



Project: Proposed Residential Development Acrefield Road, Woolton, Liverpool

Client: Macbrdye Homes Ltd

**Document:** Transport Statement





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# 1 Introduction

### General

- 1.1 CBO Transport Ltd [CBO] has been commissioned by Macbryde Homes Ltd to undertake an assessment of the potential transport issues arising from a proposed residential redevelopment on the Gateacre Garden Centre site to the east of the B5171 Acrefield Road, Woolton, Liverpool.
- 1.2 The site covers an area of approximately 0.52 hectares and is currently occupied by a circa 800sq.m garden centre building with additional external areas, together with a 38 space car park. Whilst the garden centre closed in August 2014 and is therefore currently vacant, the site benefits from this long established use and could reopen at any time.

### **Discussions with Liverpool City Council**

- 1.3 CBO has held discussions with Liverpool City Council [LCC] highways regarding the access to the proposed site. Brief scoping discussions have also been held regarding the issues to be covered in this report.
- 1.4 Given the scale of development proposed, it has been agreed that a short Transport Statement will suffice to support the planning application covering access by all modes and highway safety. Whilst no consideration is strictly required in relation to traffic generation and impact given the scale of development, a high level review of traffic impact is also provided.

# Scope of Report

- 1.5 In light of the above, the purpose of this report is to provide LCC with the necessary information to support the proposals and consider their transport implications. In order to provide this information, this report has been produced in 6 sections including this introduction.
- 1.6 Section 2 reviews existing conditions and provides details of the surrounding highway network, whilst Section 3 considers the accessibility of the site by the sustainable modes.
- 1.7 Section 4 then considers the development proposals and provides details in relation to the site's access, internal highway arrangement, pedestrian provision and parking provision.
- 1.8 Section 5 goes on to provide a brief overview of the potential traffic generation associated with the development and a high level consideration of traffic impact.
- 1.9 The conclusions and recommendations of the report are included in Section 6.



# 2 Existing Conditions

### **Site Description**

- 2.1 The site is located on the north side of Woolton / southern side of Gateacre. It is bound by residential properties to the north, south and east and the B5171 Acrefield Road to the west. The site is therefore considered to be located in an existing residential area. The location of the site is shown in **Figure 2.1**.
- 2.2 As set out in the introduction, the site itself covers an area of approximately 0.52 hectares and is currently occupied by a circa 800sq.m garden centre building with additional external areas, together with a 38 space car park. Whilst the garden centre closed in August 2014 and is therefore currently vacant, the site benefits from this long established use and could reopen at any time.
- 2.3 Prior to its closure in August 2014, the Garden Centre was open between the hours 9:00 and 17:30 on Monday, Tuesday, Wednesday, Friday and Saturday, with late night opening until 19:00 on a Thursday. It was also open between the hours 10:00 and 16:30 on Sunday.
- 2.4 Access to the site is currently taken via a simple priority junction arrangement with the B5171 Acrefield Road. This access, which is situated at the south western corner of the site, is approximately 8 metres in width and joins the Acrefield carriageway via kerbed radii. It also provides access to the private driveway serving the property known as "Cherryvale" to the south of the site.

### Highway Network

- 2.5 The B5171 Acrefield Road is a single carriageway road of 7.8 metres in width as it passes the site travelling in a north south direction. The route is lit, subject to a 30mph speed limit and is effectively flat in this location. It also includes a 'slow' road marking outside the site access on the northbound carriageway linked to the B5171 Acrefield Road / B5171 Gateacre Brow / Rose Brow mini roundabout to the north. The B5171 Acrefield Road links to the centre of Woolton to the south and, after passing through the mini roundabout to the north, becomes Rose Brow / Woolton Road and continues north into Wavertree and Liverpool.
- 2.6 The B5171 Acrefield Road / B5171 Gateacre Brow / Rose Brow mini roundabout is situated approximately 80 metres north of the existing site access. Whilst the B5171 Acrefield Road northbound approach to the junction is flat, the B5171 Gateacre Road approach is on an uphill incline, whilst the Rose Brow approach is on a downhill decline. The roundabout includes a 'run over' area for traffic turning left from Rose Brow into Gateacre Brow. It also includes segregated cycle lanes for cyclists travelling northbound from Acrefield Road to Rose Brow and southbound from Gateacre Brow to Acrefield Road.
- 2.7 Immediately to the south of the mini roundabout, Runnymede Close joins the B5171 Acrefield Road on its western side as the minor arm of a simple priority junction arrangement. Runnymede Close has a carriageway width of circa 4.5 metres and serves just 9 dwellings.
- 2.8 Travelling south from the site, the B5171 Acrefield Road continues on a straight alignment. Approximately 50 metres south of the site, Glenrose Road joins the route on its western side as the minor arm of a simple priority junction arrangement. Glenrose Road has a carriageway width of circa 5 metres and serves just 8 dwellings.
- 2.9 The site is therefore considered to be well connected to the surrounding local highway network.

# Personal Injury Accident Record

- 2.10 In order to determine the highway safety record in close vicinity to the site whilst it was fully operational, Personal Injury Accident [PIA] data was obtained from LCC. This data relates to the period January 2009 to 31<sup>st</sup> December 2013 and covers the length of the B5171 from the Rose Brow / Woolton Hill Road junction through to a point approximately 60 metres south of Glenrose Road. This data is included at **Appendix A**.
- 2.11 As can be seen from the data at **Appendix A**, there have been no PIA's on Acrefield Road past the site frontage or south past Glenrose Road. The only PIA's that have occurred have occurred at the Acrefield Road / Gateacre Brow mini-roundabout and Rose Brow / Woolton Hill Road junction. However, analysis of the data shows these to have been classified as 'slight', with none involving a child, cyclist or pedestrian.



2.12 Based on these findings, it is concluded that there is no existing accident record associated with the current site access. It is also concluded that there are no existing highway safety issues in the vicinity of the site upon which the proposals would impact.

# **B5171 Acrefield Road / Garden Centre Access Survey**

2.13 To inform access considerations a survey was undertaken on Thursday 3rd April 2014 when the Garden Centre was trading. This consisted of an all movements traffic survey at the existing Acrefield Road / Garden Centre access between the hours 7:00 – 19:30, together with a speed survey in both directions. The speed survey was carried out in accordance with Design Manual for Roads & Bridges [DMRB] TA 22/81: Vehicle Speed Measurements on All Purpose Roads. The data from this survey is included at Appendix B.

### **Traffic Flows / Observed Conditions**

- Based on these surveys, the weekday morning peak occurred between 8:15 and 9:15, whilst the 214 evening peak occurred between 16:30 and 17:30.
- The peak hour and 12 hour traffic flows at the existing site access are summarised below in Tables 2.1 to 2.15 2.3. The percentages in brackets are HGV and bus percentages. With regard to the 12 hour flows, the flows in and out of the garden centre access have been removed for the period 17:30 – 19:00 given that these are not 'typical' garden centre opening times. The 12 hour flows past the site are for the period 7:00 - 19:00.

Table 2.1: weekaay morning Peak Hour Traffic Hows at Garden Centre Access (8:15 - 9:15)						
	Acrefield Rd (N)	G. Centre Access	Acrefield Rod (S)			

# Table 2.1. Woolder, Merning Peak Louis Traffic Flowersh Carden Contro Access (915 - 915)

	Acrefield Rd (N)	G. Centre Access	Acrefield Rod (S)
Acrefield Rd (N)	-	7 (0%)	583 (5.7%)
Garden Centre Access	5 (0%)	-	0 (0%)
Acrefield Rd (S)	640 (4.2%)	2 (0%)	-

### Table 2.2: Weekday Evening Peak Hour Traffic Flows at Garden Centre Access (16:30 – 17:30)

	Acrefield Rd (N)	G. Centre Access	Acrefield Rod (S)
Acrefield Rd (N)	-	11 (0%)	542 (4.1%)
Garden Centre Access	21 (0%)	-	6 (0%)
Acrefield Rd (S)	540 (3.0%)	3 (0%)	-

#### Table 2.3: 12 Hour Traffic Flows at Garden Centre Access (7:00 – 19:00)

	Acrefield Rd (N)	G. Centre Access	Acrefield Rod (S)	
Acrefield Rd (N)	-	127 (2.4%)	5,139 (5.3%)	
Garden Centre Access	125 (1.6%)	-	63 (4.8%)	
Acrefield Rd (S)	5,215 (5.2%)	65 (3.1%)	-	

- 2.16 The flows presented in the above tables are reasonable traffic flows for a road of this nature whilst the proportion of HGVs is not particularly high given the high level of bus usage on the route; percentages without the buses included are low.
- 2.17 Observations showed that the proximity of the site to the Acrefield Road / Gateacre Brow / Rose Brow mini-roundabout meant that, on two occasions, queues from the roundabout extended to the site access. However, these queues only occurred during the periods 8:22 to 8:24 and 8:27 to 8:29. As a result, it is considered that queuing from the roundabout does not interact with the proposed site.



#### Traffic Speeds

2.18 The results of the speed survey are set out below in Table 2.4. In considering the results of this survey, DMRB requires that 85<sup>th</sup> percentile wet weather speeds be used and, where they are measured on a dry day as was the case here, that the recorded speeds be reduced by 4kph (2.5mph) to derive this wet weather value. Adopting this approach, Table 2.4 sets out the average speed, 85<sup>th</sup> percentile dry weather speed and 85<sup>th</sup> percentile wet weather speed observed past the proposed site.

Table 2.4:	B5171	Acrefield	Road	Speed	Survey	/ Results
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Direction	Average (mph)	85 <sup>th</sup> Percentile Dry (mph)	85 <sup>th</sup> Percentile Wet (mph)
Northbound	30	33	30.5
Southbound	27	30	27.5

2.19 As can be seen from the above table, the average speeds along the B5171 Acrefield Road in both directions are in the order of the roads speed limit, with an average of 30mph in the northbound direction and 27mph in the southbound direction. With regard to the adjusted wet weather 85<sup>th</sup> percentile speeds used when considering visibility provision at accesses, these are shown to be 30.5mph in the northbound direction.

#### Pedestrian Movements

- 2.20 As part of the traffic survey undertaken on the 3<sup>rd</sup> April and in order to determine levels of pedestrian activity at the Garden Centre, a pedestrian count was also undertaken in and out of the site. The results of this count are also included in **Appendix B**.
- 2.21 Based on this count, the peak hour and 12 hour pedestrian flows in and out of the garden centre are summarised below in Table 2.5. With regard to the 12 hour flows, those for the period 17:30 19:00 have again been removed given that these are not 'typical' garden centre opening times.

Period	Arrivals		Departures		Total	
	North	South	North	South	North	South
Morning Peak	3	1	0	0	3	1
Evening Peak	0	0	0	0	0	0
Daily	21	6	17	9	38	15

### Table 2.5: Results of Pedestrian Count in and out of Garden Centre

- 2.22 The above shows that there was a reasonable level of pedestrian activity in and out of the Garden Centre over the course of the day.
- 2.23 In addition to these counts, observations on site show that people are also walking past the site along the narrow section of footway in the east side of Acrefield Road referred to in Section 3 of this report.
- 2.24 In light of the above and the lack of personal injury accidents referred to earlier it is evident that, whilst the existing eastern footway on Acrefield Road is narrow past the site frontage, this is not resulting in any road safety issues in the area or deterring pedestrians from using the route.



# 3 Accessibility by the Sustainable Modes

### Pedestrian & Cycle Infrastructure

- 3.1 Pedestrian infrastructure in the vicinity of the site is of a good standard. Footways are of appropriate widths and well surfaced, whilst dropped crossings with tactile paving are included on key desire lines, including across all arms of the Acrefield Road / Gateacre Brow / Rose Brow mini-roundabout.
- 3.2 The only location where provision is sub-standard is on the eastern side of the B5171 Acrefield Road in the vicinity of the site. Along the site frontage, the footway on this side of Acrefield Road is in the order of 600mm in width. Approximately 12 metres to the north of the site boundary the footway widens to 1.1 metres, before widening to 1.2 metres approximately 16 metres to the north of the site boundary. Whilst these widths are still on the low side, the footway by this point is some distance from the live Acrefield Road carriageway due to the dedicated cycle lane provision and subsequent carriageway kerb / road marking alignment.
- 3.3 Travelling south, the footway remains at 600mm wide along the frontage of "Cherryvale". It then widens to a full footway running along the rear of a grassed area providing direct driveway access to a number of residential properties. However, south of this point, the footway ends. Pedestrians walking to and from the south are therefore required to use the footway on the western side of Acrefield Road.
- 3.4 Other than those at the mini-roundabout, there are no designated crossing points on Acrefield Road in the vicinity of the site.
- 3.5 In terms of cycle provision the B5171 Gateacre Brow, together with Rose Brow and Woolton Road, are recognised carriageway based local cycle routes. These also link to other recognised cycle routes to the east on Halewood Road and the west on Blackwood Avenue. These routes are signed for destinations such as the city centre, Netherley, Halewood and Belle Vale.
- 3.6 In addition to the above, the cycle route on Gateacre Brow also continues east onto Belle Vale Road, where cyclist can join the Trans Pennine Trail to the east.

#### Liverpool City Council 'Minimum Accessibility Standard Assessment'

- 3.7 At the request of LCC, the 'Minimum accessibility standard assessment' included in the LCC 'Ensuring a Choice of Travel' Supplementary Planning Guidance [SPD] has been completed.
- 3.8 Given the 10 dwellings proposed, the site falls just within the "Medium" sized development category set out in the SPD, which applies to developments of between 10 and 30 dwellings. An assessment has therefore been completed on this basis and is included at **Appendix C** of this report for reference. Based on this completed assessment, Table 3.1 below summarises the initial scores for the site and compares them to the minimum scores quoted in the Ensuring Choice of Travel SPD.

Site / SPD Score	Min Score for Walking	Min Score for Cycling	Min Score for Public Transport	Min Score for Vehicle Access
SPD Minimum Standard	4	3	5	1
Proposed Site	-1	5	4	1

#### Table 3.1: Initial Scores from the Minimum Accessibility Standard Assessment

3.9 As can be seen from the above table, the site meets the minimum standard set out in the Ensuring Choice of Travel SPD in relation to accessibility for cycling and vehicular access. However, in relation to walking and public transport and based on initial scores, the site falls short of the suggested standard. These elements are therefore discussed below.

# Accessibility by Walking

3.10 Table 3.1 shows that the site scores -1 in relation to access by walking. As can be seen from the completed assessment in Appendix C, this score is attributable to the site falling outside the required 500m of a local centre and the barriers presented by the narrow footway and absence of crossing points referred to above.



- 3.11 Considering the walk distance point, there is a cluster of local shops (including a newsagents and a pharmacy) situated 500 metres from the centre of the site, as well as a local doctor's surgery. These facilities therefore fall within the required 500 metres. Furthermore, Woolton district centre is just 650 metres from the edge of the site (700 metres from the centre). This is below the maximum 800 metre distance that is considered acceptable in guidance documents and can be walked in around 8 to 9 minutes. As a result, it is suggested that walking to Woolton district centre would be attractive from the site and that the site should score 2 points for being within an appropriate distance of both the local shops and this district centre.
- 3.12 With regard to the barriers and as set out later in Section 4 of this report, it is proposed to provide an improved footway around the site access, together with dropped crossings and tactile paving on the B5171 Acrefield Road, as part of the proposed development. Furthermore and as set out in Section 2, it is evident that, whilst the existing eastern footway on Acrefield Road is narrow past the site frontage, this is not resulting in any road safety issues in the area or deterring pedestrians from using the route. Taking account of these existing conditions and with the proposed site access in place, it is considered that there are no notable barriers between the site and local facilities. As a result, the site should score 1 point for there being no barriers.

#### Accessibility by Public Transport

- 3.13 Table 3.1 shows that the site scores 4 in relation to access by public transport. As can be seen from the completed assessment in Appendix C, this score is attributable to the barriers presented by the narrow footway and absence of crossing points referred to above.
- 3.14 With regard to this barrier and as already identified, it is proposed to provide an improved footway around the site access, together with dropped crossings and tactile paving on the B5171 Acrefield Road, as part of the proposed development. With the site access in place, and taking account of existing conditions, there would be no notable barriers between the site and the nearest bus stops. As a result, the site should score 1 point for there being no barriers.

Updated Minimum Accessibility Standard Assessment

3.15 Given the points raised above, Table 3.2 below summarises the updated scores for the site and compares them to the minimum scores quoted in the Ensuring Choice of Travel SPD.

Site / SPD Score	Min Score for Walking	Min Score for Cycling	Min Score for Public Transport	Min Score for Vehicle Access
SPD Minimum Standard	4	3	5	1
Proposed Site	4	5	5	1

#### Table 3.2: Updated Scores from the Minimum Accessibility Standard Assessment

3.16 As can be seen from the above table, if account is taken of local (and proposed) conditions in relation to the pedestrian network and a more appropriate walk distance is used to the local / district centre, it is suggested that the site meets the minimum standard set out in the Ensuring Choice of Travel SPD in relation to accessibility.

### Pedestrian and Cycle Accessibility Based on Recognised Guidance

- 3.17 Notwithstanding the findings of the minimum accessibility standard assessment, it is commonly accepted that walking has the greatest potential to replace short car trips, particularly those under two kilometres, whilst the Institution of Highways and Transportation "Guidelines for Providing for Journeys on Foot" states that "Walking accounts for over a quarter of all journeys and four fifths of journeys less than one mile".
- 3.18 The "Guidelines for Providing for Journeys on Foot" also includes a table which suggests that 800 metres is an acceptable maximum walking distance in a town centre and that 1.2km is an acceptable maximum walking distance elsewhere. It also suggests a distance of 2km is an acceptable maximum for commuter and education journeys, although statutory guidance indicates that just over 3km is an acceptable walk distance for primary school pupils, with secondary school pupils being expected to walk up to 5km.



- 3.19 In the context of the above, Woolton district centre is within the 800 metre distance and offers access to all the key services. There are also numerous schools within the 1.2km and 2.0km catchments, as well as employment opportunities within the 2km catchment. The site is therefore well placed to allow for journeys on foot, which represent a very realistic alternative to the car for a variety of journey purposes.
- 3.20 With regard to cycling, the site is situated just 80 metres from the recognised cycle routes previously identified which are easily accessible. From these routes, cyclists can join other routes that are conducive to cycle use to link to Liverpool City Centre and surrounding areas.
- 3.21 Using the above routes and considering the site's accessibility by bicycle, it is commonly accepted that cycling has the potential to substitute for short car trips, particularly those under five kilometres, and to form part of a longer journey by public transport. In this context, Hunts Cross railway station is just a 2.5km cycle ride from the site, whilst a 5km cycle ride takes in the Wavertree, Knotty Ash, Huyton, Halewood and Garston areas. The site therefore offers the opportunity for residents to travel by bicycle for a variety of journey purposes.

# Accessibility by Public Transport

Bus

- 3.22 The nearest bus stops to the site are located on Rose Brow to the north of its junction with Acrefield Road and Gateacre Brow. These stops are within 200 metres of the site and therefore within the 400 metres referred to by guidance as being an acceptable distance.
- 3.23 These stops provide access to a number of services, including the 45, 75, 78, 81, 181 and 881. The 75 route provides a 10 minute service running between Liverpool City Centre and Halewood Shopping Centre, with journey times of just 30 minutes to Liverpool City Centre.
- 3.24 There are also stops on Gateacre Brow that pick up the 89 service.
- 3.25 The existing site is therefore well connected to the bus network and offers opportunities for future residents to travel via this mode for a variety of journey purposes.



# 4 Development Proposals and Access Provision

#### **Development Proposals**

4.1 As set out in the introduction, the proposals include the redevelopment of the site for a new residential scheme. The scheme will provide 10 No. 4 bed residential units, made up of a mix of dwelling types. The proposed site layout is reproduced at **Appendix D**.

# Internal Access Road

- 4.2 It is proposed that the access road within the site would remain private and not be adopted by LCC. On this basis, the layout at Appendix D shows the provision of a 4.5 metre wide shared surface access running centrally along the site. This access would continue for a distance of approximately 80 metres, at which point a turning head would be provided. It is also proposed that the access road be gated to prevent general vehicular access, with the gate situated at the rear of the site access's bellmouth with the B5171Acrefield Road carriageway.
- 4.3 With regard to emergency and delivery access, the layout has been reviewed and can accommodate fire engines and light goods vehicles within the confines of the private access road. In terms of refuse collection, these vehicles will wait on Acrefield Road, with bins being left in an area of hard standing around the access for collection.
- 4.4 Considering the vertical plane, it is intended that a 1 in 40 metre gradient be provided for the first 6 metres, with the access road then increasing to a gradient of 1 in 15 metres within the site.

### Site Access

- 4.5 As can be seen from the drawing at **Appendix D**, access to the site would be provided via a simple priority junction off the B5171 Acrefield Road situated approximately 6 metres to the north of the site's southern boundary. This junction would take the form of a 5.5 metre carriageway between the B5171 Acrefield Road and the proposed gates, before tapering to the 4.5 metre width within the site. The access would join Acrefield Road via 6 metre radii, with 2 metre footways provided to both sides of the access.
- 4.6 With regard to visibility provision, it has been agreed with LCC highways that the use of Manual for Streets [MfS] is acceptable in this location. Based, therefore, on the guidance set out in MfS and the survey findings set out in Section 2 of this report, a 'y' distance of 44 metres should be provided looking southbound and 38 metres looking northbound based on corresponding observed design speeds of 30.5mph and 27.5mph on Acrefield Road. It has also been discussed that, looking to the south, the 'y' distance can be measured to a point away from the kerbline as opposed to along the kerbline.
- 4.7 With regard to the 'x' distance and as set out in MfS, a 2.4 metre provision should be adopted. However, LCC have indicated that they would consider a relaxation to 2.0 metres in this location.
- 4.8 Taking account of the above, the drawing at Appendix D shows a 2.4 x 44 metres splay looking north, which is in excess of the required 2.4 x 38 metre provision and is sufficient for an approach speed of 30.5mph. Furthermore, it is clear from the drawing that a 'y' distance in excess of 44 metres is provided, with visibility available to the B5171 Acrefield Road / B5171 Gateacre Brow / Rose Brow mini roundabout circulatory carriageway.
- 4.9 Looking south, the required 44 metre 'y' distance can be achieved if measured to the centreline of Acrefield Road and from a 2.0m 'x' distance. These relaxations are considered acceptable in this instance given that:
  - The access would remain private;
  - Visibility provision would be no worse than the existing access arrangement;
  - There is no existing accident record at the current site access; and
  - As set out in Section 5, the access would carry significantly less traffic under the proposed residential use than the site's existing garden centre use.
- 4.10 In light of the above, it is considered that the proposed access layout and visibility provision is sufficient to safely and efficiently serve the proposed development.



4.11 With regard to the property known as "Cherryvale" to the south of the site, this would continue to be accessed via its existing driveway, with access to this driveway being provided via a dropped kerb style crossing of the new footway to the south of the access.

# **Pedestrian Provision**

4.12 As set out above, the site access would include 2 metre footways to both sides of the junction bellmouth. The southern footway would then be gated, before extending slightly into the site, where the private access would become a shared surface. In addition and as shown on the drawing at Appendix D, this provision would be complemented with dropped crossings and tactile paving on Acrefield Road to the north of the access. These provisions would safely link the site to the existing pedestrian network on the west side of Acrefield Road.

# **Parking Provision**

- 4.13 LCC's parking standards require an average of 1.5 spaces to be provided per dwelling as a minimum. Based on the 10 dwellings proposed, this equates to a minimum provision of 15 spaces.
- 4.14 The proposed layout shown at **Appendix D** provides 2 driveway spaces per dwelling, together with double garages. The parking proposed therefore meets LCC's standards.



# 5 Trip Generation and Impact

#### General

- 5.1 As set out in Section 2, it is evident from observations on site that Acrefield is not subject to any significant delay. It is also the case that the scale of development proposed will generate a negligible level of traffic, especially once account is taken of the long established and existing use. However, for completeness, this section briefly looks at the potential traffic generations associated with the site, compares it to the existing garden centre use and provides a high level consideration of its potential impact on highway operation.
- 5.2 Consideration is also given to pedestrian impact in light of the narrow footway provision referred to throughout this report.

### **Trip Generation**

- 5.3 In order to determine the trip generation associated with the proposed development, the TRICS database has been interrogated for the sub land use of 'Houses Privately Owned'. Sites have been filtered based on a dataset range of between 10 and 40 dwellings, whilst only sites made up entirely of detached properties have been used. Based on this filtering, Table 5.1 below presents the resultant trip rates and traffic and pedestrian generations for the proposed site. Full TRICS outputs are included at **Appendix E**.
- 5.4 It should be noted that the morning and evening trip rates referred to below are for the hours 8:00 9:00 and 17:00 18:00 respectively and not the observed 8:15 9:15 and 16:30 17:30 peaks. However, this represents a worst case analysis as the trip rates for the periods used are higher than those for the observed peak periods.

Trip Rate per Dwelling	Morning Peak		Evening Peak		12 Hour	
	Arr	Dep	Arr	Dep	Arr	Dep
Trip Rate (Vehicle)	0.205	0.510	0.483	0.285	2.880	2.927
Generation (Vehicle)	2	5	5	3	29	29
Trip Rate (Pedestrian)	0.020	0.179	0.086	0.026	0.838	0.841
Generation (Pedestrian)	0	2	1	0	8	8

#### Table 5.1 Vehicle and Pedestrian Trip Rates / Generation for Proposed Residential Use

### Traffic Impact

- 5.5 Based on the figures set out above, the proposed residential development would generate 7 vehicular trips during the morning peak hour, 8 during the evening peak hour and 58 over the 12 hour period 7:00 19:00. Using the data set out in section 2, this compares to a garden centre use on the site generating 14 vehicular trips during the morning peak hour, 41 during the evening peak hour and 380 over the 12 hour period 7:00 19:00 (based on it being open until 17:30).
- 5.6 As a result, the proposed residential use would result in a net change in vehicular activity at the site of 7 fewer vehicles during the morning peak hour, 33 fewer during the evening peak hour and 322 fewer over the 12 hour period 7:00 19:00 when compared to the established garden centre use.
- 5.7 These net changes show the proposed development would result in a considerable reduction in traffic flows at the site when compared to its existing garden centre use. As a result and compared to its existing garden centre use, the proposal will have a beneficial impact on traffic flows in the area and the safe and efficient operation of the local highway network. Furthermore and even making no allowance for the garden centre use, the traffic generations associated with the scheme would not materially impact on highway operation.



### Pedestrian Impact

- 5.8 Again based on the figures set out above, the proposed residential development would generate 2 pedestrian trips during the morning peak hour, 1 during the evening peak hour and 16 over the 12 hour period 7:00 19:00. Using the data set out in section 2, this compares to the existing garden centre use generating 4 pedestrian trips during the morning peak hour, none during the evening peak hour and 53 over the 12 hour period 7:00 19:00 (based on it being open until 17:30).
- 5.9 As a result, the proposed residential use would result in a net change in pedestrian activity at the site of 2 less pedestrians during the morning peak hour, 1 more during the evening peak hour and 37 fewer over the 12 hour period 7:00 19:00.
- 5.10 These net changes during the peak hour are negligible and will have no noticeable or material impact on pedestrian flows at the access. However, changes over the course of the day are considerable, with pedestrian activity at the access effectively reducing by two thirds compared to the garden centre use.
- 5.11 Given these minimal peak hour changes and daily reductions in pedestrian flow, the lack of any pedestrian safety record around the site linked to the narrow footway and the proposed delivery of an enhanced pedestrian provision fronting the site, it is considered that the development would have no implications for pedestrian safety in the area and that the proposed improvement would be sufficient to satisfy pedestrian requirements.



# 6 Conclusions and Recommendations

#### Conclusions

- 6.1 Based on the findings of this report it is concluded that:
  - There is no existing accident record associated with the current Garden Centre access, whilst there are no existing highway safety issues in the vicinity of the site upon which the proposals would impact;
  - Pedestrian infrastructure in the vicinity of the site is of a good standard. The only location where provision is sub-standard is on the eastern side of the B5171 Acrefield Road in the vicinity of the site where the footway is narrow. However, observations on site show that people are walking past the site along this narrow section of footway, whilst there has been a reasonable level of pedestrian activity in and out of the Garden Centre over the course of the day;
  - It is evident from this pedestrian activity in and around the site access, together with the lack of
    personal injury accidents, that the narrow footway past the site frontage is not resulting in any road
    safety issues in the area or deterring pedestrians from using the route;
  - Notwithstanding these points, it is proposed to provide improved footways around the site access, together with dropped crossings and tactile paving on the B5171 Acrefield Road either side of the site access, as part of the proposed development;
  - Considering changes in pedestrian activity as a result of the development compared to the garden centre use, these would be negligible during the peak hours. However, changes over the course of the day are considerable, with pedestrian activity at the access effectively reducing by two thirds;
  - Given these changes in pedestrian flow, the lack of any pedestrian safety record and the proposed delivery of footways and dropped crossings at the site access, it is considered that the development would have no implications for pedestrian safety in the area and that the proposed improvement would be sufficient to satisfy pedestrian requirements;
  - Allowing for some relaxation in relation to the requirements of the Minimum Accessibility Standard Assessment for walk distances and the proposed footway provision, the minimum standard scores set out in the Ensuring Choice of Travel SPD can be achieved;
  - Even without these relaxations, it is suggested that the site is highly accessible by the sustainable
    modes. There are numerous schools, shops, and local facilities all within a maximum of 1.2km to 2km
    (and in most cases within 0.8km) of the site, whilst there are also nearby cycle routes and high
    frequency bus services in close proximity to the site. Given these levels of provision, even if no
    relaxations were made in relation to the Minimum Accessibility Standard Assessment, any shortfall
    against the scores set out in the Ensuring Choice of Travel SPD would not discourage sustainable
    travel to and from the site;
  - The access road within the site, which would be a 4.5 metre wide shared surface access, would remain private and not be adopted by LCC;
  - The proposed parking provision within the site meets LCC's parking standards;
  - The proposed development would result in a considerable reduction in traffic flows at the site when compared to the long established and existing garden centre use. As a result and compared to its existing garden centre use, the proposal will have a beneficial impact on traffic flows in the area and the safe and efficient operation of the local highway network. Furthermore and even making no allowance for the garden centre use, the traffic generations associated with the scheme would not materially impact on highway operation;
  - With acceptable relaxations and giving due cognisance to the lack of an existing accident record at the current site access, which carries significantly more traffic under its existing garden centre use than its proposed use, the proposed access layout and visibility provision is sufficient to safely and efficiently serve the proposed development.

#### **Recommendations**

6.2 In light of the above it is the recommendation of CBO Transport that there are no traffic or transportation grounds on which to refuse this application.





Figures

Figure 2.1 Site Location







Appendix A: Personal Injury Accident Data





# Acrefield Road Request - 2009-2013

No	Are	a I	L/A	Reference	Severi	ty Day	Date	Time	Grid Coords	Link/Node	Street	
1	F4	E	E08000012		Slight	Tuesday	04/08/2009	17:20	342418/387671		L25627 L25	505
Loc	catio	n:	U Woolton H	Hill Road at J	unction	with U Rose	Brow, Liver	pool, L256	27/L25505 <b>1st Rd</b>	l: U 2nd Rd:	U	
Spe	ed	c	'Way	Jct Det/Ctrl	Light	ing	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard
1	ЧРН	Si	ingle c'way	T/Stag Give	Dayli	ght	Fine	Dry	None	None	None	None
Veh	Veh	icl	e type Tow	ing Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in Lef	t cway Hit	obj off Ser	K Age B/T
1	Car		No	Stop	WΕ	On main	Junt appr	No	None	No	ne Mal	e -ve
2	Car		No	Waiting	WΕ	On main	Junt appr	No	None	No	ne Mal	e -ve
Cas	No Ve	h :	ref Cas C	lass Sex	Age	Severity	Car Pass Ped	Direction	n Ped Movement	Ped locatio	n School I	Pupil
1		2	Drv/R	ider Male	26	Slight	No Not	ped	Not ped	Not ped	Other	

#### User Information:

Location: B5171 Gateacre Brow at Junction with U Rose Brow, Liverg	20:30 342459/387611 pool, L25235/L25505 <b>1st Rd</b> : B517	L25235 L25505 71 <b>2nd Rd:</b> U
Speed         C'Way         Jct Det/Ctrl         Lighting         Weather           MPH         Roundabout         Mini-R Give         Daylight         Fine	Rd SurfPedX - Human- PhyDryNoneNone	Fac Special Hazard None None
Veh Vehicle type Towing Manoeuvre Dir Veh loc Junct. loc	Skidding Hit obj in Left cway	y Hit obj off Sex Age B/T
1 Car No Right turn NE NW On main Ent r'about	No None	None Male -ve
2 Car No Going ahead NW S On main Ent r'about	No None	None Male -ve
Cas No Veh ref Cas Class Sex Age Severity Car Pass Ped	Direction Ped Movement Ped 1	ocation School Pupil
1 1 Drv/Rider Male 18 Slight No Not	ped Not ped Not p	oed Other

User Information:



Appendix B: Survey Data



# B5171 Acrefield Road, Woolton - Speed Survey (Thursday 3rd April 2014)

# Weather Conditions - Fine/Cloudy/Dull

Northbound									
29	35	32	32	24	33	28	30	36	33
31	36	35	32	30	25	30	24	27	30
34	36	30	27	31	28	25	32	37	26
36	39	31	29	26	30	33	36	35	32
32	29	33	31	34	33	31	23	33	30
27	29	31	35	29	26	33	35	32	27
29	36	31	28	26	32	30	35	31	30
34	29	25	30	28	26	29	27	30	27
30	34	25	29	31	29	29	32	30	33
31	35	22	31	29	27	37	30	28	30
30	27	31	33	26	22	33	28	23	27
29	27	33	30	27	33	30	32	26	29
33	29	30	25	28	30	28	31	36	30
23	32	28	33	27	29	26	24	27	31
28	23	31	27	29	29	26	31	28	32
28	43	24	28	27	25	33	28	31	35
27	32	30	28	34	26	33	27	24	32
30	33	27	33	31	29	32	35	31	28
30	25	31	34	25	31	29	32	35	31
27	37	32	29	27	33	28	32	31	28

Max - 43

Min - 22 85% - 33 Ave - 30 Sp. Limit - 30

29 - Cars/LGV's

24 - HGV's/PSV's

# B5171 Acrefield Road, Woolton - Speed Survey (Thursday 3rd April 2014)

# Weather Conditions - Fine/Cloudy/Dull

Southbound									
25	37	26	31	26	28	22	28	34	24
32	25	31	25	28	26	35	28	26	29
31	24	29	25	29	25	30	26	21	30
29	28	30	28	30	25	27	25	27	21
35	27	22	24	27	23	37	26	27	23
25	25	29	27	31	23	28	32	22	27
29	27	30	26	20	30	26	27	23	27
23	26	38	25	33	27	19	24	27	25
28	24	27	20	34	26	31	21	24	29
22	29	28	25	30	26	24	27	24	26
20	25	30	26	29	23	27	30	28	26
24	26	26	22	25	27	31	25	32	27
29	25	27	25	22	28	24	25	29	27
27	32	21	28	29	26	28	33	23	29
24	27	30	25	23	30	25	29	19	26
24	30	21	28	30	24	29	27	29	26
22	33	24	26	31	23	26	24	22	26
26	25	27	25	23	32	28	23	28	21
28	21	29	23	28	23	28	27	24	29
24	29	26	24	27	28	30	21	29	27

Max - 38

Min - 19 85% - 30 Ave - 27 Sp. Limit - 30

25 - Cars/LGV's

21 - HGV's/PSV's

# GATEACRE GARDEN CENTRE, WOOLTON PEDESTRIAN SURVEY - THURSDAY 3 APRIL 2014

		In		Out			
Time	A - B	С-В	Total	B - A	B - C	Total	
07:00	1	0	1	0	0	0	
07:15	1	0	1	0	0	0	
07:30	0	0	0	0	0	0	
07:45	1	0	1	0	0	0	
08:00	1	0	1	0	0	0	
08:15	1	0	1	0	0	0	
08:30	1	0	1	0	0	0	
08:45	1	1	2	0	0	0	
09:00	0	0	0	0	0	0	
09:15	0	0	0	0	0	0	
09:30	0	0	0	1	0	1	
09:45	0	0	0	0	0	0	
10:00	0	0	0	0	1	1	
10:15	0	0	0	0	0	0	
10:30	0	0	0	1	0	1	
10:45	0	0	0	1	2	3	
11:00	0	1	1	2	1	3	
11:15	2	0	2	0	1	1	
11:30	1	0	1	0	0	0	
11:45	0	0	0	1	1	2	
12:00	0	0	0	1	0	1	
12:15	1	0	1	0	0	0	
12:30	1	1	2	0	0	0	
12:45	1	0	1	1	1	2	
Total	13	3	16	8	7	15	

		In		_	Out	
Time	A - B	С-В	Total	B - A	B - C	Total
13:00	1	0	1	0	0	0
13:15	3	0	3	2	0	2
13:30	0	0	0	1	0	1
13:45	0	0	0	1	0	1
14:00	0	1	1	0	0	0
14:15	2	0	2	0	1	1
14:30	0	0	0	0	0	0
14:45	0	0	0	0	0	0
15:00	1	0	1	2	1	3
15:15	0	0	0	0	0	0
15:30	0	2	2	0	0	0
15:45	0	0	0	0	0	0
16:00	1	0	1	3	0	3
16:15	0	0	0	0	0	0
16:30	0	0	0	0	0	0
16:45	0	0	0	0	0	0
17:00	0	0	0	0	0	0
17:15	0	0	0	0	0	0
17:30	0	0	0	0	0	0
17:45	0	0	0	0	0	0
18:00	0	0	0	0	0	0
18:15	0	0	0	0	0	0
18:30	0	0	0	0	0	0
18:45	0	0	0	0	0	0
10.00	0	0	0	1	1	2
19.00	0	0	0	1	0	
19:15	0	0	U		0	1
Total	8	3	11	11	3	14
Total	21	6	27	19	10	29



Appendix C: Completed Minimum Accessibility Standard Assessment



#### Address:

Completed By:

#### Access Diagram

Has a diagram been submitted which shows how people move to and through the development and how this links to the surrounding roads, footpaths and sight lines? (This can be included within the Design and Access Statement, see Section 2.25.) If a diagram has not been submitted your application may not be processed.

Access or	Access on Foot						
Safety	Is there safe pedestrian pedestrians passing the sides of the road)? If no y access.	access to and within the site (2m minimum wid your application must ac	ne site, and for th footpath on both ldress safe pedestrian	Yes	Yes / No		
Location	Housing Development:	Is the development	Yes	2			
	Within 500m of a district Accessibility Map 1 in A <u>Other development</u> : Is t local housing (i.e. withir houses per hectare (see Appendix F)	No	0	0			
Internal	Does 'circulation' and a	Yes	1				
Layout	reflect direct, safe and e routes for all; with priori when they have to cross	No	0	1			
Externa <b>l</b> Layout	Are there barriers betwe facilities or housing whi access? (see Merseysid	een site and <b>l</b> oca <b>l</b> ch restrict pedestrian de Code of Practice on	There are barriers	-2	-2		
	<ul> <li>Access and Mobility)e.g</li> <li>No dropped kerbs desire lines;</li> <li>Steep gradients;</li> <li>A lack of a formal of heavy traffic;</li> <li>Security concerns</li> </ul>	There are no barriers	1	due to no droppeo kerbs			
Other	The development links t Accessibility Map 1). If r	o identified recreationa <b>l</b> no, please provide reas	walking network (see ons why not.	Yes	Yes / No		
				Total (B)			
Summary	Box A: Minimum Standard (from Table 3.1)	4	Comments or action any shortfall	n needed	to correct		
	Box B: Actual Score	See text in Transport Statement					

Access by	/ Cycle		1	Points	Score
Safety	Are there safety issues f or a road junctions within for cyclists due to the lev issues in your application	g into or out of the site dangerous right turns u must address safety	No	Yes / No	
Cyc <b>l</b> e Parking	Does the development meet cycle parking standards, in a secure location with natural surveillance, or where appropriate contribute to communal cycle parking facilities? If no, you must address cycle parking standards and cycle parking facilities.				
Location	Housing Development:	Yes	2	2	
	within 1 mile of a district Accessibility Map 1) <u>Other Development</u> : Is thousing (e.g. within 1 m houses per hectare (see Appendix F)	t or local centre (see the density of local ile) more than 50 Accessibility Map 4 in	No	0	
nterna	Does 'circulation' and a	ccess inside the site	Yes	1	1
layout	reflect direct and safe cy given to cyclists where t vehicles?	cle routes; with priority hey meet motor	No	0	
Externa <b>l</b> Access	The development is with route (see Accessibility create a link to a cycle r	nin 400m of an existing Map 1 in Appendix F) a oute, or develop a rout	or proposed cycle and / or proposes to e?	1	1
	The development is not route (see Accessibility	within 400m of an exist Map 1 in Appendix F)	ing or proposed cycle	-1	
Other	Development includes s	hower facilities and	Yes	1	1
	lockers for cyclists		No	0	
			1	Total (B)	
Summary	Box A: Minimum Standard (From Table 3,1)	3	Comments or action any shortfa <b>ll</b>	n needed t	o correct

	Box B: Actual Score	5			
Access by	Public Transport			Points	Score
Location and access to public	Is the site within a 200n walking distance of a bu 400m of a rail station? ( 2 in Appendix F).	n safe and convenient is stop, and/or within See Accessibi <b>l</b> ity Map	Yes No	2 0	2
transport	Are there barriers on dire routes to bus stops or ra A lack of dropped Pavements less th A lack of formal cr heavy traffic; or Bus access kerbs.	There are barriers There are no barriers	0	0	
Frequency	High (four or more bus	services or trains an ho	ur)	2	
	Medium (two or three b	us services or trains an	hour)	1	2
	Low (less than two bus	services or trains an ho	our)	0	
Other	The proposal contribute	s to bus priority measu	res serving the site	1	0
	The proposal contributes to bus stops, bus interchange or bus or rail stations in the vicinity and/or provides bus stops or bus interchange in the site				0
	The proposal contribute	s to an existing or new	bus service	1	0
				Total (B):	

Summary	Box A: Minimum Standard (from Table 3.1)	5	Comments or action any shortfall	n needed 1	o correct
	Box B: Total Score				
		4	See text in Transport Statement		
/ehic <b>l</b> e Ac	cess and Parking			Points	Score
/ehic <b>l</b> e access	Is there safe access to a safety issues.	and from the road? If no	o, you must address	Yes	Yes / No
circu <b>l</b> ation	Can the site be adequate issues.	Yes	Yes / No		
	Is the safety and conver and public transport) aff address safety issues.	No	Yes / No		
	Has access for the eme must provide emergenc	Yes	Yes / No		
	For development which the site easily accessed (i.e. minimising the impa neighbourhoods) (see A please provide an expla	NA	Yes / No		
Parking	The off-street parking pr that development type.	rovided is more than ad If yes, parking provision	vised in Section 4 for must be reassessed.	No	Yes / No

					-
	The off-street parking pr development type	n Section 4 for that	1	YesNo	
	The off-street parking pro in Section 4 for that dev with another developme	of the amount advised res parking provision	2	Yes / No	
	For development in con	tro <b>ll</b> ed parking zones:		NA	Yes / No
	• Is it a car free dev	elopment?		1	Yes / No
	<ul> <li>Supports the contr provision of disabl measures in the log</li> </ul>	eet parking spaces (inc utes to other identified ncluding car clubs)	1	Yes / No	
				Total (B):	1
Summary	Box A: Minimum Standard	1	Comments or action any shortfall. If con appropriate for the	n needed ditions are reduced le	to correct e evel of
			been provided, plea	ise explai	י why.



Appendix D: Proposed Site Layout





	DO NOT SCALE FR ALL DIMENSIONS MUST BE VERIFIED COMMENCING WORK OR MAR	2M THIS DRAWING AT THE SITE BEFORE SETTING OUT, IING ANY SHOP DRAWINGS.				
	SCHEDULE OF ACCOMODA	TION				
	A1 4-BED 2-STOREY DE A2 4-BED 2-STOREY DE B1 4-BED 2-STOREY DE BUCKINGHAM 4-BED 2-STOREY DE CANTERBURY 4-BED 2-STOREY DE TOTAL	TACHED         2469 SQFT         1           TACHED         2469 SQFT         2           TACHED         2249 SQFT         3           TACHED         1943 SQFT         1           TACHED         1918 SQFT         3           21851 SQFT         10				
	<u>KEY:</u>					
	Site bounda 1.8m high s Extg 0.6m s fence behir 1.8m high b  Existing lan	ary creen wall/fence stone wall retained with acoustic id to overall height of 2.2m ioundary fence dscaping				
/	Existing roc	t protection area				
	Indicative p	roposed landscaping				
	BRTH Brick, Rend BRTB Brick, Rend	ler, Tile Hanging Housetype Variant ler, Timber Boarding Housetype Variant				
	Rev: Description: A Layout updated	Date: 14/11/14				
	B Boundary and visibility splay amended, paths and patios added 10/12/					
	C Southern visibility splay amended to road centreline 22					
$\langle \rangle$	D Drainage easement, indi and notes added	cative landscaping 07/01/15				
	E Further amendments foll comments	owing LPA 09/01/15				
/	F Note added for pedestria	in crossing point 15/01/15				
	amended	20/01/15				
	H Visibility splay revised	23/01/15				
F /	MACB	RYDE MES				
	Maabayda Ua	mestimited				
	Macbryde Ho Macbryde Ho St. Asaph Bu Ffordd Richard D Denbighshire	use, Unit 28, siness Park, avies, St Asaph, e. LL17 0LJ.				
	Tel. 0174	5 536677				
	Fax. 0174	5 536688				
	- Site:					
	Acrefield Road Wo	olton				
Q.						
	Proposed Site Layo	ut				
	Scale: 1:500 on A3	Date: 10.10.14				
	GL-SL01	Rev: H				



Appendix E: TRICS Output



#### TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL : A - HOUSES PRIVATELY OWNED Category MULTI-MODAL VEHICLES

# Selected regions and areas:

04 EAST ANGLIA			
	CA	CAMBRIDGESHIRE	1 days
05	EAST	MIDLANDS	
	LE	LEICESTERSHIRE	1 days
06	WES	T MIDLANDS	
	SH	SHROPSHIRE	1 days
	WO	WORCESTERSHIRE	1 days
80	NOR	TH WEST	
	СН	CHESHIRE	2 days
	MS	MERSEYSIDE	1 days
10	WAL	ES	
	CF	CARDIFF	1 days
11	SCOT	LAND	
	EA	EAST AYRSHIRE	1 days

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:	6 to 40 (units: )

Public Transport Provision: Selection by:

Include all surveys

Date Range: 01/01/05 to 24/03/14

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:	
Monday	1 days
Tuesday	4 days
Thursday	2 days
Friday	2 days

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

Selected survey types:	
Manual count	9 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)	5
Edge of Town	4

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.

> 8 1

Selected Location Sub Categories:	
Residential Zone	
No Sub Category	

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-Un Zone, Village, Out

Filtering Stage 3 selection:

### Use Class:

C3

8 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	1 days
5,001 to 10,000	3 days
10,001 to 15,000	2 days
15,001 to 20,000	2 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:	
25,001 to 50,000	1 days
75,001 to 100,000	3 days
100,001 to 125,000	2 days
125,001 to 250,000	1 days
250,001 to 500,000	2 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	4 days
1.1 to 1.5	5 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

9 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 Out of Centre) Residential Zone Total Number of dwellings: Survey date: TUESDAY CF-03-A-03 DETACHED LLANTRISANT ROAD	9 18/10/11	Survey Type: MANUAL CARDIFF
3	CARDIFF Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: Survey date: MONDAY CH-03-A-05 DETACHED SYDNEY ROAD SYDNEY CREWE	29 08/10/07	Survey Type: MANUAL CHESHIRE
4	Edge of Town Residential Zone Total Number of dwellings: Survey date: TUESDAY CH-03-A-08 DETACHED WHITCHURCH ROAD BOUGHTON HEATH CHESTER	17 14/10/08	Survey Type: MANUAL CHESHIRE
5	Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: Survey date: TUESDAY EA-03-A-01 DETATCHED TALISKER AVENUE	11 22/05/12	Survey Type: MANUAL EAST AYRSHIRE
6	KILMARNOCK Edge of Town Residential Zone Total Number of dwellings: Survey date: THURSDAY LE-03-A-01 DETACHED REDWOOD AVENUE	39 05/06/08	Survey Type: MANUAL LEICESTERSHIRE
7	MELTON MOWBRAY Edge of Town Residential Zone Total Number of dwellings: Survey date: TUESDAY MS-03-A-03 DETACHED BEMPTON ROAD OTTERSPOOL LIVERPOOL Suburban Area (PPS6 Out of Control)	11 03/05/05	Survey Type: MANUAL MERSEYSIDE
	Residential Zone Total Number of dwellings: Survey date: FRIDAY	15 21/06/13	Survey Type: MANUAL

Manchester

#### Tuesday 20/01/15 Page 4 Licence No: 751701

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

Fountain Street

CBO Transport Ltd

8	SH-03-A-03 SOMERBY DRIVE BICTON HEATH SHREWSBURY Edge of Town No Sub Category	DETATCHED		SHROPSHIRE
	Total Number of dwe	llings:	10	
	Survey date: I	FRIDAY	26/06/09	Survey Type: MANUAL
9	WO-03-A-01	DETACHED		WORCESTERSHIRE
	MARLBOROUGH AVE	NUE		
	ASTON FIELDS			
	BROMSGROVE			
	Suburban Area (PPS6	Out of Centre)		
	Residential Zone			
	Total Number of dwe	llings:	10	
	Survey date:	THŪRSDAY	23/06/05	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.

#### MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
AG-03-A-01	Bungalows
CB-03-A-03	Semi
CW-03-A-01	Terraced
DC-03-A-08	Bungalow
ES-03-A-02	Terraced
FA-03-A-01	Semi
GM-03-A-10	Semi
HI-03-A-13	Unknown
LN-03-A-03	Semi
NF-03-A-01	Semi / bungalow
NY-03-A-08	Terraced
NY-03-A-11	X
PK-03-A-01	Bungalow
SF-03-A-04	Bungalow
ST-03-A-05	Terraced
TW-03-A-02	Semi
WK-03-A-01	Terraced
WK-03-A-02	Bungalows
WM-03-A-02	Semi

#### TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED 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	9	17	0.106	9	17	0.285	9	17	0.391
08:00 - 09:00	9	17	0.205	9	17	0.510	9	17	0.715
09:00 - 10:00	9	17	0.152	9	17	0.205	9	17	0.357
10:00 - 11:00	9	17	0.238	9	17	0.199	9	17	0.437
11:00 - 12:00	9	17	0.185	9	17	0.258	9	17	0.443
12:00 - 13:00	9	17	0.179	9	17	0.185	9	17	0.364
13:00 - 14:00	9	17	0.192	9	17	0.172	9	17	0.364
14:00 - 15:00	9	17	0.199	9	17	0.219	9	17	0.418
15:00 - 16:00	9	17	0.252	9	17	0.212	9	17	0.464
16:00 - 17:00	9	17	0.391	9	17	0.192	9	17	0.583
17:00 - 18:00	9	17	0.483	9	17	0.285	9	17	0.768
18:00 - 19:00	9	17	0.298	9	17	0.205	9	17	0.503
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.880			2.927			5.807

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:	9 - 39 (units: )
Survey date date range:	01/01/05 - 24/03/14
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	20

#### TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED 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	9	17	0.000	9	17	0.000	9	17	0.000
08:00 - 09:00	9	17	0.013	9	17	0.013	9	17	0.026
09:00 - 10:00	9	17	0.007	9	17	0.000	9	17	0.007
10:00 - 11:00	9	17	0.007	9	17	0.007	9	17	0.014
11:00 - 12:00	9	17	0.000	9	17	0.000	9	17	0.000
12:00 - 13:00	9	17	0.000	9	17	0.000	9	17	0.000
13:00 - 14:00	9	17	0.000	9	17	0.000	9	17	0.000
14:00 - 15:00	9	17	0.000	9	17	0.000	9	17	0.000
15:00 - 16:00	9	17	0.000	9	17	0.000	9	17	0.000
16:00 - 17:00	9	17	0.000	9	17	0.000	9	17	0.000
17:00 - 18:00	9	17	0.000	9	17	0.000	9	17	0.000
18:00 - 19:00	9	17	0.000	9	17	0.007	9	17	0.007
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.027			0.027			0.054

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:	9 - 39 (units: )
Survey date date range:	01/01/05 - 24/03/14
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	20

#### TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED MULTI-MODAL PSVS 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	9	17	0.000	9	17	0.000	9	17	0.000
08:00 - 09:00	9	17	0.000	9	17	0.000	9	17	0.000
09:00 - 10:00	9	17	0.000	9	17	0.000	9	17	0.000
10:00 - 11:00	9	17	0.000	9	17	0.000	9	17	0.000
11:00 - 12:00	9	17	0.000	9	17	0.000	9	17	0.000
12:00 - 13:00	9	17	0.000	9	17	0.000	9	17	0.000
13:00 - 14:00	9	17	0.000	9	17	0.000	9	17	0.000
14:00 - 15:00	9	17	0.000	9	17	0.000	9	17	0.000
15:00 - 16:00	9	17	0.000	9	17	0.000	9	17	0.000
16:00 - 17:00	9	17	0.000	9	17	0.000	9	17	0.000
17:00 - 18:00	9	17	0.000	9	17	0.000	9	17	0.000
18:00 - 19:00	9	17	0.000	9	17	0.000	9	17	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:         0.000         0.000								0.000	

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:	9 - 39 (units: )
Survey date date range:	01/01/05 - 24/03/14
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	20

#### TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED 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	9	17	0.013	9	17	0.060	9	17	0.073
08:00 - 09:00	9	17	0.013	9	17	0.026	9	17	0.039
09:00 - 10:00	9	17	0.000	9	17	0.000	9	17	0.000
10:00 - 11:00	9	17	0.007	9	17	0.007	9	17	0.014
11:00 - 12:00	9	17	0.000	9	17	0.013	9	17	0.013
12:00 - 13:00	9	17	0.007	9	17	0.007	9	17	0.014
13:00 - 14:00	9	17	0.020	9	17	0.000	9	17	0.020
14:00 - 15:00	9	17	0.000	9	17	0.000	9	17	0.000
15:00 - 16:00	9	17	0.020	9	17	0.000	9	17	0.020
16:00 - 17:00	9	17	0.033	9	17	0.007	9	17	0.040
17:00 - 18:00	9	17	0.026	9	17	0.007	9	17	0.033
18:00 - 19:00	9	17	0.000	9	17	0.000	9	17	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates: 0.139 0.127 0								0.266	

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:	9 - 39 (units: )
Survey date date range:	01/01/05 - 24/03/14
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	20

#### TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED MULTI-MODAL VEHICLE OCCUPANTS 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	9	17	0.099	9	17	0.305	9	17	0.404
08:00 - 09:00	9	17	0.238	9	17	0.775	9	17	1.013
09:00 - 10:00	9	17	0.159	9	17	0.232	9	17	0.391
10:00 - 11:00	9	17	0.265	9	17	0.238	9	17	0.503
11:00 - 12:00	9	17	0.245	9	17	0.338	9	17	0.583
12:00 - 13:00	9	17	0.252	9	17	0.265	9	17	0.517
13:00 - 14:00	9	17	0.265	9	17	0.252	9	17	0.517
14:00 - 15:00	9	17	0.265	9	17	0.272	9	17	0.537
15:00 - 16:00	9	17	0.397	9	17	0.305	9	17	0.702
16:00 - 17:00	9	17	0.576	9	17	0.305	9	17	0.881
17:00 - 18:00	9	17	0.596	9	17	0.331	9	17	0.927
18:00 - 19:00	9	17	0.384	9	17	0.291	9	17	0.675
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.741			3.909			7.650

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:	9 - 39 (units: )
Survey date date range:	01/01/05 - 24/03/14
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	20

#### TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED 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	9	17	0.040	9	17	0.026	9	17	0.066
08:00 - 09:00	9	17	0.020	9	17	0.179	9	17	0.199
09:00 - 10:00	9	17	0.086	9	17	0.093	9	17	0.179
10:00 - 11:00	9	17	0.040	9	17	0.132	9	17	0.172
11:00 - 12:00	9	17	0.053	9	17	0.053	9	17	0.106
12:00 - 13:00	9	17	0.066	9	17	0.053	9	17	0.119
13:00 - 14:00	9	17	0.053	9	17	0.053	9	17	0.106
14:00 - 15:00	9	17	0.046	9	17	0.086	9	17	0.132
15:00 - 16:00	9	17	0.086	9	17	0.053	9	17	0.139
16:00 - 17:00	9	17	0.119	9	17	0.040	9	17	0.159
17:00 - 18:00	9	17	0.086	9	17	0.026	9	17	0.112
18:00 - 19:00	9	17	0.040	9	17	0.013	9	17	0.053
19:00 - 20:00	1	29	0.069	1	29	0.034	1	29	0.103
20:00 - 21:00	1	29	0.034	1	29	0.000	1	29	0.034
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.838			0.841			1.679

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:	9 - 39 (units: )
Survey date date range:	01/01/05 - 24/03/14
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	20

#### TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED 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	9	17	0.000	9	17	0.000	9	17	0.000
08:00 - 09:00	9	17	0.000	9	17	0.020	9	17	0.020
09:00 - 10:00	9	17	0.000	9	17	0.000	9	17	0.000
10:00 - 11:00	9	17	0.000	9	17	0.000	9	17	0.000
11:00 - 12:00	9	17	0.000	9	17	0.000	9	17	0.000
12:00 - 13:00	9	17	0.000	9	17	0.000	9	17	0.000
13:00 - 14:00	9	17	0.000	9	17	0.000	9	17	0.000
14:00 - 15:00	9	17	0.000	9	17	0.000	9	17	0.000
15:00 - 16:00	9	17	0.013	9	17	0.000	9	17	0.013
16:00 - 17:00	9	17	0.007	9	17	0.000	9	17	0.007
17:00 - 18:00	9	17	0.000	9	17	0.000	9	17	0.000
18:00 - 19:00	9	17	0.000	9	17	0.000	9	17	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates: 0.020						0.020			0.040

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:	9 - 39 (units: )			
Survey date date range:	01/01/05 - 24/03/14			
Number of weekdays (Monday-Friday):	9			
Number of Saturdays:	0			
Number of Sundays:	0			
Surveys manually removed from selection:	20			

#### TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED 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	9	17	0.152	9	17	0.391	9	17	0.543
08:00 - 09:00	9	17	0.272	9	17	1.000	9	17	1.272
09:00 - 10:00	9	17	0.245	9	17	0.325	9	17	0.570
10:00 - 11:00	9	17	0.311	9	17	0.377	9	17	0.688
11:00 - 12:00	9	17	0.298	9	17	0.404	9	17	0.702
12:00 - 13:00	9	17	0.325	9	17	0.325	9	17	0.650
13:00 - 14:00	9	17	0.338	9	17	0.305	9	17	0.643
14:00 - 15:00	9	17	0.311	9	17	0.358	9	17	0.669
15:00 - 16:00	9	17	0.517	9	17	0.358	9	17	0.875
16:00 - 17:00	9	17	0.735	9	17	0.351	9	17	1.086
17:00 - 18:00	9	17	0.709	9	17	0.364	9	17	1.073
18:00 - 19:00	9	17	0.424	9	17	0.305	9	17	0.729
19:00 - 20:00	1	29	0.069	1	29	0.034	1	29	0.103
20:00 - 21:00	1	29	0.034	1	29	0.000	1	29	0.034
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.740			4.897			9.637

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:	9 - 39 (units: )			
Survey date date range:	01/01/05 - 24/03/14			
Number of weekdays (Monday-Friday):	9			
Number of Saturdays:	0			
Number of Sundays:	0			
Surveys manually removed from selection:	20			