# consulting Structural Engineers Consulting Civil Engineers

**Burford Grange, Ickleford** 

#### **Transport Statement**

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Ref: 160651/H Jenkins **Approved By:** Date: 30 November 2016 Version: 1.2





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#### 1.0 INTRODUCTION

#### 1.1 Background

1.1.1 Conisbee has been appointed by CALA Homes to produce a Transport Statement to support the allocation of a site at Burford Grange in Ickleford, Hertfordshire within the emerging Local Plan. It is proposed to develop the site to provide 51 dwellings. The site is currently occupied by a single large dwelling, outbuildings and open space and the site location is shown in Figure 1.1 below.



Figure 1.1 Site location

- 1.1.2 The site is to the west of Ickleford, approximately 2km north of the centre of Hitchin and less than 5km west of Letchworth Garden City.
- 1.1.3 The purpose of this Statement is to assess the transport characteristics of the proposed development and consider any impact on the surrounding highway network.

#### 1.2 Scope of the report

1.2.1 The scope of this report has been discussed with Hertfordshire County Council as Highway Authority and the following agreed:

- Produce a Transport Statement including providing an indication of trip generation and considering the sustainability of the site;
- No junction capacity analysis at the site access or wider highway network is necessary;
- Carry out a speed survey to determine the appropriate visibility splay at the site access. An automatic traffic counter will be laid in August (during the school holidays) and can be relied on for speed data but not traffic flow data.

#### 1.3 Structure of the report

- 1.3.1 Following this introductory section, the report is structured as follows:
  - Section 2 describes the existing transport conditions surrounding the site including accessibility by all modes of transport together with a review of personal accident data within the study area;
  - Section 3 outlines the development proposals including the access design;
  - Section 4 predicts the likely travel demand generated by the proposed development;
  - Section 5 identifies any impact of the proposals on the surrounding transport network; and,
  - Section 6 summarises the findings of the report.

#### 2.0 EXISTING SITUATION AND ACCESSIBILITY

#### 2.1 Site location

- 2.1.1 The development site is located off the A600 Bedford Road in Ickleford. It is bounded by the A600 Bedford Road to the east; the rear gardens of properties fronting Westmill Lane to the north; agricultural land to the north, open land to the west and the residential property The Paddocks to the south.
- 2.1.2 The location of the development site in relation to the local highway network is shown in Figure 2.1 below.





Local highway network

#### 2.2 Accessibility by walking and cycling

#### Walking

- 2.2.1 There is a footway on the eastern side of Bedford Road and a short section of footway on the western side to the north of the site. Approximately 150m to the south of the site past the bridge over the River Oughton, there is a footway on the western side. This footway continues south along Bedford Road towards Hitchin and connects to the restricted byway that runs east through playing fields (south of and parallel to) the river.
- 2.2.2 There are no crossing facilities on Bedford Road in the vicinity of the site. At the roundabout with Turnpike Lane, there are informal crossings in the form of dropped kerbs on the Turnpike Lane (south) arm and Bedford Road (north).
- 2.2.3 The Chartered Institution of Highways and Transportation (CIHT) guidelines 'Providing for Journeys on Foot' indicates that the desirable walking distance for commuting and school journeys is 500m, the acceptable walking distance is 1km and 2km is the preferred maximum.
- 2.2.4 The CIHT guidelines indicate that the desirable walking distance for 'Elsewhere', including local amenities, is 400m, the acceptable walking distance is 800m and 1.2km is the preferred maximum.
- 2.2.5 There are local shops and pubs in the centre of the village of Ickleford, within 800m of the site. There are also public transport and education facilities within easy walking distance.
- 2.2.6 The centre of the market town of Hitchin is less that 2km to the south of the site and provides access to a wide range of retail, cultural and leisure facilities.
- 2.2.7 The local amenities surrounding the site are shown in Figure 2.2 over the page.



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Figure 2.2 Local amenities within walking distance

#### Cycling

2.2.8 The nearest cycle routes to the site are:

- a local route approximately 3km to the south of the site at Charlton (south of Hitchin);
- a local route 4km to the west at Pirton; and,
- National Cycle Network Route 12 the Great North Way that runs from Enfield to Spalding via Stevenage, St Neots and Peterborough, approximately 5km to the east at Letchworth.

#### 2.3 Accessibility by public transport

#### **Bus services**

2.3.1 The nearest bus stop with services heading south is located 70m north of the site and 200m from the site for services heading north. Of these services, route 89 passes Hitchin Railway Station. Further bus stops are available outside The Priory School (approximately 400m south of the site access) and further south along Bedford Road. Table 2.1 below shows a summary of the routes serving the nearest bus stops.

Table 2.1	Summary o	of bus routes	
Route no.	Nearest bus stop to site (m)	Route	Weekday frequency
71	70	Bedford – Hitchin	1 per hr
89	70	Henlow Camp - Hitchin	1 per hr
188	70	Hitchin – Sandy	1 per 2 hrs
190	70	Hitchin – Sandy	1 per 2 hrs
80	400	Hitchin - Stevenage	1 per hour

2.3.2 The local public transport network is highlighted in Figure 2.3.



Figure 2.3 Public Transport Infrastructure

#### **Rail services**

- 2.3.3 The nearest railway stations to the site are Hitchin (approximately 2.5km to the south east) and Letchworth (approximately 6km to the east). These stations are on the East Coast Main Line managed by Great Northern. At Hitchin, services run between London Kings Cross (four per hour) and Cambridge (two per hour) and Peterborough (two per hour). There are further services that run between Moorgate (one per hour) and Letchworth Garden City (one per hour). At Letchworth, there are two services per hour to Kings Cross, two to Cambridge and two to Moorgate, via Hertford North.
- 2.3.4 Hitchin Railway Station has 176 secure cycle storage spaces and 362 chargeable car parking spaces including 16 accessible spaces, is served by local bus routes and both platforms have step free access.
- 2.3.5 Letchworth Railway Station has 96 cycle stands and bus services stop outside the station.It has step free access to both platforms.

#### 2.4 Local highway network

2.4.1 The site fronts the A600 Bedford Road, a main distributor running north-south from Hitchin, by-passing Shefford and heading to Bedford. The A1(M) can be reached either continuing south from the A600 on the A602 (7.5km away) or heading east on the A505 (7km away). Bedford Road in the immediate vicinity of the site connects to Turnpike Lane approximately 150m north of the existing site access at a 4-arm mini-roundabout junction.

- 2.4.2 Bedford Road is a single carriageway road, approximately 7.3m wide and subject to a 30mph speed limit. It has residential properties fronting it and the Priory School to the south of the site. Passing the site, it has a footway on the eastern side only. There is a short section of footway on the western side between the junction with Turnpike Lane and the northern edge of the site. Approximately 150m to the south of the site past the bridge over the River Oughton, there is a footway on the western side. Bedford Road has street lighting and is a bus route. There are no parking restrictions.
- 2.4.3 The highway network in the vicinity of the site is shown in Figure 2.1.

#### 2.5 Accident analysis

2.5.1 Personal injury accident data has been obtained for the period 2011 to 2015 (inclusive) for the study area and Figure 2.4 below shows the location and severity of accidents that occurred during this period. The severity of accidents and number of casualties per year is summarised in Table 2.1 below.



Figure 2.4 Personal Injury accident data

Table 2.1	Summary of personal	l injury accident data

	Personal injury				
_	Fatal	Serious	Slight	casualties	
2011	0	0	1	1	
2012	0	0	1	1	
2013	0	1	0	1	
2014	0	0	1	2	
2015	0	0	0	0	
Total	0	1	3	4	

- 2.5.2 It can be seen from Table 2.1 and Figure 2.4 above that a total of four accidents (resulting in four casualties) occurred within the study area over the most recent five-year period, with one accident resulting in serious injuries being sustained (involving a motorcyclist) and three accident resulting in slight injuries being sustained (one involving a cyclist).
- 2.5.3 It is considered that the accident rate is typical for the anticipated accident rate for the type of junction and volume of traffic flow along the A600 Bedford Road. It is, therefore, considered that there is no particular accident pattern on the local highway network, and that the proposed development will have no material impact on road safety.

#### 2.6 Summary

2.6.1 There are a number of local facilities in Ickleford and a wider range within in Hitchin, the nearest town centre to the site. In addition, there is easy access to railway stations by either public transport or car, with the nearest railway stations providing cycle and car parking facilities.

#### 3.0 DEVELOPMENT PROPOSALS

- 3.1.1 This section of the report sets out the development proposals and considers the proposed access arrangements and on-site parking provision. Refer to Figure 3.1 below for an indicative site layout.
- 3.1.2 It is proposed to develop the site to provide 51 residential dwellings, including 20 affordable properties as set out below:
  - 31 private market houses including 3 x 3-bed, 10 x 4-bed and 18 x 5-bed;
  - 20 affordable properties including 8 x 1-bed flats and 12 x 2-bedroom houses.



Figure 3.1 Indicative site layout

#### 3.2 Existing uses on site

3.2.1 The site is currently occupied by a single large dwelling, various outbuildings and open space. It is accessed via a single access point approximately 150m south of the mini-roundabout junction of Bedford Road and Westmill Lane.

#### 3.3 Proposed access to the site

3.3.1 As part of the development of the site, it is proposed to create a new access for vehicles, cyclists and pedestrians onto Bedford Road, designed as a simple priority junction, (refer Appendix A).

- 3.3.2 Guidance for highway design is set out in Roads in Hertfordshire Highway Design Guide which supports the approach set out in the Department for Transport document Manual for Streets 2007 (and its companion guide Manual for Streets 2). The proposed access has been designed in accordance with the standards set out in the Roads in Hertfordshire Design Guide and following the principles set out in Manual for Streets. The A600 Bedford Road is a main distributor road in Hertfordshire and road design criteria for the access design has been agreed with Hertfordshire as follows:
  - Width of access at junction is 5.5m reducing to 4.8m within the site;
  - Incorporate pedestrian footways on both sides of the access junction;
  - Vehicle swept path plots for a large refuse vehicle to ensure that vehicle does not encroach into the opposite carriageway of the access or Bedford Road.
- 3.3.3 The access road within the site is has a total carriageway width of 4.8m, which is sufficient to allow two cars to pass, and a 2m footway on both sides of the carriageway.

#### Visibility

- 3.3.4 The strict application of Design Manual for Roads and Bridges to non-trunk roads, as for the A600 Bedford Road, is rarely appropriate for highway design in built up areas, regardless of traffic volume. Manual for Streets 2 states that '*it is, therefore, recommended that as a starting point for any scheme affecting non-trunk roads, designers should start with Manual for Streets*'.
- 3.3.5 The speed limit of the A600 Bedford Road is 30mph and the desirable minimum sight stopping distance requirement is 43m (as set out in Manual for Streets). An automatic traffic counter was laid between Sunday 14<sup>th</sup> August 2016 and Sunday 22<sup>nd</sup> August along the A600 Bedford Road, outside the site frontage. The 85<sup>th</sup> percentile speeds recorded in this survey are as follows:
  - Southbound vehicles 34mph (52m visibility splay required); and,
  - Northbound vehicles 35mph (54m visibility splay required).
- 3.3.6 The visibility splays at the proposed site access are shown in Appendix A, and it can be seen from the diagram that the required visibility splay can be achieved within land owned by the applicant of highway land.

#### **Refuse and servicing**

3.3.7 A vehicle swept path analysis has been carried out for a range of vehicles entering the site and using the turning head, including a 12.1m mid-steer refuse vehicle (as used by North Herts Waste Management Services) and a 7.7m fire tender. This swept path analysis is presented in full in Appendix B.

#### 3.4 On-site car parking provision

3.4.1 It is proposed that the number of car parking spaces on-site for the private housing meets North Herts Vehicle Parking at New Developments Supplementary Planning Document September 2011, as set out in Table 3.1 below.

Table 3.1	North Herts Parking Standards
Use	Minimum parking standard per dwelling
1-bed	1 space
2-bed +	2 spaces
Visitors	0.25 to 0.75 spaces

3.4.2 Visitor parking at a rate of between 0.25 and 0.75 spaces per dwelling (rounded up to the nearest whole number) is required, with the lower standard being applied where there are no garages and the higher standard applied where every dwelling in the scheme is to be provided with a garage.

#### **Private housing**

3.4.3 All 31 private properties can accommodate a minimum of two cars per property on-plot, in garages and forecourts. Seven properties have double width driveways for two cars, one property has a single garage and single driveway and the remaining 23 properties have double garages and double driveways. These 23 properties can accommodate visitors on-plot and, therefore, the amount of visitor parking has been calculated based on the remaining eight properties. Given that seven of these eight properties do not have garages then the lower rate of 0.25 has been applied, which results in a provision of two visitor spaces. This has been accommodated on-site.

#### Affordable housing

- 3.4.4 For the affordable housing, it is proposed to provide 24 spaces for 20 properties (8 x 1-bed and 12 x 2-bed). The requirement, based on the standard, is 32 spaces. The North Herts parking standards state that *'Flexibility is built into the standards. However, any exceptions to the minimums must be accompanied by a strong evidence case with specific reference to car ownership and visitor parking demand for the potential lifetime of the development.'*
- 3.4.5 Census data shows that car ownership amongst occupiers of affordable housing is lower than for private market housing. Census data for North Herts for car ownership of households (rented or living rent free) is set out in Table 3.2 below:

## conishee

North Tion		van availability for reflied of
free house	eholds	
's I	No. of households	% of households
lds	17,882	100
ailable	5,866	33
1	8,311	46
n	3,705	21
	free house s l lds hilable	Intervision         Secondary           s         No. of households           Ids         17,882           ailable         5,866           8,311           n         3,705

Table 3.2	North Herts Census data – Car/van availability for rented or living rent
	free households

- 3.4.6 Car ownership for affordable housing is significantly lower than private and shared ownership, with only 8% of private and shared ownership housing in North Herts having no access to a car/van compared to 33% of rented or living in rent free households. Based on the data in the table above then the number of cars available for the 17,882 households is approximately 15,721, typically a rate of 0.88 cars/vans per household. This assumes that the 2+ category is two cars, which is a reasonable assumption when applied to 1- and 2-bed properties. This would result in a maximum demand of 18 spaces for residents and a further five for visitors.
- 3.4.7 This is supported by Census data for a North Hertfordshire Homes estate off Greenfield Avenue in Ickleford (with 69% of the properties (mix of flats and houses) being social rented accommodation). This area has a car/van availability rate of 0.79 per property.
- 3.4.8 The car parking is unallocated which is the most flexible and efficient type of parking. It is often able to accommodate visitors because of the occupancy patterns across the day. Allocation of parking to individual units increases the amount of parking needed whereas unallocated parking makes use of different usage patterns and levels of ownership, including those without vehicles, to use the land given over to parking in the most efficient way.
- 3.4.9 Given the car ownership rates for the type and tenure of property then the provision of 24 spaces is considered ample to accommodate the expected demand, as well as visitors.

#### 3.5 **On-site cycle provision**

3.5.1 North Herts residential parking standards set out the requirements for cycle parking for residential development as one secure covered space per dwelling, and none if a garage or secure area is provided within curtilage of dwelling. All houses will have rear gardens with sufficient space to accommodate cycle storage and a communal store integral to the building or a sheltered store in the car park area will be provided for the flats. Therefore, this requirement will be met.

#### 3.6 Pedestrian provision

3.6.1 As part of the development it is proposed to provide a footway along the site frontage, north from the access, with dropped kerbs and a central refuge island to assist pedestrians crossing to the southbound bus stop on Bedford Road and heading towards the centre of lckleford. This will encourage residents of the development to walk to local facilities and public transport. The possible location of this pedestrian footway and crossing is shown in Figure 3.2 below.



Figure 3.2

Proposed pedestrian footway and crossing improvements

#### 4.0 TRANSPORT CHARACTERISTICS

4.1.1 This section of the report identifies the likely volumes of traffic generated by both the existing uses on site and the proposed development. The TRICS 7.3.2 trip generation database has been reviewed in order to predict the likely level of trips generated by both the existing and proposed uses.

#### 4.2 Vehicle trip generation for proposed residential use

4.2.1 The proposals are for 51 residential units, including 31 private market dwellings and 20 affordable flats and houses, and sites have been selected separately.

#### Residential use - private market dwellings

- 4.2.2 The 31 large private market houses are typically four and five bedroom properties and sites have therefore been selected within the following parameters:
  - Land use: Residential; houses privately owned
  - Dwelling type: 4+ bedroom detached properties
  - Survey days: Monday Friday
  - Size of selected sites: 9 to 65 dwellings
  - Regions selected: UK (except Greater London, Northern Ireland and Republic of Ireland)
  - Locations: Including edge of town and suburban and excluding higher population density (over 500,000 in 5 miles).
- 4.2.3 A total of seven sites have been selected and the 85<sup>th</sup> percentile AM, PM and daily vehicle trip rates and number of vehicles generated by this use are summarised in Table 4.1 below and the full details are contained in Appendix C.

Table 4.1	Su	mmary of ve	hicle trip rate	es and trip g	eneration – J	private market
Time period	Arrival trip rate	No. of arrivals	Depart trip rate	No. of departs	Total trip rate	Total no. of vehicle movements
AM	0.235	7	0.588	18	0.823	26
PM	0.545	17	0.273	8	0.818	25
Daily 12hr	3.364	104	4.000	124	7.364	228

#### **Residential – affordable housing**

- 4.2.4 The 20 affordable housing properties consist of 8 x 1-bedroom flats and 12 x 2-bedroom houses and sites have therefore been selected within the following parameters:
  - Land use: Residential; mixed affordable housing (flats and houses)
  - Survey days: Monday Friday
  - Size of selected sites: 19 to 59 dwellings

- Regions selected: UK (except Greater London, Northern Ireland and Republic of Ireland)
- Locations: Including edge of town, suburban and residential and excluding higher population density (over 500,000 in 5 miles).
- 4.2.5 A total of three sites have been selected and the average AM, PM and daily vehicle trip rates have been used as there are insufficient sites within TRICS to obtain reliable 85<sup>th</sup> percentile rates. The number of vehicles generated by this use, together with the trip rates, is summarised in Table 4.2 below and the full details are contained in Appendix D.

Table 4.2	Summary of vehicle trip rates and trip			es and trip g	jeneration – affordable housin		
Time period	Arrival trip rate	No. of arrivals	Depart trip rate	No. of departs	Total trip rate	Total no. of vehicle movements	
AM	0.155	3	0.287	6	0.442	9	
PM	0.333	7	0.248	5	0.581	12	
Daily 12hr	2.784	56	2.699	54	5.483	110	

4.2.6 It can be seen in Table 4.3 below that combining Tables 4.1 and 4.2 results in the following total vehicle trips associated with the site.

Table 4.3	Summary of vehicle trip rates and trip generati			Summary of vehicle trip rates and trip		n – total
Time	No. of	No. of	Total no. of vehicle			
periou	anivais	ueparts	Inovernerits			
AM	10	24	35			
PM	24	13	37			
Daily 12hr	160	178	338			

4.2.7 It can be seen from Tables 4.3 above that the proposed use generates 338 daily vehicle movements, with 35 vehicle movements in the AM peak period and 37 in the PM. This does not take into account the vehicle trips generated by the existing use on site, which is likely to be small.

#### 5.0 SUMMARY AND CONCLUSIONS

#### 5.1 Background

- 5.1.1 This Transport Statement has been produced to support the allocation of the site at Burford Grange for residential use within the emerging Local Plan.
- 5.1.2 The site is situated to the west of Ickleford, approximately 2km north of the centre of Hitchin and less than 5km west of Letchworth Garden City.

#### 5.2 Development proposals

- 5.2.1 As part of the redevelopment of the site, it is proposed to construct a total of 51 properties, including 31 private market houses and 20 affordable properties. Hertfordshire's standards for car parking for the private housing is met and whilst the standards are not met for the affordable housing, based on Census data, the likely demand can be accommodated onsite. Cycle parking standards will be met for both the private and affordable housing.
- 5.2.2 In order to access the site, it is proposed to create a new access on to the A600 Bedford Road. The access is designed in accordance with Hertfordshire design advice and national policy and guidance. The access is 5.5m wide with a footway along both sides narrowing to 4.8m wide within the site. The required visibility can be achieved.
- 5.2.3 As part of the development, it is proposed to provide a footway along the site frontage north of the access. It is also proposed to provide dropped kerb crossing facilities with a central refuge island to assist pedestrians crossing the road to the bus stop and the centre of lckleford.

#### 5.3 Travel characteristics

5.3.1 It is likely that the proposed development could generate up to 35 vehicle movements (twoway) in the AM peak period, up to 37 vehicle movements (two-way) in the PM peak period and 338 vehicle movements (two-way) over a 12-hour day (7am–7pm).

#### 5.4 Potential impact

5.4.1 The development proposals can be accommodated on the surrounding highway network with no capacity impact anticipated due to the low level of trip generation associated with the proposals.

#### 5.5 Conclusions

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5.5.1 It is considered that the development will have a minimal impact on the surrounding transport network and the proposals can be accommodated within the existing highway network.

### Appendices

### Appendix A



THIS DRAWING MUST BE READ IN CONJUNCTION WITH THE SPECIFICATION AND ALL OTHER RELEVANT DRAWINGS. DO NOT SCALE FROM THIS DRAWING.

### NOT FOR CONSTRUCTION

Rev Date Description

Drawn Check



Drawing Status

PRELIMINARY

Project

Burford Grange Ickleford

Title

Visibility splay

Drawing No 160651-X-00-DR-C-605

Scale 1:200 at A1 Drawn OJD

DatNovember 2016

Engineer HLJ

Project No 160651

Client Project No

Revision

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### Appendix B











### Appendix C

#### TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use	:	03 - RESIDENTIAL	
Category	:	A - HOUSES PRIVATELY OWNED	
MULTÍ-N	/10E	DAL VEHICLES	

#### Selected regions and areas:

EAST	Γ ANGLI A	
CA	CAMBRIDGESHIRE	1 days
NF	NORFOLK	1 days
SF	SUFFOLK	1 days
YOR	KSHIRE & NORTH LINCOLNSHIRE	-
NY	NORTH YORKSHIRE	1 days
NOR	TH WEST	
СН	CHESHIRE	2 days
SCO	TLAND	
EA	EAST AYRSHIRE	1 days
HI	HIGHLAND	1 days
	EAST CA NF SF YOR NY NOR CH SCOT EA HI	EAST ANGLIA CA CAMBRIDGESHIRE NF NORFOLK SF SUFFOLK YORKSHIRE & NORTH LINCOLNSHIRE NY NORTH YORKSHIRE NORTH WEST CH CHESHIRE SCOTLAND EA EAST AYRSHIRE HI HIGHLAND

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

#### Filtering Stage 2 selection:

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

Parameter:	Number of dwellings
Actual Range:	9 to 39 (units: )
Range Selected by User:	9 to 65 (units: )

Public Transport Provision:

Selection by:

Include all surveys

Date Range: 01/01/08 to 16/09/15

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

<u>Selected survey days:</u>	
Tuesday	3 days
Wednesday	3 days
Thursday	2 days

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

Selected survey types:	
Manual count	8 days
Directional ATC Count	0 days

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

Selected Locations:	
Suburban Area (PPS6 Out of Centre)	2
Edge of Town	6

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

<u>Selected Location Sub Categories:</u> Residential Zone

8

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

Filtering Stage 3 selection:

Use Class:

C3

7 days

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

Population within 1 mile:	
1,001 to 5,000	2 days
5,001 to 10,000	1 days
10,001 to 15,000	3 days
15,001 to 20,000	1 days
25,001 to 50,000	1 days

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

Population within 5 miles:	
5,001 to 25,000	1 days
25,001 to 50,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	2 days
100,001 to 125,000	2 days
125,001 to 250,000	1 days

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

Car	ownership within 5 miles:	
0.6	to 1.0	2 days
1.1 t	to 1.5	6 days

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

<u>Travel Plan:</u> No

8 days

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

LIST OF SITES relevant to selection parameters

1	CA-03-A-04	DETACHED		CAMBRIDGESHIRE
2	THORPE PARK ROAD PETERBOROUGH Suburban Area (PPS6 Residential Zone Total Number of dwe Survey date: CH-03-A-05 SYDNEY ROAD SYDNEY	o Out of Centre) Ilings: TUESDAY DETACHED	9 18/10/11	Survey Type: MANUAL CHESHIRE
3	CREWE Edge of Town Residential Zone Total Number of dwe Survey date: CH-03-A-08 WHITCHURCH ROAD BOUGHTON HEATH CHESTER	llings: TUESDAY DETACHED	17 14/10/08	Survey Type: MANUAL CHESHIRE
4	Suburban Area (PPS& Residential Zone Total Number of dwe Survey date: EA-03-A-01 TALISKER AVENUE	o Out of Centre) Ilings: TUESDAY DETATCHED	11 22/05/12	Survey Type: MANUAL EAST AYRSHIRE
5	KILMARNOCK Edge of Town Residential Zone Total Number of dwe Survey date: HI-03-A-13 KINGSMILLS ROAD	Illings: THURSDAY HOUSI NG	39 05/06/08	Survey Type: MANUAL HIGHLAND
6	INVERNESS Edge of Town Residential Zone Total Number of dwe Survey date: NF-03-A-03 HALING WAY	Illings: THURSDAY DETACHED HOUSES	9 21/05/09	Survey Type: MANUAL NORFOLK
7	THETFORD Edge of Town Residential Zone Total Number of dwe Survey date: N NY-03-A-11 HORSEFAIR	llings: WEDNESDAY PRIVATE HOUSING	10 16/09/15	Survey Type: MANUAL NORTH YORKSHIRE
	BOROUGHBRIDGE Edge of Town Residential Zone Total Number of dwe Survey date: V	llings: WEDNESDAY	23 18/09/13	Survey Type: MANUAL

#### LIST OF SITES relevant to selection parameters (Cont.)

8	SF-03-A-05 VALE LANE	DETACHED HOUSE	S	SUFFOLK	
	BURY ST EDMUNDS Edge of Town Residential Zone Total Number of dwa	ellings:	18		
	Survey date:	WEDNESDAY	09/09/15	Survey Type: MANU	AL

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

### RANK ORDER for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED MULTI-MODAL VEHICLES

Ranking Type:TOTALSTime Range: 08:00-09:00WARNING:Using 85th and 15th percentile highlighted trip rates in data sets of under<br/>20 surveys is not recommended by TRICS and may be misleading.

15th Percentile = No.	/	SF-03-A-05	Tot: 0.222	
85th Percentile = No.	2	CH-03-A-05	Tot: 0.823	

Median Values		Mean Values	
Arrivals:	0.116	Arrivals:	0.163
Departures:	0.462	Departures:	0.383
Totals:	0.577	Totals:	0.546

								Trip Rate (Sorted by Totals)		Park Spaces	
Rank	Site-Ref	Description	Town/City	Area	DWELLS	Day	Date	Arrivals	Departures	Totals	Per Dwelling
1	HI-03-A-13	HOUSING	INVERNESS	HIGHLAND	9	Thu	21/05/09	0.556	0.444	1.000	3.11
2	CH-03-A-05	DETACHED	CREWE	CHESHIRE	17	Tue	14/10/08	0.235	0.588	0.823	3.71
3	CH-03-A-08	DETACHED	CHESTER	CHESHIRE	11	Tue	22/05/12	0.182	0.455	0.637	4.73
4	EA-03-A-01	DETATCHED	KILMARNOCK	EAST AYRSHIRE	39	Thu	05/06/08	0.231	0.359	0.590	3.03
5	NY-03-A-11	PRIVATE HOUSIN	BOROUGHBRIDGE	NORTH YORKSHIRE	23	Wed	18/09/13	0.000	0.565	0.565	6.26
6	CA-03-A-04	DETACHED	PETERBOROUGH	CAMBRIDGESHIRE	9	Tue	18/10/11	0.000	0.333	0.333	2.44
7	SF-03-A-05	DETACHED HOUSE	BURY ST EDMUNDS	SUFFOLK	18	Wed	09/09/15	0.000	0.222	0.222	4.17
8	NF-03-A-03	DETACHED HOUSE	THETFORD	NORFOLK	10	Wed	16/09/15	0.100	0.100	0.200	3.70

This section displays actual (not average) trip rates for each of the survey days in the selected set, and ranks them in order of relative trip rate intensity, for a given time period (or peak period irrespective of time) selected by the user. The count type and direction are both displayed just above the table, along with the rows within the table representing the 85th and 15th percentile trip rate figures (highlighted in bold within the table itself).

The table itself displays details of each individual survey, alongside arrivals, departures and totals trip rates, sorted by whichever of the three directional options has been chosen by the user. As with the preceeding trip rate calculation results table, the trip rates shown are per the calculation factor (e.g. per 100m2 GFA, per employee, per hectare, etc). Note that if the peak period option has been selected (as opposed to a specific chosen time period), the peak period for each individual survey day in the table is also displayed.

### RANK ORDER for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED MULTI-MODAL VEHICLES

Ranking Type: TOTALS Time Range: 17:00-18:00 WARNING: Using 85th and 15th percentile highlighted trip rates in data sets of under 20 surveys is not recommended by TRICS and may be misleading.

15th Percentile = No.	/	SE-03-A-05	101: 0.556	
85th Percentile = No.	2	CH-03-A-08	Tot: 0.818	

Median Values	6	Mean Values	
Arrivals:	0.481	Arrivals:	0.482
Departures:	0.271	Departures:	0.215
Totals:	0.752	Totals:	0.696

								Trip Ra	ate (Sorted by	Totals)	Park Spaces
Rank	Site-Ref	Description	Town/City	Area	DWELLS	Day	Date	Arrivals	Departures	Totals	Per Dwelling
1	EA-03-A-01	DETATCHED	KILMARNOCK	EAST AYRSHIRE	39	Thu	05/06/08	0.667	0.179	0.846	3.03
2	CH-03-A-08	DETACHED	CHESTER	CHESHIRE	11	Tue	22/05/12	0.545	0.273	0.818	4.73
3	CA-03-A-04	DETACHED	PETERBOROUGH	CAMBRIDGESHIRE	9	Tue	18/10/11	0.556	0.222	0.778	2.44
4	CH-03-A-05	DETACHED	CREWE	CHESHIRE	17	Tue	14/10/08	0.353	0.412	0.765	3.71
5	NY-03-A-11	PRIVATE HOUSIN	BOROUGHBRIDGE	NORTH YORKSHIRE	23	Wed	18/09/13	0.609	0.130	0.739	6.26
6	HI-03-A-13	HOUSING	INVERNESS	HIGHLAND	9	Thu	21/05/09	0.333	0.333	0.666	3.11
7	SF-03-A-05	DETACHED HOUSE	BURY ST EDMUNDS	SUFFOLK	18	Wed	09/09/15	0.389	0.167	0.556	4.17
8	NF-03-A-03	DETACHED HOUSE	THETFORD	NORFOLK	10	Wed	16/09/15	0.400	0.000	0.400	3.70

This section displays actual (not average) trip rates for each of the survey days in the selected set, and ranks them in order of relative trip rate intensity, for a given time period (or peak period irrespective of time) selected by the user. The count type and direction are both displayed just above the table, along with the rows within the table representing the 85th and 15th percentile trip rate figures (highlighted in bold within the table itself).

The table itself displays details of each individual survey, alongside arrivals, departures and totals trip rates, sorted by whichever of the three directional options has been chosen by the user. As with the preceeding trip rate calculation results table, the trip rates shown are per the calculation factor (e.g. per 100m2 GFA, per employee, per hectare, etc). Note that if the peak period option has been selected (as opposed to a specific chosen time period), the peak period for each individual survey day in the table is also displayed.

### RANK ORDER for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED MULTI-MODAL VEHICLES

Ranking Type:TOTALSTime Range: 07:00-19:00WARNING: Using 85th and 15th percentile highlighted trip rates in data sets of under<br/>20 surveys is not recommended by TRICS and may be misleading.45th December 20

15th Percentile = No.	/	SF-03-A-05	10t: 3.611	
85th Percentile = No.	2	CH-03-A-08	Tot: 7.364	
Madian Values		Maan Mahu		

<u>ivieulari values</u>		wearr values		
Arrivals:	2.641	Arrivals:	2.573	
Departures:	2.405	Departures:	2.745	
Totals:	5.046	Totals:	5.318	

								Trip Ra	te (Sorted by T	otals)	Park Spaces
Rank	Site-Ref	Description	Town/City	Area	DWELLS	Day	Date	Arrivals	Departures	Totals	Per Dwelling
1	HI-03-A-13	HOUSING	INVERNESS	HIGHLAND	9	Thu	21/05/09	3.778	4.111	7.889	3.11
2	CH-03-A-08	DETACHED	CHESTER	CHESHIRE	11	Tue	22/05/12	3.364	4.000	7.364	4.73
3	CH-03-A-05	DETACHED	CREWE	CHESHIRE	17	Tue	14/10/08	2.706	3.294	6.000	3.71
4	EA-03-A-01	DETATCHED	KILMARNOCK	EAST AYRSHIRE	39	Thu	05/06/08	2.846	2.462	5.308	3.03
5	NY-03-A-11	PRIVATE HOUSIN	BOROUGHBRIDGE	NORTH YORKSHIRE	23	Wed	18/09/13	2.435	2.348	4.783	6.26
6	NF-03-A-03	DETACHED HOUSE	THETFORD	NORFOLK	10	Wed	16/09/15	2.400	2.300	4.700	3.70
7	SF-03-A-05	DETACHED HOUSE	BURY ST EDMUNDS	SUFFOLK	18	Wed	09/09/15	1.722	1.889	3.611	4.17
8	CA-03-A-04	DETACHED	PETERBOROUGH	CAMBRIDGESHIRE	9	Tue	18/10/11	1.333	1.556	2.889	2.44

This section displays actual (not average) trip rates for each of the survey days in the selected set, and ranks them in order of relative trip rate intensity, for a given time period (or peak period irrespective of time) selected by the user. The count type and direction are both displayed just above the table, along with the rows within the table representing the 85th and 15th percentile trip rate figures (highlighted in bold within the table itself).

The table itself displays details of each individual survey, alongside arrivals, departures and totals trip rates, sorted by whichever of the three directional options has been chosen by the user. As with the preceeding trip rate calculation results table, the trip rates shown are per the calculation factor (e.g. per 100m2 GFA, per employee, per hectare, etc). Note that if the peak period option has been selected (as opposed to a specific chosen time period), the peak period for each individual survey day in the table is also displayed.

### Appendix D

Calculation Reference: AUDIT-258601-160816-0825

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL Category : L - MIXED AFFORD HOUS (FLATS AND HOUSES) MULTI-MODAL VEHICLES

 Selected regions and areas:

 02
 SOUTH EAST

 ES
 EAST SUSSEX

 HC
 HAMPSHIRE

 09
 NORTH

 TW
 TYNE & WEAR

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

Filtering Stage 2 selection:

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

Parameter:	Number of dwellings
Actual Range:	19 to 59 (units: )
Range Selected by User:	19 to 59 (units: )

Public Transport Provision: Selection by:

Include all surveys

Date Range: 01/01/08 to 17/11/15

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

Selected survey days:	
Tuesday	2 days
Thursday	1 days

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

Selected survey types:	
Manual count	3 days
Directional ATC Count	0 days

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

Selected Locations:	
Suburban Area (PPS6 Out of Centre)	
Edge of Town	

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

<u>Selected Location Sub Categories:</u> Residential Zone

3

2 1

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

Filtering Stage 3 selection:

Use Class:

C3

3 days

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

Population within 1 mile:	
5,001 to 10,000	1 days
25,001 to 50,000	2 days

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

Population within 5 miles:	
75,001 to 100,000	1 days
100,001 to 125,000	1 days
250,001 to 500,000	1 days

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

Car ownership within 5 miles:	
0.6 to 1.0	2 days
1.1 to 1.5	1 days

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

Travel Plan:	
Yes	2 days
No	1 days

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

#### LIST OF SITES relevant to selection parameters

1	ES-03-L-01 HUGHENDEN ROAD ORE VALLEY HASTINGS	HOUSES & FLATS		EAST SUSSEX
	Suburban Area (PPS&	6 Out of Centre)		
	Residential Zone			
	Total Number of dwe	ellings:	51	
2			1//11/15	
2	HUNTS POND ROAD	HOUSESTEATS		HAWF STIRE
	TITCHFIELD			
	NEAR FAREHAM			
	Edge of Town			
	Residential Zone			
	Total Number of dwe	ellings:	59	
	Survey date:	TUESDAY	09/11/10	Survey Type: MANUAL
3	TW-03-L-01	SEMI-DET/TERRACED	)/FLATS	TYNE & WEAR
	JOHNSON STREET			
	GATESHEAD			
	Suburban Area (PPS6	6 Out of Centre)		
	Residential Zone	·		
	Total Number of dwe	ellings:	19	
	Survey date:	THURSDAY	03/10/13	Survey Type: MANUAL

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

#### TRIP RATE for Land Use 03 - RESIDENTIAL/L - MIXED AFFORD HOUS (FLATS AND HOUSES) MULTI-MODAL VEHICLES Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

	ARRIVALS		DEPARTURES			TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	43	0.101	3	43	0.326	3	43	0.427
08:00 - 09:00	3	43	0.155	3	43	0.287	3	43	0.442
09:00 - 10:00	3	43	0.186	3	43	0.209	3	43	0.395
10:00 - 11:00	3	43	0.171	3	43	0.147	3	43	0.318
11:00 - 12:00	3	43	0.209	3	43	0.209	3	43	0.418
12:00 - 13:00	3	43	0.178	3	43	0.109	3	43	0.287
13:00 - 14:00	3	43	0.163	3	43	0.202	3	43	0.365
14:00 - 15:00	3	43	0.171	3	43	0.264	3	43	0.435
15:00 - 16:00	3	43	0.380	3	43	0.256	3	43	0.636
16:00 - 17:00	3	43	0.473	3	43	0.287	3	43	0.760
17:00 - 18:00	3	43	0.333	3	43	0.248	3	43	0.581
18:00 - 19:00	3	43	0.264	3	43	0.155	3	43	0.419
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.784			2.699			5.483

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

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

#### Parameter summary

Trip rate parameter range selected:	19 - 59 (units: )
Survey date date range:	01/01/08 - 17/11/15
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

#### TRIP RATE for Land Use 03 - RESIDENTIAL/L - MIXED AFFORD HOUS (FLATS AND HOUSES) MULTI-MODAL OGVS Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

	ARRIVALS		DEPARTURES			TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	43	0.000	3	43	0.000	3	43	0.000
08:00 - 09:00	3	43	0.000	3	43	0.000	3	43	0.000
09:00 - 10:00	3	43	0.000	3	43	0.000	3	43	0.000
10:00 - 11:00	3	43	0.000	3	43	0.000	3	43	0.000
11:00 - 12:00	3	43	0.008	3	43	0.000	3	43	0.008
12:00 - 13:00	3	43	0.000	3	43	0.000	3	43	0.000
13:00 - 14:00	3	43	0.000	3	43	0.008	3	43	0.008
14:00 - 15:00	3	43	0.000	3	43	0.000	3	43	0.000
15:00 - 16:00	3	43	0.000	3	43	0.000	3	43	0.000
16:00 - 17:00	3	43	0.000	3	43	0.000	3	43	0.000
17:00 - 18:00	3	43	0.000	3	43	0.000	3	43	0.000
18:00 - 19:00	3	43	0.000	3	43	0.000	3	43	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.008			0.008			0.016

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

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

#### Parameter summary

Trip rate parameter range selected:	19 - 59 (units: )
Survey date date range:	01/01/08 - 17/11/15
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

#### TRIP RATE for Land Use 03 - RESIDENTIAL/L - MIXED AFFORD HOUS (FLATS AND HOUSES) MULTI-MODAL CYCLISTS Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

	ARRIVALS		DEPARTURES			TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	43	0.000	3	43	0.008	3	43	0.008
08:00 - 09:00	3	43	0.000	3	43	0.031	3	43	0.031
09:00 - 10:00	3	43	0.008	3	43	0.031	3	43	0.039
10:00 - 11:00	3	43	0.008	3	43	0.016	3	43	0.024
11:00 - 12:00	3	43	0.008	3	43	0.000	3	43	0.008
12:00 - 13:00	3	43	0.008	3	43	0.008	3	43	0.016
13:00 - 14:00	3	43	0.000	3	43	0.000	3	43	0.000
14:00 - 15:00	3	43	0.000	3	43	0.000	3	43	0.000
15:00 - 16:00	3	43	0.016	3	43	0.008	3	43	0.024
16:00 - 17:00	3	43	0.016	3	43	0.000	3	43	0.016
17:00 - 18:00	3	43	0.031	3	43	0.000	3	43	0.031
18:00 - 19:00	3	43	0.023	3	43	0.000	3	43	0.023
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.118			0.102			0.220

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

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

#### Parameter summary

Trip rate parameter range selected:	19 - 59 (units: )
Survey date date range:	01/01/08 - 17/11/15
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

#### TRIP RATE for Land Use 03 - RESIDENTIAL/L - MIXED AFFORD HOUS (FLATS AND HOUSES) MULTI-MODAL PEDESTRIANS Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

	ARRIVALS		DEPARTURES			TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	43	0.008	3	43	0.016	3	43	0.024
08:00 - 09:00	3	43	0.039	3	43	0.178	3	43	0.217
09:00 - 10:00	3	43	0.093	3	43	0.093	3	43	0.186
10:00 - 11:00	3	43	0.023	3	43	0.047	3	43	0.070
11:00 - 12:00	3	43	0.039	3	43	0.031	3	43	0.070
12:00 - 13:00	3	43	0.031	3	43	0.008	3	43	0.039
13:00 - 14:00	3	43	0.031	3	43	0.054	3	43	0.085
14:00 - 15:00	3	43	0.023	3	43	0.016	3	43	0.039
15:00 - 16:00	3	43	0.132	3	43	0.116	3	43	0.248
16:00 - 17:00	3	43	0.178	3	43	0.078	3	43	0.256
17:00 - 18:00	3	43	0.054	3	43	0.062	3	43	0.116
18:00 - 19:00	3	43	0.023	3	43	0.023	3	43	0.046
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.674			0.722			1.396

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

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

#### Parameter summary

Trip rate parameter range selected:	19 - 59 (units: )
Survey date date range:	01/01/08 - 17/11/15
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

#### TRIP RATE for Land Use 03 - RESIDENTIAL/L - MIXED AFFORD HOUS (FLATS AND HOUSES) MULTI-MODAL PUBLIC TRANSPORT USERS Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

	ARRIVALS		DEPARTURES			TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	43	0.016	3	43	0.023	3	43	0.039
08:00 - 09:00	3	43	0.000	3	43	0.062	3	43	0.062
09:00 - 10:00	3	43	0.000	3	43	0.047	3	43	0.047
10:00 - 11:00	3	43	0.000	3	43	0.016	3	43	0.016
11:00 - 12:00	3	43	0.008	3	43	0.000	3	43	0.008
12:00 - 13:00	3	43	0.023	3	43	0.016	3	43	0.039
13:00 - 14:00	3	43	0.016	3	43	0.023	3	43	0.039
14:00 - 15:00	3	43	0.023	3	43	0.023	3	43	0.046
15:00 - 16:00	3	43	0.031	3	43	0.000	3	43	0.031
16:00 - 17:00	3	43	0.008	3	43	0.000	3	43	0.008
17:00 - 18:00	3	43	0.016	3	43	0.000	3	43	0.016
18:00 - 19:00	3	43	0.039	3	43	0.008	3	43	0.047
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.180			0.218			0.398

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

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

#### Parameter summary

Trip rate parameter range selected:	19 - 59 (units: )
Survey date date range:	01/01/08 - 17/11/15
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

#### TRIP RATE for Land Use 03 - RESIDENTIAL/L - MIXED AFFORD HOUS (FLATS AND HOUSES) MULTI-MODAL TOTAL PEOPLE Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

	ARRIVALS		DEPARTURES		TOTALS				
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	43	0.147	3	43	0.519	3	43	0.666
08:00 - 09:00	3	43	0.240	3	43	0.744	3	43	0.984
09:00 - 10:00	3	43	0.341	3	43	0.426	3	43	0.767
10:00 - 11:00	3	43	0.209	3	43	0.256	3	43	0.465
11:00 - 12:00	3	43	0.302	3	43	0.271	3	43	0.573
12:00 - 13:00	3	43	0.271	3	43	0.171	3	43	0.442
13:00 - 14:00	3	43	0.240	3	43	0.279	3	43	0.519
14:00 - 15:00	3	43	0.233	3	43	0.310	3	43	0.543
15:00 - 16:00	3	43	0.705	3	43	0.411	3	43	1.116
16:00 - 17:00	3	43	0.837	3	43	0.411	3	43	1.248
17:00 - 18:00	3	43	0.543	3	43	0.357	3	43	0.900
18:00 - 19:00	3	43	0.388	3	43	0.264	3	43	0.652
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:         4.456         4.419         8.875									

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

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

#### Parameter summary

Trip rate parameter range selected:	19 - 59 (units: )
Survey date date range:	01/01/08 - 17/11/15
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0