U Road Type Single carriageway
Speed limit: 30 Junction Detail: Roundabout Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight:street lights present Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Following too close	Vehicle 1	Very Likely
2nd:	Failed to look properly	Vehicle 1	Very Likely
3rd:	Careless/Reckless/In a hurry	Vehicle 1	
4th:			
5th:			
6th:			

VEH 2 (CAR) TRAVELLING SE ALONG WESTBERRY DRIVE APPROACHES JUNCTION WITH ELETTRA AVENUE SLOWS TO A STOP. VEH 1 (VAN) TRAVELLING BEHIND VEH 2 FAILS TO SLOW IN TIME AND COLLIDES.

Occurred on WATERBERRY DRIVE AT JUNCTION ELETTRA AVENUE, WATERLOOVILLE, HAMPSHIRE

Vehicle Reference 1 Van or Goods 3.5 tonnes mgw and under Going ahead other
Vehicle movement from NW to SE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Front Hit vehicle: 2
Hit object in road None Off road: None
Did not leave carr Age of Driver 24 Male
Not hit and run Breath test Driver not contacted
Left hand drive:

Vehicle Reference 2 Car Going ahead but held up
Vehicle movement from NW to SE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Back Hit vehicle: 1
Hit object in road None Off road: None
Did not leave carr Age of Driver 36 Female
Not hit and run Breath test Not requested
Left hand drive:

Casualty Reference: 1 Vehicle: 2 Age: 36 Female Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet:

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambledon Road, Waterlooville")

120391813 06/10/2012 Time 2010 Vehicles 1 Casualties 1 Serious
E:467665 N: 110022 First Road: B 2150 Road Type 1
Speed limit: 30 Junction Detail: Roundabout Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Darkness: street lights present and lit Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Loss of control	Vehicle 1	Very Likely
2nd:	Inexperienced or learner driver/rider	Vehicle 1	Very Likely
3rd:			
4th:			
5th:			
6th:			

VEH 1 (M/CYCLE) TRAVELLING NW ALONG B2150 HAMBLEDON ROAD AROUND RBT WHEN VEH LOST CONTROL AND RIDER PUT FOOT DOWN BEFORE COMING OFF THE VEH.

Occurred on B2150 HAMBLEDON ROAD AT JUNCTION WITH ELETTRA AVENUE, HAVANT, HAMPSHIRE

Vehicle Reference 1 Motorcycle 50cc and under Going ahead other
Vehicle movement from SE to NW No tow / articulation Leaving the main road
On main carriageway Skidded
Location at impact Mid Junction - on roundabout or r First impact Did not impact Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 17 Male
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 1 Age: 17 Male Driver/rider Severity: Serious
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambledon Road, Waterlooville")

100206750 21/05/2010 Time 1200 Vehicles 2 Casualties 1 Slight
E:467665 N: 110027 First Road: B 2150 Road Type 1
Speed limit: 30 Junction Detail: Roundabout Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight: no street lighting Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: Elsewhere DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 1	Possible
2nd:	Failed to judge other persons path or speed	Vehicle 1	Possible
3rd:	Careless/Reckless/In a hurry	Vehicle 1	
4th:			
5th:			
6th:			

VEH 1 (CAR) TRAVELLING E ALONG ELETTRA AVENUE APPROACHES RBT WITH HAMBLEDON ROAD AND ENTERS JUNCTION WITHOUT GIVING WAY. VEH 2 (M/CYCLE) TRAVELLING NW ALONG HAMBLEDON ROAD ENTERS JUNCTION AND INTO PATH OF VEH 1 COLLIDING.

Occurred on B2150 HAMBLEDON ROAD AT JUNCTION WITH AVENUE, WATERLOOVILLE, HAMPSHIRE

Vehicle Reference 1 Car Going ahead other
Vehicle movement from SE to NW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Entering roundabout First impact Offside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 88 Male
Not hit and run Breath test Not requested
Left hand drive:

Vehicle Reference 2 Motor Cycle over 50 cc and up to 125cc Going ahead other
Vehicle movement from SE to SW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or r First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 19 Male
Not hit and run Breath test Not requested
Left hand drive:

Casualty Reference: 1 Vehicle: 2 Age: 19 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet:

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambledon Road, Waterlooville")

120085139 01/03/2012 Time 1655 Vehicles 2 Casualties 1 Slight
E:467710 N: 110034 First Road: B 2150 Road Type Single carriageway
Speed limit: 30 Junction Detail: Roundabout Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to judge other persons path or speed	Vehicle 1	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH 1 (M/CYCLE) TRAVELLING SE ALONG HAMBLEDON ROAD ON RBT PASSING MILTON ROAD WHEN
VEH 2 (CAR) TRAVELLING SW ALONG MILTON ROAD ENTERS RBT FAILING TO JUDGE VEH 1 ON RBT AND
PULLS ONTO RBT. VEH 1 TAKES AVOIDIVE ACTION BUT COLLIDES INTO VEH 2.

Occurred on B2150 HAMBLEDON ROAD AT JUNCTION WITH MILTON ROAD, WATERLOOVILLE,
HAMPSHIRE

Vehicle Reference 1 Car Starting
Vehicle movement from NE to SW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Entering roundabout First impact Offside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 58 Female
Not hit and run Breath test Negative
Left hand drive: No

Vehicle Reference 2 Motorcycle over 500cc Going ahead other
Vehicle movement from NW to SE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or r First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 33 Male
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 2 Age: 33 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambledon Road, Waterlooville")

120170106 03/05/2012 Time 1405 Vehicles 2 Casualties 1 Slight
E:467691 N: 110048 First Road: B 2150 Road Type 1
Speed limit: 40 Junction Detail: Roundabout Give way or controlled Unclassified
Crossing: Control None Facilities: Ped. phase at traffic signal junction Road surface Wet/Damp
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Slippery road (due to weather)	Vehicle 1	Very Likely
2nd:	Failed to look properly	Vehicle 1	Possible
3rd:			
4th:			
5th:			
6th:			

VEH 1 (VAN) TRAVELLING SE ALONG B2150 HAMBLEDON ROAD ENTERED RBT FAILING TO SEE VEH 2 (M/CYCLE) TRAVELLING NE AROUND RBT. VEH 2 COLLIDED WITH OFFSIDE VEH 1 CAUSING RIDER TO FALL OFF.

Occurred on B2150 HAMBLEDON ROAD AT JUNCTION WITH ELECTRA AVENUE, WATERLOOVILLE, HAMPSHIRE

Vehicle Reference 1 Van or Goods 3.5 tonnes mgw and under Starting
Vehicle movement from NW to SE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or r First impact Offside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 65 Male
Not hit and run Breath test Negative
Left hand drive: No

Vehicle Reference 2 Motor Cycle over 125 cc and up to 500cc Reversing
Vehicle movement from W to S No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or r First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 43 Male
Not hit and run Breath test Negative
Left hand drive: No

Casualty Reference: 1 Vehicle: 2 Age: 43 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Not a cyclist

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambledon Road, Waterlooville")

100378842 06/09/2010 Time 1310 Vehicles 3 Casualties 1 Slight
E:467660 N: 110053 First Road: B 2150 Road Type Dual carriageway
Speed limit: 40 Junction Detail: Roundabout Automatic traffic signal Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight:street lights present Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 1	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH 1 (VAN) TRAVELLING NW ALONG HAMBLEDON ROAD HAD JUST EXITED RBT WITH ELETTRA AVENUE FAILING TO SEE STATIC TRAFFIC AHEAD. VEH 1 COLLIDED INTO THE REAR OF VEH 2 (CAR) WHICH THEN COLLIDED INTO THE REAR OF VEH 3 (CAR).

Occurred on B2150 HAMBLEDON ROAD AT JUNCTION WITH ELETTRA AVENUE, WATERLOOVILLE, HAMPSHIRE

Vehicle Reference 1 Van or Goods 3.5 tonnes mgw and under Going ahead other
Vehicle movement from SE to NW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Leaving roundabout First impact Front Hit vehicle: 2
Hit object in road None Off road: None
Did not leave carr Age of Driver 27 Male
Not hit and run Breath test Negative
Left hand drive:

Vehicle Reference 2 Car Going ahead but held up
Vehicle movement from SE to NW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Cleared junction or waiting/parked First impact Back Hit vehicle: 1
Hit object in road None Off road: None
Did not leave carr Age of Driver 23 Female
Not hit and run Breath test Not requested
Left hand drive:

Casualty Reference: 1 Vehicle: 2 Age: 23 Female Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet:

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambledon Road, Waterloooville")

Vehicle Reference	3	Car	Going ahead but held up
Vehicle movement from	SE	to NW	No tow / articulation
On main carriageway			Leaving the main road
Location at impact	Cleared junction or waiting/parke	First impact	Back
Hit object in road	None	Off road:	None
Did not leave carr		Age of Driver	59
Not hit and run	Breath test	Negative	Female
		Left hand drive:	

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambledon Road, Waterlooville")

140318061 03/09/2014 Time 0820 Vehicles 2 Casualties 1 Slight
E:467686 N: 110053 First Road: B 2150 Road Type 1
Speed limit: 30 Junction Detail: Roundabout Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Disobeyed Give Way or Stop sign or markings	Vehicle 1	Very Likely
2nd:	Failed to look properly	Vehicle 1	Very Likely
3rd:			
4th:			
5th:			
6th:			

VEH 1 (CAR) TRAVELLING SE ALONG B2150 HAMBLEDON ROAD ENTERED RBT AND COLLIDED WITH
NEARSIDE OF VEH 2 (P/CYCLE) TRAVELLING NE AROUND B2150 HAMBLEDON ROAD RBT TURNING RIGHT
INTO MILTON ROAD.

Occurred on B2150 HAMBLEDON ROAD AT JUNCTION WITH MILTON ROAD, WATERLOOVILLE,
HAMPSHIRE

Vehicle Reference 1 Car Going ahead other
Vehicle movement from NW to SE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or r First impact Front Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 49 Female
Not hit and run Breath test Negative
Left hand drive: No

Vehicle Reference 2 Pedal Cycle Turning right
Vehicle movement from SE to NE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or r First impact Nearside Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver 33 Male
Not hit and run Breath test Not applicable
Left hand drive: No

Casualty Reference: 1 Vehicle: 2 Age: 33 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet: Yes

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambledon Road, Waterlooville")

110168684 23/04/2011 Time 1030 Vehicles 2 Casualties 1 Slight
E:467681 N: 110054 First Road: B 2150 Road Type 1
Speed limit: 30 Junction Detail: Roundabout Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight:street lights present Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 2	Very Likely
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH 2 (CAR) TRAVELLING SE ALONG B2150 HAMBLEDON ROAD ENTERS RBT FAILING TO SEE VEH 1 (CAR)
ALREADY ON RBT AND PROCEEDS COLLIDING INTO VEH 1.

Occurred on B2150 HAMBLEDON ROAD AT JUNCTION WITH MILTON ROAD, WATERLOOVILLE,
HAMPSHIRE

Vehicle Reference 1 Car Going ahead other
Vehicle movement from SW to NE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or r First impact Nearside Hit vehicle: 2
Hit object in road None Off road: None
Did not leave carr Age of Driver 52 Female
Not hit and run Breath test Negative
Left hand drive:

Casualty Reference: 1 Vehicle: 1 Age: 52 Female Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet:

Vehicle Reference 2 Car Going ahead other
Vehicle movement from NW to SE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or r First impact Offside Hit vehicle: 1
Hit object in road None Off road: None
Did not leave carr Age of Driver 52 Female
Not hit and run Breath test Negative
Left hand drive:

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambleton Road, Waterloooville")

110436926 14/10/2011 Time 1200 Vehicles 1 Casualties 1 Slight
E:467723 N: 110055 First Road: U Road Type Single carriageway
Speed limit: 30 Junction Detail: Roundabout Give way or controlled B 2150
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight:street lights present Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: Elsewhere DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Sudden braking	Vehicle 1	Possible
2nd:	Other	Vehicle 1	Possible
3rd:			
4th:			
5th:			
6th:			

VEH 1 (BUS) TRAVELLING SW ALONG MILTON ROAD STOPPING ON APPROACH TO RBT WITH B2150
HAMBLEDON ROAD. UPON STOPPING A SEAT AT THE REAR OF VEH 1 BECAME DISLODGED AND
COLLIDED INTO CAS 1 (PASSENGER).

Occurred on B2150 HAMBLEDON ROAD AT JUNCTION WITH MILTON ROAD, WATERLOOVILLE,
HAMPSHIRE

Vehicle Reference 1 Bus or coach Stopping
Vehicle movement from NE to SW No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Jct Approach First impact Did not impact Hit vehicle:
Hit object in road None Off road: None
Did not leave carr Age of Driver Not traced
Not hit and run Breath test Driver not contacted
Left hand drive:

Casualty Reference: 1 Vehicle: 1 Age: 52 Male Passenger Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet:
Not car passenger Seated bu

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambledon Road, Waterlooville")

100283711 07/07/2010 Time 2005 Vehicles 2 Casualties 1 Slight
E:467693 N: 110055 First Road: B 2150 Road Type 1
Speed limit: 30 Junction Detail: Roundabout Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight:street lights present Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 1	Very Likely
2nd:	Disobeyed Give Way or Stop sign or markings	Vehicle 1	Very Likely
3rd:	Failed to judge other persons path or speed	Vehicle 1	
4th:			
5th:			
6th:			

VEH 1 (CAR) TRAVELLING S ALONG B2150 HAMBLEDON ROAD FAILED TO GIVE WAY AND ENTERED RBT
COLLIDING WITH VEH 2 (P/CYCLE) TRAVELLING NE AROUND RBT, KNOCKING RIDER FROM VEH.
Occurred on B2150 HAMBLEDON ROAD AT JUNCTION WITH MILTON ROAD, HAVANT, HAMPSHIRE

Vehicle Reference 1 Car Starting
Vehicle movement from N to S No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or i First impact Offside Hit vehicle: 2
Hit object in road None Off road: None
Did not leave carr Age of Driver 32 Female
Not hit and run Breath test Negative
Left hand drive:

Vehicle Reference 2 Pedal Cycle Going ahead other
Vehicle movement from W to NE No tow / articulation Leaving the main road
On main carriageway Skidded
Location at impact Mid Junction - on roundabout or i First impact Front Hit vehicle: 1
Hit object in road None Off road: None
Did not leave carr Age of Driver 32 Male
Not hit and run Breath test Not applicable
Left hand drive:

Casualty Reference: 1 Vehicle: 2 Age: 32 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet:

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambledon Road, Waterlooville")

110019664 14/01/2011 Time 2155 Vehicles 2 Casualties 1 Slight
E:467679 N: 110055 First Road: B 2150 Road Type 1
Speed limit: 30 Junction Detail: Roundabout Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Wet/Damp
Darkness: street lights present and lit Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: Elsewhere DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Disobeyed Give Way or Stop sign or markings	Vehicle 1	Very Likely
2nd:	Failed to look properly	Vehicle 1	Very Likely
3rd:	Failed to judge other persons path or speed	Vehicle 1	Possible
4th:	Inexperienced or learner driver/rider	Vehicle 1	Possible
5th:			
6th:			

VEH 1 (CAR) TRAVELLING SE ALONG B2150 HAMBLEDON ROAD, ENTERS RBT FAILING TO GIVE WAY TO
VEH 2 (TAXI) NEGOTIATING RBT FROM ELETTRA AVENUE. FRONT OF VEH 2 HITS OFFSIDE OF VEH 1.

Occurred on B2150 HAMBLEDON ROAD AT JUNCTION WITH MILTON ROAD, WATERLOOVILLE,
HAMPSHIRE

Vehicle Reference 1 Car Starting
Vehicle movement from NW to SE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Entering roundabout First impact Nearside Hit vehicle: 2
Hit object in road None Off road: None
Did not leave carr Age of Driver 19 Female
Not hit and run Breath test Driver not contacted
Left hand drive:

Vehicle Reference 2 Taxi/Private hire car Going ahead other
Vehicle movement from SW to NE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Mid Junction - on roundabout or r First impact Front Hit vehicle: 1
Hit object in road None Off road: None
Did not leave carr Age of Driver 42 Male
Not hit and run Breath test Driver not contacted
Left hand drive:

Casualty Reference: 1 Vehicle: 2 Age: 42 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet:

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambledon Road, Waterlooville")

110347755 15/08/2011 Time 1814 Vehicles 2 Casualties 1 Slight
E:467684 N: 110056 First Road: B 2150 Road Type 1
Speed limit: 40 Junction Detail: Roundabout Give way or controlled Unclassified
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight:street lights present Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to look properly	Vehicle 2	Possible
2nd:	Failed to judge other persons path or speed	Vehicle 2	Possible
3rd:			
4th:			
5th:			
6th:			

VEH 2 (CAR) TRAVELLING SE ALONG B2150 HAMBLEDON ROAD, ENTERS RBT INTENDING TO CONTINUE
AHEAD, ACROSS PATH OF APPROACHING VEH 1 (P/CYCLE) NEGOTIATING RBT AND COLLIDES.

Occurred on B2150 HAMBLEDON ROAD AT JUNCTION WITH MILTON ROAD, WATERLOOVILLE,
HAMPSHIRE

Vehicle Reference 1 Pedal Cycle Going ahead right bend
Vehicle movement from SW to NE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Cleared junction or waiting/parke First impact Nearside Hit vehicle: 2
Hit object in road None Off road: None
Did not leave carr Age of Driver 48 Male
Not hit and run Breath test Not requested
Left hand drive:

Casualty Reference: 1 Vehicle: 1 Age: 48 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet:

Vehicle Reference 2 Car Starting
Vehicle movement from NW to SE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Entering roundabout First impact Offside Hit vehicle: 1
Hit object in road None Off road: None
Did not leave carr Age of Driver 23 Male
Not hit and run Breath test Negative
Left hand drive:

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambledon Road, Waterloooville")

120045966 02/02/2012 Time 0850 Vehicles 2 Casualties 1 Slight
E:467665 N: 110078 First Road: B 2150 Road Type Single carriageway
Speed limit: 30 Junction Detail: Not within 20m of junction
Crossing: Control None Facilities: None within 50m Road surface Dry
Daylight:street lights present Fine without high winds
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Dazzling sun	Vehicle 2	Possible
2nd:			
3rd:			
4th:			
5th:			
6th:			

VEH 2 (VAN) TRAVELLING SE ALONG B2150 HAMBLEDON ROAD INTO LOW SUN, FAILING TO SEE AND
COLLIDES WITH THE REAR OF VEH 1 (CAR) STATIONARY IN FRONT WAITING IN QUEUE OF TRAFFIC.
Occurred on B2150 HAMBLEDON ROAD 25 METRES NORTH WEST OF MILTON ROAD, WATERLOOVILLE,
HAMPSHIRE

Vehicle Reference 1 Car Going ahead but held up
Vehicle movement from NW to SE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Back Hit vehicle: 2
Hit object in road None Off road: None
Did not leave carr Age of Driver 35 Female
Not hit and run Breath test Negative
Left hand drive:

Casualty Reference: 1 Vehicle: 1 Age: 35 Female Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet:

Vehicle Reference 2 Van or Goods 3.5 tonnes mgw and under Going ahead other
Vehicle movement from NW to SE No tow / articulation Leaving the main road
On main carriageway Skidded
Location at impact Not at, or within 20M of Jct First impact Front Hit vehicle: 1
Hit object in road None Off road: None
Did not leave carr Age of Driver 46 Male
Not hit and run Breath test Negative
Left hand drive:

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Notes:

Selected using Build Query : ; Refined using Accidents within
selected Polygons -HC - RPU Statistics Request ("MC
Hambledon Road, Waterlooville")

100139228 31/03/2010 Time 1245 Vehicles 2 Casualties 1 Slight
E:467664 N: 110084 First Road: B 2150 Road Type Single carriageway
Speed limit: 40 Junction Detail: Not within 20m of junction
Crossing: Control None Facilities: None within 50m Road surface Wet/Damp
Daylight:street lights present Other
Special Conditions at Site None Carriageway Hazards: None
Place accident reported: Elsewhere DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Swerved	Vehicle 2	Very Likely
2nd:	Failed to judge other persons path or speed	Vehicle 2	Possible
3rd:			
4th:			
5th:			
6th:			

VEH 2 (CAR) TRAVELLING SE ALONG B2150 HAMBLEDON ROAD IN LANE 1 SWERVED INTO LANE 2
COLLIDING WITH NEARSIDE VEH 1 (CAR) TRAVELLING IN FRONT IN LANE 2. VEH 2 SWERVED DUE TO
TRAFFIC IN FRONT BRAKING HARD.

Occurred on B2150 HAMBLEDON ROAD 30 METRES NORTHWEST OF MILTON ROAD, WATERLOOVILLE,
HAMPSHIRE

Vehicle Reference 1 Car Going ahead other
Vehicle movement from NW to SE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Nearside Hit vehicle: 2
Hit object in road None Off road: None
Did not leave carr Age of Driver 47 Male
Not hit and run Breath test Driver not contacted
Left hand drive:

Casualty Reference: 1 Vehicle: 1 Age: 47 Male Driver/rider Severity: Slight
Not a pupil
Seatbelt Not Applicable Cycle helmet:

Vehicle Reference 2 Car Going ahead other
Vehicle movement from NW to SE No tow / articulation Leaving the main road
On main carriageway No skidding, jack-knifing or overturning
Location at impact Not at, or within 20M of Jct First impact Offside Hit vehicle: 1
Hit object in road None Off road: None
Did not leave carr Age of Driver Female
Not hit and run Breath test Driver not contacted
Left hand drive:

Accidents between dates 01/02/2010 and 31/01/2015 (60) months

Selection:

Selected using Build Query : ; Refined using Accidents within selected Polygons -HC - RPU Statistics Request ("MC Hambledon Road, Waterloooville")

Notes:

Accidents involving:

	Fatal	Serious	Slight	Total
Motor vehicles only (excluding 2-wheels)	0	0	11	11
2-wheeled motor vehicles	0	3	4	7
Pedal cycles	0	3	5	8
Horses & other	0	0	0	0
Total	0	6	20	26

Casualties:

	Fatal	Serious	Slight	Total
Vehicle driver	0	0	9	9
Passenger	0	0	2	2
Motorcycle rider	0	3	4	7
Cyclist	0	3	5	8
Pedestrian	0	0	0	0
Other	0	0	0	0
Total	0	6	20	26

Appendix D

Calculation Reference: AUDIT-623801-150417-0431

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
 Category : K - FITNESS CLUB (PRIVATE)
 MULTI-MODAL VEHICLES

Selected regions and areas:

06	WEST MIDLANDS	
	SH SHROPSHIRE	1 days
08	NORTH WEST	
	MS MERSEYSIDE	1 days

Filtering Stage 2 selection:

Parameter: Gross floor area
 Actual Range: 3000 to 4500 (units: sqm)
 Range Selected by User: 3000 to 13856 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/07 to 21/05/14

Selected survey days:

Wednesday	1 days
Thursday	1 days

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

Selected Locations:

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

Selected Location Sub Categories:

Residential Zone	1
Retail Zone	1

Filtering Stage 3 selection:

Use Class:

D2	2 days
----	--------

Population within 1 mile:

10,001 to 15,000	1 days
25,001 to 50,000	1 days

Population within 5 miles:

75,001 to 100,000	1 days
500,001 or More	1 days

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	1 days

Travel Plan:

No	2 days
----	--------

LIST OF SITES relevant to selection parameters

- | | | | |
|---|------------------------------------|---------------------------|---------------------|
| 1 | MS-07-K-01 | TOTAL FITNESS | MERSEYSIDE |
| | MONTROSE WAY | | |
| | EDGE LANE | | |
| | LIVERPOOL | | |
| | Suburban Area (PPS6 Out of Centre) | | |
| | Retail Zone | | |
| | Total Gross floor area: | 3000 sqm | |
| | Survey date: THURSDAY | 28/06/07 | Survey Type: MANUAL |
| 2 | SH-07-K-01 | FITNESS, TENNIS & LEISURE | SHROPSHIRE |
| | SUNDORNE ROAD | | |
| | SHREWSBURY | | |
| | Edge of Town | | |
| | Residential Zone | | |
| | Total Gross floor area: | 4500 sqm | |
| | Survey date: WEDNESDAY | 21/05/14 | Survey Type: MANUAL |

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)

MULTI-MODAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	3750	0.960	2	3750	0.027	2	3750	0.987
07:00 - 08:00	2	3750	0.653	2	3750	0.947	2	3750	1.600
08:00 - 09:00	2	3750	1.107	2	3750	0.960	2	3750	2.067
09:00 - 10:00	2	3750	1.813	2	3750	0.600	2	3750	2.413
10:00 - 11:00	2	3750	1.133	2	3750	1.173	2	3750	2.306
11:00 - 12:00	2	3750	0.653	2	3750	1.387	2	3750	2.040
12:00 - 13:00	2	3750	0.787	2	3750	0.947	2	3750	1.734
13:00 - 14:00	2	3750	0.680	2	3750	0.787	2	3750	1.467
14:00 - 15:00	2	3750	0.973	2	3750	0.893	2	3750	1.866
15:00 - 16:00	2	3750	1.400	2	3750	1.107	2	3750	2.507
16:00 - 17:00	2	3750	1.853	2	3750	1.293	2	3750	3.146
17:00 - 18:00	2	3750	2.467	2	3750	1.707	2	3750	4.174
18:00 - 19:00	2	3750	1.933	2	3750	1.880	2	3750	3.813
19:00 - 20:00	2	3750	1.000	2	3750	1.987	2	3750	2.987
20:00 - 21:00	2	3750	0.867	2	3750	1.227	2	3750	2.094
21:00 - 22:00	2	3750	0.093	2	3750	1.293	2	3750	1.386
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			18.372			18.215			36.587

Parameter summary

Trip rate parameter range selected: 3000 - 4500 (units: sqm)
 Survey date range: 01/01/07 - 21/05/14
 Number of weekdays (Monday-Friday): 2
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	3750	0.013	2	3750	0.000	2	3750	0.013
07:00 - 08:00	2	3750	0.000	2	3750	0.000	2	3750	0.000
08:00 - 09:00	2	3750	0.000	2	3750	0.013	2	3750	0.013
09:00 - 10:00	2	3750	0.013	2	3750	0.000	2	3750	0.013
10:00 - 11:00	2	3750	0.000	2	3750	0.000	2	3750	0.000
11:00 - 12:00	2	3750	0.000	2	3750	0.000	2	3750	0.000
12:00 - 13:00	2	3750	0.000	2	3750	0.000	2	3750	0.000
13:00 - 14:00	2	3750	0.013	2	3750	0.000	2	3750	0.013
14:00 - 15:00	2	3750	0.000	2	3750	0.013	2	3750	0.013
15:00 - 16:00	2	3750	0.000	2	3750	0.013	2	3750	0.013
16:00 - 17:00	2	3750	0.000	2	3750	0.000	2	3750	0.000
17:00 - 18:00	2	3750	0.000	2	3750	0.000	2	3750	0.000
18:00 - 19:00	2	3750	0.000	2	3750	0.000	2	3750	0.000
19:00 - 20:00	2	3750	0.000	2	3750	0.000	2	3750	0.000
20:00 - 21:00	2	3750	0.000	2	3750	0.000	2	3750	0.000
21:00 - 22:00	2	3750	0.000	2	3750	0.000	2	3750	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.039			0.039			0.078

Parameter summary

Trip rate parameter range selected: 3000 - 4500 (units: sqm)
 Survey date range: 01/01/07 - 21/05/14
 Number of weekdays (Monday-Friday): 2
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)

MULTI-MODAL CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	3750	0.053	2	3750	0.013	2	3750	0.066
07:00 - 08:00	2	3750	0.000	2	3750	0.027	2	3750	0.027
08:00 - 09:00	2	3750	0.013	2	3750	0.013	2	3750	0.026
09:00 - 10:00	2	3750	0.027	2	3750	0.013	2	3750	0.040
10:00 - 11:00	2	3750	0.013	2	3750	0.000	2	3750	0.013
11:00 - 12:00	2	3750	0.013	2	3750	0.013	2	3750	0.026
12:00 - 13:00	2	3750	0.000	2	3750	0.000	2	3750	0.000
13:00 - 14:00	2	3750	0.013	2	3750	0.000	2	3750	0.013
14:00 - 15:00	2	3750	0.013	2	3750	0.000	2	3750	0.013
15:00 - 16:00	2	3750	0.027	2	3750	0.013	2	3750	0.040
16:00 - 17:00	2	3750	0.013	2	3750	0.013	2	3750	0.026
17:00 - 18:00	2	3750	0.013	2	3750	0.067	2	3750	0.080
18:00 - 19:00	2	3750	0.067	2	3750	0.027	2	3750	0.094
19:00 - 20:00	2	3750	0.027	2	3750	0.053	2	3750	0.080
20:00 - 21:00	2	3750	0.000	2	3750	0.027	2	3750	0.027
21:00 - 22:00	2	3750	0.000	2	3750	0.000	2	3750	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.292			0.279			0.571

Parameter summary

Trip rate parameter range selected: 3000 - 4500 (units: sqm)
 Survey date range: 01/01/07 - 21/05/14
 Number of weekdays (Monday-Friday): 2
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	3750	0.973	2	3750	0.027	2	3750	1.000
07:00 - 08:00	2	3750	0.720	2	3750	0.987	2	3750	1.707
08:00 - 09:00	2	3750	1.267	2	3750	1.013	2	3750	2.280
09:00 - 10:00	2	3750	2.147	2	3750	0.640	2	3750	2.787
10:00 - 11:00	2	3750	1.293	2	3750	1.307	2	3750	2.600
11:00 - 12:00	2	3750	0.693	2	3750	1.693	2	3750	2.386
12:00 - 13:00	2	3750	0.867	2	3750	1.040	2	3750	1.907
13:00 - 14:00	2	3750	0.880	2	3750	0.880	2	3750	1.760
14:00 - 15:00	2	3750	1.173	2	3750	1.027	2	3750	2.200
15:00 - 16:00	2	3750	2.080	2	3750	1.400	2	3750	3.480
16:00 - 17:00	2	3750	2.667	2	3750	1.800	2	3750	4.467
17:00 - 18:00	2	3750	3.200	2	3750	2.413	2	3750	5.613
18:00 - 19:00	2	3750	2.427	2	3750	2.427	2	3750	4.854
19:00 - 20:00	2	3750	1.293	2	3750	2.627	2	3750	3.920
20:00 - 21:00	2	3750	0.960	2	3750	1.493	2	3750	2.453
21:00 - 22:00	2	3750	0.093	2	3750	1.440	2	3750	1.533
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			22.733			22.214			44.947

Parameter summary

Trip rate parameter range selected: 3000 - 4500 (units: sqm)
 Survey date range: 01/01/07 - 21/05/14
 Number of weekdays (Monday-Friday): 2
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	3750	0.040	2	3750	0.027	2	3750	0.067
07:00 - 08:00	2	3750	0.067	2	3750	0.080	2	3750	0.147
08:00 - 09:00	2	3750	0.107	2	3750	0.027	2	3750	0.134
09:00 - 10:00	2	3750	0.147	2	3750	0.053	2	3750	0.200
10:00 - 11:00	2	3750	0.293	2	3750	0.080	2	3750	0.373
11:00 - 12:00	2	3750	0.107	2	3750	0.133	2	3750	0.240
12:00 - 13:00	2	3750	0.240	2	3750	0.093	2	3750	0.333
13:00 - 14:00	2	3750	0.173	2	3750	0.267	2	3750	0.440
14:00 - 15:00	2	3750	0.067	2	3750	0.120	2	3750	0.187
15:00 - 16:00	2	3750	0.173	2	3750	0.093	2	3750	0.266
16:00 - 17:00	2	3750	0.187	2	3750	0.147	2	3750	0.334
17:00 - 18:00	2	3750	0.173	2	3750	0.093	2	3750	0.266
18:00 - 19:00	2	3750	0.173	2	3750	0.187	2	3750	0.360
19:00 - 20:00	2	3750	0.067	2	3750	0.173	2	3750	0.240
20:00 - 21:00	2	3750	0.013	2	3750	0.080	2	3750	0.093
21:00 - 22:00	2	3750	0.000	2	3750	0.040	2	3750	0.040
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.027			1.693			3.720

Parameter summary

Trip rate parameter range selected: 3000 - 4500 (units: sqm)
 Survey date range: 01/01/07 - 21/05/14
 Number of weekdays (Monday-Friday): 2
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	3750	0.000	2	3750	0.000	2	3750	0.000
07:00 - 08:00	2	3750	0.027	2	3750	0.000	2	3750	0.027
08:00 - 09:00	2	3750	0.013	2	3750	0.000	2	3750	0.013
09:00 - 10:00	2	3750	0.027	2	3750	0.027	2	3750	0.054
10:00 - 11:00	2	3750	0.000	2	3750	0.027	2	3750	0.027
11:00 - 12:00	2	3750	0.000	2	3750	0.013	2	3750	0.013
12:00 - 13:00	2	3750	0.040	2	3750	0.000	2	3750	0.040
13:00 - 14:00	2	3750	0.000	2	3750	0.013	2	3750	0.013
14:00 - 15:00	2	3750	0.000	2	3750	0.040	2	3750	0.040
15:00 - 16:00	2	3750	0.000	2	3750	0.013	2	3750	0.013
16:00 - 17:00	2	3750	0.013	2	3750	0.000	2	3750	0.013
17:00 - 18:00	2	3750	0.000	2	3750	0.000	2	3750	0.000
18:00 - 19:00	2	3750	0.013	2	3750	0.027	2	3750	0.040
19:00 - 20:00	2	3750	0.000	2	3750	0.000	2	3750	0.000
20:00 - 21:00	2	3750	0.000	2	3750	0.000	2	3750	0.000
21:00 - 22:00	2	3750	0.000	2	3750	0.027	2	3750	0.027
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.133			0.187			0.320

Parameter summary

Trip rate parameter range selected: 3000 - 4500 (units: sqm)
 Survey date range: 01/01/07 - 21/05/14
 Number of weekdays (Monday-Friday): 2
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	3750	1.067	2	3750	0.067	2	3750	1.134
07:00 - 08:00	2	3750	0.813	2	3750	1.093	2	3750	1.906
08:00 - 09:00	2	3750	1.400	2	3750	1.053	2	3750	2.453
09:00 - 10:00	2	3750	2.347	2	3750	0.733	2	3750	3.080
10:00 - 11:00	2	3750	1.600	2	3750	1.413	2	3750	3.013
11:00 - 12:00	2	3750	0.813	2	3750	1.853	2	3750	2.666
12:00 - 13:00	2	3750	1.147	2	3750	1.133	2	3750	2.280
13:00 - 14:00	2	3750	1.067	2	3750	1.160	2	3750	2.227
14:00 - 15:00	2	3750	1.253	2	3750	1.187	2	3750	2.440
15:00 - 16:00	2	3750	2.280	2	3750	1.520	2	3750	3.800
16:00 - 17:00	2	3750	2.880	2	3750	1.960	2	3750	4.840
17:00 - 18:00	2	3750	3.387	2	3750	2.573	2	3750	5.960
18:00 - 19:00	2	3750	2.680	2	3750	2.667	2	3750	5.347
19:00 - 20:00	2	3750	1.387	2	3750	2.853	2	3750	4.240
20:00 - 21:00	2	3750	0.973	2	3750	1.600	2	3750	2.573
21:00 - 22:00	2	3750	0.093	2	3750	1.507	2	3750	1.600
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			25.187			24.372			49.559

Parameter summary

Trip rate parameter range selected: 3000 - 4500 (units: sqm)
 Survey date range: 01/01/07 - 21/05/14
 Number of weekdays (Monday-Friday): 2
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

Calculation Reference: AUDIT-623801-150612-0607

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
 Category : A - MULTIPLEX CINEMAS
 MULTI-MODAL VEHICLES

Selected regions and areas:

06	WEST MIDLANDS	
	SH SHROPSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days

Filtering Stage 2 selection:

Parameter: Gross floor area
 Actual Range: 2400 to 4500 (units: sqm)
 Range Selected by User: 2323 to 4500 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/07 to 18/09/09

Selected survey days:

Friday 2 days

Selected survey types:

Manual count 2 days
 Directional ATC Count 0 days

Selected Locations:

Edge of Town Centre 1
 Edge of Town 1

Selected Location Sub Categories:

Retail Zone 1
 Built-Up Zone 1

Filtering Stage 3 selection:

Use Class:

D2 2 days

Population within 1 mile:

5,001 to 10,000 1 days
 20,001 to 25,000 1 days

Population within 5 miles:

75,001 to 100,000 1 days
 125,001 to 250,000 1 days

Car ownership within 5 miles:

1.1 to 1.5 1 days
 1.6 to 2.0 1 days

Travel Plan:

No 2 days

LIST OF SITES relevant to selection parameters

1	NY-07-A-02	VUE		NORTH YORKSHIRE
	STIRLING ROAD			
	CLIFTON MOOR			
	YORK			
	Edge of Town			
	Retail Zone			
	Total Gross floor area:	4500 sqm		
	Survey date: FRIDAY	18/09/09		Survey Type: MANUAL
2	SH-07-A-02	CINEWORLD		SHROPSHIRE
	OLD POTTS WAY			
	SHREWSBURY			
	Edge of Town Centre			
	Built-Up Zone			
	Total Gross floor area:	2400 sqm		
	Survey date: FRIDAY	19/06/09		Survey Type: MANUAL

TRIP RATE for Land Use 07 - LEISURE/A - MULTIPLEX CINEMAS

MULTI-MODAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	2	3450	0.116	2	3450	0.652	2	3450	0.768
01:00 - 02:00	2	3450	0.000	2	3450	0.493	2	3450	0.493
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	2400	0.000	1	2400	0.000	1	2400	0.000
11:00 - 12:00	1	2400	0.000	1	2400	0.000	1	2400	0.000
12:00 - 13:00	2	3450	0.580	2	3450	0.188	2	3450	0.768
13:00 - 14:00	2	3450	1.029	2	3450	0.464	2	3450	1.493
14:00 - 15:00	2	3450	0.971	2	3450	0.377	2	3450	1.348
15:00 - 16:00	2	3450	0.928	2	3450	1.101	2	3450	2.029
16:00 - 17:00	2	3450	1.420	2	3450	1.174	2	3450	2.594
17:00 - 18:00	2	3450	1.754	2	3450	1.159	2	3450	2.913
18:00 - 19:00	2	3450	2.348	2	3450	1.681	2	3450	4.029
19:00 - 20:00	2	3450	4.536	2	3450	2.623	2	3450	7.159
20:00 - 21:00	2	3450	3.565	2	3450	2.507	2	3450	6.072
21:00 - 22:00	2	3450	2.478	2	3450	2.913	2	3450	5.391
22:00 - 23:00	2	3450	1.333	2	3450	3.971	2	3450	5.304
23:00 - 24:00	2	3450	0.145	2	3450	1.768	2	3450	1.913
Total Rates:			21.203			21.071			42.274

Parameter summary

Trip rate parameter range selected: 2400 - 4500 (units: sqm)
 Survey date range: 01/01/07 - 18/09/09
 Number of weekdays (Monday-Friday): 2
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 07 - LEISURE/A - MULTIPLEX CINEMAS

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	2	3450	0.000	2	3450	0.000	2	3450	0.000
01:00 - 02:00	2	3450	0.000	2	3450	0.000	2	3450	0.000
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	2400	0.000	1	2400	0.000	1	2400	0.000
11:00 - 12:00	1	2400	0.000	1	2400	0.000	1	2400	0.000
12:00 - 13:00	2	3450	0.014	2	3450	0.000	2	3450	0.014
13:00 - 14:00	2	3450	0.000	2	3450	0.000	2	3450	0.000
14:00 - 15:00	2	3450	0.000	2	3450	0.014	2	3450	0.014
15:00 - 16:00	2	3450	0.029	2	3450	0.014	2	3450	0.043
16:00 - 17:00	2	3450	0.000	2	3450	0.000	2	3450	0.000
17:00 - 18:00	2	3450	0.000	2	3450	0.000	2	3450	0.000
18:00 - 19:00	2	3450	0.000	2	3450	0.014	2	3450	0.014
19:00 - 20:00	2	3450	0.000	2	3450	0.000	2	3450	0.000
20:00 - 21:00	2	3450	0.000	2	3450	0.000	2	3450	0.000
21:00 - 22:00	2	3450	0.000	2	3450	0.000	2	3450	0.000
22:00 - 23:00	2	3450	0.000	2	3450	0.000	2	3450	0.000
23:00 - 24:00	2	3450	0.000	2	3450	0.000	2	3450	0.000
Total Rates:			0.043						0.085

Parameter summary

Trip rate parameter range selected: 2400 - 4500 (units: sqm)
 Survey date range: 01/01/07 - 18/09/09
 Number of weekdays (Monday-Friday): 2
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 07 - LEISURE/A - MULTIPLEX CINEMAS

MULTI-MODAL CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	2	3450	0.000	2	3450	0.014	2	3450	0.014
01:00 - 02:00	2	3450	0.000	2	3450	0.000	2	3450	0.000
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	2400	0.000	1	2400	0.000	1	2400	0.000
11:00 - 12:00	1	2400	0.000	1	2400	0.000	1	2400	0.000
12:00 - 13:00	2	3450	0.000	2	3450	0.000	2	3450	0.000
13:00 - 14:00	2	3450	0.014	2	3450	0.014	2	3450	0.028
14:00 - 15:00	2	3450	0.014	2	3450	0.000	2	3450	0.014
15:00 - 16:00	2	3450	0.014	2	3450	0.014	2	3450	0.028
16:00 - 17:00	2	3450	0.043	2	3450	0.029	2	3450	0.072
17:00 - 18:00	2	3450	0.000	2	3450	0.000	2	3450	0.000
18:00 - 19:00	2	3450	0.072	2	3450	0.014	2	3450	0.086
19:00 - 20:00	2	3450	0.101	2	3450	0.043	2	3450	0.144
20:00 - 21:00	2	3450	0.029	2	3450	0.043	2	3450	0.072
21:00 - 22:00	2	3450	0.029	2	3450	0.029	2	3450	0.058
22:00 - 23:00	2	3450	0.014	2	3450	0.029	2	3450	0.043
23:00 - 24:00	2	3450	0.000	2	3450	0.029	2	3450	0.029
Total Rates:			0.330				0.258		
							0.588		

Parameter summary

Trip rate parameter range selected: 2400 - 4500 (units: sqm)
 Survey date range: 01/01/07 - 18/09/09
 Number of weekdays (Monday-Friday): 2
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 07 - LEISURE/A - MULTIPLEX CINEMAS

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	2	3450	0.116	2	3450	1.333	2	3450	1.449
01:00 - 02:00	2	3450	0.000	2	3450	1.217	2	3450	1.217
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	2400	0.000	1	2400	0.000	1	2400	0.000
11:00 - 12:00	1	2400	0.000	1	2400	0.000	1	2400	0.000
12:00 - 13:00	2	3450	1.014	2	3450	0.275	2	3450	1.289
13:00 - 14:00	2	3450	1.710	2	3450	0.870	2	3450	2.580
14:00 - 15:00	2	3450	1.696	2	3450	0.609	2	3450	2.305
15:00 - 16:00	2	3450	1.710	2	3450	1.855	2	3450	3.565
16:00 - 17:00	2	3450	2.884	2	3450	2.275	2	3450	5.159
17:00 - 18:00	2	3450	3.594	2	3450	2.101	2	3450	5.695
18:00 - 19:00	2	3450	5.232	2	3450	3.058	2	3450	8.290
19:00 - 20:00	2	3450	10.087	2	3450	5.507	2	3450	15.594
20:00 - 21:00	2	3450	7.899	2	3450	5.812	2	3450	13.711
21:00 - 22:00	2	3450	5.406	2	3450	6.087	2	3450	11.493
22:00 - 23:00	2	3450	2.710	2	3450	9.101	2	3450	11.811
23:00 - 24:00	2	3450	0.319	2	3450	4.014	2	3450	4.333
Total Rates:			44.377			44.114			88.491

Parameter summary

Trip rate parameter range selected: 2400 - 4500 (units: sqm)
 Survey date range: 01/01/07 - 18/09/09
 Number of weekdays (Monday-Friday): 2
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 07 - LEISURE/A - MULTIPLEX CINEMAS

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	2	3450	0.000	2	3450	0.232	2	3450	0.232
01:00 - 02:00	2	3450	0.000	2	3450	0.116	2	3450	0.116
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	2400	0.000	1	2400	0.000	1	2400	0.000
11:00 - 12:00	1	2400	0.000	1	2400	0.000	1	2400	0.000
12:00 - 13:00	2	3450	0.290	2	3450	0.087	2	3450	0.377
13:00 - 14:00	2	3450	0.594	2	3450	0.145	2	3450	0.739
14:00 - 15:00	2	3450	0.232	2	3450	0.087	2	3450	0.319
15:00 - 16:00	2	3450	0.304	2	3450	0.391	2	3450	0.695
16:00 - 17:00	2	3450	0.406	2	3450	0.232	2	3450	0.638
17:00 - 18:00	2	3450	0.507	2	3450	0.406	2	3450	0.913
18:00 - 19:00	2	3450	0.435	2	3450	0.348	2	3450	0.783
19:00 - 20:00	2	3450	0.855	2	3450	0.667	2	3450	1.522
20:00 - 21:00	2	3450	0.826	2	3450	0.739	2	3450	1.565
21:00 - 22:00	2	3450	0.884	2	3450	0.899	2	3450	1.783
22:00 - 23:00	2	3450	0.377	2	3450	1.203	2	3450	1.580
23:00 - 24:00	2	3450	0.116	2	3450	0.232	2	3450	0.348
Total Rates:			5.826			5.784			11.610

Parameter summary

Trip rate parameter range selected: 2400 - 4500 (units: sqm)
 Survey date range: 01/01/07 - 18/09/09
 Number of weekdays (Monday-Friday): 2
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 07 - LEISURE/A - MULTIPLEX CINEMAS

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	2	3450	0.000	2	3450	0.000	2	3450	0.000
01:00 - 02:00	2	3450	0.000	2	3450	0.000	2	3450	0.000
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	2400	0.000	1	2400	0.000	1	2400	0.000
11:00 - 12:00	1	2400	0.000	1	2400	0.000	1	2400	0.000
12:00 - 13:00	2	3450	0.029	2	3450	0.014	2	3450	0.043
13:00 - 14:00	2	3450	0.116	2	3450	0.029	2	3450	0.145
14:00 - 15:00	2	3450	0.130	2	3450	0.029	2	3450	0.159
15:00 - 16:00	2	3450	0.101	2	3450	0.159	2	3450	0.260
16:00 - 17:00	2	3450	0.116	2	3450	0.116	2	3450	0.232
17:00 - 18:00	2	3450	0.232	2	3450	0.130	2	3450	0.362
18:00 - 19:00	2	3450	0.377	2	3450	0.116	2	3450	0.493
19:00 - 20:00	2	3450	1.348	2	3450	0.304	2	3450	1.652
20:00 - 21:00	2	3450	0.319	2	3450	0.493	2	3450	0.812
21:00 - 22:00	2	3450	0.174	2	3450	0.435	2	3450	0.609
22:00 - 23:00	2	3450	0.101	2	3450	1.087	2	3450	1.188
23:00 - 24:00	2	3450	0.029	2	3450	0.159	2	3450	0.188
Total Rates:			3.072				3.071		
							6.143		

Parameter summary

Trip rate parameter range selected: 2400 - 4500 (units: sqm)
 Survey date range: 01/01/07 - 18/09/09
 Number of weekdays (Monday-Friday): 2
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 07 - LEISURE/A - MULTIPLEX CINEMAS

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	2	3450	0.116	2	3450	1.580	2	3450	1.696
01:00 - 02:00	2	3450	0.000	2	3450	1.333	2	3450	1.333
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	2400	0.000	1	2400	0.000	1	2400	0.000
11:00 - 12:00	1	2400	0.000	1	2400	0.000	1	2400	0.000
12:00 - 13:00	2	3450	1.333	2	3450	0.377	2	3450	1.710
13:00 - 14:00	2	3450	2.435	2	3450	1.058	2	3450	3.493
14:00 - 15:00	2	3450	2.072	2	3450	0.725	2	3450	2.797
15:00 - 16:00	2	3450	2.130	2	3450	2.420	2	3450	4.550
16:00 - 17:00	2	3450	3.449	2	3450	2.652	2	3450	6.101
17:00 - 18:00	2	3450	4.333	2	3450	2.638	2	3450	6.971
18:00 - 19:00	2	3450	6.116	2	3450	3.536	2	3450	9.652
19:00 - 20:00	2	3450	12.391	2	3450	6.522	2	3450	18.913
20:00 - 21:00	2	3450	9.072	2	3450	7.087	2	3450	16.159
21:00 - 22:00	2	3450	6.493	2	3450	7.449	2	3450	13.942
22:00 - 23:00	2	3450	3.203	2	3450	11.420	2	3450	14.623
23:00 - 24:00	2	3450	0.464	2	3450	4.435	2	3450	4.899
Total Rates:			53.607			53.232			106.839

Parameter summary

Trip rate parameter range selected: 2400 - 4500 (units: sqm)
 Survey date range: 01/01/07 - 18/09/09
 Number of weekdays (Monday-Friday): 2
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
Category : B - BOWLING ALLEYS
MULTI-MODAL VEHICLES

Selected regions and areas:

03	SOUTH WEST	
	DC DORSET	1 days
09	NORTH	
	DH DURHAM	1 days

Filtering Stage 2 selection:

Parameter:	Gross floor area
Actual Range:	1700 to 1809 (units: sqm)
Range Selected by User:	913 to 5060 (units: sqm)

Public Transport Provision:

Selection by:	Include all surveys
---------------	---------------------

Date Range: 01/01/05 to 15/10/11

Selected survey days:

Friday	2 days
--------	--------

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

Selected Locations:

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

Selected Location Sub Categories:

Development Zone	1
Built-Up Zone	1

LIST OF SITES relevant to selection parameters

1	DC-07-B-01	BOWLPLEX		DORSET
	POOLE ROAD			
	POOLE			
	Suburban Area (PPS6 Out of Centre)			
	Built-Up Zone			
	Total Gross floor area:	1700 sqm		
	Survey date: FRIDAY	18/07/08		Survey Type: MANUAL
2	DH-07-B-01	BOWLING		DURHAM
	FREEMANS PLACE			
	DURHAM			
	Edge of Town Centre			
	Development Zone			
	Total Gross floor area:	1809 sqm		
	Survey date: FRIDAY	05/12/08		Survey Type: MANUAL

Peter Brett Associates Queen Square Bristol

Licence No: 706710

TRIP RATE for Land Use 07 - LEISURE/B - BOWLING ALLEYS
MULTI-MODAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	1809	0.055	1	1809	0.000	1	1809	0.055
10:00 - 11:00	2	1755	0.456	2	1755	0.114	2	1755	0.570
11:00 - 12:00	2	1755	0.541	2	1755	0.513	2	1755	1.054
12:00 - 13:00	2	1755	0.541	2	1755	0.541	2	1755	1.082
13:00 - 14:00	2	1755	0.598	2	1755	0.741	2	1755	1.339
14:00 - 15:00	2	1755	0.570	2	1755	0.427	2	1755	0.997
15:00 - 16:00	2	1755	0.427	2	1755	0.684	2	1755	1.111
16:00 - 17:00	2	1755	0.627	2	1755	0.541	2	1755	1.168
17:00 - 18:00	2	1755	0.997	2	1755	1.026	2	1755	2.023
18:00 - 19:00	2	1755	0.969	2	1755	1.111	2	1755	2.080
19:00 - 20:00	2	1755	1.596	2	1755	1.567	2	1755	3.163
20:00 - 21:00	2	1755	0.997	2	1755	1.510	2	1755	2.507
21:00 - 22:00	2	1755	0.541	2	1755	0.627	2	1755	1.168
22:00 - 23:00	1	1700	0.118	1	1700	0.824	1	1700	0.942
23:00 - 24:00	1	1700	0.235	1	1700	0.471	1	1700	0.706
Total Rates:			9.268			10.697			19.965

Parameter summary

Trip rate parameter range selected: 1700 - 1809 (units: sqm)
Survey date range: 01/01/05 - 15/10/11
Number of weekdays (Monday-Friday): 2
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

Peter Brett Associates Queen Square Bristol

Licence No: 706710

TRIP RATE for Land Use 07 - LEISURE/B - BOWLING ALLEYS

MULTI-MODAL TAXIS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	1809	0.000	1	1809	0.000	1	1809	0.000
10:00 - 11:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
11:00 - 12:00	2	1755	0.028	2	1755	0.000	2	1755	0.028
12:00 - 13:00	2	1755	0.000	2	1755	0.028	2	1755	0.028
13:00 - 14:00	2	1755	0.028	2	1755	0.028	2	1755	0.056
14:00 - 15:00	2	1755	0.028	2	1755	0.028	2	1755	0.056
15:00 - 16:00	2	1755	0.028	2	1755	0.000	2	1755	0.028
16:00 - 17:00	2	1755	0.114	2	1755	0.142	2	1755	0.256
17:00 - 18:00	2	1755	0.171	2	1755	0.171	2	1755	0.342
18:00 - 19:00	2	1755	0.256	2	1755	0.171	2	1755	0.427
19:00 - 20:00	2	1755	0.114	2	1755	0.171	2	1755	0.285
20:00 - 21:00	2	1755	0.142	2	1755	0.114	2	1755	0.256
21:00 - 22:00	2	1755	0.057	2	1755	0.114	2	1755	0.171
22:00 - 23:00	1	1700	0.059	1	1700	0.059	1	1700	0.118
23:00 - 24:00	1	1700	0.118	1	1700	0.118	1	1700	0.236
Total Rates:			1.143			1.144			2.287

Parameter summary

Trip rate parameter range selected: 1700 - 1809 (units: sqm)
 Survey date range: 01/01/05 - 15/10/11
 Number of weekdays (Monday-Friday): 2
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

Peter Brett Associates Queen Square Bristol

Licence No: 706710

TRIP RATE for Land Use 07 - LEISURE/B - BOWLING ALLEYS
MULTI-MODAL OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	1809	0.000	1	1809	0.000	1	1809	0.000
10:00 - 11:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
11:00 - 12:00	2	1755	0.028	2	1755	0.028	2	1755	0.056
12:00 - 13:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
13:00 - 14:00	2	1755	0.057	2	1755	0.057	2	1755	0.114
14:00 - 15:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
15:00 - 16:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
16:00 - 17:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
17:00 - 18:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
18:00 - 19:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
19:00 - 20:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
20:00 - 21:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
21:00 - 22:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
22:00 - 23:00	1	1700	0.000	1	1700	0.000	1	1700	0.000
23:00 - 24:00	1	1700	0.000	1	1700	0.000	1	1700	0.000
Total Rates:			0.085	0.085			0.170		

Parameter summary

Trip rate parameter range selected: 1700 - 1809 (units: sqm)
Survey date range: 01/01/05 - 15/10/11
Number of weekdays (Monday-Friday): 2
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

Peter Brett Associates Queen Square Bristol

Licence No: 706710

TRIP RATE for Land Use 07 - LEISURE/B - BOWLING ALLEYS
MULTI-MODAL PSVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	1809	0.000	1	1809	0.000	1	1809	0.000
10:00 - 11:00	2	1755	0.114	2	1755	0.000	2	1755	0.114
11:00 - 12:00	2	1755	0.000	2	1755	0.028	2	1755	0.028
12:00 - 13:00	2	1755	0.000	2	1755	0.114	2	1755	0.114
13:00 - 14:00	2	1755	0.085	2	1755	0.028	2	1755	0.113
14:00 - 15:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
15:00 - 16:00	2	1755	0.000	2	1755	0.085	2	1755	0.085
16:00 - 17:00	2	1755	0.000	2	1755	0.028	2	1755	0.028
17:00 - 18:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
18:00 - 19:00	2	1755	0.000	2	1755	0.028	2	1755	0.028
19:00 - 20:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
20:00 - 21:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
21:00 - 22:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
22:00 - 23:00	1	1700	0.059	1	1700	0.000	1	1700	0.059
23:00 - 24:00	1	1700	0.000	1	1700	0.000	1	1700	0.000
Total Rates:			0.258						0.569

Parameter summary

Trip rate parameter range selected: 1700 - 1809 (units: sqm)
Survey date range: 01/01/05 - 15/10/11
Number of weekdays (Monday-Friday): 2
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

Peter Brett Associates Queen Square Bristol

Licence No: 706710

TRIP RATE for Land Use 07 - LEISURE/B - BOWLING ALLEYS
MULTI-MODAL CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	1809	0.000	1	1809	0.000	1	1809	0.000
10:00 - 11:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
11:00 - 12:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
12:00 - 13:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
13:00 - 14:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
14:00 - 15:00	2	1755	0.028	2	1755	0.000	2	1755	0.028
15:00 - 16:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
16:00 - 17:00	2	1755	0.028	2	1755	0.000	2	1755	0.028
17:00 - 18:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
18:00 - 19:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
19:00 - 20:00	2	1755	0.114	2	1755	0.000	2	1755	0.114
20:00 - 21:00	2	1755	0.000	2	1755	0.057	2	1755	0.057
21:00 - 22:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
22:00 - 23:00	1	1700	0.000	1	1700	0.059	1	1700	0.059
23:00 - 24:00	1	1700	0.000	1	1700	0.000	1	1700	0.000
Total Rates:			0.170	0.116			0.286		

Parameter summary

Trip rate parameter range selected: 1700 - 1809 (units: sqm)
Survey date range: 01/01/05 - 15/10/11
Number of weekdays (Monday-Friday): 2
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

Peter Brett Associates Queen Square Bristol

Licence No: 706710

TRIP RATE for Land Use 07 - LEISURE/B - BOWLING ALLEYS
MULTI-MODAL VEHICLE OCCUPANTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	1809	0.111	1	1809	0.000	1	1809	0.111
10:00 - 11:00	2	1755	0.627	2	1755	0.256	2	1755	0.883
11:00 - 12:00	2	1755	0.969	2	1755	0.655	2	1755	1.624
12:00 - 13:00	2	1755	1.197	2	1755	0.798	2	1755	1.995
13:00 - 14:00	2	1755	1.225	2	1755	1.140	2	1755	2.365
14:00 - 15:00	2	1755	0.826	2	1755	0.769	2	1755	1.595
15:00 - 16:00	2	1755	1.111	2	1755	0.969	2	1755	2.080
16:00 - 17:00	2	1755	1.054	2	1755	0.969	2	1755	2.023
17:00 - 18:00	2	1755	2.080	2	1755	1.425	2	1755	3.505
18:00 - 19:00	2	1755	1.567	2	1755	2.080	2	1755	3.647
19:00 - 20:00	2	1755	3.163	2	1755	2.166	2	1755	5.329
20:00 - 21:00	2	1755	1.824	2	1755	3.078	2	1755	4.902
21:00 - 22:00	2	1755	1.197	2	1755	1.254	2	1755	2.451
22:00 - 23:00	1	1700	0.118	1	1700	2.235	1	1700	2.353
23:00 - 24:00	1	1700	1.059	1	1700	1.529	1	1700	2.588
Total Rates:			18.128			19.323			37.451

Parameter summary

Trip rate parameter range selected: 1700 - 1809 (units: sqm)
Survey date range: 01/01/05 - 15/10/11
Number of weekdays (Monday-Friday): 2
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

Peter Brett Associates Queen Square Bristol

Licence No: 706710

TRIP RATE for Land Use 07 - LEISURE/B - BOWLING ALLEYS
MULTI-MODAL PEDESTRIANS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	1809	0.000	1	1809	0.000	1	1809	0.000
10:00 - 11:00	2	1755	0.057	2	1755	0.028	2	1755	0.085
11:00 - 12:00	2	1755	0.171	2	1755	0.085	2	1755	0.256
12:00 - 13:00	2	1755	1.225	2	1755	0.057	2	1755	1.282
13:00 - 14:00	2	1755	2.679	2	1755	0.313	2	1755	2.992
14:00 - 15:00	2	1755	0.655	2	1755	1.197	2	1755	1.852
15:00 - 16:00	2	1755	0.171	2	1755	0.798	2	1755	0.969
16:00 - 17:00	2	1755	0.142	2	1755	0.057	2	1755	0.199
17:00 - 18:00	2	1755	2.137	2	1755	1.738	2	1755	3.875
18:00 - 19:00	2	1755	0.342	2	1755	0.399	2	1755	0.741
19:00 - 20:00	2	1755	0.057	2	1755	0.427	2	1755	0.484
20:00 - 21:00	2	1755	0.399	2	1755	0.228	2	1755	0.627
21:00 - 22:00	2	1755	0.228	2	1755	0.000	2	1755	0.228
22:00 - 23:00	1	1700	0.176	1	1700	0.353	1	1700	0.529
23:00 - 24:00	1	1700	0.059	1	1700	0.118	1	1700	0.177
Total Rates:			8.498			5.798			14.296

Parameter summary

Trip rate parameter range selected: 1700 - 1809 (units: sqm)
Survey date range: 01/01/05 - 15/10/11
Number of weekdays (Monday-Friday): 2
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

Peter Brett Associates Queen Square Bristol

Licence No: 706710

TRIP RATE for Land Use 07 - LEISURE/B - BOWLING ALLEYS
MULTI-MODAL BUS/TRAM PASSENGERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	1809	0.000	1	1809	0.000	1	1809	0.000
10:00 - 11:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
11:00 - 12:00	2	1755	0.000	2	1755	0.285	2	1755	0.285
12:00 - 13:00	2	1755	0.028	2	1755	0.000	2	1755	0.028
13:00 - 14:00	2	1755	0.484	2	1755	1.111	2	1755	1.595
14:00 - 15:00	2	1755	0.598	2	1755	0.228	2	1755	0.826
15:00 - 16:00	2	1755	0.057	2	1755	0.940	2	1755	0.997
16:00 - 17:00	2	1755	0.000	2	1755	0.513	2	1755	0.513
17:00 - 18:00	2	1755	0.085	2	1755	0.598	2	1755	0.683
18:00 - 19:00	2	1755	0.085	2	1755	0.484	2	1755	0.569
19:00 - 20:00	2	1755	0.114	2	1755	0.285	2	1755	0.399
20:00 - 21:00	2	1755	0.228	2	1755	0.399	2	1755	0.627
21:00 - 22:00	2	1755	0.114	2	1755	0.171	2	1755	0.285
22:00 - 23:00	1	1700	0.000	1	1700	0.471	1	1700	0.471
23:00 - 24:00	1	1700	0.000	1	1700	0.000	1	1700	0.000
Total Rates:			1.793			5.485			7.278

Parameter summary

Trip rate parameter range selected: 1700 - 1809 (units: sqm)
Survey date range: 01/01/05 - 15/10/11
Number of weekdays (Monday-Friday): 2
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

TRIP RATE for Land Use 07 - LEISURE/B - BOWLING ALLEYS
MULTI-MODAL TRAIN PASSENGERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	1809	0.000	1	1809	0.000	1	1809	0.000
10:00 - 11:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
11:00 - 12:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
12:00 - 13:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
13:00 - 14:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
14:00 - 15:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
15:00 - 16:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
16:00 - 17:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
17:00 - 18:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
18:00 - 19:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
19:00 - 20:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
20:00 - 21:00	2	1755	0.028	2	1755	0.057	2	1755	0.085
21:00 - 22:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
22:00 - 23:00	1	1700	0.000	1	1700	0.000	1	1700	0.000
23:00 - 24:00	1	1700	0.000	1	1700	0.000	1	1700	0.000
Total Rates:			0.028						0.085

Parameter summary

Trip rate parameter range selected: 1700 - 1809 (units: sqm)
Survey date range: 01/01/05 - 15/10/11
Number of weekdays (Monday-Friday): 2
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

Peter Brett Associates Queen Square Bristol

Licence No: 706710

TRIP RATE for Land Use 07 - LEISURE/B - BOWLING ALLEYS
MULTI-MODAL COACH PASSENGERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	1809	0.000	1	1809	0.000	1	1809	0.000
10:00 - 11:00	2	1755	5.700	2	1755	0.000	2	1755	5.700
11:00 - 12:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
12:00 - 13:00	2	1755	0.000	2	1755	5.700	2	1755	5.700
13:00 - 14:00	2	1755	0.912	2	1755	0.000	2	1755	0.912
14:00 - 15:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
15:00 - 16:00	2	1755	0.000	2	1755	1.539	2	1755	1.539
16:00 - 17:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
17:00 - 18:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
18:00 - 19:00	2	1755	0.000	2	1755	0.684	2	1755	0.684
19:00 - 20:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
20:00 - 21:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
21:00 - 22:00	2	1755	0.000	2	1755	0.000	2	1755	0.000
22:00 - 23:00	1	1700	1.235	1	1700	0.000	1	1700	1.235
23:00 - 24:00	1	1700	0.000	1	1700	0.000	1	1700	0.000
Total Rates:			7.847				7.923	15.770	

Parameter summary

Trip rate parameter range selected: 1700 - 1809 (units: sqm)
Survey date range: 01/01/05 - 15/10/11
Number of weekdays (Monday-Friday): 2
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

Peter Brett Associates Queen Square Bristol

Licence No: 706710

TRIP RATE for Land Use 07 - LEISURE/B - BOWLING ALLEYS
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	1809	0.000	1	1809	0.000	1	1809	0.000
10:00 - 11:00	2	1755	5.700	2	1755	0.000	2	1755	5.700
11:00 - 12:00	2	1755	0.000	2	1755	0.285	2	1755	0.285
12:00 - 13:00	2	1755	0.028	2	1755	5.700	2	1755	5.728
13:00 - 14:00	2	1755	1.396	2	1755	1.111	2	1755	2.507
14:00 - 15:00	2	1755	0.598	2	1755	0.228	2	1755	0.826
15:00 - 16:00	2	1755	0.057	2	1755	2.479	2	1755	2.536
16:00 - 17:00	2	1755	0.000	2	1755	0.513	2	1755	0.513
17:00 - 18:00	2	1755	0.085	2	1755	0.598	2	1755	0.683
18:00 - 19:00	2	1755	0.085	2	1755	1.168	2	1755	1.253
19:00 - 20:00	2	1755	0.114	2	1755	0.285	2	1755	0.399
20:00 - 21:00	2	1755	0.256	2	1755	0.456	2	1755	0.712
21:00 - 22:00	2	1755	0.114	2	1755	0.171	2	1755	0.285
22:00 - 23:00	1	1700	1.235	1	1700	0.471	1	1700	1.706
23:00 - 24:00	1	1700	0.000	1	1700	0.000	1	1700	0.000
Total Rates:			9.668			13.465			23.133

Parameter summary

Trip rate parameter range selected: 1700 - 1809 (units: sqm)
Survey date range: 01/01/05 - 15/10/11
Number of weekdays (Monday-Friday): 2
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

Peter Brett Associates Queen Square Bristol

Licence No: 706710

TRIP RATE for Land Use 07 - LEISURE/B - BOWLING ALLEYS

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	1809	0.111	1	1809	0.000	1	1809	0.111
10:00 - 11:00	2	1755	6.384	2	1755	0.285	2	1755	6.669
11:00 - 12:00	2	1755	1.140	2	1755	1.026	2	1755	2.166
12:00 - 13:00	2	1755	2.451	2	1755	6.555	2	1755	9.006
13:00 - 14:00	2	1755	5.301	2	1755	2.565	2	1755	7.866
14:00 - 15:00	2	1755	2.109	2	1755	2.194	2	1755	4.303
15:00 - 16:00	2	1755	1.339	2	1755	4.246	2	1755	5.585
16:00 - 17:00	2	1755	1.225	2	1755	1.539	2	1755	2.764
17:00 - 18:00	2	1755	4.303	2	1755	3.762	2	1755	8.065
18:00 - 19:00	2	1755	1.995	2	1755	3.648	2	1755	5.643
19:00 - 20:00	2	1755	3.448	2	1755	2.878	2	1755	6.326
20:00 - 21:00	2	1755	2.479	2	1755	3.819	2	1755	6.298
21:00 - 22:00	2	1755	1.539	2	1755	1.425	2	1755	2.964
22:00 - 23:00	1	1700	1.529	1	1700	3.118	1	1700	4.647
23:00 - 24:00	1	1700	1.118	1	1700	1.647	1	1700	2.765
Total Rates:			36.471			38.707			75.178

Parameter summary

Trip rate parameter range selected: 1700 - 1809 (units: sqm)
Survey date range: 01/01/05 - 15/10/11
Number of weekdays (Monday-Friday): 2
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

Appendix E

Calculation Reference: AUDIT-623801-150417-0408

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
 Category : G - OTHER INDIVIDUAL NON-FOOD SUPERSTORE
 MULTI-MODAL VEHICLES

Selected regions and areas:

07	YORKSHIRE & NORTH LINCOLNSHIRE	
NY	NORTH YORKSHIRE	1 days
SY	SOUTH YORKSHIRE	1 days

Filtering Stage 2 selection:

Parameter:	Gross floor area
Actual Range:	3127 to 3500 (units: sqm)
Range Selected by User:	1500 to 5000 (units: sqm)

Public Transport Provision:

Selection by:	Include all surveys
---------------	---------------------

Date Range:	01/01/07 to 18/06/11
-------------	----------------------

Selected survey days:

Monday	1 days
Wednesday	1 days

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

Selected Locations:

Edge of Town	2
--------------	---

Selected Location Sub Categories:

Retail Zone	2
-------------	---

Filtering Stage 3 selection:

Use Class:

A1	2 days
----	--------

Population within 1 mile:

5,001 to 10,000	1 days
10,001 to 15,000	1 days

Population within 5 miles:

125,001 to 250,000	2 days
--------------------	--------

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	1 days

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	2 days

Travel Plan:

No	2 days
----	--------

LIST OF SITES relevant to selection parameters

1	NY-01-G-03	DUNELM MILL		NORTH YORKSHIRE
	STIRLING ROAD			
	CLIFTON MOOR			
	YORK			
	Edge of Town			
	Retail Zone			
	Total Gross floor area:	3500 sqm		
	Survey date: WEDNESDAY	16/09/09		Survey Type: MANUAL
2	SY-01-G-01	DUNELM MILL		SOUTH YORKSHIRE
	WOMBWELL LANE			
	BARNESLEY RETAIL PARK			
	BARNESLEY			
	Edge of Town			
	Retail Zone			
	Total Gross floor area:	3127 sqm		
	Survey date: MONDAY	21/06/10		Survey Type: MANUAL

TRIP RATE for Land Use 01 - RETAIL/G - OTHER INDIVIDUAL NON-FOOD SUPERSTORE

MULTI-MODAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00	2	3314	0.226	2	3314	0.045	2	3314	0.271
09:00 - 10:00	2	3314	1.584	2	3314	0.770	2	3314	2.354
10:00 - 11:00	2	3314	2.384	2	3314	1.871	2	3314	4.255
11:00 - 12:00	2	3314	2.761	2	3314	2.475	2	3314	5.236
12:00 - 13:00	2	3314	2.203	2	3314	2.429	2	3314	4.632
13:00 - 14:00	2	3314	2.837	2	3314	2.565	2	3314	5.402
14:00 - 15:00	2	3314	2.414	2	3314	2.656	2	3314	5.070
15:00 - 16:00	2	3314	1.766	2	3314	2.218	2	3314	3.984
16:00 - 17:00	2	3314	1.071	2	3314	1.434	2	3314	2.505
17:00 - 18:00	2	3314	1.313	2	3314	1.252	2	3314	2.565
18:00 - 19:00	2	3314	0.362	2	3314	0.649	2	3314	1.011
19:00 - 20:00	2	3314	0.136	2	3314	0.362	2	3314	0.498
20:00 - 21:00	1	3127	0.000	1	3127	0.000	1	3127	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			19.057			18.726			37.783

Parameter summary

Trip rate parameter range selected: 3127 - 3500 (units: sqm)
 Survey date range: 01/01/07 - 18/06/11
 Number of weekdays (Monday-Friday): 2
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 01 - RETAIL/G - OTHER INDIVIDUAL NON-FOOD SUPERSTORE

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00	2	3314	0.000	2	3314	0.000	2	3314	0.000
09:00 - 10:00	2	3314	0.015	2	3314	0.015	2	3314	0.030
10:00 - 11:00	2	3314	0.000	2	3314	0.000	2	3314	0.000
11:00 - 12:00	2	3314	0.000	2	3314	0.000	2	3314	0.000
12:00 - 13:00	2	3314	0.000	2	3314	0.000	2	3314	0.000
13:00 - 14:00	2	3314	0.015	2	3314	0.015	2	3314	0.030
14:00 - 15:00	2	3314	0.000	2	3314	0.000	2	3314	0.000
15:00 - 16:00	2	3314	0.000	2	3314	0.000	2	3314	0.000
16:00 - 17:00	2	3314	0.000	2	3314	0.000	2	3314	0.000
17:00 - 18:00	2	3314	0.000	2	3314	0.000	2	3314	0.000
18:00 - 19:00	2	3314	0.000	2	3314	0.000	2	3314	0.000
19:00 - 20:00	2	3314	0.000	2	3314	0.000	2	3314	0.000
20:00 - 21:00	1	3127	0.000	1	3127	0.000	1	3127	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.030			0.030			0.060

Parameter summary

Trip rate parameter range selected: 3127 - 3500 (units: sqm)
 Survey date range: 01/01/07 - 18/06/11
 Number of weekdays (Monday-Friday): 2
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 01 - RETAIL/G - OTHER INDIVIDUAL NON-FOOD SUPERSTORE

MULTI-MODAL CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00	2	3314	0.015	2	3314	0.000	2	3314	0.015
09:00 - 10:00	2	3314	0.030	2	3314	0.015	2	3314	0.045
10:00 - 11:00	2	3314	0.015	2	3314	0.000	2	3314	0.015
11:00 - 12:00	2	3314	0.030	2	3314	0.000	2	3314	0.030
12:00 - 13:00	2	3314	0.000	2	3314	0.000	2	3314	0.000
13:00 - 14:00	2	3314	0.000	2	3314	0.000	2	3314	0.000
14:00 - 15:00	2	3314	0.015	2	3314	0.030	2	3314	0.045
15:00 - 16:00	2	3314	0.030	2	3314	0.015	2	3314	0.045
16:00 - 17:00	2	3314	0.000	2	3314	0.000	2	3314	0.000
17:00 - 18:00	2	3314	0.000	2	3314	0.000	2	3314	0.000
18:00 - 19:00	2	3314	0.000	2	3314	0.000	2	3314	0.000
19:00 - 20:00	2	3314	0.000	2	3314	0.000	2	3314	0.000
20:00 - 21:00	1	3127	0.000	1	3127	0.000	1	3127	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.135			0.060			0.195

Parameter summary

Trip rate parameter range selected: 3127 - 3500 (units: sqm)
 Survey date range: 01/01/07 - 18/06/11
 Number of weekdays (Monday-Friday): 2
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 01 - RETAIL/G - OTHER INDIVIDUAL NON-FOOD SUPERSTORE

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00	2	3314	0.015	2	3314	0.000	2	3314	0.015
09:00 - 10:00	2	3314	0.030	2	3314	0.045	2	3314	0.075
10:00 - 11:00	2	3314	0.060	2	3314	0.106	2	3314	0.166
11:00 - 12:00	2	3314	0.060	2	3314	0.030	2	3314	0.090
12:00 - 13:00	2	3314	0.091	2	3314	0.045	2	3314	0.136
13:00 - 14:00	2	3314	0.091	2	3314	0.045	2	3314	0.136
14:00 - 15:00	2	3314	0.181	2	3314	0.075	2	3314	0.256
15:00 - 16:00	2	3314	0.091	2	3314	0.091	2	3314	0.182
16:00 - 17:00	2	3314	0.060	2	3314	0.136	2	3314	0.196
17:00 - 18:00	2	3314	0.000	2	3314	0.075	2	3314	0.075
18:00 - 19:00	2	3314	0.000	2	3314	0.030	2	3314	0.030
19:00 - 20:00	2	3314	0.000	2	3314	0.045	2	3314	0.045
20:00 - 21:00	1	3127	0.000	1	3127	0.000	1	3127	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.679			0.723			1.402

Parameter summary

Trip rate parameter range selected: 3127 - 3500 (units: sqm)
 Survey date range: 01/01/07 - 18/06/11
 Number of weekdays (Monday-Friday): 2
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 01 - RETAIL/G - OTHER INDIVIDUAL NON-FOOD SUPERSTORE
MULTI-MODAL PUBLIC TRANSPORT USERS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00	2	3314	0.015	2	3314	0.000	2	3314	0.015
09:00 - 10:00	2	3314	0.060	2	3314	0.015	2	3314	0.075
10:00 - 11:00	2	3314	0.151	2	3314	0.151	2	3314	0.302
11:00 - 12:00	2	3314	0.151	2	3314	0.075	2	3314	0.226
12:00 - 13:00	2	3314	0.121	2	3314	0.091	2	3314	0.212
13:00 - 14:00	2	3314	0.060	2	3314	0.060	2	3314	0.120
14:00 - 15:00	2	3314	0.075	2	3314	0.136	2	3314	0.211
15:00 - 16:00	2	3314	0.030	2	3314	0.015	2	3314	0.045
16:00 - 17:00	2	3314	0.045	2	3314	0.060	2	3314	0.105
17:00 - 18:00	2	3314	0.045	2	3314	0.060	2	3314	0.105
18:00 - 19:00	2	3314	0.045	2	3314	0.030	2	3314	0.075
19:00 - 20:00	2	3314	0.015	2	3314	0.045	2	3314	0.060
20:00 - 21:00	1	3127	0.000	1	3127	0.000	1	3127	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.813			0.738			1.551

Parameter summary

Trip rate parameter range selected: 3127 - 3500 (units: sqm)
 Survey date range: 01/01/07 - 18/06/11
 Number of weekdays (Monday-Friday): 2
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 01 - RETAIL/G - OTHER INDIVIDUAL NON-FOOD SUPERSTORE

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00	2	3314	0.317	2	3314	0.045	2	3314	0.362
09:00 - 10:00	2	3314	2.490	2	3314	1.177	2	3314	3.667
10:00 - 11:00	2	3314	4.255	2	3314	3.169	2	3314	7.424
11:00 - 12:00	2	3314	4.557	2	3314	4.738	2	3314	9.295
12:00 - 13:00	2	3314	3.848	2	3314	4.180	2	3314	8.028
13:00 - 14:00	2	3314	4.965	2	3314	4.406	2	3314	9.371
14:00 - 15:00	2	3314	4.301	2	3314	4.648	2	3314	8.949
15:00 - 16:00	2	3314	2.897	2	3314	3.833	2	3314	6.730
16:00 - 17:00	2	3314	1.871	2	3314	2.490	2	3314	4.361
17:00 - 18:00	2	3314	2.203	2	3314	2.203	2	3314	4.406
18:00 - 19:00	2	3314	0.754	2	3314	1.177	2	3314	1.931
19:00 - 20:00	2	3314	0.302	2	3314	0.770	2	3314	1.072
20:00 - 21:00	1	3127	0.000	1	3127	0.000	1	3127	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			32.760			32.836			65.596

Parameter summary

Trip rate parameter range selected: 3127 - 3500 (units: sqm)
 Survey date range: 01/01/07 - 18/06/11
 Number of weekdays (Monday-Friday): 2
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

Appendix F

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK

Category : B - RESTAURANTS

MULTI-MODAL VEHICLES

Selected regions and areas:

08	NORTH WEST	
	GM GREATER MANCHESTER	1 days
	MS MERSEYSIDE	1 days
09	NORTH	
	DH DURHAM	1 days
11	SCOTLAND	
	EA EAST AYRSHIRE	1 days
	FA FALKIRK	1 days

Filtering Stage 2 selection:

Parameter: Gross floor area
Range: 350 to 900 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/03 to 23/11/09

Selected survey days:

Monday	1 days
Thursday	1 days
Friday	3 days

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

Selected Locations:

Edge of Town Centre	4
Suburban Area (PPS6 Out of Centre)	1

Selected Location Sub Categories:

Development Zone	2
Retail Zone	1
Built-Up Zone	1
No Sub Category	1

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS

MULTI-MODAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 08:00	0	0	0.000	0	0	0.000	0	0	0.000
08:00 - 09:00	0	0	0.000	0	0	0.000	0	0	0.000
09:00 - 10:00	0	0	0.000	0	0	0.000	0	0	0.000
10:00 - 11:00	3	458	0.436	3	458	0.145	3	458	0.581
11:00 - 12:00	4	569	0.571	4	569	0.352	4	569	0.923
12:00 - 13:00	5	555	1.369	5	555	0.432	5	555	1.801
13:00 - 14:00	5	555	1.910	5	555	1.333	5	555	3.243
14:00 - 15:00	5	555	1.946	5	555	2.270	5	555	4.216
15:00 - 16:00	5	555	2.378	5	555	2.306	5	555	4.684
16:00 - 17:00	5	555	2.162	5	555	1.946	5	555	4.108
17:00 - 18:00	5	555	2.919	5	555	2.342	5	555	5.261
18:00 - 19:00	5	555	3.207	5	555	2.631	5	555	5.838
19:00 - 20:00	5	555	3.964	5	555	4.108	5	555	8.072
20:00 - 21:00	5	555	2.919	5	555	3.495	5	555	6.414
21:00 - 22:00	5	555	1.694	5	555	2.703	5	555	4.397
22:00 - 23:00	5	555	0.901	5	555	1.910	5	555	2.811
23:00 - 24:00	4	469	0.000	4	469	0.427	4	469	0.427
Total Rates:			26.376			26.400			52.776

Parameter summary

Trip rate parameter range selected: 350 - 900 (units: sqm)
 Survey date range: 01/01/03 - 23/11/09
 Number of weekdays (Monday-Friday): 5
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS

MULTI-MODAL CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 08:00	0	0	0.000	0	0	0.000	0	0	0.000
08:00 - 09:00	0	0	0.000	0	0	0.000	0	0	0.000
09:00 - 10:00	0	0	0.000	0	0	0.000	0	0	0.000
10:00 - 11:00	3	458	0.000	3	458	0.000	3	458	0.000
11:00 - 12:00	4	569	0.000	4	569	0.000	4	569	0.000
12:00 - 13:00	5	555	0.000	5	555	0.000	5	555	0.000
13:00 - 14:00	5	555	0.000	5	555	0.000	5	555	0.000
14:00 - 15:00	5	555	0.000	5	555	0.000	5	555	0.000
15:00 - 16:00	5	555	0.000	5	555	0.000	5	555	0.000
16:00 - 17:00	5	555	0.000	5	555	0.000	5	555	0.000
17:00 - 18:00	5	555	0.000	5	555	0.000	5	555	0.000
18:00 - 19:00	5	555	0.000	5	555	0.000	5	555	0.000
19:00 - 20:00	5	555	0.000	5	555	0.000	5	555	0.000
20:00 - 21:00	5	555	0.000	5	555	0.000	5	555	0.000
21:00 - 22:00	5	555	0.000	5	555	0.000	5	555	0.000
22:00 - 23:00	5	555	0.000	5	555	0.000	5	555	0.000
23:00 - 24:00	4	469	0.000	4	469	0.000	4	469	0.000
Total Rates:			0.000			0.000			0.000

Parameter summary

Trip rate parameter range selected: 350 - 900 (units: sqm)
 Survey date range: 01/01/03 - 23/11/09
 Number of weekdays (Monday-Friday): 5
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 08:00	0	0	0.000	0	0	0.000	0	0	0.000
08:00 - 09:00	0	0	0.000	0	0	0.000	0	0	0.000
09:00 - 10:00	0	0	0.000	0	0	0.000	0	0	0.000
10:00 - 11:00	3	458	0.436	3	458	0.145	3	458	0.581
11:00 - 12:00	4	569	1.099	4	569	0.484	4	569	1.583
12:00 - 13:00	5	555	2.306	5	555	0.865	5	555	3.171
13:00 - 14:00	5	555	3.568	5	555	2.486	5	555	6.054
14:00 - 15:00	5	555	3.279	5	555	3.964	5	555	7.243
15:00 - 16:00	5	555	4.036	5	555	3.784	5	555	7.820
16:00 - 17:00	5	555	4.000	5	555	3.315	5	555	7.315
17:00 - 18:00	5	555	5.802	5	555	3.964	5	555	9.766
18:00 - 19:00	5	555	6.450	5	555	5.045	5	555	11.495
19:00 - 20:00	5	555	6.811	5	555	7.099	5	555	13.910
20:00 - 21:00	5	555	4.829	5	555	6.270	5	555	11.099
21:00 - 22:00	5	555	2.595	5	555	4.793	5	555	7.388
22:00 - 23:00	5	555	1.333	5	555	3.243	5	555	4.576
23:00 - 24:00	4	469	0.000	4	469	0.800	4	469	0.800
Total Rates:			46.544			46.257			92.801

Parameter summary

Trip rate parameter range selected: 350 - 900 (units: sqm)
 Survey date range: 01/01/03 - 23/11/09
 Number of weekdays (Monday-Friday): 5
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 08:00	0	0	0.000	0	0	0.000	0	0	0.000
08:00 - 09:00	0	0	0.000	0	0	0.000	0	0	0.000
09:00 - 10:00	0	0	0.000	0	0	0.000	0	0	0.000
10:00 - 11:00	3	458	0.145	3	458	0.145	3	458	0.290
11:00 - 12:00	4	569	0.088	4	569	0.000	4	569	0.088
12:00 - 13:00	5	555	0.541	5	555	0.252	5	555	0.793
13:00 - 14:00	5	555	0.396	5	555	0.216	5	555	0.612
14:00 - 15:00	5	555	0.180	5	555	0.396	5	555	0.576
15:00 - 16:00	5	555	0.216	5	555	0.324	5	555	0.540
16:00 - 17:00	5	555	0.432	5	555	0.324	5	555	0.756
17:00 - 18:00	5	555	0.613	5	555	0.180	5	555	0.793
18:00 - 19:00	5	555	0.505	5	555	0.432	5	555	0.937
19:00 - 20:00	5	555	0.468	5	555	0.541	5	555	1.009
20:00 - 21:00	5	555	0.144	5	555	0.180	5	555	0.324
21:00 - 22:00	5	555	0.000	5	555	0.468	5	555	0.468
22:00 - 23:00	5	555	0.000	5	555	0.072	5	555	0.072
23:00 - 24:00	4	469	0.000	4	469	0.320	4	469	0.320
Total Rates:			3.728			3.850			7.578

Parameter summary

Trip rate parameter range selected: 350 - 900 (units: sqm)
 Survey date range: 01/01/03 - 23/11/09
 Number of weekdays (Monday-Friday): 5
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 08:00	0	0	0.000	0	0	0.000	0	0	0.000
08:00 - 09:00	0	0	0.000	0	0	0.000	0	0	0.000
09:00 - 10:00	0	0	0.000	0	0	0.000	0	0	0.000
10:00 - 11:00	3	458	0.073	3	458	0.073	3	458	0.146
11:00 - 12:00	4	569	0.088	4	569	0.044	4	569	0.132
12:00 - 13:00	5	555	0.072	5	555	0.036	5	555	0.108
13:00 - 14:00	5	555	0.288	5	555	0.180	5	555	0.468
14:00 - 15:00	5	555	0.072	5	555	0.072	5	555	0.144
15:00 - 16:00	5	555	0.072	5	555	0.180	5	555	0.252
16:00 - 17:00	5	555	0.432	5	555	0.288	5	555	0.720
17:00 - 18:00	5	555	0.252	5	555	0.216	5	555	0.468
18:00 - 19:00	5	555	0.216	5	555	0.324	5	555	0.540
19:00 - 20:00	5	555	0.000	5	555	0.000	5	555	0.000
20:00 - 21:00	5	555	0.180	5	555	0.180	5	555	0.360
21:00 - 22:00	5	555	0.000	5	555	0.072	5	555	0.072
22:00 - 23:00	5	555	0.000	5	555	0.000	5	555	0.000
23:00 - 24:00	4	469	0.000	4	469	0.000	4	469	0.000
Total Rates:			1.745			1.665			3.410

Parameter summary

Trip rate parameter range selected: 350 - 900 (units: sqm)
 Survey date range: 01/01/03 - 23/11/09
 Number of weekdays (Monday-Friday): 5
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 08:00	0	0	0.000	0	0	0.000	0	0	0.000
08:00 - 09:00	0	0	0.000	0	0	0.000	0	0	0.000
09:00 - 10:00	0	0	0.000	0	0	0.000	0	0	0.000
10:00 - 11:00	3	458	0.655	3	458	0.364	3	458	1.019
11:00 - 12:00	4	569	1.275	4	569	0.527	4	569	1.802
12:00 - 13:00	5	555	2.919	5	555	1.153	5	555	4.072
13:00 - 14:00	5	555	4.252	5	555	2.883	5	555	7.135
14:00 - 15:00	5	555	3.532	5	555	4.432	5	555	7.964
15:00 - 16:00	5	555	4.324	5	555	4.288	5	555	8.612
16:00 - 17:00	5	555	4.865	5	555	3.928	5	555	8.793
17:00 - 18:00	5	555	6.667	5	555	4.360	5	555	11.027
18:00 - 19:00	5	555	7.171	5	555	5.802	5	555	12.973
19:00 - 20:00	5	555	7.279	5	555	7.640	5	555	14.919
20:00 - 21:00	5	555	5.153	5	555	6.631	5	555	11.784
21:00 - 22:00	5	555	2.595	5	555	5.333	5	555	7.928
22:00 - 23:00	5	555	1.333	5	555	3.315	5	555	4.648
23:00 - 24:00	4	469	0.000	4	469	1.120	4	469	1.120
Total Rates:			52.020			51.776			103.796

Parameter summary

Trip rate parameter range selected: 350 - 900 (units: sqm)
 Survey date range: 01/01/03 - 23/11/09
 Number of weekdays (Monday-Friday): 5
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

Calculation Reference: AUDIT-623801-150430-0438

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK

Category : A - HOTELS

MULTI-MODAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	WS WEST SUSSEX	1 days
03	SOUTH WEST	
	GS GLOUCESTERSHIRE	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	WY WEST YORKSHIRE	1 days
09	NORTH	
	TV TEES VALLEY	1 days

Filtering Stage 2 selection:

Parameter: Gross floor area
 Actual Range: 1080 to 2550 (units: sqm)
 Range Selected by User: 1080 to 3000 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/07 to 28/11/13

Selected survey days:

Monday	1 days
Thursday	2 days
Friday	2 days

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

Selected Locations:

Suburban Area (PPS6 Out of Centre)	5
------------------------------------	---

Selected Location Sub Categories:

Residential Zone	3
No Sub Category	2

Filtering Stage 3 selection:

Use Class:

C1	5 days
----	--------

Population within 1 mile:

5,001 to 10,000	2 days
20,001 to 25,000	3 days

Population within 5 miles:

25,001 to 50,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	1 days
500,001 or More	1 days

Filtering Stage 3 selection (Cont.):

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	3 days

Travel Plan:

No	5 days
----	--------

LIST OF SITES relevant to selection parameters

1	GS-06-A-02	PREMIER INN		GLOUCESTERSHIRE
	GLOUCESTER ROAD			
	SAINT MARKS			
	CHELTENHAM SPA			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:	2393 sqm		
	Survey date: THURSDAY	28/11/13		Survey Type: MANUAL
2	TV-06-A-02	HOTEL		TEES VALLEY
	MARTON ROAD			
	MIDDLESBROUGH			
	Suburban Area (PPS6 Out of Centre)			
	No Sub Category			
	Total Gross floor area:	2550 sqm		
	Survey date: FRIDAY	18/12/09		Survey Type: MANUAL
3	WM-06-A-03	HOTEL		WEST MIDLANDS
	HOLYHEAD ROAD			
	COVENTRY			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:	1700 sqm		
	Survey date: THURSDAY	27/09/07		Survey Type: MANUAL
4	WS-06-A-03	EXPRESS BY HOL. INN		WEST SUSSEX
	HASLETT AVENUE EAST			
	CRAWLEY			
	Suburban Area (PPS6 Out of Centre)			
	No Sub Category			
	Total Gross floor area:	2350 sqm		
	Survey date: MONDAY	07/12/09		Survey Type: MANUAL
5	WY-06-A-02	HOTEL		WEST YORKSHIRE
	CLIFF ROAD			
	HEADINGLEY			
	LEEDS			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:	1080 sqm		
	Survey date: FRIDAY	11/06/10		Survey Type: MANUAL

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS

MULTI-MODAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	2015	0.149	5	2015	0.347	5	2015	0.496
08:00 - 09:00	5	2015	0.228	5	2015	0.645	5	2015	0.873
09:00 - 10:00	5	2015	0.159	5	2015	0.427	5	2015	0.586
10:00 - 11:00	5	2015	0.208	5	2015	0.238	5	2015	0.446
11:00 - 12:00	5	2015	0.189	5	2015	0.159	5	2015	0.348
12:00 - 13:00	5	2015	0.199	5	2015	0.139	5	2015	0.338
13:00 - 14:00	5	2015	0.159	5	2015	0.199	5	2015	0.358
14:00 - 15:00	5	2015	0.139	5	2015	0.109	5	2015	0.248
15:00 - 16:00	5	2015	0.248	5	2015	0.129	5	2015	0.377
16:00 - 17:00	5	2015	0.328	5	2015	0.179	5	2015	0.507
17:00 - 18:00	5	2015	0.407	5	2015	0.159	5	2015	0.566
18:00 - 19:00	5	2015	0.486	5	2015	0.238	5	2015	0.724
19:00 - 20:00	5	2015	0.218	5	2015	0.109	5	2015	0.327
20:00 - 21:00	5	2015	0.199	5	2015	0.079	5	2015	0.278
21:00 - 22:00	5	2015	0.129	5	2015	0.060	5	2015	0.189
22:00 - 23:00	1	2550	0.235	1	2550	0.196	1	2550	0.431
23:00 - 24:00	1	2550	0.039	1	2550	0.000	1	2550	0.039
Total Rates:			3.719				3.412		
							7.131		

Parameter summary

Trip rate parameter range selected: 1080 - 2550 (units: sqm)
 Survey date range: 01/01/07 - 28/11/13
 Number of weekdays (Monday-Friday): 5
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 3

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS

MULTI-MODAL TAXIS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	2015	0.050	5	2015	0.050	5	2015	0.100
08:00 - 09:00	5	2015	0.050	5	2015	0.060	5	2015	0.110
09:00 - 10:00	5	2015	0.040	5	2015	0.040	5	2015	0.080
10:00 - 11:00	5	2015	0.040	5	2015	0.040	5	2015	0.080
11:00 - 12:00	5	2015	0.020	5	2015	0.020	5	2015	0.040
12:00 - 13:00	5	2015	0.010	5	2015	0.010	5	2015	0.020
13:00 - 14:00	5	2015	0.040	5	2015	0.040	5	2015	0.080
14:00 - 15:00	5	2015	0.040	5	2015	0.030	5	2015	0.070
15:00 - 16:00	5	2015	0.030	5	2015	0.030	5	2015	0.060
16:00 - 17:00	5	2015	0.010	5	2015	0.010	5	2015	0.020
17:00 - 18:00	5	2015	0.060	5	2015	0.050	5	2015	0.110
18:00 - 19:00	5	2015	0.069	5	2015	0.079	5	2015	0.148
19:00 - 20:00	5	2015	0.040	5	2015	0.040	5	2015	0.080
20:00 - 21:00	5	2015	0.030	5	2015	0.030	5	2015	0.060
21:00 - 22:00	5	2015	0.000	5	2015	0.000	5	2015	0.000
22:00 - 23:00	1	2550	0.118	1	2550	0.118	1	2550	0.236
23:00 - 24:00	1	2550	0.000	1	2550	0.000	1	2550	0.000
Total Rates:			0.647						1.294

Parameter summary

Trip rate parameter range selected: 1080 - 2550 (units: sqm)
 Survey date range: 01/01/07 - 28/11/13
 Number of weekdays (Monday-Friday): 5
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 3

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS			
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	
00:00 - 01:00										
01:00 - 02:00										
02:00 - 03:00										
03:00 - 04:00										
04:00 - 05:00										
05:00 - 06:00										
06:00 - 07:00										
07:00 - 08:00	5	2015	0.010	5	2015	0.010	5	2015	0.020	
08:00 - 09:00	5	2015	0.020	5	2015	0.010	5	2015	0.030	
09:00 - 10:00	5	2015	0.000	5	2015	0.010	5	2015	0.010	
10:00 - 11:00	5	2015	0.010	5	2015	0.010	5	2015	0.020	
11:00 - 12:00	5	2015	0.020	5	2015	0.010	5	2015	0.030	
12:00 - 13:00	5	2015	0.020	5	2015	0.010	5	2015	0.030	
13:00 - 14:00	5	2015	0.000	5	2015	0.020	5	2015	0.020	
14:00 - 15:00	5	2015	0.000	5	2015	0.000	5	2015	0.000	
15:00 - 16:00	5	2015	0.000	5	2015	0.000	5	2015	0.000	
16:00 - 17:00	5	2015	0.000	5	2015	0.000	5	2015	0.000	
17:00 - 18:00	5	2015	0.000	5	2015	0.000	5	2015	0.000	
18:00 - 19:00	5	2015	0.000	5	2015	0.000	5	2015	0.000	
19:00 - 20:00	5	2015	0.000	5	2015	0.000	5	2015	0.000	
20:00 - 21:00	5	2015	0.000	5	2015	0.000	5	2015	0.000	
21:00 - 22:00	5	2015	0.000	5	2015	0.000	5	2015	0.000	
22:00 - 23:00	1	2550	0.000	1	2550	0.000	1	2550	0.000	
23:00 - 24:00	1	2550	0.000	1	2550	0.000	1	2550	0.000	
Total Rates:			0.080				0.080			

Parameter summary

Trip rate parameter range selected: 1080 - 2550 (units: sqm)
 Survey date range: 01/01/07 - 28/11/13
 Number of weekdays (Monday-Friday): 5
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 3

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS

MULTI-MODAL CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS			
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	
00:00 - 01:00										
01:00 - 02:00										
02:00 - 03:00										
03:00 - 04:00										
04:00 - 05:00										
05:00 - 06:00										
06:00 - 07:00										
07:00 - 08:00	5	2015	0.000	5	2015	0.000	5	2015	0.000	
08:00 - 09:00	5	2015	0.020	5	2015	0.000	5	2015	0.020	
09:00 - 10:00	5	2015	0.010	5	2015	0.000	5	2015	0.010	
10:00 - 11:00	5	2015	0.000	5	2015	0.010	5	2015	0.010	
11:00 - 12:00	5	2015	0.000	5	2015	0.000	5	2015	0.000	
12:00 - 13:00	5	2015	0.000	5	2015	0.000	5	2015	0.000	
13:00 - 14:00	5	2015	0.000	5	2015	0.010	5	2015	0.010	
14:00 - 15:00	5	2015	0.000	5	2015	0.030	5	2015	0.030	
15:00 - 16:00	5	2015	0.010	5	2015	0.000	5	2015	0.010	
16:00 - 17:00	5	2015	0.000	5	2015	0.000	5	2015	0.000	
17:00 - 18:00	5	2015	0.000	5	2015	0.000	5	2015	0.000	
18:00 - 19:00	5	2015	0.000	5	2015	0.000	5	2015	0.000	
19:00 - 20:00	5	2015	0.000	5	2015	0.000	5	2015	0.000	
20:00 - 21:00	5	2015	0.000	5	2015	0.000	5	2015	0.000	
21:00 - 22:00	5	2015	0.000	5	2015	0.000	5	2015	0.000	
22:00 - 23:00	1	2550	0.000	1	2550	0.000	1	2550	0.000	
23:00 - 24:00	1	2550	0.000	1	2550	0.000	1	2550	0.000	
Total Rates:			0.040				0.050			0.090

Parameter summary

Trip rate parameter range selected: 1080 - 2550 (units: sqm)
 Survey date range: 01/01/07 - 28/11/13
 Number of weekdays (Monday-Friday): 5
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 3

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	2015	0.189	5	2015	0.496	5	2015	0.685
08:00 - 09:00	5	2015	0.218	5	2015	0.834	5	2015	1.052
09:00 - 10:00	5	2015	0.199	5	2015	0.576	5	2015	0.775
10:00 - 11:00	5	2015	0.208	5	2015	0.318	5	2015	0.526
11:00 - 12:00	5	2015	0.248	5	2015	0.199	5	2015	0.447
12:00 - 13:00	5	2015	0.288	5	2015	0.179	5	2015	0.467
13:00 - 14:00	5	2015	0.218	5	2015	0.218	5	2015	0.436
14:00 - 15:00	5	2015	0.169	5	2015	0.139	5	2015	0.308
15:00 - 16:00	5	2015	0.387	5	2015	0.139	5	2015	0.526
16:00 - 17:00	5	2015	0.437	5	2015	0.169	5	2015	0.606
17:00 - 18:00	5	2015	0.586	5	2015	0.199	5	2015	0.785
18:00 - 19:00	5	2015	0.526	5	2015	0.357	5	2015	0.883
19:00 - 20:00	5	2015	0.347	5	2015	0.079	5	2015	0.426
20:00 - 21:00	5	2015	0.278	5	2015	0.089	5	2015	0.367
21:00 - 22:00	5	2015	0.189	5	2015	0.050	5	2015	0.239
22:00 - 23:00	1	2550	0.392	1	2550	0.196	1	2550	0.588
23:00 - 24:00	1	2550	0.039	1	2550	0.000	1	2550	0.039
Total Rates:			4.918			4.237			9.155

Parameter summary

Trip rate parameter range selected: 1080 - 2550 (units: sqm)
 Survey date range: 01/01/07 - 28/11/13
 Number of weekdays (Monday-Friday): 5
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 3

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	2015	0.030	5	2015	0.079	5	2015	0.109
08:00 - 09:00	5	2015	0.060	5	2015	0.139	5	2015	0.199
09:00 - 10:00	5	2015	0.099	5	2015	0.109	5	2015	0.208
10:00 - 11:00	5	2015	0.010	5	2015	0.099	5	2015	0.109
11:00 - 12:00	5	2015	0.060	5	2015	0.050	5	2015	0.110
12:00 - 13:00	5	2015	0.050	5	2015	0.040	5	2015	0.090
13:00 - 14:00	5	2015	0.020	5	2015	0.020	5	2015	0.040
14:00 - 15:00	5	2015	0.149	5	2015	0.139	5	2015	0.288
15:00 - 16:00	5	2015	0.089	5	2015	0.050	5	2015	0.139
16:00 - 17:00	5	2015	0.069	5	2015	0.050	5	2015	0.119
17:00 - 18:00	5	2015	0.119	5	2015	0.139	5	2015	0.258
18:00 - 19:00	5	2015	0.169	5	2015	0.189	5	2015	0.358
19:00 - 20:00	5	2015	0.208	5	2015	0.258	5	2015	0.466
20:00 - 21:00	5	2015	0.208	5	2015	0.099	5	2015	0.307
21:00 - 22:00	5	2015	0.238	5	2015	0.040	5	2015	0.278
22:00 - 23:00	1	2550	0.000	1	2550	0.000	1	2550	0.000
23:00 - 24:00	1	2550	0.000	1	2550	0.000	1	2550	0.000
Total Rates:			1.578	1.500			3.078		

Parameter summary

Trip rate parameter range selected: 1080 - 2550 (units: sqm)
 Survey date range: 01/01/07 - 28/11/13
 Number of weekdays (Monday-Friday): 5
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 3

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	2015	0.000	5	2015	0.000	5	2015	0.000
08:00 - 09:00	5	2015	0.020	5	2015	0.040	5	2015	0.060
09:00 - 10:00	5	2015	0.020	5	2015	0.040	5	2015	0.060
10:00 - 11:00	5	2015	0.010	5	2015	0.069	5	2015	0.079
11:00 - 12:00	5	2015	0.000	5	2015	0.020	5	2015	0.020
12:00 - 13:00	5	2015	0.000	5	2015	0.010	5	2015	0.010
13:00 - 14:00	5	2015	0.010	5	2015	0.020	5	2015	0.030
14:00 - 15:00	5	2015	0.010	5	2015	0.000	5	2015	0.010
15:00 - 16:00	5	2015	0.010	5	2015	0.000	5	2015	0.010
16:00 - 17:00	5	2015	0.000	5	2015	0.010	5	2015	0.010
17:00 - 18:00	5	2015	0.030	5	2015	0.000	5	2015	0.030
18:00 - 19:00	5	2015	0.010	5	2015	0.000	5	2015	0.010
19:00 - 20:00	5	2015	0.000	5	2015	0.000	5	2015	0.000
20:00 - 21:00	5	2015	0.020	5	2015	0.000	5	2015	0.020
21:00 - 22:00	5	2015	0.000	5	2015	0.000	5	2015	0.000
22:00 - 23:00	1	2550	0.000	1	2550	0.000	1	2550	0.000
23:00 - 24:00	1	2550	0.000	1	2550	0.000	1	2550	0.000
Total Rates:			0.140						0.349

Parameter summary

Trip rate parameter range selected: 1080 - 2550 (units: sqm)
 Survey date range: 01/01/07 - 28/11/13
 Number of weekdays (Monday-Friday): 5
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 3

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	2015	0.218	5	2015	0.576	5	2015	0.794
08:00 - 09:00	5	2015	0.318	5	2015	1.013	5	2015	1.331
09:00 - 10:00	5	2015	0.328	5	2015	0.725	5	2015	1.053
10:00 - 11:00	5	2015	0.228	5	2015	0.496	5	2015	0.724
11:00 - 12:00	5	2015	0.308	5	2015	0.268	5	2015	0.576
12:00 - 13:00	5	2015	0.338	5	2015	0.228	5	2015	0.566
13:00 - 14:00	5	2015	0.248	5	2015	0.268	5	2015	0.516
14:00 - 15:00	5	2015	0.328	5	2015	0.308	5	2015	0.636
15:00 - 16:00	5	2015	0.496	5	2015	0.189	5	2015	0.685
16:00 - 17:00	5	2015	0.506	5	2015	0.228	5	2015	0.734
17:00 - 18:00	5	2015	0.735	5	2015	0.338	5	2015	1.073
18:00 - 19:00	5	2015	0.705	5	2015	0.546	5	2015	1.251
19:00 - 20:00	5	2015	0.556	5	2015	0.338	5	2015	0.894
20:00 - 21:00	5	2015	0.506	5	2015	0.189	5	2015	0.695
21:00 - 22:00	5	2015	0.427	5	2015	0.089	5	2015	0.516
22:00 - 23:00	1	2550	0.392	1	2550	0.196	1	2550	0.588
23:00 - 24:00	1	2550	0.039	1	2550	0.000	1	2550	0.039
Total Rates:			6.676				5.995	12.671	

Parameter summary

Trip rate parameter range selected: 1080 - 2550 (units: sqm)
 Survey date range: 01/01/07 - 28/11/13
 Number of weekdays (Monday-Friday): 5
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 3

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : D - INDUSTRIAL ESTATE
MULTI-MODAL VEHICLES

Selected regions and areas:

Filtering Stage 2 selection:

Parameter: Gross floor area
Actual Range: 6000 to 6000 (units: sqm)
Range Selected by User: 6000 to 6000 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 20/10/09 to 20/10/09

Selected survey days:

Tuesday 1 days

Selected survey types:

Manual count 1 days
Directional ATC Count 0 days

Selected Locations:

Suburban Area (PPS6 Out of Centre) 1

Selected Location Sub Categories:

Industrial Zone 1

Peter Brett Associates Queen Square Bristol

Licence No: 706710

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

MULTI-MODAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30	0	0	0.000	0	0	0.000	0	0	0.000
00:30 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 01:30	0	0	0.000	0	0	0.000	0	0	0.000
01:30 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 02:30	0	0	0.000	0	0	0.000	0	0	0.000
02:30 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 03:30	0	0	0.000	0	0	0.000	0	0	0.000
03:30 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 04:30	0	0	0.000	0	0	0.000	0	0	0.000
04:30 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 05:30	0	0	0.000	0	0	0.000	0	0	0.000
05:30 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 06:30	0	0	0.000	0	0	0.000	0	0	0.000
06:30 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 07:30	1	6000	0.183	1	6000	0.083	1	6000	0.266
07:30 - 08:00	1	6000	0.433	1	6000	0.067	1	6000	0.500
08:00 - 08:30	1	6000	0.633	1	6000	0.100	1	6000	0.733
08:30 - 09:00	1	6000	0.667	1	6000	0.250	1	6000	0.917
09:00 - 09:30	1	6000	0.483	1	6000	0.183	1	6000	0.666
09:30 - 10:00	1	6000	0.250	1	6000	0.250	1	6000	0.500
10:00 - 10:30	1	6000	0.400	1	6000	0.250	1	6000	0.650
10:30 - 11:00	1	6000	0.233	1	6000	0.183	1	6000	0.416
11:00 - 11:30	1	6000	0.250	1	6000	0.300	1	6000	0.550
11:30 - 12:00	1	6000	0.183	1	6000	0.233	1	6000	0.416
12:00 - 12:30	1	6000	0.250	1	6000	0.350	1	6000	0.600
12:30 - 13:00	1	6000	0.300	1	6000	0.233	1	6000	0.533
13:00 - 13:30	1	6000	0.283	1	6000	0.317	1	6000	0.600
13:30 - 14:00	1	6000	0.367	1	6000	0.250	1	6000	0.617
14:00 - 14:30	1	6000	0.183	1	6000	0.417	1	6000	0.600
14:30 - 15:00	1	6000	0.217	1	6000	0.200	1	6000	0.417
15:00 - 15:30	1	6000	0.117	1	6000	0.250	1	6000	0.367
15:30 - 16:00	1	6000	0.200	1	6000	0.117	1	6000	0.317
16:00 - 16:30	1	6000	0.183	1	6000	0.400	1	6000	0.583
16:30 - 17:00	1	6000	0.133	1	6000	0.417	1	6000	0.550
17:00 - 17:30	1	6000	0.067	1	6000	0.450	1	6000	0.517
17:30 - 18:00	1	6000	0.133	1	6000	0.533	1	6000	0.666
18:00 - 18:30	1	6000	0.017	1	6000	0.183	1	6000	0.200
18:30 - 19:00	1	6000	0.000	1	6000	0.017	1	6000	0.017
19:00 - 19:30	0	0	0.000	0	0	0.000	0	0	0.000
19:30 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 20:30	0	0	0.000	0	0	0.000	0	0	0.000
20:30 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 21:30	0	0	0.000	0	0	0.000	0	0	0.000
21:30 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 22:30	0	0	0.000	0	0	0.000	0	0	0.000
22:30 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 23:30	0	0	0.000	0	0	0.000	0	0	0.000
23:30 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			6.165			6.033			12.198

Parameter summary

Trip rate parameter range selected:	6000 - 6000 (units: sqm)
Survey date date range:	20/10/09 - 20/10/09
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

Peter Brett Associates Queen Square Bristol

Licence No: 706710

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30	0	0	0.000	0	0	0.000	0	0	0.000
00:30 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 01:30	0	0	0.000	0	0	0.000	0	0	0.000
01:30 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 02:30	0	0	0.000	0	0	0.000	0	0	0.000
02:30 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 03:30	0	0	0.000	0	0	0.000	0	0	0.000
03:30 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 04:30	0	0	0.000	0	0	0.000	0	0	0.000
04:30 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 05:30	0	0	0.000	0	0	0.000	0	0	0.000
05:30 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 06:30	0	0	0.000	0	0	0.000	0	0	0.000
06:30 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 07:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
07:30 - 08:00	1	6000	0.033	1	6000	0.033	1	6000	0.066
08:00 - 08:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
08:30 - 09:00	1	6000	0.050	1	6000	0.000	1	6000	0.050
09:00 - 09:30	1	6000	0.067	1	6000	0.050	1	6000	0.117
09:30 - 10:00	1	6000	0.000	1	6000	0.017	1	6000	0.017
10:00 - 10:30	1	6000	0.033	1	6000	0.050	1	6000	0.083
10:30 - 11:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
11:00 - 11:30	1	6000	0.017	1	6000	0.000	1	6000	0.017
11:30 - 12:00	1	6000	0.000	1	6000	0.033	1	6000	0.033
12:00 - 12:30	1	6000	0.017	1	6000	0.017	1	6000	0.034
12:30 - 13:00	1	6000	0.033	1	6000	0.017	1	6000	0.050
13:00 - 13:30	1	6000	0.000	1	6000	0.017	1	6000	0.017
13:30 - 14:00	1	6000	0.017	1	6000	0.017	1	6000	0.034
14:00 - 14:30	1	6000	0.017	1	6000	0.017	1	6000	0.034
14:30 - 15:00	1	6000	0.000	1	6000	0.017	1	6000	0.017
15:00 - 15:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
15:30 - 16:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
16:00 - 16:30	1	6000	0.033	1	6000	0.017	1	6000	0.050
16:30 - 17:00	1	6000	0.000	1	6000	0.017	1	6000	0.017
17:00 - 17:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
17:30 - 18:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
18:00 - 18:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
18:30 - 19:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
19:00 - 19:30	0	0	0.000	0	0	0.000	0	0	0.000
19:30 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 20:30	0	0	0.000	0	0	0.000	0	0	0.000
20:30 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 21:30	0	0	0.000	0	0	0.000	0	0	0.000
21:30 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 22:30	0	0	0.000	0	0	0.000	0	0	0.000
22:30 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 23:30	0	0	0.000	0	0	0.000	0	0	0.000
23:30 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			0.317			0.319			0.636

Parameter summary

Trip rate parameter range selected:	6000 - 6000 (units: sqm)
Survey date date range:	20/10/09 - 20/10/09
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

Peter Brett Associates Queen Square Bristol

Licence No: 706710

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

MULTI-MODAL CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30	0	0	0.000	0	0	0.000	0	0	0.000
00:30 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 01:30	0	0	0.000	0	0	0.000	0	0	0.000
01:30 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 02:30	0	0	0.000	0	0	0.000	0	0	0.000
02:30 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 03:30	0	0	0.000	0	0	0.000	0	0	0.000
03:30 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 04:30	0	0	0.000	0	0	0.000	0	0	0.000
04:30 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 05:30	0	0	0.000	0	0	0.000	0	0	0.000
05:30 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 06:30	0	0	0.000	0	0	0.000	0	0	0.000
06:30 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 07:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
07:30 - 08:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
08:00 - 08:30	1	6000	0.033	1	6000	0.000	1	6000	0.033
08:30 - 09:00	1	6000	0.017	1	6000	0.000	1	6000	0.017
09:00 - 09:30	1	6000	0.017	1	6000	0.000	1	6000	0.017
09:30 - 10:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
10:00 - 10:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
10:30 - 11:00	1	6000	0.017	1	6000	0.000	1	6000	0.017
11:00 - 11:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
11:30 - 12:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
12:00 - 12:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
12:30 - 13:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
13:00 - 13:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
13:30 - 14:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
14:00 - 14:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
14:30 - 15:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
15:00 - 15:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
15:30 - 16:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
16:00 - 16:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
16:30 - 17:00	1	6000	0.000	1	6000	0.017	1	6000	0.017
17:00 - 17:30	1	6000	0.000	1	6000	0.017	1	6000	0.017
17:30 - 18:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
18:00 - 18:30	1	6000	0.000	1	6000	0.017	1	6000	0.017
18:30 - 19:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
19:00 - 19:30	0	0	0.000	0	0	0.000	0	0	0.000
19:30 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 20:30	0	0	0.000	0	0	0.000	0	0	0.000
20:30 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 21:30	0	0	0.000	0	0	0.000	0	0	0.000
21:30 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 22:30	0	0	0.000	0	0	0.000	0	0	0.000
22:30 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 23:30	0	0	0.000	0	0	0.000	0	0	0.000
23:30 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			0.084			0.051			0.135

Parameter summary

Trip rate parameter range selected:	6000 - 6000 (units: sqm)
Survey date date range:	20/10/09 - 20/10/09
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

Peter Brett Associates Queen Square Bristol

Licence No: 706710

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30	0	0	0.000	0	0	0.000	0	0	0.000
00:30 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 01:30	0	0	0.000	0	0	0.000	0	0	0.000
01:30 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 02:30	0	0	0.000	0	0	0.000	0	0	0.000
02:30 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 03:30	0	0	0.000	0	0	0.000	0	0	0.000
03:30 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 04:30	0	0	0.000	0	0	0.000	0	0	0.000
04:30 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 05:30	0	0	0.000	0	0	0.000	0	0	0.000
05:30 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 06:30	0	0	0.000	0	0	0.000	0	0	0.000
06:30 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 07:30	1	6000	0.183	1	6000	0.083	1	6000	0.266
07:30 - 08:00	1	6000	0.433	1	6000	0.067	1	6000	0.500
08:00 - 08:30	1	6000	0.633	1	6000	0.100	1	6000	0.733
08:30 - 09:00	1	6000	0.667	1	6000	0.250	1	6000	0.917
09:00 - 09:30	1	6000	0.533	1	6000	0.183	1	6000	0.716
09:30 - 10:00	1	6000	0.250	1	6000	0.300	1	6000	0.550
10:00 - 10:30	1	6000	0.467	1	6000	0.267	1	6000	0.734
10:30 - 11:00	1	6000	0.283	1	6000	0.217	1	6000	0.500
11:00 - 11:30	1	6000	0.333	1	6000	0.300	1	6000	0.633
11:30 - 12:00	1	6000	0.200	1	6000	0.283	1	6000	0.483
12:00 - 12:30	1	6000	0.267	1	6000	0.367	1	6000	0.634
12:30 - 13:00	1	6000	0.333	1	6000	0.250	1	6000	0.583
13:00 - 13:30	1	6000	0.317	1	6000	0.350	1	6000	0.667
13:30 - 14:00	1	6000	0.400	1	6000	0.267	1	6000	0.667
14:00 - 14:30	1	6000	0.183	1	6000	0.433	1	6000	0.616
14:30 - 15:00	1	6000	0.217	1	6000	0.200	1	6000	0.417
15:00 - 15:30	1	6000	0.117	1	6000	0.250	1	6000	0.367
15:30 - 16:00	1	6000	0.200	1	6000	0.117	1	6000	0.317
16:00 - 16:30	1	6000	0.183	1	6000	0.467	1	6000	0.650
16:30 - 17:00	1	6000	0.167	1	6000	0.433	1	6000	0.600
17:00 - 17:30	1	6000	0.067	1	6000	0.467	1	6000	0.534
17:30 - 18:00	1	6000	0.133	1	6000	0.567	1	6000	0.700
18:00 - 18:30	1	6000	0.017	1	6000	0.217	1	6000	0.234
18:30 - 19:00	1	6000	0.000	1	6000	0.033	1	6000	0.033
19:00 - 19:30	0	0	0.000	0	0	0.000	0	0	0.000
19:30 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 20:30	0	0	0.000	0	0	0.000	0	0	0.000
20:30 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 21:30	0	0	0.000	0	0	0.000	0	0	0.000
21:30 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 22:30	0	0	0.000	0	0	0.000	0	0	0.000
22:30 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 23:30	0	0	0.000	0	0	0.000	0	0	0.000
23:30 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			6.583			6.468			13.051

Parameter summary

Trip rate parameter range selected:	6000 - 6000 (units: sqm)
Survey date date range:	20/10/09 - 20/10/09
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

Peter Brett Associates Queen Square Bristol

Licence No: 706710

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30	0	0	0.000	0	0	0.000	0	0	0.000
00:30 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 01:30	0	0	0.000	0	0	0.000	0	0	0.000
01:30 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 02:30	0	0	0.000	0	0	0.000	0	0	0.000
02:30 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 03:30	0	0	0.000	0	0	0.000	0	0	0.000
03:30 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 04:30	0	0	0.000	0	0	0.000	0	0	0.000
04:30 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 05:30	0	0	0.000	0	0	0.000	0	0	0.000
05:30 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 06:30	0	0	0.000	0	0	0.000	0	0	0.000
06:30 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 07:30	1	6000	0.033	1	6000	0.000	1	6000	0.033
07:30 - 08:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
08:00 - 08:30	1	6000	0.067	1	6000	0.017	1	6000	0.084
08:30 - 09:00	1	6000	0.050	1	6000	0.017	1	6000	0.067
09:00 - 09:30	1	6000	0.017	1	6000	0.000	1	6000	0.017
09:30 - 10:00	1	6000	0.000	1	6000	0.017	1	6000	0.017
10:00 - 10:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
10:30 - 11:00	1	6000	0.067	1	6000	0.050	1	6000	0.117
11:00 - 11:30	1	6000	0.033	1	6000	0.000	1	6000	0.033
11:30 - 12:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
12:00 - 12:30	1	6000	0.000	1	6000	0.050	1	6000	0.050
12:30 - 13:00	1	6000	0.033	1	6000	0.000	1	6000	0.033
13:00 - 13:30	1	6000	0.017	1	6000	0.067	1	6000	0.084
13:30 - 14:00	1	6000	0.017	1	6000	0.000	1	6000	0.017
14:00 - 14:30	1	6000	0.017	1	6000	0.000	1	6000	0.017
14:30 - 15:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
15:00 - 15:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
15:30 - 16:00	1	6000	0.017	1	6000	0.000	1	6000	0.017
16:00 - 16:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
16:30 - 17:00	1	6000	0.000	1	6000	0.017	1	6000	0.017
17:00 - 17:30	1	6000	0.000	1	6000	0.033	1	6000	0.033
17:30 - 18:00	1	6000	0.000	1	6000	0.017	1	6000	0.017
18:00 - 18:30	1	6000	0.000	1	6000	0.033	1	6000	0.033
18:30 - 19:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
19:00 - 19:30	0	0	0.000	0	0	0.000	0	0	0.000
19:30 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 20:30	0	0	0.000	0	0	0.000	0	0	0.000
20:30 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 21:30	0	0	0.000	0	0	0.000	0	0	0.000
21:30 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 22:30	0	0	0.000	0	0	0.000	0	0	0.000
22:30 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 23:30	0	0	0.000	0	0	0.000	0	0	0.000
23:30 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			0.368			0.318			0.686

Parameter summary

Trip rate parameter range selected:	6000 - 6000 (units: sqm)
Survey date date range:	20/10/09 - 20/10/09
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

Peter Brett Associates Queen Square Bristol

Licence No: 706710

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30	0	0	0.000	0	0	0.000	0	0	0.000
00:30 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 01:30	0	0	0.000	0	0	0.000	0	0	0.000
01:30 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 02:30	0	0	0.000	0	0	0.000	0	0	0.000
02:30 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 03:30	0	0	0.000	0	0	0.000	0	0	0.000
03:30 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 04:30	0	0	0.000	0	0	0.000	0	0	0.000
04:30 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 05:30	0	0	0.000	0	0	0.000	0	0	0.000
05:30 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 06:30	0	0	0.000	0	0	0.000	0	0	0.000
06:30 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 07:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
07:30 - 08:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
08:00 - 08:30	1	6000	0.033	1	6000	0.000	1	6000	0.033
08:30 - 09:00	1	6000	0.033	1	6000	0.000	1	6000	0.033
09:00 - 09:30	1	6000	0.017	1	6000	0.000	1	6000	0.017
09:30 - 10:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
10:00 - 10:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
10:30 - 11:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
11:00 - 11:30	1	6000	0.017	1	6000	0.000	1	6000	0.017
11:30 - 12:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
12:00 - 12:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
12:30 - 13:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
13:00 - 13:30	1	6000	0.017	1	6000	0.000	1	6000	0.017
13:30 - 14:00	1	6000	0.000	1	6000	0.017	1	6000	0.017
14:00 - 14:30	1	6000	0.017	1	6000	0.000	1	6000	0.017
14:30 - 15:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
15:00 - 15:30	1	6000	0.000	1	6000	0.017	1	6000	0.017
15:30 - 16:00	1	6000	0.000	1	6000	0.017	1	6000	0.017
16:00 - 16:30	1	6000	0.000	1	6000	0.000	1	6000	0.000
16:30 - 17:00	1	6000	0.017	1	6000	0.000	1	6000	0.017
17:00 - 17:30	1	6000	0.000	1	6000	0.017	1	6000	0.017
17:30 - 18:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
18:00 - 18:30	1	6000	0.000	1	6000	0.033	1	6000	0.033
18:30 - 19:00	1	6000	0.000	1	6000	0.000	1	6000	0.000
19:00 - 19:30	0	0	0.000	0	0	0.000	0	0	0.000
19:30 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 20:30	0	0	0.000	0	0	0.000	0	0	0.000
20:30 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 21:30	0	0	0.000	0	0	0.000	0	0	0.000
21:30 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 22:30	0	0	0.000	0	0	0.000	0	0	0.000
22:30 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 23:30	0	0	0.000	0	0	0.000	0	0	0.000
23:30 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			0.151	0.101			0.252		

Parameter summary

Trip rate parameter range selected:	6000 - 6000 (units: sqm)
Survey date date range:	20/10/09 - 20/10/09
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

Peter Brett Associates Queen Square Bristol

Licence No: 706710

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30	0	0	0.000	0	0	0.000	0	0	0.000
00:30 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 01:30	0	0	0.000	0	0	0.000	0	0	0.000
01:30 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 02:30	0	0	0.000	0	0	0.000	0	0	0.000
02:30 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 03:30	0	0	0.000	0	0	0.000	0	0	0.000
03:30 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 04:30	0	0	0.000	0	0	0.000	0	0	0.000
04:30 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 05:30	0	0	0.000	0	0	0.000	0	0	0.000
05:30 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 06:30	0	0	0.000	0	0	0.000	0	0	0.000
06:30 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 07:30	1	6000	0.217	1	6000	0.083	1	6000	0.300
07:30 - 08:00	1	6000	0.433	1	6000	0.067	1	6000	0.500
08:00 - 08:30	1	6000	0.767	1	6000	0.117	1	6000	0.884
08:30 - 09:00	1	6000	0.767	1	6000	0.267	1	6000	1.034
09:00 - 09:30	1	6000	0.583	1	6000	0.183	1	6000	0.766
09:30 - 10:00	1	6000	0.250	1	6000	0.317	1	6000	0.567
10:00 - 10:30	1	6000	0.467	1	6000	0.267	1	6000	0.734
10:30 - 11:00	1	6000	0.367	1	6000	0.267	1	6000	0.634
11:00 - 11:30	1	6000	0.383	1	6000	0.300	1	6000	0.683
11:30 - 12:00	1	6000	0.200	1	6000	0.283	1	6000	0.483
12:00 - 12:30	1	6000	0.267	1	6000	0.417	1	6000	0.684
12:30 - 13:00	1	6000	0.367	1	6000	0.250	1	6000	0.617
13:00 - 13:30	1	6000	0.350	1	6000	0.417	1	6000	0.767
13:30 - 14:00	1	6000	0.417	1	6000	0.283	1	6000	0.700
14:00 - 14:30	1	6000	0.217	1	6000	0.433	1	6000	0.650
14:30 - 15:00	1	6000	0.217	1	6000	0.200	1	6000	0.417
15:00 - 15:30	1	6000	0.117	1	6000	0.267	1	6000	0.384
15:30 - 16:00	1	6000	0.217	1	6000	0.133	1	6000	0.350
16:00 - 16:30	1	6000	0.183	1	6000	0.467	1	6000	0.650
16:30 - 17:00	1	6000	0.183	1	6000	0.467	1	6000	0.650
17:00 - 17:30	1	6000	0.067	1	6000	0.533	1	6000	0.600
17:30 - 18:00	1	6000	0.133	1	6000	0.583	1	6000	0.716
18:00 - 18:30	1	6000	0.017	1	6000	0.300	1	6000	0.317
18:30 - 19:00	1	6000	0.000	1	6000	0.033	1	6000	0.033
19:00 - 19:30	0	0	0.000	0	0	0.000	0	0	0.000
19:30 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 20:30	0	0	0.000	0	0	0.000	0	0	0.000
20:30 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 21:30	0	0	0.000	0	0	0.000	0	0	0.000
21:30 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 22:30	0	0	0.000	0	0	0.000	0	0	0.000
22:30 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 23:30	0	0	0.000	0	0	0.000	0	0	0.000
23:30 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			7.186			6.934			14.120

Parameter summary

Trip rate parameter range selected:	6000 - 6000 (units: sqm)
Survey date date range:	20/10/09 - 20/10/09
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : D - FAST FOOD - DRIVE THROUGH
MULTI-MODAL VEHICLES

Selected regions and areas:

06 WEST MIDLANDS
WM WEST MIDLANDS 1 days

Filtering Stage 2 selection:

Parameter: Gross floor area
Range: 250 to 250 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/03 to 25/11/08

Selected survey days:

Tuesday 1 days

Selected survey types:

Manual count 1 days
Directional ATC Count 0 days

Selected Locations:

Suburban Area (PPS6 Out of Centre) 1

Selected Location Sub Categories:

No Sub Category 1

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/D - FAST FOOD - DRIVE THROUGH
MULTI-MODAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 08:00	0	0	0.000	0	0	0.000	0	0	0.000
08:00 - 09:00	0	0	0.000	0	0	0.000	0	0	0.000
09:00 - 10:00	1	250	0.400	1	250	0.400	1	250	0.800
10:00 - 11:00	1	250	2.800	1	250	2.400	1	250	5.200
11:00 - 12:00	1	250	4.400	1	250	2.000	1	250	6.400
12:00 - 13:00	1	250	8.800	1	250	11.200	1	250	20.000
13:00 - 14:00	1	250	11.200	1	250	8.800	1	250	20.000
14:00 - 15:00	1	250	3.200	1	250	4.800	1	250	8.000
15:00 - 16:00	1	250	2.800	1	250	3.200	1	250	6.000
16:00 - 17:00	1	250	2.400	1	250	2.000	1	250	4.400
17:00 - 18:00	1	250	1.600	1	250	2.000	1	250	3.600
18:00 - 19:00	1	250	3.600	1	250	2.800	1	250	6.400
19:00 - 20:00	1	250	5.600	1	250	5.600	1	250	11.200
20:00 - 21:00	1	250	2.000	1	250	2.800	1	250	4.800
21:00 - 22:00	1	250	0.000	1	250	1.200	1	250	1.200
22:00 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			48.800			49.200			98.000

Parameter summary

Trip rate parameter range selected: 250 - 250 (units: sqm)
Survey date range: 01/01/03 - 25/11/08
Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/D - FAST FOOD - DRIVE THROUGH
MULTI-MODAL CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 08:00	0	0	0.000	0	0	0.000	0	0	0.000
08:00 - 09:00	0	0	0.000	0	0	0.000	0	0	0.000
09:00 - 10:00	1	250	0.000	1	250	0.000	1	250	0.000
10:00 - 11:00	1	250	0.000	1	250	0.000	1	250	0.000
11:00 - 12:00	1	250	0.000	1	250	0.000	1	250	0.000
12:00 - 13:00	1	250	0.000	1	250	0.000	1	250	0.000
13:00 - 14:00	1	250	0.000	1	250	0.000	1	250	0.000
14:00 - 15:00	1	250	0.000	1	250	0.000	1	250	0.000
15:00 - 16:00	1	250	0.000	1	250	0.000	1	250	0.000
16:00 - 17:00	1	250	0.000	1	250	0.000	1	250	0.000
17:00 - 18:00	1	250	0.000	1	250	0.000	1	250	0.000
18:00 - 19:00	1	250	0.000	1	250	0.000	1	250	0.000
19:00 - 20:00	1	250	0.000	1	250	0.000	1	250	0.000
20:00 - 21:00	1	250	0.000	1	250	0.000	1	250	0.000
21:00 - 22:00	1	250	0.000	1	250	0.000	1	250	0.000
22:00 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			0.000			0.000			0.000

Parameter summary

Trip rate parameter range selected: 250 - 250 (units: sqm)
Survey date range: 01/01/03 - 25/11/08
Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/D - FAST FOOD - DRIVE THROUGH
MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 08:00	0	0	0.000	0	0	0.000	0	0	0.000
08:00 - 09:00	0	0	0.000	0	0	0.000	0	0	0.000
09:00 - 10:00	1	250	0.400	1	250	0.400	1	250	0.800
10:00 - 11:00	1	250	4.400	1	250	3.600	1	250	8.000
11:00 - 12:00	1	250	4.800	1	250	2.800	1	250	7.600
12:00 - 13:00	1	250	11.600	1	250	12.800	1	250	24.400
13:00 - 14:00	1	250	17.200	1	250	13.200	1	250	30.400
14:00 - 15:00	1	250	4.000	1	250	7.200	1	250	11.200
15:00 - 16:00	1	250	4.000	1	250	3.600	1	250	7.600
16:00 - 17:00	1	250	3.200	1	250	3.200	1	250	6.400
17:00 - 18:00	1	250	2.800	1	250	3.200	1	250	6.000
18:00 - 19:00	1	250	5.600	1	250	4.000	1	250	9.600
19:00 - 20:00	1	250	8.000	1	250	8.000	1	250	16.000
20:00 - 21:00	1	250	3.200	1	250	4.800	1	250	8.000
21:00 - 22:00	1	250	0.000	1	250	2.800	1	250	2.800
22:00 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			69.200			69.600			138.800

Parameter summary

Trip rate parameter range selected: 250 - 250 (units: sqm)
Survey date range: 01/01/03 - 25/11/08
Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/D - FAST FOOD - DRIVE THROUGH
MULTI-MODAL PEDESTRIANS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 08:00	0	0	0.000	0	0	0.000	0	0	0.000
08:00 - 09:00	0	0	0.000	0	0	0.000	0	0	0.000
09:00 - 10:00	1	250	0.400	1	250	0.400	1	250	0.800
10:00 - 11:00	1	250	0.000	1	250	0.000	1	250	0.000
11:00 - 12:00	1	250	0.400	1	250	0.000	1	250	0.400
12:00 - 13:00	1	250	0.000	1	250	0.400	1	250	0.400
13:00 - 14:00	1	250	1.600	1	250	1.600	1	250	3.200
14:00 - 15:00	1	250	0.000	1	250	0.000	1	250	0.000
15:00 - 16:00	1	250	0.800	1	250	0.000	1	250	0.800
16:00 - 17:00	1	250	0.400	1	250	0.800	1	250	1.200
17:00 - 18:00	1	250	0.000	1	250	0.400	1	250	0.400
18:00 - 19:00	1	250	0.400	1	250	0.400	1	250	0.800
19:00 - 20:00	1	250	0.000	1	250	0.000	1	250	0.000
20:00 - 21:00	1	250	0.000	1	250	0.000	1	250	0.000
21:00 - 22:00	1	250	0.000	1	250	0.000	1	250	0.000
22:00 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			4.000			4.000			8.000

Parameter summary

Trip rate parameter range selected: 250 - 250 (units: sqm)
Survey date range: 01/01/03 - 25/11/08
Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/D - FAST FOOD - DRIVE THROUGH
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 08:00	0	0	0.000	0	0	0.000	0	0	0.000
08:00 - 09:00	0	0	0.000	0	0	0.000	0	0	0.000
09:00 - 10:00	1	250	0.000	1	250	0.000	1	250	0.000
10:00 - 11:00	1	250	0.000	1	250	0.000	1	250	0.000
11:00 - 12:00	1	250	0.000	1	250	0.000	1	250	0.000
12:00 - 13:00	1	250	0.000	1	250	0.000	1	250	0.000
13:00 - 14:00	1	250	0.000	1	250	0.000	1	250	0.000
14:00 - 15:00	1	250	0.000	1	250	0.000	1	250	0.000
15:00 - 16:00	1	250	0.000	1	250	0.000	1	250	0.000
16:00 - 17:00	1	250	0.000	1	250	0.000	1	250	0.000
17:00 - 18:00	1	250	0.000	1	250	0.000	1	250	0.000
18:00 - 19:00	1	250	0.000	1	250	0.000	1	250	0.000
19:00 - 20:00	1	250	0.000	1	250	0.000	1	250	0.000
20:00 - 21:00	1	250	0.000	1	250	0.000	1	250	0.000
21:00 - 22:00	1	250	0.000	1	250	0.000	1	250	0.000
22:00 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			0.000			0.000			0.000

Parameter summary

Trip rate parameter range selected: 250 - 250 (units: sqm)
Survey date range: 01/01/03 - 25/11/08
Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/D - FAST FOOD - DRIVE THROUGH
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 08:00	0	0	0.000	0	0	0.000	0	0	0.000
08:00 - 09:00	0	0	0.000	0	0	0.000	0	0	0.000
09:00 - 10:00	1	250	0.800	1	250	0.800	1	250	1.600
10:00 - 11:00	1	250	4.400	1	250	3.600	1	250	8.000
11:00 - 12:00	1	250	5.200	1	250	2.800	1	250	8.000
12:00 - 13:00	1	250	11.600	1	250	13.200	1	250	24.800
13:00 - 14:00	1	250	18.800	1	250	14.800	1	250	33.600
14:00 - 15:00	1	250	4.000	1	250	7.200	1	250	11.200
15:00 - 16:00	1	250	4.800	1	250	3.600	1	250	8.400
16:00 - 17:00	1	250	3.600	1	250	4.000	1	250	7.600
17:00 - 18:00	1	250	2.800	1	250	3.600	1	250	6.400
18:00 - 19:00	1	250	6.000	1	250	4.400	1	250	10.400
19:00 - 20:00	1	250	8.000	1	250	8.000	1	250	16.000
20:00 - 21:00	1	250	3.200	1	250	4.800	1	250	8.000
21:00 - 22:00	1	250	0.000	1	250	2.800	1	250	2.800
22:00 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			73.200			73.600			146.800

Parameter summary

Trip rate parameter range selected: 250 - 250 (units: sqm)
Survey date range: 01/01/03 - 25/11/08
Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

Appendix G

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.0.0.4211 [] © Copyright TRL Limited, 2015
For sales and distribution information, program advice and maintenance, contact TRL: Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Site Access_Elettra Avenue Roundabout.j9
Path: P:\17000's\17144\Technical\Junction Modelling\E Block
Report generation date: 15/06/2015 15:32:43

»(Default Analysis Set) - 2015 Base, AM
»(Default Analysis Set) - 2015 Base, PM
»(Default Analysis Set) - 2020 Base, AM
»(Default Analysis Set) - 2020 Base, PM
»(Default Analysis Set) - 2020 Base + Dev (E Block Proposals), AM
»(Default Analysis Set) - 2020 Base + Dev (E Block Proposals), PM
»(Default Analysis Set) - 2020 Base + Dev (E Block + East Dev), AM
»(Default Analysis Set) - 2020 Base + Dev (E Block + East Dev), PM
»(Default Analysis Set) - 2020 Base + Dev (E Block + East + West Dev), AM
»(Default Analysis Set) - 2020 Base + Dev (E Block + East + West Dev), PM

Summary of junction performance

	AM				PM			
	Q (PCU)	Delay (s)	RFC	LOS	Q (PCU)	Delay (s)	RFC	LOS
A1 - 2015 Base								
1 - Elettra Av (east)	0.4	2.58	0.30	A	0.1	2.03	0.10	A
2 - Site Access	0.0	1.85	0.03	A	0.0	1.66	0.03	A
3 - Elettra Av (west)	0.0	2.21	0.03	A	0.1	2.13	0.08	A
4 - Waterberry Drive	0.1	2.21	0.11	A	0.4	2.78	0.26	A
A1 - 2020 Base								
1 - Elettra Av (east)	0.5	2.65	0.32	A	0.1	2.03	0.10	A
2 - Site Access	0.0	1.87	0.03	A	0.0	1.66	0.03	A
3 - Elettra Av (west)	0.0	2.24	0.03	A	0.1	2.14	0.08	A
4 - Waterberry Drive	0.1	2.21	0.11	A	0.4	2.82	0.27	A
A1 - 2020 Base + Dev (E Block Proposals)								
1 - Elettra Av (east)	0.4	2.53	0.29	A	0.1	2.08	0.13	A
2 - Site Access	0.0	1.86	0.02	A	0.0	1.67	0.04	A
3 - Elettra Av (west)	0.0	2.23	0.03	A	0.1	2.15	0.08	A
4 - Waterberry Drive	0.1	2.20	0.11	A	0.4	2.84	0.27	A
A1 - 2020 Base + Dev (E Block + East Dev)								
1 - Elettra Av (east)	0.4	2.59	0.30	A	0.2	2.18	0.17	A
2 - Site Access	0.0	1.89	0.04	A	0.1	1.74	0.07	A
3 - Elettra Av (west)	0.0	2.26	0.03	A	0.1	2.23	0.09	A
4 - Waterberry Drive	0.1	2.23	0.11	A	0.4	2.98	0.28	A
A1 - 2020 Base + Dev (E Block + East + West Dev)								
1 - Elettra Av (east)	0.6	2.82	0.36	A	0.2	2.21	0.18	A
2 - Site Access	0.1	1.92	0.05	A	0.1	1.81	0.11	A
3 - Elettra Av (west)	0.0	2.29	0.03	A	0.1	2.32	0.09	A
4 - Waterberry Drive	0.1	2.26	0.11	A	0.4	3.13	0.29	A

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

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

File summary

File Description

Title	Site Access_Elettra Avenue_Waterberry Drive
Location	waterlooville
Site number	
Date	06/05/2015
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	17144
Enumerator	DTA"arcady
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
2015 Base	AM	FLAT	08:00	09:30	90	15	✓
2015 Base	PM	FLAT	16:45	18:15	90	15	✓
2020 Base	AM	FLAT	08:00	09:30	90	15	✓
2020 Base	PM	FLAT	16:45	18:15	90	15	✓
2020 Base + Dev (E Block Proposals)	AM	FLAT	08:00	09:30	90	15	✓
2020 Base + Dev (E Block Proposals)	PM	FLAT	16:45	18:15	90	15	✓
2020 Base + Dev (E Block + East Dev)	AM	FLAT	08:00	09:30	90	15	✓
2020 Base + Dev (E Block + East Dev)	PM	FLAT	16:45	18:15	90	15	✓
2020 Base + Dev (E Block + East + West Dev)	AM	FLAT	08:00	09:30	90	15	✓
2020 Base + Dev (E Block + East + West Dev)	PM	FLAT	16:45	18:15	90	15	✓

(Default Analysis Set) - 2015 Base, AM

Data Errors and Warnings

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

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	2.43	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Elettra Av (east)	
2	Site Access	
3	Elettra Av (west)	
4	Waterberry Drive	

Capacity Options

Arm	Min Cap (PCU/hr)	Max Cap (PCU/hr)	Assume flat start profile	Initial queue (PCU)
1 - Elettra Av (east)	0.00	99999.00		0.00
2 - Site Access	0.00	99999.00		0.00
3 - Elettra Av (west)	0.00	99999.00		0.00
4 - Waterberry Drive	0.00	99999.00		0.00

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Exit only
1 - Elettra Av (east)	3.00	7.40	41.5	25.7	44.0	19.5	
2 - Site Access	6.20	9.10	11.1	19.5	44.0	24.0	
3 - Elettra Av (west)	3.60	7.30	27.9	28.5	44.0	15.5	
4 - Waterberry Drive	3.76	7.50	13.4	55.4	44.0	11.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Elettra Av (east)	0.703	1994.478
2 - Site Access	0.775	2402.663
3 - Elettra Av (west)	0.709	1999.711
4 - Waterberry Drive	0.699	1902.815

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D1	2015 Base	AM	FLAT	08:00	09:30	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - Elettra Av (east)		FLAT	✓	593.00	100.000
2 - Site Access		FLAT	✓	54.00	100.000
3 - Elettra Av (west)		FLAT	✓	52.00	100.000
4 - Waterberry Drive		FLAT	✓	206.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0.000	87.000	112.000	394.000
	2 - Site Access	54.000	0.000	0.000	0.000
	3 - Elettra Av (west)	48.000	0.000	0.000	4.000
	4 - Waterberry Drive	196.000	1.000	9.000	0.000

Proportions

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0.00	0.15	0.19	0.66
	2 - Site Access	1.00	0.00	0.00	0.00
	3 - Elettra Av (west)	0.92	0.00	0.00	0.08
	4 - Waterberry Drive	0.95	0.00	0.04	0.00

Vehicle Mix

Heavy Vehicle proportion

From	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
	1 - Elettra Av (east)	0	0	0	0
	2 - Site Access	0	0	0	0
	3 - Elettra Av (west)	0	0	0	0
	4 - Waterberry Drive	0	0	0	0

Av. PCU Per Veh

From	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
	1 - Elettra Av (east)	1.000	1.000	1.000	1.000
	2 - Site Access	1.000	1.000	1.000	1.000
	3 - Elettra Av (west)	1.000	1.000	1.000	1.000
	4 - Waterberry Drive	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Elettra Av (east)	0.30	2.58	0.4	A	593.00	889.50
2 - Site Access	0.03	1.85	0.0	A	54.00	81.00
3 - Elettra Av (west)	0.03	2.21	0.0	A	52.00	78.00
4 - Waterberry Drive	0.11	2.21	0.1	A	206.00	309.00

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	593.00	148.25	9.98	1987.47	0.298	591.31	297.29	0.0	0.4	2.575	A
2 - Site Access	54.00	13.50	513.53	2004.81	0.027	53.89	87.75	0.0	0.0	1.844	A
3 - Elettra Av (west)	52.00	13.00	446.76	1682.89	0.031	51.87	120.66	0.0	0.0	2.207	A
4 - Waterberry Drive	206.00	51.50	101.77	1831.65	0.112	205.49	396.86	0.0	0.1	2.214	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	593.00	148.25	10.00	1987.45	0.298	593.00	298.00	0.4	0.4	2.581	A
2 - Site Access	54.00	13.50	515.00	2003.67	0.027	54.00	88.00	0.0	0.0	1.845	A
3 - Elettra Av (west)	52.00	13.00	448.00	1682.01	0.031	52.00	121.00	0.0	0.0	2.208	A
4 - Waterberry Drive	206.00	51.50	102.00	1831.50	0.112	206.00	398.00	0.1	0.1	2.214	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	593.00	148.25	10.00	1987.45	0.298	593.00	298.00	0.4	0.4	2.581	A
2 - Site Access	54.00	13.50	515.00	2003.67	0.027	54.00	88.00	0.0	0.0	1.845	A
3 - Elettra Av (west)	52.00	13.00	448.00	1682.01	0.031	52.00	121.00	0.0	0.0	2.208	A
4 - Waterberry Drive	206.00	51.50	102.00	1831.49	0.112	206.00	398.00	0.1	0.1	2.214	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	593.00	148.25	10.00	1987.45	0.298	593.00	298.00	0.4	0.4	2.581	A
2 - Site Access	54.00	13.50	515.00	2003.67	0.027	54.00	88.00	0.0	0.0	1.845	A
3 - Elettra Av (west)	52.00	13.00	448.00	1682.01	0.031	52.00	121.00	0.0	0.0	2.208	A
4 - Waterberry Drive	206.00	51.50	102.00	1831.49	0.112	206.00	398.00	0.1	0.1	2.214	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	593.00	148.25	10.00	1987.45	0.298	593.00	298.00	0.4	0.4	2.581	A
2 - Site Access	54.00	13.50	515.00	2003.67	0.027	54.00	88.00	0.0	0.0	1.845	A
3 - Elettra Av (west)	52.00	13.00	448.00	1682.01	0.031	52.00	121.00	0.0	0.0	2.208	A
4 - Waterberry Drive	206.00	51.50	102.00	1831.49	0.112	206.00	398.00	0.1	0.1	2.214	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	593.00	148.25	10.00	1987.45	0.298	593.00	298.00	0.4	0.4	2.581	A
2 - Site Access	54.00	13.50	515.00	2003.67	0.027	54.00	88.00	0.0	0.0	1.845	A
3 - Elettra Av (west)	52.00	13.00	448.00	1682.01	0.031	52.00	121.00	0.0	0.0	2.208	A
4 - Waterberry Drive	206.00	51.50	102.00	1831.49	0.112	206.00	398.00	0.1	0.1	2.214	A

(Default Analysis Set) - 2015 Base, PM

Data Errors and Warnings

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

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	2.41	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D2	2015 Base	PM	FLAT	16:45	18:15	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - Elettra Av (east)		FLAT	✓	205.00	100.000
2 - Site Access		FLAT	✓	66.00	100.000
3 - Elettra Av (west)		FLAT	✓	151.00	100.000
4 - Waterberry Drive		FLAT	✓	461.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0.000	13.000	29.000	163.000
	2 - Site Access	66.000	0.000	0.000	0.000
	3 - Elettra Av (west)	147.000	0.000	0.000	4.000
	4 - Waterberry Drive	439.000	0.000	22.000	0.000

Proportions

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0.00	0.06	0.14	0.80
	2 - Site Access	1.00	0.00	0.00	0.00
	3 - Elettra Av (west)	0.97	0.00	0.00	0.03
	4 - Waterberry Drive	0.95	0.00	0.05	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0	0	0	0
	2 - Site Access	0	0	0	0
	3 - Elettra Av (west)	0	0	0	0
	4 - Waterberry Drive	0	0	0	0

Av. PCU Per Veh

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	1.000	1.000	1.000	1.000
	2 - Site Access	1.000	1.000	1.000	1.000
	3 - Elettra Av (west)	1.000	1.000	1.000	1.000
	4 - Waterberry Drive	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Elettra Av (east)	0.10	2.03	0.1	A	205.00	307.50
2 - Site Access	0.03	1.66	0.0	A	66.00	99.00
3 - Elettra Av (west)	0.08	2.13	0.1	A	151.00	226.50
4 - Waterberry Drive	0.26	2.78	0.4	A	461.00	691.50

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	205.00	51.25	21.93	1979.06	0.104	204.54	650.18	0.0	0.1	2.028	A
2 - Site Access	66.00	16.50	213.50	2237.26	0.030	65.88	12.97	0.0	0.0	1.657	A
3 - Elettra Av (west)	151.00	37.75	228.51	1837.66	0.082	150.64	50.87	0.0	0.1	2.134	A
4 - Waterberry Drive	461.00	115.25	212.53	1754.21	0.263	459.58	166.62	0.0	0.4	2.778	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	205.00	51.25	22.00	1979.01	0.104	205.00	652.00	0.1	0.1	2.029	A
2 - Site Access	66.00	16.50	214.00	2236.87	0.030	66.00	13.00	0.0	0.0	1.657	A
3 - Elettra Av (west)	151.00	37.75	229.00	1837.32	0.082	151.00	51.00	0.1	0.1	2.134	A
4 - Waterberry Drive	461.00	115.25	213.00	1753.88	0.263	461.00	167.00	0.4	0.4	2.783	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	205.00	51.25	22.00	1979.01	0.104	205.00	652.00	0.1	0.1	2.029	A
2 - Site Access	66.00	16.50	214.00	2236.87	0.030	66.00	13.00	0.0	0.0	1.657	A
3 - Elettra Av (west)	151.00	37.75	229.00	1837.32	0.082	151.00	51.00	0.1	0.1	2.134	A
4 - Waterberry Drive	461.00	115.25	213.00	1753.88	0.263	461.00	167.00	0.4	0.4	2.783	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	205.00	51.25	22.00	1979.01	0.104	205.00	652.00	0.1	0.1	2.029	A
2 - Site Access	66.00	16.50	214.00	2236.87	0.030	66.00	13.00	0.0	0.0	1.657	A
3 - Elettra Av (west)	151.00	37.75	229.00	1837.32	0.082	151.00	51.00	0.1	0.1	2.134	A
4 - Waterberry Drive	461.00	115.25	213.00	1753.88	0.263	461.00	167.00	0.4	0.4	2.783	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	205.00	51.25	22.00	1979.01	0.104	205.00	652.00	0.1	0.1	2.029	A
2 - Site Access	66.00	16.50	214.00	2236.87	0.030	66.00	13.00	0.0	0.0	1.657	A
3 - Elettra Av (west)	151.00	37.75	229.00	1837.32	0.082	151.00	51.00	0.1	0.1	2.134	A
4 - Waterberry Drive	461.00	115.25	213.00	1753.88	0.263	461.00	167.00	0.4	0.4	2.783	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	205.00	51.25	22.00	1979.01	0.104	205.00	652.00	0.1	0.1	2.029	A
2 - Site Access	66.00	16.50	214.00	2236.87	0.030	66.00	13.00	0.0	0.0	1.657	A
3 - Elettra Av (west)	151.00	37.75	229.00	1837.32	0.082	151.00	51.00	0.1	0.1	2.134	A
4 - Waterberry Drive	461.00	115.25	213.00	1753.88	0.263	461.00	167.00	0.4	0.4	2.783	A

(Default Analysis Set) - 2020 Base, AM

Data Errors and Warnings

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

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	2.48	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D3	2020 Base	AM	FLAT	08:00	09:30	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - Elettra Av (east)		FLAT	✓	628.00	100.000
2 - Site Access		FLAT	✓	54.00	100.000
3 - Elettra Av (west)		FLAT	✓	52.00	100.000
4 - Waterberry Drive		FLAT	✓	205.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0.000	87.000	115.000	426.000
	2 - Site Access	54.000	0.000	0.000	0.000
	3 - Elettra Av (west)	48.000	0.000	0.000	4.000
	4 - Waterberry Drive	196.000	0.000	9.000	0.000

Proportions

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0.00	0.14	0.18	0.68
	2 - Site Access	1.00	0.00	0.00	0.00
	3 - Elettra Av (west)	0.92	0.00	0.00	0.08
	4 - Waterberry Drive	0.96	0.00	0.04	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0	0	0	0
	2 - Site Access	0	0	0	0
	3 - Elettra Av (west)	0	0	0	0
	4 - Waterberry Drive	0	0	0	0

Av. PCU Per Veh

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	1.000	1.000	1.000	1.000
	2 - Site Access	1.000	1.000	1.000	1.000
	3 - Elettra Av (west)	1.000	1.000	1.000	1.000
	4 - Waterberry Drive	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Elettra Av (east)	0.32	2.65	0.5	A	628.00	942.00
2 - Site Access	0.03	1.87	0.0	A	54.00	81.00
3 - Elettra Av (west)	0.03	2.24	0.0	A	52.00	78.00
4 - Waterberry Drive	0.11	2.21	0.1	A	205.00	307.50

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	628.00	157.00	8.98	1988.17	0.316	626.16	297.29	0.0	0.5	2.640	A
2 - Site Access	54.00	13.50	548.39	1977.80	0.027	53.89	86.75	0.0	0.0	1.870	A
3 - Elettra Av (west)	52.00	13.00	478.64	1660.28	0.031	51.87	123.64	0.0	0.0	2.238	A
4 - Waterberry Drive	205.00	51.25	101.77	1831.66	0.112	204.50	428.74	0.0	0.1	2.212	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	628.00	157.00	9.00	1988.15	0.316	628.00	298.00	0.5	0.5	2.646	A
2 - Site Access	54.00	13.50	550.00	1976.56	0.027	54.00	87.00	0.0	0.0	1.871	A
3 - Elettra Av (west)	52.00	13.00	480.00	1659.32	0.031	52.00	124.00	0.0	0.0	2.239	A
4 - Waterberry Drive	205.00	51.25	102.00	1831.50	0.112	205.00	430.00	0.1	0.1	2.212	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	628.00	157.00	9.00	1988.15	0.316	628.00	298.00	0.5	0.5	2.646	A
2 - Site Access	54.00	13.50	550.00	1976.56	0.027	54.00	87.00	0.0	0.0	1.871	A
3 - Elettra Av (west)	52.00	13.00	480.00	1659.32	0.031	52.00	124.00	0.0	0.0	2.239	A
4 - Waterberry Drive	205.00	51.25	102.00	1831.49	0.112	205.00	430.00	0.1	0.1	2.212	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	628.00	157.00	9.00	1988.15	0.316	628.00	298.00	0.5	0.5	2.646	A
2 - Site Access	54.00	13.50	550.00	1976.56	0.027	54.00	87.00	0.0	0.0	1.871	A
3 - Elettra Av (west)	52.00	13.00	480.00	1659.32	0.031	52.00	124.00	0.0	0.0	2.239	A
4 - Waterberry Drive	205.00	51.25	102.00	1831.49	0.112	205.00	430.00	0.1	0.1	2.212	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	628.00	157.00	9.00	1988.15	0.316	628.00	298.00	0.5	0.5	2.646	A
2 - Site Access	54.00	13.50	550.00	1976.56	0.027	54.00	87.00	0.0	0.0	1.871	A
3 - Elettra Av (west)	52.00	13.00	480.00	1659.32	0.031	52.00	124.00	0.0	0.0	2.239	A
4 - Waterberry Drive	205.00	51.25	102.00	1831.49	0.112	205.00	430.00	0.1	0.1	2.212	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	628.00	157.00	9.00	1988.15	0.316	628.00	298.00	0.5	0.5	2.646	A
2 - Site Access	54.00	13.50	550.00	1976.56	0.027	54.00	87.00	0.0	0.0	1.871	A
3 - Elettra Av (west)	52.00	13.00	480.00	1659.32	0.031	52.00	124.00	0.0	0.0	2.239	A
4 - Waterberry Drive	205.00	51.25	102.00	1831.49	0.112	205.00	430.00	0.1	0.1	2.212	A

(Default Analysis Set) - 2020 Base, PM

Data Errors and Warnings

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

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	2.43	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D4	2020 Base	PM	FLAT	16:45	18:15	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - Elettra Av (east)		FLAT	✓	204.00	100.000
2 - Site Access		FLAT	✓	69.00	100.000
3 - Elettra Av (west)		FLAT	✓	154.00	100.000
4 - Waterberry Drive		FLAT	✓	474.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0.000	13.000	29.000	162.000
	2 - Site Access	66.000	0.000	3.000	0.000
	3 - Elettra Av (west)	151.000	0.000	0.000	3.000
	4 - Waterberry Drive	452.000	0.000	22.000	0.000

Proportions

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0.00	0.06	0.14	0.79
	2 - Site Access	0.96	0.00	0.04	0.00
	3 - Elettra Av (west)	0.98	0.00	0.00	0.02
	4 - Waterberry Drive	0.95	0.00	0.05	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0	0	0	0
	2 - Site Access	0	0	0	0
	3 - Elettra Av (west)	0	0	0	0
	4 - Waterberry Drive	0	0	0	0

Av. PCU Per Veh

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	1.000	1.000	1.000	1.000
	2 - Site Access	1.000	1.000	1.000	1.000
	3 - Elettra Av (west)	1.000	1.000	1.000	1.000
	4 - Waterberry Drive	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Elettra Av (east)	0.10	2.03	0.1	A	204.00	306.00
2 - Site Access	0.03	1.66	0.0	A	69.00	103.50
3 - Elettra Av (west)	0.08	2.14	0.1	A	154.00	231.00
4 - Waterberry Drive	0.27	2.82	0.4	A	474.00	711.00

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	204.00	51.00	21.93	1979.06	0.103	203.54	667.11	0.0	0.1	2.027	A
2 - Site Access	69.00	17.25	212.50	2238.03	0.031	68.87	12.97	0.0	0.0	1.658	A
3 - Elettra Av (west)	154.00	38.50	227.51	1838.37	0.084	153.64	53.86	0.0	0.1	2.136	A
4 - Waterberry Drive	474.00	118.50	216.52	1751.42	0.271	472.52	164.63	0.0	0.4	2.813	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	204.00	51.00	22.00	1979.01	0.103	204.00	669.00	0.1	0.1	2.027	A
2 - Site Access	69.00	17.25	213.00	2237.64	0.031	69.00	13.00	0.0	0.0	1.659	A
3 - Elettra Av (west)	154.00	38.50	228.00	1838.03	0.084	154.00	54.00	0.1	0.1	2.137	A
4 - Waterberry Drive	474.00	118.50	217.00	1751.08	0.271	474.00	165.00	0.4	0.4	2.818	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	204.00	51.00	22.00	1979.01	0.103	204.00	669.00	0.1	0.1	2.027	A
2 - Site Access	69.00	17.25	213.00	2237.64	0.031	69.00	13.00	0.0	0.0	1.659	A
3 - Elettra Av (west)	154.00	38.50	228.00	1838.03	0.084	154.00	54.00	0.1	0.1	2.137	A
4 - Waterberry Drive	474.00	118.50	217.00	1751.08	0.271	474.00	165.00	0.4	0.4	2.818	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	204.00	51.00	22.00	1979.01	0.103	204.00	669.00	0.1	0.1	2.027	A
2 - Site Access	69.00	17.25	213.00	2237.64	0.031	69.00	13.00	0.0	0.0	1.659	A
3 - Elettra Av (west)	154.00	38.50	228.00	1838.03	0.084	154.00	54.00	0.1	0.1	2.137	A
4 - Waterberry Drive	474.00	118.50	217.00	1751.08	0.271	474.00	165.00	0.4	0.4	2.818	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	204.00	51.00	22.00	1979.01	0.103	204.00	669.00	0.1	0.1	2.027	A
2 - Site Access	69.00	17.25	213.00	2237.64	0.031	69.00	13.00	0.0	0.0	1.659	A
3 - Elettra Av (west)	154.00	38.50	228.00	1838.02	0.084	154.00	54.00	0.1	0.1	2.137	A
4 - Waterberry Drive	474.00	118.50	217.00	1751.08	0.271	474.00	165.00	0.4	0.4	2.818	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	204.00	51.00	22.00	1979.01	0.103	204.00	669.00	0.1	0.1	2.027	A
2 - Site Access	69.00	17.25	213.00	2237.64	0.031	69.00	13.00	0.0	0.0	1.659	A
3 - Elettra Av (west)	154.00	38.50	228.00	1838.02	0.084	154.00	54.00	0.1	0.1	2.137	A
4 - Waterberry Drive	474.00	118.50	217.00	1751.08	0.271	474.00	165.00	0.4	0.4	2.818	A

(Default Analysis Set) - 2020 Base + Dev (E Block Proposals), AM

Data Errors and Warnings

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

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	2.40	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D5	2020 Base + Dev (E Block Proposals)	AM	FLAT	08:00	09:30	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - Elettra Av (east)		FLAT	✓	568.00	100.000
2 - Site Access		FLAT	✓	45.00	100.000
3 - Elettra Av (west)		FLAT	✓	52.00	100.000
4 - Waterberry Drive		FLAT	✓	205.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0.000	27.000	115.000	426.000
	2 - Site Access	45.000	0.000	0.000	0.000
	3 - Elettra Av (west)	48.000	0.000	0.000	4.000
	4 - Waterberry Drive	196.000	0.000	9.000	0.000

Proportions

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0.00	0.05	0.20	0.75
	2 - Site Access	1.00	0.00	0.00	0.00
	3 - Elettra Av (west)	0.92	0.00	0.00	0.08
	4 - Waterberry Drive	0.96	0.00	0.04	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0	0	0	0
	2 - Site Access	0	0	0	0
	3 - Elettra Av (west)	0	0	0	0
	4 - Waterberry Drive	0	0	0	0

Av. PCU Per Veh

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	1.000	1.000	1.000	1.000
	2 - Site Access	1.000	1.000	1.000	1.000
	3 - Elettra Av (west)	1.000	1.000	1.000	1.000
	4 - Waterberry Drive	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Elettra Av (east)	0.29	2.53	0.4	A	568.00	852.00
2 - Site Access	0.02	1.86	0.0	A	45.00	67.50
3 - Elettra Av (west)	0.03	2.23	0.0	A	52.00	78.00
4 - Waterberry Drive	0.11	2.20	0.1	A	205.00	307.50

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	568.00	142.00	8.98	1988.17	0.286	566.41	288.31	0.0	0.4	2.530	A
2 - Site Access	45.00	11.25	548.46	1977.75	0.023	44.91	26.92	0.0	0.0	1.861	A
3 - Elettra Av (west)	52.00	13.00	469.71	1666.61	0.031	51.87	123.66	0.0	0.0	2.229	A
4 - Waterberry Drive	205.00	51.25	92.79	1837.94	0.112	204.50	428.79	0.0	0.1	2.204	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	568.00	142.00	9.00	1988.15	0.286	568.00	289.00	0.4	0.4	2.534	A
2 - Site Access	45.00	11.25	550.00	1976.56	0.023	45.00	27.00	0.0	0.0	1.862	A
3 - Elettra Av (west)	52.00	13.00	471.00	1665.70	0.031	52.00	124.00	0.0	0.0	2.230	A
4 - Waterberry Drive	205.00	51.25	93.00	1837.79	0.112	205.00	430.00	0.1	0.1	2.204	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	568.00	142.00	9.00	1988.15	0.286	568.00	289.00	0.4	0.4	2.534	A
2 - Site Access	45.00	11.25	550.00	1976.56	0.023	45.00	27.00	0.0	0.0	1.862	A
3 - Elettra Av (west)	52.00	13.00	471.00	1665.70	0.031	52.00	124.00	0.0	0.0	2.230	A
4 - Waterberry Drive	205.00	51.25	93.00	1837.79	0.112	205.00	430.00	0.1	0.1	2.204	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	568.00	142.00	9.00	1988.15	0.286	568.00	289.00	0.4	0.4	2.534	A
2 - Site Access	45.00	11.25	550.00	1976.56	0.023	45.00	27.00	0.0	0.0	1.862	A
3 - Elettra Av (west)	52.00	13.00	471.00	1665.70	0.031	52.00	124.00	0.0	0.0	2.230	A
4 - Waterberry Drive	205.00	51.25	93.00	1837.79	0.112	205.00	430.00	0.1	0.1	2.204	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	568.00	142.00	9.00	1988.15	0.286	568.00	289.00	0.4	0.4	2.534	A
2 - Site Access	45.00	11.25	550.00	1976.56	0.023	45.00	27.00	0.0	0.0	1.862	A
3 - Elettra Av (west)	52.00	13.00	471.00	1665.70	0.031	52.00	124.00	0.0	0.0	2.230	A
4 - Waterberry Drive	205.00	51.25	93.00	1837.79	0.112	205.00	430.00	0.1	0.1	2.204	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	568.00	142.00	9.00	1988.15	0.286	568.00	289.00	0.4	0.4	2.534	A
2 - Site Access	45.00	11.25	550.00	1976.56	0.023	45.00	27.00	0.0	0.0	1.862	A
3 - Elettra Av (west)	52.00	13.00	471.00	1665.70	0.031	52.00	124.00	0.0	0.0	2.230	A
4 - Waterberry Drive	205.00	51.25	93.00	1837.79	0.112	205.00	430.00	0.1	0.1	2.204	A

(Default Analysis Set) - 2020 Base + Dev (E Block Proposals), PM

Data Errors and Warnings

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

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	2.43	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D6	2020 Base + Dev (E Block Proposals)	PM	FLAT	16:45	18:15	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - Elettra Av (east)		FLAT	✓	250.00	100.000
2 - Site Access		FLAT	✓	81.00	100.000
3 - Elettra Av (west)		FLAT	✓	154.00	100.000
4 - Waterberry Drive		FLAT	✓	474.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0.000	59.000	29.000	162.000
	2 - Site Access	81.000	0.000	0.000	0.000
	3 - Elettra Av (west)	151.000	0.000	0.000	3.000
	4 - Waterberry Drive	452.000	0.000	22.000	0.000

Proportions

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0.00	0.24	0.12	0.65
	2 - Site Access	1.00	0.00	0.00	0.00
	3 - Elettra Av (west)	0.98	0.00	0.00	0.02
	4 - Waterberry Drive	0.95	0.00	0.05	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0	0	0	0
	2 - Site Access	0	0	0	0
	3 - Elettra Av (west)	0	0	0	0
	4 - Waterberry Drive	0	0	0	0

Av. PCU Per Veh

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	1.000	1.000	1.000	1.000
	2 - Site Access	1.000	1.000	1.000	1.000
	3 - Elettra Av (west)	1.000	1.000	1.000	1.000
	4 - Waterberry Drive	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Elettra Av (east)	0.13	2.08	0.1	A	250.00	375.00
2 - Site Access	0.04	1.67	0.0	A	81.00	121.50
3 - Elettra Av (west)	0.08	2.15	0.1	A	154.00	231.00
4 - Waterberry Drive	0.27	2.84	0.4	A	474.00	711.00

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	250.00	62.50	21.93	1979.06	0.126	249.42	682.07	0.0	0.1	2.081	A
2 - Site Access	81.00	20.25	212.49	2238.04	0.036	80.85	58.86	0.0	0.0	1.668	A
3 - Elettra Av (west)	154.00	38.50	242.48	1827.76	0.084	153.63	50.86	0.0	0.1	2.150	A
4 - Waterberry Drive	474.00	118.50	231.49	1740.95	0.272	472.51	164.62	0.0	0.4	2.836	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	250.00	62.50	22.00	1979.01	0.126	250.00	684.00	0.1	0.1	2.081	A
2 - Site Access	81.00	20.25	213.00	2237.64	0.036	81.00	59.00	0.0	0.0	1.668	A
3 - Elettra Av (west)	154.00	38.50	243.00	1827.39	0.084	154.00	51.00	0.1	0.1	2.150	A
4 - Waterberry Drive	474.00	118.50	232.00	1740.60	0.272	474.00	165.00	0.4	0.4	2.841	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	250.00	62.50	22.00	1979.01	0.126	250.00	684.00	0.1	0.1	2.081	A
2 - Site Access	81.00	20.25	213.00	2237.64	0.036	81.00	59.00	0.0	0.0	1.668	A
3 - Elettra Av (west)	154.00	38.50	243.00	1827.39	0.084	154.00	51.00	0.1	0.1	2.150	A
4 - Waterberry Drive	474.00	118.50	232.00	1740.60	0.272	474.00	165.00	0.4	0.4	2.841	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	250.00	62.50	22.00	1979.01	0.126	250.00	684.00	0.1	0.1	2.081	A
2 - Site Access	81.00	20.25	213.00	2237.64	0.036	81.00	59.00	0.0	0.0	1.668	A
3 - Elettra Av (west)	154.00	38.50	243.00	1827.39	0.084	154.00	51.00	0.1	0.1	2.150	A
4 - Waterberry Drive	474.00	118.50	232.00	1740.60	0.272	474.00	165.00	0.4	0.4	2.841	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	250.00	62.50	22.00	1979.01	0.126	250.00	684.00	0.1	0.1	2.081	A
2 - Site Access	81.00	20.25	213.00	2237.64	0.036	81.00	59.00	0.0	0.0	1.668	A
3 - Elettra Av (west)	154.00	38.50	243.00	1827.39	0.084	154.00	51.00	0.1	0.1	2.152	A
4 - Waterberry Drive	474.00	118.50	232.00	1740.60	0.272	474.00	165.00	0.4	0.4	2.841	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	250.00	62.50	22.00	1979.01	0.126	250.00	684.00	0.1	0.1	2.081	A
2 - Site Access	81.00	20.25	213.00	2237.64	0.036	81.00	59.00	0.0	0.0	1.668	A
3 - Elettra Av (west)	154.00	38.50	243.00	1827.39	0.084	154.00	51.00	0.1	0.1	2.150	A
4 - Waterberry Drive	474.00	118.50	232.00	1740.60	0.272	474.00	165.00	0.4	0.4	2.841	A

(Default Analysis Set) - 2020 Base + Dev (E Block + East Dev), AM

Data Errors and Warnings

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

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	2.44	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D7	2020 Base + Dev (E Block + East Dev)	AM	FLAT	08:00	09:30	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - Elettra Av (east)		FLAT	✓	598.00	100.000
2 - Site Access		FLAT	✓	71.00	100.000
3 - Elettra Av (west)		FLAT	✓	52.00	100.000
4 - Waterberry Drive		FLAT	✓	205.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0.000	57.000	115.000	426.000
	2 - Site Access	71.000	0.000	0.000	0.000
	3 - Elettra Av (west)	48.000	0.000	0.000	4.000
	4 - Waterberry Drive	196.000	0.000	9.000	0.000

Proportions

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0.00	0.10	0.19	0.71
	2 - Site Access	1.00	0.00	0.00	0.00
	3 - Elettra Av (west)	0.92	0.00	0.00	0.08
	4 - Waterberry Drive	0.96	0.00	0.04	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0	0	0	0
	2 - Site Access	0	0	0	0
	3 - Elettra Av (west)	0	0	0	0
	4 - Waterberry Drive	0	0	0	0

Av. PCU Per Veh

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	1.000	1.000	1.000	1.000
	2 - Site Access	1.000	1.000	1.000	1.000
	3 - Elettra Av (west)	1.000	1.000	1.000	1.000
	4 - Waterberry Drive	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Elettra Av (east)	0.30	2.59	0.4	A	598.00	897.00
2 - Site Access	0.04	1.89	0.0	A	71.00	106.50
3 - Elettra Av (west)	0.03	2.26	0.0	A	52.00	78.00
4 - Waterberry Drive	0.11	2.23	0.1	A	205.00	307.50

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	598.00	149.50	8.98	1988.17	0.301	596.29	314.25	0.0	0.4	2.583	A
2 - Site Access	71.00	17.75	548.43	1977.77	0.036	70.85	56.84	0.0	0.0	1.887	A
3 - Elettra Av (west)	52.00	13.00	495.63	1648.23	0.032	51.87	123.65	0.0	0.0	2.254	A
4 - Waterberry Drive	205.00	51.25	118.73	1819.80	0.113	204.49	428.77	0.0	0.1	2.229	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	598.00	149.50	9.00	1988.15	0.301	598.00	315.00	0.4	0.4	2.589	A
2 - Site Access	71.00	17.75	550.00	1976.56	0.036	71.00	57.00	0.0	0.0	1.888	A
3 - Elettra Av (west)	52.00	13.00	497.00	1647.27	0.032	52.00	124.00	0.0	0.0	2.256	A
4 - Waterberry Drive	205.00	51.25	119.00	1819.61	0.113	205.00	430.00	0.1	0.1	2.229	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	598.00	149.50	9.00	1988.15	0.301	598.00	315.00	0.4	0.4	2.589	A
2 - Site Access	71.00	17.75	550.00	1976.56	0.036	71.00	57.00	0.0	0.0	1.888	A
3 - Elettra Av (west)	52.00	13.00	497.00	1647.26	0.032	52.00	124.00	0.0	0.0	2.256	A
4 - Waterberry Drive	205.00	51.25	119.00	1819.61	0.113	205.00	430.00	0.1	0.1	2.229	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	598.00	149.50	9.00	1988.15	0.301	598.00	315.00	0.4	0.4	2.589	A
2 - Site Access	71.00	17.75	550.00	1976.56	0.036	71.00	57.00	0.0	0.0	1.888	A
3 - Elettra Av (west)	52.00	13.00	497.00	1647.26	0.032	52.00	124.00	0.0	0.0	2.256	A
4 - Waterberry Drive	205.00	51.25	119.00	1819.61	0.113	205.00	430.00	0.1	0.1	2.229	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	598.00	149.50	9.00	1988.15	0.301	598.00	315.00	0.4	0.4	2.589	A
2 - Site Access	71.00	17.75	550.00	1976.56	0.036	71.00	57.00	0.0	0.0	1.888	A
3 - Elettra Av (west)	52.00	13.00	497.00	1647.26	0.032	52.00	124.00	0.0	0.0	2.256	A
4 - Waterberry Drive	205.00	51.25	119.00	1819.61	0.113	205.00	430.00	0.1	0.1	2.229	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	598.00	149.50	9.00	1988.15	0.301	598.00	315.00	0.4	0.4	2.589	A
2 - Site Access	71.00	17.75	550.00	1976.56	0.036	71.00	57.00	0.0	0.0	1.888	A
3 - Elettra Av (west)	52.00	13.00	497.00	1647.26	0.032	52.00	124.00	0.0	0.0	2.256	A
4 - Waterberry Drive	205.00	51.25	119.00	1819.61	0.113	205.00	430.00	0.1	0.1	2.229	A

(Default Analysis Set) - 2020 Base + Dev (E Block + East Dev), PM

Data Errors and Warnings

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

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	2.46	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D8	2020 Base + Dev (E Block + East Dev)	PM	FLAT	16:45	18:15	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - Elettra Av (east)		FLAT	✓	331.00	100.000
2 - Site Access		FLAT	✓	165.00	100.000
3 - Elettra Av (west)		FLAT	✓	154.00	100.000
4 - Waterberry Drive		FLAT	✓	474.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0.000	140.000	29.000	162.000
	2 - Site Access	165.000	0.000	0.000	0.000
	3 - Elettra Av (west)	151.000	0.000	0.000	3.000
	4 - Waterberry Drive	452.000	0.000	22.000	0.000

Proportions

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0.00	0.42	0.09	0.49
	2 - Site Access	1.00	0.00	0.00	0.00
	3 - Elettra Av (west)	0.98	0.00	0.00	0.02
	4 - Waterberry Drive	0.95	0.00	0.05	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0	0	0	0
	2 - Site Access	0	0	0	0
	3 - Elettra Av (west)	0	0	0	0
	4 - Waterberry Drive	0	0	0	0

Av. PCU Per Veh

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	1.000	1.000	1.000	1.000
	2 - Site Access	1.000	1.000	1.000	1.000
	3 - Elettra Av (west)	1.000	1.000	1.000	1.000
	4 - Waterberry Drive	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Elettra Av (east)	0.17	2.18	0.2	A	331.00	496.50
2 - Site Access	0.07	1.74	0.1	A	165.00	247.50
3 - Elettra Av (west)	0.09	2.23	0.1	A	154.00	231.00
4 - Waterberry Drive	0.28	2.98	0.4	A	474.00	711.00

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	331.00	82.75	21.93	1979.07	0.167	330.20	765.82	0.0	0.2	2.182	A
2 - Site Access	165.00	41.25	212.47	2238.06	0.074	164.68	139.66	0.0	0.1	1.735	A
3 - Elettra Av (west)	154.00	38.50	326.29	1768.32	0.087	153.62	50.86	0.0	0.1	2.229	A
4 - Waterberry Drive	474.00	118.50	315.31	1682.34	0.282	472.44	164.60	0.0	0.4	2.971	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	331.00	82.75	22.00	1979.01	0.167	331.00	768.00	0.2	0.2	2.184	A
2 - Site Access	165.00	41.25	213.00	2237.64	0.074	165.00	140.00	0.1	0.1	1.736	A
3 - Elettra Av (west)	154.00	38.50	327.00	1767.82	0.087	154.00	51.00	0.1	0.1	2.230	A
4 - Waterberry Drive	474.00	118.50	316.00	1681.86	0.282	474.00	165.00	0.4	0.4	2.979	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	331.00	82.75	22.00	1979.01	0.167	331.00	768.00	0.2	0.2	2.184	A
2 - Site Access	165.00	41.25	213.00	2237.64	0.074	165.00	140.00	0.1	0.1	1.736	A
3 - Elettra Av (west)	154.00	38.50	327.00	1767.82	0.087	154.00	51.00	0.1	0.1	2.230	A
4 - Waterberry Drive	474.00	118.50	316.00	1681.86	0.282	474.00	165.00	0.4	0.4	2.979	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	331.00	82.75	22.00	1979.01	0.167	331.00	768.00	0.2	0.2	2.184	A
2 - Site Access	165.00	41.25	213.00	2237.64	0.074	165.00	140.00	0.1	0.1	1.736	A
3 - Elettra Av (west)	154.00	38.50	327.00	1767.82	0.087	154.00	51.00	0.1	0.1	2.230	A
4 - Waterberry Drive	474.00	118.50	316.00	1681.86	0.282	474.00	165.00	0.4	0.4	2.979	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	331.00	82.75	22.00	1979.01	0.167	331.00	768.00	0.2	0.2	2.184	A
2 - Site Access	165.00	41.25	213.00	2237.64	0.074	165.00	140.00	0.1	0.1	1.736	A
3 - Elettra Av (west)	154.00	38.50	327.00	1767.82	0.087	154.00	51.00	0.1	0.1	2.230	A
4 - Waterberry Drive	474.00	118.50	316.00	1681.86	0.282	474.00	165.00	0.4	0.4	2.979	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	331.00	82.75	22.00	1979.01	0.167	331.00	768.00	0.2	0.2	2.184	A
2 - Site Access	165.00	41.25	213.00	2237.64	0.074	165.00	140.00	0.1	0.1	1.736	A
3 - Elettra Av (west)	154.00	38.50	327.00	1767.82	0.087	154.00	51.00	0.1	0.1	2.230	A
4 - Waterberry Drive	474.00	118.50	316.00	1681.86	0.282	474.00	165.00	0.4	0.4	2.979	A

(Default Analysis Set) - 2020 Base + Dev (E Block + East + West Dev), AM

Data Errors and Warnings

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

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	2.60	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D9	2020 Base + Dev (E Block + East + West Dev)	AM	FLAT	08:00	09:30	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - Elettra Av (east)		FLAT	✓	710.00	100.000
2 - Site Access		FLAT	✓	101.00	100.000
3 - Elettra Av (west)		FLAT	✓	52.00	100.000
4 - Waterberry Drive		FLAT	✓	205.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0.000	169.000	115.000	426.000
	2 - Site Access	101.000	0.000	0.000	0.000
	3 - Elettra Av (west)	48.000	0.000	0.000	4.000
	4 - Waterberry Drive	196.000	0.000	9.000	0.000

Proportions

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0.00	0.24	0.16	0.60
	2 - Site Access	1.00	0.00	0.00	0.00
	3 - Elettra Av (west)	0.92	0.00	0.00	0.08
	4 - Waterberry Drive	0.96	0.00	0.04	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0	0	0	0
	2 - Site Access	0	0	0	0
	3 - Elettra Av (west)	0	0	0	0
	4 - Waterberry Drive	0	0	0	0

Av. PCU Per Veh

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	1.000	1.000	1.000	1.000
	2 - Site Access	1.000	1.000	1.000	1.000
	3 - Elettra Av (west)	1.000	1.000	1.000	1.000
	4 - Waterberry Drive	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Elettra Av (east)	0.36	2.82	0.6	A	710.00	1065.00
2 - Site Access	0.05	1.92	0.1	A	101.00	151.50
3 - Elettra Av (west)	0.03	2.29	0.0	A	52.00	78.00
4 - Waterberry Drive	0.11	2.26	0.1	A	205.00	307.50

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	710.00	177.50	8.98	1988.17	0.357	707.79	344.17	0.0	0.6	2.807	A
2 - Site Access	101.00	25.25	548.29	1977.88	0.051	100.79	168.47	0.0	0.1	1.917	A
3 - Elettra Av (west)	52.00	13.00	525.46	1627.08	0.032	51.87	123.62	0.0	0.0	2.285	A
4 - Waterberry Drive	205.00	51.25	148.66	1798.87	0.114	204.49	428.66	0.0	0.1	2.258	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	710.00	177.50	9.00	1988.15	0.357	709.99	345.00	0.6	0.6	2.815	A
2 - Site Access	101.00	25.25	550.00	1976.56	0.051	101.00	169.00	0.1	0.1	1.918	A
3 - Elettra Av (west)	52.00	13.00	527.00	1625.99	0.032	52.00	124.00	0.0	0.0	2.286	A
4 - Waterberry Drive	205.00	51.25	149.00	1798.63	0.114	205.00	430.00	0.1	0.1	2.258	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	710.00	177.50	9.00	1988.15	0.357	710.00	345.00	0.6	0.6	2.815	A
2 - Site Access	101.00	25.25	550.00	1976.56	0.051	101.00	169.00	0.1	0.1	1.918	A
3 - Elettra Av (west)	52.00	13.00	527.00	1625.99	0.032	52.00	124.00	0.0	0.0	2.286	A
4 - Waterberry Drive	205.00	51.25	149.00	1798.63	0.114	205.00	430.00	0.1	0.1	2.258	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	710.00	177.50	9.00	1988.15	0.357	710.00	345.00	0.6	0.6	2.815	A
2 - Site Access	101.00	25.25	550.00	1976.56	0.051	101.00	169.00	0.1	0.1	1.918	A
3 - Elettra Av (west)	52.00	13.00	527.00	1625.99	0.032	52.00	124.00	0.0	0.0	2.286	A
4 - Waterberry Drive	205.00	51.25	149.00	1798.63	0.114	205.00	430.00	0.1	0.1	2.258	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	710.00	177.50	9.00	1988.15	0.357	710.00	345.00	0.6	0.6	2.815	A
2 - Site Access	101.00	25.25	550.00	1976.56	0.051	101.00	169.00	0.1	0.1	1.918	A
3 - Elettra Av (west)	52.00	13.00	527.00	1625.99	0.032	52.00	124.00	0.0	0.0	2.286	A
4 - Waterberry Drive	205.00	51.25	149.00	1798.63	0.114	205.00	430.00	0.1	0.1	2.258	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	710.00	177.50	9.00	1988.15	0.357	710.00	345.00	0.6	0.6	2.815	A
2 - Site Access	101.00	25.25	550.00	1976.56	0.051	101.00	169.00	0.1	0.1	1.918	A
3 - Elettra Av (west)	52.00	13.00	527.00	1625.99	0.032	52.00	124.00	0.0	0.0	2.286	A
4 - Waterberry Drive	205.00	51.25	149.00	1798.63	0.114	205.00	430.00	0.1	0.1	2.258	A

(Default Analysis Set) - 2020 Base + Dev (E Block + East + West Dev), PM

Data Errors and Warnings

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

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	2.50	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D10	2020 Base + Dev (E Block + East + West Dev)	PM	FLAT	16:45	18:15	90	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - Elettra Av (east)		FLAT	✓	348.00	100.000
2 - Site Access		FLAT	✓	250.00	100.000
3 - Elettra Av (west)		FLAT	✓	154.00	100.000
4 - Waterberry Drive		FLAT	✓	474.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0.000	157.000	29.000	162.000
	2 - Site Access	250.000	0.000	0.000	0.000
	3 - Elettra Av (west)	151.000	0.000	0.000	3.000
	4 - Waterberry Drive	452.000	0.000	22.000	0.000

Proportions

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0.00	0.45	0.08	0.47
	2 - Site Access	1.00	0.00	0.00	0.00
	3 - Elettra Av (west)	0.98	0.00	0.00	0.02
	4 - Waterberry Drive	0.95	0.00	0.05	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	0	0	0	0
	2 - Site Access	0	0	0	0
	3 - Elettra Av (west)	0	0	0	0
	4 - Waterberry Drive	0	0	0	0

Av. PCU Per Veh

	To				
		1 - Elettra Av (east)	2 - Site Access	3 - Elettra Av (west)	4 - Waterberry Drive
From	1 - Elettra Av (east)	1.000	1.000	1.000	1.000
	2 - Site Access	1.000	1.000	1.000	1.000
	3 - Elettra Av (west)	1.000	1.000	1.000	1.000
	4 - Waterberry Drive	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Elettra Av (east)	0.18	2.21	0.2	A	348.00	522.00
2 - Site Access	0.11	1.81	0.1	A	250.00	375.00
3 - Elettra Av (west)	0.09	2.32	0.1	A	154.00	231.00
4 - Waterberry Drive	0.29	3.13	0.4	A	474.00	711.00

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	348.00	87.00	21.92	1979.07	0.176	347.15	850.54	0.0	0.2	2.205	A
2 - Site Access	250.00	62.50	212.46	2238.06	0.112	249.50	156.62	0.0	0.1	1.809	A
3 - Elettra Av (west)	154.00	38.50	411.10	1708.18	0.090	153.60	50.85	0.0	0.1	2.315	A
4 - Waterberry Drive	474.00	118.50	400.11	1623.05	0.292	472.36	164.60	0.0	0.4	3.124	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	348.00	87.00	22.00	1979.01	0.176	348.00	852.99	0.2	0.2	2.206	A
2 - Site Access	250.00	62.50	213.00	2237.64	0.112	250.00	157.00	0.1	0.1	1.810	A
3 - Elettra Av (west)	154.00	38.50	412.00	1707.54	0.090	154.00	51.00	0.1	0.1	2.316	A
4 - Waterberry Drive	474.00	118.50	401.00	1622.43	0.292	474.00	165.00	0.4	0.4	3.133	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	348.00	87.00	22.00	1979.01	0.176	348.00	853.00	0.2	0.2	2.206	A
2 - Site Access	250.00	62.50	213.00	2237.64	0.112	250.00	157.00	0.1	0.1	1.810	A
3 - Elettra Av (west)	154.00	38.50	412.00	1707.54	0.090	154.00	51.00	0.1	0.1	2.316	A
4 - Waterberry Drive	474.00	118.50	401.00	1622.43	0.292	474.00	165.00	0.4	0.4	3.133	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	348.00	87.00	22.00	1979.01	0.176	348.00	853.00	0.2	0.2	2.206	A
2 - Site Access	250.00	62.50	213.00	2237.64	0.112	250.00	157.00	0.1	0.1	1.810	A
3 - Elettra Av (west)	154.00	38.50	412.00	1707.54	0.090	154.00	51.00	0.1	0.1	2.316	A
4 - Waterberry Drive	474.00	118.50	401.00	1622.43	0.292	474.00	165.00	0.4	0.4	3.133	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	348.00	87.00	22.00	1979.01	0.176	348.00	853.00	0.2	0.2	2.206	A
2 - Site Access	250.00	62.50	213.00	2237.64	0.112	250.00	157.00	0.1	0.1	1.810	A
3 - Elettra Av (west)	154.00	38.50	412.00	1707.54	0.090	154.00	51.00	0.1	0.1	2.316	A
4 - Waterberry Drive	474.00	118.50	401.00	1622.43	0.292	474.00	165.00	0.4	0.4	3.134	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Elettra Av (east)	348.00	87.00	22.00	1979.01	0.176	348.00	853.00	0.2	0.2	2.206	A
2 - Site Access	250.00	62.50	213.00	2237.64	0.112	250.00	157.00	0.1	0.1	1.810	A
3 - Elettra Av (west)	154.00	38.50	412.00	1707.54	0.090	154.00	51.00	0.1	0.1	2.316	A
4 - Waterberry Drive	474.00	118.50	401.00	1622.43	0.292	474.00	165.00	0.4	0.4	3.134	A

Appendix H

Junctions 9				
ARCADY 9 - Roundabout Module				
Version: 9.0.0.4211 []				
© Copyright TRL Limited, 2015				
For sales and distribution information, program advice and maintenance, contact TRL: Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk				
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution				

Filename: Hambledon Road_Milton Road_Elettra Av_AM Peak.j9

Path: P:\17000's\17144\Technical\Junction Modelling\E Block

Report generation date: 15/06/2015 15:00:40

- »(Default Analysis Set) - 2015 Base, AM
- »(Default Analysis Set) - 2020 Base, AM
- »(Default Analysis Set) - 2020 Base + Dev (E Block Proposals), AM
- »(Default Analysis Set) - 2020 Base + Dev (E Block + East Dev), AM
- »(Default Analysis Set) - 2020 Base + Dev (E Block + East + West Dev), AM

Summary of junction performance

	AM			
	Q (PCU)	Delay (s)	RFC	LOS
A1 - 2015 Base				
1 - Milton road	1.8	10.52	0.65	B
2 - Hambledon Road (south)	0.7	2.03	0.40	A
3 - Elettra Avenue	0.3	3.10	0.20	A
4 - Hambledon Road (north)	1.1	4.34	0.52	A
A1 - 2020 Base				
1 - Milton road	2.7	14.08	0.73	B
2 - Hambledon Road (south)	0.7	2.07	0.41	A
3 - Elettra Avenue	0.3	3.16	0.21	A
4 - Hambledon Road (north)	1.2	4.64	0.55	A
A1 - 2020 Base + Dev (E Block Proposals)				
1 - Milton road	2.6	13.67	0.73	B
2 - Hambledon Road (south)	0.6	2.00	0.39	A
3 - Elettra Avenue	0.3	3.13	0.20	A
4 - Hambledon Road (north)	1.2	4.58	0.55	A
A1 - 2020 Base + Dev (E Block + East Dev)				
1 - Milton road	3.1	15.71	0.76	C
2 - Hambledon Road (south)	0.7	2.05	0.40	A
3 - Elettra Avenue	0.3	3.22	0.22	A
4 - Hambledon Road (north)	1.3	4.72	0.56	A
A1 - 2020 Base + Dev (E Block + East + West Dev)				
1 - Milton road	3.9	18.84	0.80	C
2 - Hambledon Road (south)	0.7	2.19	0.42	A
3 - Elettra Avenue	0.3	3.19	0.21	A
4 - Hambledon Road (north)	1.3	4.78	0.57	A

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

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

File summary

File Description

Title	Hambledon Road/ Milton Road/ Elettra Avenue
Location	Waterlooville
Site number	
Date	07/05/2015
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	17144
Enumerator	DTA"arcady
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
2015 Base	AM	FLAT	08:00	09:00	60	15	✓
2020 Base	AM	FLAT	08:00	09:00	60	15	✓
2020 Base + Dev (E Block Proposals)	AM	FLAT	08:00	09:00	60	15	✓
2020 Base + Dev (E Block + East Dev)	AM	FLAT	08:00	09:00	60	15	✓
2020 Base + Dev (E Block + East + West Dev)	AM	FLAT	08:00	09:00	60	15	✓

(Default Analysis Set) - 2015 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Hambledon Road (south) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Elettra Avenue - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Hambledon Road (north) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	4.62	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Milton road	
2	Hambledon Road (south)	
3	Elettra Avenue	
4	Hambledon Road (north)	

Capacity Options

Arm	Min Cap (PCU/hr)	Max Cap (PCU/hr)	Assume flat start profile	Initial queue (PCU)
1 - Milton road	0.00	99999.00		0.00
2 - Hambledon Road (south)	0.00	99999.00		0.00
3 - Elettra Avenue	0.00	99999.00		0.00
4 - Hambledon Road (north)	0.00	99999.00		0.00

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Exit only
1 - Milton road	3.40	4.20	24.9	21.0	54.0	22.5	
2 - Hambledon Road (south)	7.20	8.20	55.8	54.6	54.0	25.0	
3 - Elettra Avenue	3.30	7.70	127.6	6.0	54.0	22.0	
4 - Hambledon Road (north)	3.60	7.70	127.6	6.0	54.0	22.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Milton road	0.521	1285.444
2 - Hambledon Road (south)	0.766	2587.472
3 - Elettra Avenue	0.622	2010.608
4 - Hambledon Road (north)	0.625	2025.835

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
1 - Milton road	Percentage		135.00
2 - Hambledon Road (south)	Percentage		125.00

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D1	2015 Base	AM	FLAT	08:00	09:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - Milton road		FLAT	✓	636.00	100.000
2 - Hambledon Road (south)		FLAT	✓	1182.00	100.000
3 - Elettra Avenue		FLAT	✓	299.00	100.000
4 - Hambledon Road (north)		FLAT	✓	906.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0.000	447.000	103.000	86.000
	2 - Hambledon Road (south)	214.000	27.000	386.000	555.000
	3 - Elettra Avenue	49.000	175.000	0.000	75.000
	4 - Hambledon Road (north)	32.000	768.000	106.000	0.000

Proportions

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0.00	0.70	0.16	0.14
	2 - Hambledon Road (south)	0.18	0.02	0.33	0.47
	3 - Elettra Avenue	0.16	0.59	0.00	0.25
	4 - Hambledon Road (north)	0.04	0.85	0.12	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0	0	0	0
	2 - Hambledon Road (south)	0	0	0	0
	3 - Elettra Avenue	0	0	0	0
	4 - Hambledon Road (north)	0	0	0	0

Av. PCU Per Veh

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	1.000	1.000	1.000	1.000
	2 - Hambledon Road (south)	1.000	1.000	1.000	1.000
	3 - Elettra Avenue	1.000	1.000	1.000	1.000
	4 - Hambledon Road (north)	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Milton road	0.65	10.52	1.8	B	636.00	636.00
2 - Hambledon Road (south)	0.40	2.03	0.7	A	1182.00	1182.00
3 - Elettra Avenue	0.20	3.10	0.3	A	299.00	299.00
4 - Hambledon Road (north)	0.52	4.34	1.1	A	906.00	906.00

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	636.00	159.00	1071.17	981.41	0.648	628.86	294.20	0.0	1.8	10.020	B
2 - Hambledon Road (south)	1182.00	295.50	292.37	2954.51	0.400	1179.34	1407.66	0.0	0.7	2.025	A
3 - Elettra Avenue	299.00	74.75	879.25	1463.29	0.204	297.98	592.47	0.0	0.3	3.086	A
4 - Hambledon Road (north)	906.00	226.50	463.69	1735.90	0.522	901.68	713.53	0.0	1.1	4.293	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	636.00	159.00	1075.97	978.03	0.650	635.83	295.00	1.8	1.8	10.508	B
2 - Hambledon Road (south)	1182.00	295.50	294.95	2952.05	0.400	1181.99	1416.86	0.7	0.7	2.033	A
3 - Elettra Avenue	299.00	74.75	881.97	1461.60	0.205	299.00	594.97	0.3	0.3	3.095	A
4 - Hambledon Road (north)	906.00	226.50	465.00	1735.09	0.522	905.98	715.97	1.1	1.1	4.341	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	636.00	159.00	1075.99	978.01	0.650	635.95	295.00	1.8	1.8	10.519	B
2 - Hambledon Road (south)	1182.00	295.50	294.98	2952.01	0.400	1182.00	1416.96	0.7	0.7	2.033	A
3 - Elettra Avenue	299.00	74.75	881.99	1461.59	0.205	299.00	594.99	0.3	0.3	3.095	A
4 - Hambledon Road (north)	906.00	226.50	465.00	1735.09	0.522	905.99	715.99	1.1	1.1	4.341	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	636.00	159.00	1076.00	978.01	0.650	635.98	295.00	1.8	1.8	10.521	B
2 - Hambledon Road (south)	1182.00	295.50	294.99	2952.01	0.400	1182.00	1416.98	0.7	0.7	2.033	A
3 - Elettra Avenue	299.00	74.75	882.00	1461.58	0.205	299.00	595.00	0.3	0.3	3.095	A
4 - Hambledon Road (north)	906.00	226.50	465.00	1735.08	0.522	906.00	716.00	1.1	1.1	4.341	A

(Default Analysis Set) - 2020 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Hambledon Road (south) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Elettra Avenue - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Hambledon Road (north) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	5.60	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D3	2020 Base	AM	FLAT	08:00	09:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - Milton road		FLAT	✓	696.00	100.000
2 - Hambledon Road (south)		FLAT	✓	1206.00	100.000
3 - Elettra Avenue		FLAT	✓	299.00	100.000
4 - Hambledon Road (north)		FLAT	✓	952.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0.000	495.000	103.000	98.000
	2 - Hambledon Road (south)	225.000	27.000	386.000	568.000
	3 - Elettra Avenue	49.000	175.000	0.000	75.000
	4 - Hambledon Road (north)	40.000	806.000	106.000	0.000

Proportions

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0.00	0.71	0.15	0.14
	2 - Hambledon Road (south)	0.19	0.02	0.32	0.47
	3 - Elettra Avenue	0.16	0.59	0.00	0.25
	4 - Hambledon Road (north)	0.04	0.85	0.11	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0	0	0	0
	2 - Hambledon Road (south)	0	0	0	0
	3 - Elettra Avenue	0	0	0	0
	4 - Hambledon Road (north)	0	0	0	0

Av. PCU Per Veh

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	1.000	1.000	1.000	1.000
	2 - Hambledon Road (south)	1.000	1.000	1.000	1.000
	3 - Elettra Avenue	1.000	1.000	1.000	1.000
	4 - Hambledon Road (north)	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Milton road	0.73	14.08	2.7	B	696.00	696.00
2 - Hambledon Road (south)	0.41	2.07	0.7	A	1206.00	1206.00
3 - Elettra Avenue	0.21	3.16	0.3	A	299.00	299.00
4 - Hambledon Road (north)	0.55	4.64	1.2	A	952.00	952.00

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	696.00	174.00	1108.69	955.00	0.729	685.81	313.11	0.0	2.5	12.929	B
2 - Hambledon Road (south)	1206.00	301.50	303.52	2943.85	0.410	1203.23	1490.98	0.0	0.7	2.064	A
3 - Elettra Avenue	299.00	74.75	914.69	1441.23	0.207	297.96	592.07	0.0	0.3	3.146	A
4 - Hambledon Road (north)	952.00	238.00	474.64	1729.06	0.551	947.15	738.00	0.0	1.2	4.576	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	696.00	174.00	1113.97	951.28	0.732	695.62	314.00	2.5	2.6	14.032	B
2 - Hambledon Road (south)	1206.00	301.50	306.89	2940.62	0.410	1205.99	1502.70	0.7	0.7	2.075	A
3 - Elettra Avenue	299.00	74.75	917.94	1439.21	0.208	299.00	594.94	0.3	0.3	3.156	A
4 - Hambledon Road (north)	952.00	238.00	476.00	1728.21	0.551	951.97	740.94	1.2	1.2	4.637	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	696.00	174.00	1113.99	951.27	0.732	695.88	314.00	2.6	2.7	14.068	B
2 - Hambledon Road (south)	1206.00	301.50	306.97	2940.55	0.410	1206.00	1502.91	0.7	0.7	2.075	A
3 - Elettra Avenue	299.00	74.75	917.98	1439.18	0.208	299.00	594.98	0.3	0.3	3.156	A
4 - Hambledon Road (north)	952.00	238.00	476.00	1728.21	0.551	951.99	740.98	1.2	1.2	4.637	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	696.00	174.00	1114.00	951.26	0.732	695.94	314.00	2.7	2.7	14.082	B
2 - Hambledon Road (south)	1206.00	301.50	306.98	2940.53	0.410	1206.00	1502.96	0.7	0.7	2.075	A
3 - Elettra Avenue	299.00	74.75	917.99	1439.18	0.208	299.00	594.99	0.3	0.3	3.156	A
4 - Hambledon Road (north)	952.00	238.00	476.00	1728.21	0.551	952.00	740.99	1.2	1.2	4.637	A

(Default Analysis Set) - 2020 Base + Dev (E Block Proposals), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Hambledon Road (south) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Elettra Avenue - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Hambledon Road (north) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	5.56	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D5	2020 Base + Dev (E Block Proposals)	AM	FLAT	08:00	09:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - Milton road		FLAT	✓	701.00	100.000
2 - Hambledon Road (south)		FLAT	✓	1137.00	100.000
3 - Elettra Avenue		FLAT	✓	290.00	100.000
4 - Hambledon Road (north)		FLAT	✓	956.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0.000	495.000	108.000	98.000
	2 - Hambledon Road (south)	225.000	27.000	317.000	568.000
	3 - Elettra Avenue	50.000	153.000	0.000	87.000
	4 - Hambledon Road (north)	40.000	806.000	110.000	0.000

Proportions

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0.00	0.71	0.15	0.14
	2 - Hambledon Road (south)	0.20	0.02	0.28	0.50
	3 - Elettra Avenue	0.17	0.53	0.00	0.30
	4 - Hambledon Road (north)	0.04	0.84	0.12	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0	0	0	0
	2 - Hambledon Road (south)	0	0	0	0
	3 - Elettra Avenue	0	0	0	0
	4 - Hambledon Road (north)	0	0	0	0

Av. PCU Per Veh

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	1.000	1.000	1.000	1.000
	2 - Hambledon Road (south)	1.000	1.000	1.000	1.000
	3 - Elettra Avenue	1.000	1.000	1.000	1.000
	4 - Hambledon Road (north)	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Milton road	0.73	13.67	2.6	B	701.00	701.00
2 - Hambledon Road (south)	0.39	2.00	0.6	A	1137.00	1137.00
3 - Elettra Avenue	0.20	3.13	0.3	A	290.00	290.00
4 - Hambledon Road (north)	0.55	4.58	1.2	A	956.00	956.00

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	701.00	175.25	1090.80	967.59	0.724	691.01	314.13	0.0	2.5	12.601	B
2 - Hambledon Road (south)	1137.00	284.25	312.51	2935.24	0.387	1134.48	1469.30	0.0	0.6	1.996	A
3 - Elettra Avenue	290.00	72.50	914.79	1441.17	0.201	289.00	532.20	0.0	0.3	3.121	A
4 - Hambledon Road (north)	956.00	239.00	453.74	1742.13	0.549	951.19	750.04	0.0	1.2	4.525	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	701.00	175.25	1095.97	963.95	0.727	700.64	315.00	2.5	2.6	13.628	B
2 - Hambledon Road (south)	1137.00	284.25	315.89	2932.00	0.388	1136.99	1480.72	0.6	0.6	2.005	A
3 - Elettra Avenue	290.00	72.50	917.94	1439.21	0.202	290.00	534.94	0.3	0.3	3.131	A
4 - Hambledon Road (north)	956.00	239.00	455.00	1741.34	0.549	955.97	752.95	1.2	1.2	4.583	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	701.00	175.25	1095.99	963.94	0.727	700.89	315.00	2.6	2.6	13.661	B
2 - Hambledon Road (south)	1137.00	284.25	315.97	2931.93	0.388	1137.00	1480.91	0.6	0.6	2.005	A
3 - Elettra Avenue	290.00	72.50	917.98	1439.18	0.202	290.00	534.98	0.3	0.3	3.131	A
4 - Hambledon Road (north)	956.00	239.00	455.00	1741.34	0.549	955.99	752.98	1.2	1.2	4.583	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	701.00	175.25	1096.00	963.93	0.727	700.95	315.00	2.6	2.6	13.672	B
2 - Hambledon Road (south)	1137.00	284.25	315.98	2931.92	0.388	1137.00	1480.96	0.6	0.6	2.005	A
3 - Elettra Avenue	290.00	72.50	917.99	1439.18	0.202	290.00	534.99	0.3	0.3	3.131	A
4 - Hambledon Road (north)	956.00	239.00	455.00	1741.34	0.549	956.00	752.99	1.2	1.2	4.583	A

(Default Analysis Set) - 2020 Base + Dev (E Block + East Dev), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Hambledon Road (south) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Elettra Avenue - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Hambledon Road (north) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	6.10	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D7	2020 Base + Dev (E Block + East Dev)	AM	FLAT	08:00	09:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - Milton road		FLAT	✓	717.00	100.000
2 - Hambledon Road (south)		FLAT	✓	1152.00	100.000
3 - Elettra Avenue		FLAT	✓	314.00	100.000
4 - Hambledon Road (north)		FLAT	✓	965.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0.000	495.000	124.000	98.000
	2 - Hambledon Road (south)	227.000	32.000	322.000	571.000
	3 - Elettra Avenue	54.000	165.000	0.000	95.000
	4 - Hambledon Road (north)	40.000	806.000	119.000	0.000

Proportions

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0.00	0.69	0.17	0.14
	2 - Hambledon Road (south)	0.20	0.03	0.28	0.50
	3 - Elettra Avenue	0.17	0.53	0.00	0.30
	4 - Hambledon Road (north)	0.04	0.84	0.12	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0	0	0	0
	2 - Hambledon Road (south)	0	0	0	0
	3 - Elettra Avenue	0	0	0	0
	4 - Hambledon Road (north)	0	0	0	0

Av. PCU Per Veh

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	1.000	1.000	1.000	1.000
	2 - Hambledon Road (south)	1.000	1.000	1.000	1.000
	3 - Elettra Avenue	1.000	1.000	1.000	1.000
	4 - Hambledon Road (north)	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Milton road	0.76	15.71	3.1	C	717.00	717.00
2 - Hambledon Road (south)	0.40	2.05	0.7	A	1152.00	1152.00
3 - Elettra Avenue	0.22	3.22	0.3	A	314.00	314.00
4 - Hambledon Road (north)	0.56	4.72	1.3	A	965.00	965.00

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	717.00	179.25	1116.55	949.47	0.755	705.44	320.09	0.0	2.9	14.154	B
2 - Hambledon Road (south)	1152.00	288.00	336.80	2911.99	0.396	1149.39	1485.18	0.0	0.7	2.040	A
3 - Elettra Avenue	314.00	78.50	924.54	1435.10	0.219	312.88	561.65	0.0	0.3	3.205	A
4 - Hambledon Road (north)	965.00	241.25	476.64	1727.81	0.559	960.00	760.79	0.0	1.3	4.659	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	717.00	179.25	1121.97	945.65	0.758	716.49	321.00	2.9	3.0	15.627	C
2 - Hambledon Road (south)	1152.00	288.00	340.84	2908.13	0.396	1151.99	1497.62	0.7	0.7	2.049	A
3 - Elettra Avenue	314.00	78.50	927.92	1432.99	0.219	314.00	564.91	0.3	0.3	3.216	A
4 - Hambledon Road (north)	965.00	241.25	477.99	1726.96	0.559	964.97	763.92	1.3	1.3	4.724	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	717.00	179.25	1121.99	945.64	0.758	716.84	321.00	3.0	3.1	15.689	C
2 - Hambledon Road (south)	1152.00	288.00	340.95	2908.02	0.396	1152.00	1497.88	0.7	0.7	2.049	A
3 - Elettra Avenue	314.00	78.50	927.98	1432.96	0.219	314.00	564.97	0.3	0.3	3.216	A
4 - Hambledon Road (north)	965.00	241.25	478.00	1726.96	0.559	964.99	763.98	1.3	1.3	4.724	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	717.00	179.25	1121.99	945.63	0.758	716.92	321.00	3.1	3.1	15.708	C
2 - Hambledon Road (south)	1152.00	288.00	340.97	2908.00	0.396	1152.00	1497.94	0.7	0.7	2.049	A
3 - Elettra Avenue	314.00	78.50	927.99	1432.95	0.219	314.00	564.99	0.3	0.3	3.216	A
4 - Hambledon Road (north)	965.00	241.25	478.00	1726.96	0.559	964.99	763.99	1.3	1.3	4.724	A

(Default Analysis Set) - 2020 Base + Dev (E Block + East + West Dev), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Hambledon Road (south) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Elettra Avenue - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Hambledon Road (north) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	6.93	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D9	2020 Base + Dev (E Block + East + West Dev)	AM	FLAT	08:00	09:00	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - Milton road		FLAT	✓	754.00	100.000
2 - Hambledon Road (south)		FLAT	✓	1207.00	100.000
3 - Elettra Avenue		FLAT	✓	306.00	100.000
4 - Hambledon Road (north)		FLAT	✓	985.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0.000	495.000	161.000	98.000
	2 - Hambledon Road (south)	227.000	32.000	377.000	571.000
	3 - Elettra Avenue	54.000	147.000	0.000	105.000
	4 - Hambledon Road (north)	40.000	806.000	139.000	0.000

Proportions

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0.00	0.66	0.21	0.13
	2 - Hambledon Road (south)	0.19	0.03	0.31	0.47
	3 - Elettra Avenue	0.18	0.48	0.00	0.34
	4 - Hambledon Road (north)	0.04	0.82	0.14	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0	0	0	0
	2 - Hambledon Road (south)	0	0	0	0
	3 - Elettra Avenue	0	0	0	0
	4 - Hambledon Road (north)	0	0	0	0

Av. PCU Per Veh

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	1.000	1.000	1.000	1.000
	2 - Hambledon Road (south)	1.000	1.000	1.000	1.000
	3 - Elettra Avenue	1.000	1.000	1.000	1.000
	4 - Hambledon Road (north)	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Milton road	0.80	18.84	3.9	C	754.00	754.00
2 - Hambledon Road (south)	0.42	2.19	0.7	A	1207.00	1207.00
3 - Elettra Avenue	0.21	3.19	0.3	A	306.00	306.00
4 - Hambledon Road (north)	0.57	4.78	1.3	A	985.00	985.00

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	754.00	188.50	1118.45	948.13	0.795	739.80	320.05	0.0	3.6	16.325	C
2 - Hambledon Road (south)	1207.00	301.75	392.39	2858.79	0.422	1204.09	1465.86	0.0	0.7	2.172	A
3 - Elettra Avenue	306.00	76.50	924.15	1435.34	0.213	304.92	672.33	0.0	0.3	3.181	A
4 - Hambledon Road (north)	985.00	246.25	458.67	1739.04	0.566	979.84	770.41	0.0	1.3	4.710	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	754.00	188.50	1123.96	944.25	0.799	753.18	321.00	3.6	3.8	18.654	C
2 - Hambledon Road (south)	1207.00	301.75	397.71	2853.70	0.423	1206.99	1479.43	0.7	0.7	2.185	A
3 - Elettra Avenue	306.00	76.50	927.88	1433.02	0.214	306.00	676.81	0.3	0.3	3.193	A
4 - Hambledon Road (north)	985.00	246.25	459.99	1738.21	0.567	984.96	773.89	1.3	1.3	4.779	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	754.00	188.50	1123.99	944.23	0.799	753.73	321.00	3.8	3.8	18.789	C
2 - Hambledon Road (south)	1207.00	301.75	397.90	2853.51	0.423	1207.00	1479.81	0.7	0.7	2.186	A
3 - Elettra Avenue	306.00	76.50	927.96	1432.97	0.214	306.00	676.94	0.3	0.3	3.193	A
4 - Hambledon Road (north)	985.00	246.25	460.00	1738.21	0.567	984.99	773.96	1.3	1.3	4.779	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	754.00	188.50	1123.99	944.23	0.799	753.86	321.00	3.8	3.9	18.835	C
2 - Hambledon Road (south)	1207.00	301.75	397.95	2853.47	0.423	1207.00	1479.90	0.7	0.7	2.186	A
3 - Elettra Avenue	306.00	76.50	927.98	1432.96	0.214	306.00	676.97	0.3	0.3	3.193	A
4 - Hambledon Road (north)	985.00	246.25	460.00	1738.21	0.567	984.99	773.98	1.3	1.3	4.779	A

Junctions 9				
ARCADY 9 - Roundabout Module				
Version: 9.0.0.4211 []				
© Copyright TRL Limited, 2015				
For sales and distribution information, program advice and maintenance, contact TRL: Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk				
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution				

Filename: Hambledon Road_Milton Road_Elettra Av_PM Peak.j9

Path: P:\17000's\17144\Technical\Junction Modelling\E Block

Report generation date: 15/06/2015 15:01:10

- »(Default Analysis Set) - 2015 Base, PM
- »(Default Analysis Set) - 2020 Base, PM
- »(Default Analysis Set) - 2020 Base + Dev (E Block Proposals), PM
- »(Default Analysis Set) - 2020 Base + Dev (E Block + East Dev), PM
- »(Default Analysis Set) - 2020 Base + Dev (E Block + East + West Dev), PM

Summary of junction performance

	PM			
	Q (PCU)	Delay (s)	RFC	LOS
A1 - 2015 Base				
1 - Milton road	0.7	5.86	0.42	A
2 - Hambledon Road (south)	1.6	3.87	0.62	A
3 - Elettra Avenue	3.0	16.67	0.75	C
4 - Hambledon Road (north)	2.1	12.06	0.68	B
A1 - 2020 Base				
1 - Milton road	0.9	6.92	0.48	A
2 - Hambledon Road (south)	1.7	4.02	0.63	A
3 - Elettra Avenue	3.3	18.30	0.77	C
4 - Hambledon Road (north)	3.4	17.10	0.77	C
A1 - 2020 Base + Dev (E Block Proposals)				
1 - Milton road	1.1	7.51	0.52	A
2 - Hambledon Road (south)	1.8	4.22	0.64	A
3 - Elettra Avenue	3.6	19.79	0.79	C
4 - Hambledon Road (north)	3.7	18.53	0.79	C
A1 - 2020 Base + Dev (E Block + East Dev)				
1 - Milton road	1.3	8.21	0.56	A
2 - Hambledon Road (south)	1.9	4.48	0.65	A
3 - Elettra Avenue	2.4	14.66	0.71	B
4 - Hambledon Road (north)	4.0	19.43	0.81	C
A1 - 2020 Base + Dev (E Block + East + West Dev)				
1 - Milton road	1.6	10.29	0.62	B
2 - Hambledon Road (south)	2.2	4.95	0.69	A
3 - Elettra Avenue	30.7	134.02	1.01	F
4 - Hambledon Road (north)	6.3	30.90	0.87	D

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

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

File summary

File Description

Title	Hambledon Road/ Milton Road/ Elettra Avenue
Location	Waterlooville
Site number	
Date	07/05/2015
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	17144
Enumerator	DTA"arcady
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
2015 Base	PM	FLAT	16:45	17:45	60	15	✓
2020 Base	PM	FLAT	16:45	17:45	60	15	✓
2020 Base + Dev (E Block Proposals)	PM	FLAT	16:45	17:45	60	15	✓
2020 Base + Dev (E Block + East Dev)	PM	FLAT	16:45	17:45	60	15	✓
2020 Base + Dev (E Block + East + West Dev)	PM	FLAT	16:45	17:45	60	15	✓

(Default Analysis Set) - 2015 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Hambledon Road (south) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Elettra Avenue - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Hambledon Road (north) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	8.29	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Milton road	
2	Hambledon Road (south)	
3	Elettra Avenue	
4	Hambledon Road (north)	

Capacity Options

Arm	Min Cap (PCU/hr)	Max Cap (PCU/hr)	Assume flat start profile	Initial queue (PCU)
1 - Milton road	0.00	99999.00		0.00
2 - Hambledon Road (south)	0.00	99999.00		0.00
3 - Elettra Avenue	0.00	99999.00		0.00
4 - Hambledon Road (north)	0.00	99999.00		0.00

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Exit only
1 - Milton road	3.40	4.20	24.9	21.0	54.0	22.5	
2 - Hambledon Road (south)	7.20	8.20	55.8	54.6	54.0	25.0	
3 - Elettra Avenue	3.30	7.70	127.6	6.0	54.0	22.0	
4 - Hambledon Road (north)	3.60	7.70	127.6	6.0	54.0	22.0	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - Milton road	None		
2 - Hambledon Road (south)	Direct		-416.00
3 - Elettra Avenue	None		
4 - Hambledon Road (north)	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Milton road	0.521	1285.444
2 - Hambledon Road (south)	0.766	2171.472
3 - Elettra Avenue	0.622	2010.608
4 - Hambledon Road (north)	0.625	2025.835

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

Arm Capacity Adjustments

Arm	Type	Reason	Percentage capacity adjustment (%)
1 - Milton road	Percentage		135.00
2 - Hambledon Road (south)	Percentage		120.00
3 - Elettra Avenue	Percentage		80.00
4 - Hambledon Road (north)	Percentage		70.00

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D2	2015 Base	PM	FLAT	16:45	17:45	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - Milton road		FLAT	✓	452.00	100.000
2 - Hambledon Road (south)		FLAT	✓	1528.00	100.000
3 - Elettra Avenue		FLAT	✓	656.00	100.000
4 - Hambledon Road (north)		FLAT	✓	630.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0.000	337.000	63.000	52.000
	2 - Hambledon Road (south)	585.000	39.000	100.000	804.000
	3 - Elettra Avenue	154.000	341.000	0.000	161.000
	4 - Hambledon Road (north)	59.000	526.000	45.000	0.000

Proportions

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0.00	0.75	0.14	0.12
	2 - Hambledon Road (south)	0.38	0.03	0.07	0.53
	3 - Elettra Avenue	0.23	0.52	0.00	0.25
	4 - Hambledon Road (north)	0.09	0.83	0.07	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0	0	0	0
	2 - Hambledon Road (south)	0	0	0	0
	3 - Elettra Avenue	0	0	0	0
	4 - Hambledon Road (north)	0	0	0	0

Av. PCU Per Veh

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	1.000	1.000	1.000	1.000
	2 - Hambledon Road (south)	1.000	1.000	1.000	1.000
	3 - Elettra Avenue	1.000	1.000	1.000	1.000
	4 - Hambledon Road (north)	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Am	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Milton road	0.42	5.86	0.7	A	452.00	452.00
2 - Hambledon Road (south)	0.62	3.87	1.6	A	1528.00	1528.00
3 - Elettra Avenue	0.75	16.67	3.0	C	656.00	656.00
4 - Hambledon Road (north)	0.68	12.06	2.1	B	630.00	630.00

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	452.00	113.00	937.76	1075.31	0.420	449.13	792.13	0.0	0.7	5.723	A
2 - Hambledon Road (south)	1528.00	382.00	158.70	2459.95	0.621	1521.51	1228.19	0.0	1.6	3.811	A
3 - Elettra Avenue	656.00	164.00	1473.61	874.65	0.750	644.78	206.60	0.0	2.8	15.010	C
4 - Hambledon Road (north)	630.00	157.50	1107.89	933.18	0.675	622.00	1010.50	0.0	2.0	11.308	B

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	452.00	113.00	950.52	1066.33	0.424	451.95	797.85	0.7	0.7	5.859	A
2 - Hambledon Road (south)	1528.00	382.00	159.97	2458.79	0.621	1527.96	1242.50	1.6	1.6	3.867	A
3 - Elettra Avenue	656.00	164.00	1479.95	871.49	0.753	655.51	207.97	2.8	2.9	16.578	C
4 - Hambledon Road (north)	630.00	157.50	1118.61	928.48	0.679	629.75	1016.85	2.0	2.1	12.027	B

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	452.00	113.00	950.85	1066.09	0.424	451.99	797.95	0.7	0.7	5.861	A
2 - Hambledon Road (south)	1528.00	382.00	159.99	2458.77	0.621	1527.99	1242.85	1.6	1.6	3.867	A
3 - Elettra Avenue	656.00	164.00	1479.99	871.48	0.753	655.84	207.99	2.9	3.0	16.644	C
4 - Hambledon Road (north)	630.00	157.50	1118.87	928.37	0.679	629.93	1016.95	2.1	2.1	12.050	B

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	452.00	113.00	950.93	1066.04	0.424	452.00	797.98	0.7	0.7	5.862	A
2 - Hambledon Road (south)	1528.00	382.00	160.00	2458.76	0.621	1527.99	1242.93	1.6	1.6	3.867	A
3 - Elettra Avenue	656.00	164.00	1479.99	871.47	0.753	655.92	208.00	3.0	3.0	16.666	C
4 - Hambledon Road (north)	630.00	157.50	1118.94	928.34	0.679	629.97	1016.98	2.1	2.1	12.056	B

(Default Analysis Set) - 2020 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Hambledon Road (south) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Elettra Avenue - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Hambledon Road (north) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	9.97	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D4	2020 Base	PM	FLAT	16:45	17:45	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - Milton road		FLAT	✓	490.00	100.000
2 - Hambledon Road (south)		FLAT	✓	1535.00	100.000
3 - Elettra Avenue		FLAT	✓	656.00	100.000
4 - Hambledon Road (north)		FLAT	✓	722.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0.000	343.000	63.000	84.000
	2 - Hambledon Road (south)	577.000	39.000	100.000	819.000
	3 - Elettra Avenue	154.000	341.000	0.000	161.000
	4 - Hambledon Road (north)	72.000	605.000	45.000	0.000

Proportions

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0.00	0.70	0.13	0.17
	2 - Hambledon Road (south)	0.38	0.03	0.07	0.53
	3 - Elettra Avenue	0.23	0.52	0.00	0.25
	4 - Hambledon Road (north)	0.10	0.84	0.06	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0	0	0	0
	2 - Hambledon Road (south)	0	0	0	0
	3 - Elettra Avenue	0	0	0	0
	4 - Hambledon Road (north)	0	0	0	0

Av. PCU Per Veh

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	1.000	1.000	1.000	1.000
	2 - Hambledon Road (south)	1.000	1.000	1.000	1.000
	3 - Elettra Avenue	1.000	1.000	1.000	1.000
	4 - Hambledon Road (north)	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Milton road	0.48	6.92	0.9	A	490.00	490.00
2 - Hambledon Road (south)	0.63	4.02	1.7	A	1535.00	1535.00
3 - Elettra Avenue	0.77	18.30	3.3	C	656.00	656.00
4 - Hambledon Road (north)	0.77	17.10	3.4	C	722.00	722.00

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	490.00	122.50	1012.27	1022.86	0.479	486.37	796.35	0.0	0.9	6.668	A
2 - Hambledon Road (south)	1535.00	383.75	190.13	2431.07	0.631	1528.23	1308.51	0.0	1.7	3.959	A
3 - Elettra Avenue	656.00	164.00	1512.05	855.51	0.767	643.83	206.32	0.0	3.0	16.195	C
4 - Hambledon Road (north)	722.00	180.50	1099.10	937.02	0.771	709.52	1056.78	0.0	3.1	15.097	C

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	490.00	122.50	1029.08	1011.03	0.485	489.90	802.77	0.9	0.9	6.905	A
2 - Hambledon Road (south)	1535.00	383.75	191.93	2429.42	0.632	1534.95	1327.05	1.7	1.7	4.024	A
3 - Elettra Avenue	656.00	164.00	1518.94	852.08	0.770	655.38	207.94	3.0	3.2	18.169	C
4 - Hambledon Road (north)	722.00	180.50	1110.51	932.02	0.775	721.33	1063.81	3.1	3.3	16.964	C

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	490.00	122.50	1029.70	1010.59	0.485	489.98	802.93	0.9	0.9	6.914	A
2 - Hambledon Road (south)	1535.00	383.75	191.98	2429.37	0.632	1534.98	1327.70	1.7	1.7	4.024	A
3 - Elettra Avenue	656.00	164.00	1518.98	852.06	0.770	655.80	207.98	3.2	3.2	18.266	C
4 - Hambledon Road (north)	722.00	180.50	1110.84	931.88	0.775	721.79	1063.94	3.3	3.3	17.066	C

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	490.00	122.50	1029.85	1010.49	0.485	489.99	802.96	0.9	0.9	6.915	A
2 - Hambledon Road (south)	1535.00	383.75	191.99	2429.36	0.632	1534.99	1327.85	1.7	1.7	4.024	A
3 - Elettra Avenue	656.00	164.00	1518.99	852.05	0.770	655.90	207.99	3.2	3.3	18.299	C
4 - Hambledon Road (north)	722.00	180.50	1110.92	931.85	0.775	721.90	1063.97	3.3	3.4	17.099	C

(Default Analysis Set) - 2020 Base + Dev (E Block Proposals), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Hambledon Road (south) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Elettra Avenue - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Hambledon Road (north) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	10.80	B

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D6	2020 Base + Dev (E Block Proposals)	PM	FLAT	16:45	17:45	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - Milton road		FLAT	✓	527.00	100.000
2 - Hambledon Road (south)		FLAT	✓	1524.00	100.000
3 - Elettra Avenue		FLAT	✓	671.00	100.000
4 - Hambledon Road (north)		FLAT	✓	742.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0.000	343.000	100.000	84.000
	2 - Hambledon Road (south)	577.000	39.000	89.000	819.000
	3 - Elettra Avenue	160.000	327.000	0.000	184.000
	4 - Hambledon Road (north)	72.000	605.000	65.000	0.000

Proportions

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0.00	0.65	0.19	0.16
	2 - Hambledon Road (south)	0.38	0.03	0.06	0.54
	3 - Elettra Avenue	0.24	0.49	0.00	0.27
	4 - Hambledon Road (north)	0.10	0.82	0.09	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0	0	0	0
	2 - Hambledon Road (south)	0	0	0	0
	3 - Elettra Avenue	0	0	0	0
	4 - Hambledon Road (north)	0	0	0	0

Av. PCU Per Veh

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	1.000	1.000	1.000	1.000
	2 - Hambledon Road (south)	1.000	1.000	1.000	1.000
	3 - Elettra Avenue	1.000	1.000	1.000	1.000
	4 - Hambledon Road (north)	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Milton road	0.52	7.51	1.1	A	527.00	527.00
2 - Hambledon Road (south)	0.64	4.22	1.8	A	1524.00	1524.00
3 - Elettra Avenue	0.79	19.79	3.6	C	671.00	671.00
4 - Hambledon Road (north)	0.79	18.53	3.7	C	742.00	742.00

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	527.00	131.75	1016.96	1019.56	0.517	522.79	801.84	0.0	1.1	7.187	A
2 - Hambledon Road (south)	1524.00	381.00	246.33	2379.44	0.640	1516.96	1293.43	0.0	1.8	4.142	A
3 - Elettra Avenue	671.00	167.75	1511.70	855.68	0.784	657.71	251.59	0.0	3.3	17.194	C
4 - Hambledon Road (north)	742.00	185.50	1090.51	940.78	0.789	728.29	1078.90	0.0	3.4	16.047	C

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	527.00	131.75	1034.87	1006.96	0.523	526.87	808.71	1.1	1.1	7.496	A
2 - Hambledon Road (south)	1524.00	381.00	248.88	2377.09	0.641	1523.94	1312.86	1.8	1.8	4.219	A
3 - Elettra Avenue	671.00	167.75	1518.92	852.09	0.787	670.23	253.90	3.3	3.5	19.605	C
4 - Hambledon Road (north)	742.00	185.50	1102.42	935.57	0.793	741.16	1086.74	3.4	3.6	18.341	C

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	527.00	131.75	1035.63	1006.42	0.524	526.97	808.91	1.1	1.1	7.508	A
2 - Hambledon Road (south)	1524.00	381.00	248.97	2377.01	0.641	1523.98	1313.63	1.8	1.8	4.220	A
3 - Elettra Avenue	671.00	167.75	1518.98	852.06	0.788	670.74	253.97	3.5	3.6	19.744	C
4 - Hambledon Road (north)	742.00	185.50	1102.81	935.40	0.793	741.73	1086.92	3.6	3.7	18.486	C

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	527.00	131.75	1035.81	1006.29	0.524	526.99	808.95	1.1	1.1	7.510	A
2 - Hambledon Road (south)	1524.00	381.00	248.98	2377.00	0.641	1523.99	1313.82	1.8	1.8	4.220	A
3 - Elettra Avenue	671.00	167.75	1518.99	852.05	0.788	670.87	253.99	3.6	3.6	19.791	C
4 - Hambledon Road (north)	742.00	185.50	1102.90	935.36	0.793	741.86	1086.96	3.7	3.7	18.534	C

(Default Analysis Set) - 2020 Base + Dev (E Block + East Dev), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Hambledon Road (south) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Elettra Avenue - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Hambledon Road (north) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	10.17	B

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D8	2020 Base + Dev (E Block + East Dev)	PM	FLAT	16:45	17:45	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - Milton road		FLAT	✓	568.00	100.000
2 - Hambledon Road (south)		FLAT	✓	1515.00	100.000
3 - Elettra Avenue		FLAT	✓	590.00	100.000
4 - Hambledon Road (north)		FLAT	✓	765.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0.000	343.000	141.000	84.000
	2 - Hambledon Road (south)	583.000	56.000	46.000	830.000
	3 - Elettra Avenue	145.000	287.000	0.000	158.000
	4 - Hambledon Road (north)	72.000	605.000	88.000	0.000

Proportions

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0.00	0.60	0.25	0.15
	2 - Hambledon Road (south)	0.38	0.04	0.03	0.55
	3 - Elettra Avenue	0.25	0.49	0.00	0.27
	4 - Hambledon Road (north)	0.09	0.79	0.12	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0	0	0	0
	2 - Hambledon Road (south)	0	0	0	0
	3 - Elettra Avenue	0	0	0	0
	4 - Hambledon Road (north)	0	0	0	0

Av. PCU Per Veh

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	1.000	1.000	1.000	1.000
	2 - Hambledon Road (south)	1.000	1.000	1.000	1.000
	3 - Elettra Avenue	1.000	1.000	1.000	1.000
	4 - Hambledon Road (north)	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Milton road	0.56	8.21	1.3	A	568.00	568.00
2 - Hambledon Road (south)	0.65	4.48	1.9	A	1515.00	1515.00
3 - Elettra Avenue	0.71	14.66	2.4	B	590.00	590.00
4 - Hambledon Road (north)	0.81	19.43	4.0	C	765.00	765.00

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	568.00	142.00	1017.98	1018.85	0.557	563.06	793.55	0.0	1.2	7.817	A
2 - Hambledon Road (south)	1515.00	378.75	309.34	2321.54	0.653	1507.59	1271.69	0.0	1.9	4.384	A
3 - Elettra Avenue	590.00	147.50	1545.09	839.06	0.703	580.99	271.85	0.0	2.3	13.521	B
4 - Hambledon Road (north)	765.00	191.25	1061.28	953.57	0.802	750.24	1064.80	0.0	3.7	16.674	C

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	568.00	142.00	1035.01	1006.86	0.564	567.84	799.80	1.2	1.3	8.194	A
2 - Hambledon Road (south)	1515.00	378.75	312.83	2318.34	0.653	1514.93	1290.02	1.9	1.9	4.480	A
3 - Elettra Avenue	590.00	147.50	1552.90	835.16	0.706	589.67	274.85	2.3	2.3	14.617	B
4 - Hambledon Road (north)	765.00	191.25	1070.72	949.44	0.806	764.09	1071.85	3.7	3.9	19.205	C

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	568.00	142.00	1035.67	1006.39	0.564	567.97	799.94	1.3	1.3	8.209	A
2 - Hambledon Road (south)	1515.00	378.75	312.95	2318.23	0.654	1514.98	1290.69	1.9	1.9	4.481	A
3 - Elettra Avenue	590.00	147.50	1552.97	835.13	0.706	589.90	274.96	2.3	2.4	14.656	B
4 - Hambledon Road (north)	765.00	191.25	1070.92	949.36	0.806	764.69	1071.96	3.9	4.0	19.368	C

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	568.00	142.00	1035.84	1006.28	0.564	567.99	799.97	1.3	1.3	8.212	A
2 - Hambledon Road (south)	1515.00	378.75	312.98	2318.20	0.654	1514.99	1290.84	1.9	1.9	4.481	A
3 - Elettra Avenue	590.00	147.50	1552.99	835.12	0.706	589.95	274.98	2.4	2.4	14.665	B
4 - Hambledon Road (north)	765.00	191.25	1070.96	949.34	0.806	764.84	1071.98	4.0	4.0	19.430	C

(Default Analysis Set) - 2020 Base + Dev (E Block + East + West Dev), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Hambledon Road (south) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Elettra Avenue - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - Hambledon Road (north) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1 - (untitled)	(untitled)	Standard Roundabout	1,2,3,4	39.85	E

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Model time period length (min)	Time segment length (min)	Run automatically
D10	2020 Base + Dev (E Block + East + West Dev)	PM	FLAT	16:45	17:45	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - Milton road		FLAT	✓	574.00	100.000
2 - Hambledon Road (south)		FLAT	✓	1583.00	100.000
3 - Elettra Avenue		FLAT	✓	840.00	100.000
4 - Hambledon Road (north)		FLAT	✓	768.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0.000	343.000	147.000	84.000
	2 - Hambledon Road (south)	583.000	56.000	114.000	830.000
	3 - Elettra Avenue	190.000	411.000	0.000	239.000
	4 - Hambledon Road (north)	72.000	605.000	91.000	0.000

Proportions

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0.00	0.60	0.26	0.15
	2 - Hambledon Road (south)	0.37	0.04	0.07	0.52
	3 - Elettra Avenue	0.23	0.49	0.00	0.28
	4 - Hambledon Road (north)	0.09	0.79	0.12	0.00

Vehicle Mix

Heavy Vehicle proportion

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	0	0	0	0
	2 - Hambledon Road (south)	0	0	0	0
	3 - Elettra Avenue	0	0	0	0
	4 - Hambledon Road (north)	0	0	0	0

Av. PCU Per Veh

	To				
		1 - Milton road	2 - Hambledon Road (south)	3 - Elettra Avenue	4 - Hambledon Road (north)
From	1 - Milton road	1.000	1.000	1.000	1.000
	2 - Hambledon Road (south)	1.000	1.000	1.000	1.000
	3 - Elettra Avenue	1.000	1.000	1.000	1.000
	4 - Hambledon Road (north)	1.000	1.000	1.000	1.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Milton road	0.62	10.29	1.6	B	574.00	574.00
2 - Hambledon Road (south)	0.69	4.95	2.2	A	1583.00	1583.00
3 - Elettra Avenue	1.01	134.02	30.7	F	840.00	840.00
4 - Hambledon Road (north)	0.87	30.90	6.3	D	768.00	768.00

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	574.00	143.50	1116.72	949.35	0.605	568.04	827.23	0.0	1.5	9.304	A
2 - Hambledon Road (south)	1583.00	395.75	317.19	2314.33	0.684	1574.49	1367.57	0.0	2.1	4.812	A
3 - Elettra Avenue	840.00	210.00	1544.23	839.48	1.001	783.75	347.45	0.0	14.1	46.281	E
4 - Hambledon Road (north)	768.00	192.00	1196.32	894.47	0.859	747.63	1131.66	0.0	5.1	22.154	C

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	574.00	143.50	1147.12	927.95	0.619	573.61	838.57	1.5	1.6	10.142	B
2 - Hambledon Road (south)	1583.00	395.75	321.50	2310.37	0.685	1582.89	1399.23	2.1	2.2	4.946	A
3 - Elettra Avenue	840.00	210.00	1552.84	835.19	1.006	812.96	351.55	14.1	20.8	89.248	F
4 - Hambledon Road (north)	768.00	192.00	1220.61	883.84	0.869	765.08	1145.19	5.1	5.8	29.012	D

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	574.00	143.50	1151.51	924.86	0.621	573.90	840.08	1.6	1.6	10.249	B
2 - Hambledon Road (south)	1583.00	395.75	321.81	2310.08	0.685	1582.97	1403.59	2.2	2.2	4.950	A
3 - Elettra Avenue	840.00	210.00	1552.96	835.14	1.006	818.79	351.83	20.8	26.1	113.745	F
4 - Hambledon Road (north)	768.00	192.00	1224.81	882.00	0.871	766.77	1146.93	5.8	6.1	30.299	D

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - Milton road	574.00	143.50	1153.44	923.50	0.622	573.95	840.80	1.6	1.6	10.293	B
2 - Hambledon Road (south)	1583.00	395.75	321.90	2310.01	0.685	1582.98	1405.50	2.2	2.2	4.951	A
3 - Elettra Avenue	840.00	210.00	1552.98	835.13	1.006	821.76	351.90	26.1	30.7	134.024	F
4 - Hambledon Road (north)	768.00	192.00	1226.94	881.07	0.872	767.30	1147.79	6.1	6.3	30.895	D



david tucker associates

Forester House
Doctor's Lane
Henley-in-Arden
Warwickshire B95 5AW
Tel: +44(0)1564 793598
Fax: +44(0)1564 793983
inmail@dtatransportation.co.uk
www.dtatransportation.co.uk