Broadway Gardens, Welwyn Garden City

Transport Assessment Scoping Report

Client: Welwyn Park Homes Ltd

i-Transport Ref: NM/MD/AT/ITL16195-001A

Date: 21 August 2020

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Quality Management

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SECTION 1 Introduction

1.1 Overview

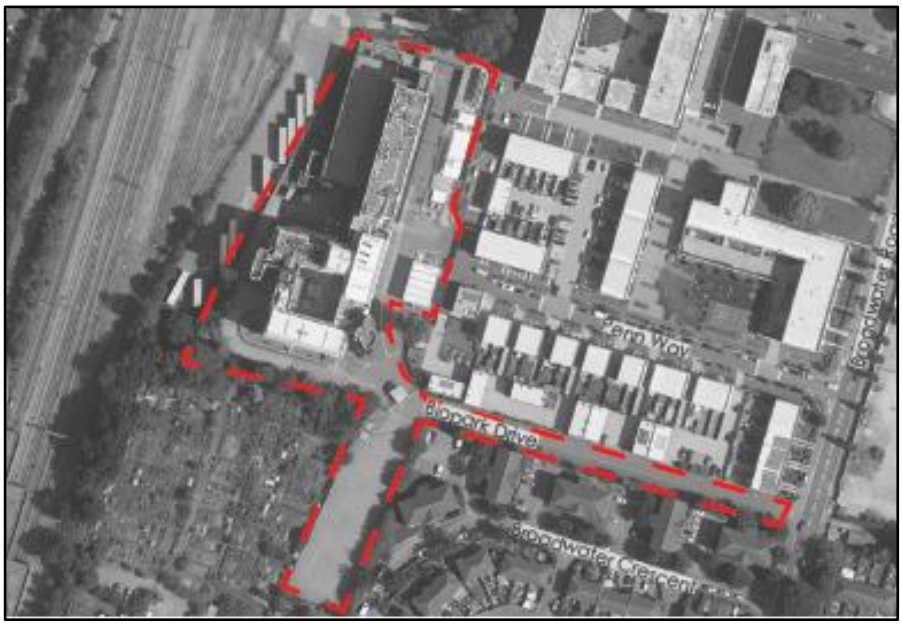
1.1.1 Welwyn Park Homes Ltd has appointed i-Transport LLP to provide highways and transport advice in relation to the forthcoming planning application and redevelopment of the Bio-Park site in Welwyn Garden City for circa 300 dwellings. This Transport Assessment Scoping Report sets out the key parameters to be used in the Transport Assessment (TA) that will accompany the forthcoming planning application.

1.2 Site Location

1.2.1 The site is located within Welwyn and Hatfield Borough Council (WHBC) district and Hertfordshire County Council (HCC) is the local highway authority. The site is within the southern end of the Broadwater West Opportunity Area (BWOA) which is covered in a Supplementary Planning Document (SPD). The SPD did not propose the redevelopment of this application site.

1.2.2 The is bordered to the north and east by the BWOA, existing housing to the south and railway lines to the west. Access to the site is via BioPark Drive from the A100 Broadwater Road. A site location plan is provided at Image 1.1.

Image 1.1: Site Location Plan



Source: Alan Camp Architects

1.3 Proposed Development

1.3.1 The emerging proposal is for the redevelopment of the site for the construction of some 300 residential dwellings, accessed via BioPark Drive with an ancillary coffee shop and residents' gym on-site. The proposal includes a mix of townhouses and flats and will be supported by car and cycle parking spaces, including car club spaces.

1.3.2 The proposal will also encourage and promote sustainable travel through links to existing and future infrastructure in the local area. To the north of the site is the Wheat Quarter which obtained planning permission in 2018 for the redevelopment of the site to provide some 1,500 new homes, a wellness centre, employment spaces and community uses (planning ref: 6/2018/0171/MAJ). The proposal provides the opportunity to provide a pedestrian and cycle link towards this development for future residents to access new facilities and for more direct connections to the facilities and services within the city centre and the railway station.

1.4 Structure

1.4.1 This Transport Assessment Scoping Report has been prepared to seek agreement with HCC to the scope of the Transport Assessment (TA) which will be submitted in support of a forthcoming planning application at the site. In addition to the TA, a Travel Plan will be submitted in support of the planning application.

1.4.2 The remainder of this report is set out in the following sections:

- Section 2 - Policy Context Review;
- Section 3 - Baseline Conditions;
- Section 4 - Emerging Development Proposal;
- Section 5 - Traffic Impact;
- Section 6 – Planning Application Submission; and
- Section 7 – Summary and Conclusions.

SECTION 2 Policy and Guidance Context Review

2.1 Overview

2.1.1 The TA will include an overview of relevant transport related planning policy. This will include a summary of the appropriate sections of the following documents:

- The National Planning Policy Framework (2019);
- WHBC Draft Local Plan Proposed Submission (2016);
- Welwyn Hatfield District Plan (2005);
- Welwyn Hatfield District Plan Review Supplementary Planning Guidance Parking Standards (2004);
- Broadwater Road West Supplementary Planning Document (2008);
- Hertfordshire Local Transport Plan 4 (2018); and
- Roads in Hertfordshire: A Design Guide (2011).

2.1.2 HCC is requested to confirm that the above list of policies is acceptable and to advise on any additional policies to be included.

2.2 Parking Standards

2.2.1 WHBC's parking standards are set out in the Welwyn Hatfield District Local Plan Review – Car Parking Standard (2004). The standards are subject to zonal areas whereby more accessible zones are able to provide a lower car parking provision. The residential car parking standards, which are to be used as guidelines rather than maximums[1], and cycle parking standards are summarised in Table 2.1.

[1] As set out in the WHBC's Interim Policy for Car Parking Standards and Garage Sizes (2014).

Table 2.1: Residential Car and Cycle Parking Standards – WHBC

		Car Parking Standards		Cycle Parking Standards
		Zones 1 and 2	Elsewhere	
Residential	1 bedroom dwellings	0.75 spaces per dwelling	1.25 spaces per dwelling	1 long term space per unit if no garage or shed provided.
	2 bedroom dwellings	1 space per dwelling	1.5 spaces per dwelling	
	3 bedroom dwellings	1.5 spaces per dwelling	2.25 spaces per dwelling	
	4 bedroom dwellings	2 spaces per dwelling	3 spaces per dwelling	

Source: WHBC Car Parking Standards 2004

2.2.2 The site is located within Zone 2 which the standards state should only provide 25-50% of the maximum parking standard outlined above. This is the equivalent of between 0.2-0.4 spaces per dwelling for 1 beds, 0.25-0.5 spaces per dwellings for 2 beds, 0.4 - 0.75 spaces for 3 beds, and 0.5-1 space for 4 beds.

SECTION 3 Baseline Conditions

3.1 Overview

3.1.1 The TA will provide a full review of sustainable travel opportunities for future residents of the development. The key points are set out within this section to assist HCC in their considerations regarding the scope of the TA.

3.2 Existing Use

3.2.1 The site is currently occupied by a vacant employment site known as the BioPark - a research and development (B1b land use) complex formerly owned and used by the University of Hertfordshire.

3.2.2 The existing floor area of the site is 13,872 sqm with some 160 associated car parking spaces. Access to the site is provided via BioPark Drive, a private road, forming a simple crossover to the A100 Broadwater Road to the east.

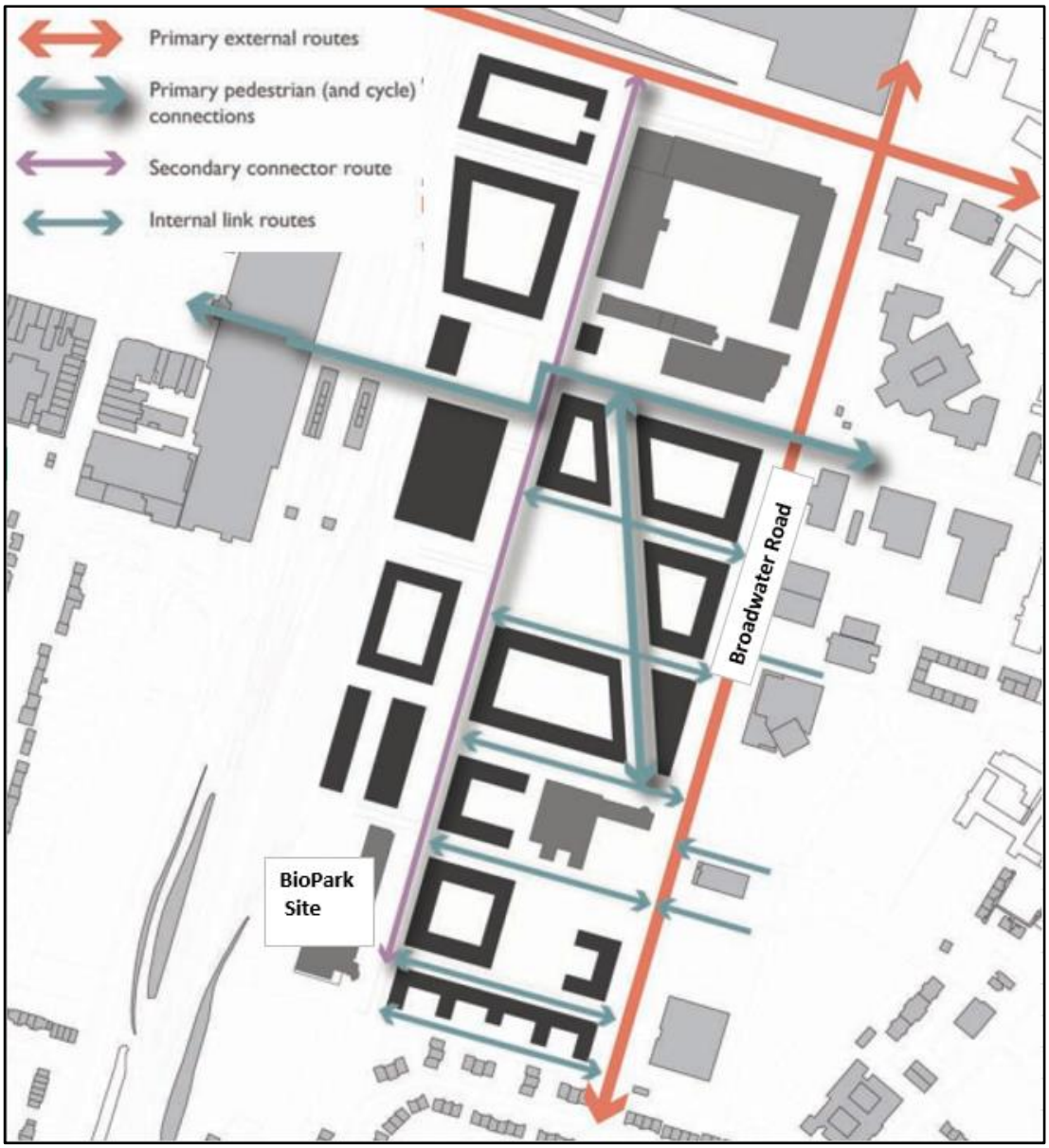
3.3 Opportunities to Travel by Walking and Cycling

Walking

3.3.1 There are wide footways located on both sides of Broadwater Road in the vicinity of the site. Dropped kerbs and tactile paving are provided along the majority of accesses, aiding pedestrian connectivity.

3.3.2 There is a footway along the northern side of BioPark Drive which connects with the existing provision along Broadwater Road. As part of the BWOA, a pedestrian route will be provided from the site north into the Wheat Quarter and towards the bridge of the railway. The SPD sets out the future access strategy and vision through the opportunity area which is extracted and provided at Image 3.1.

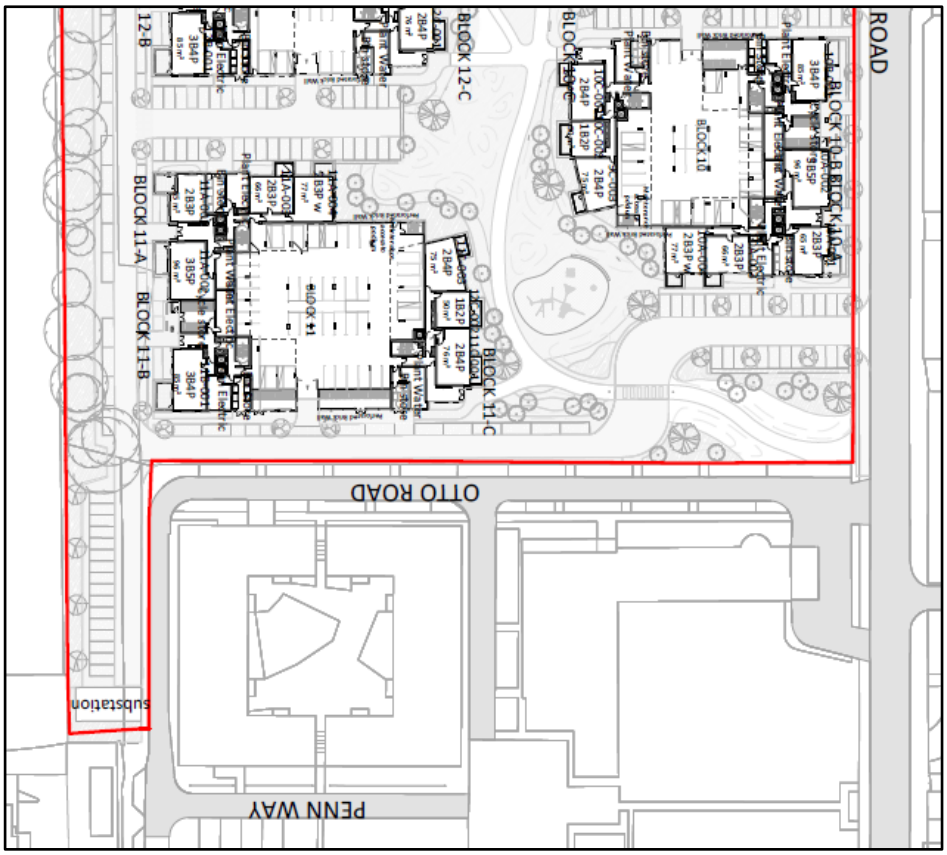
Image 3.1: Access Strategy – BWOA



Source: Broadwater Road West Supplementary Planning Document

3.3.3 A review of the permitted plans for the Wheat Quarter site (planning ref: 6/2018/0171/MAJ) suggest that the proposed pedestrian links outlined in the SPD towards the BioPark site and Otto Road will be not be provided, with the location of the substation for the Wheat Quarter located at the edge of the red line with no proposed links south or along Otto Road – see Image 3.2.

Image 3.2: Extract of Wheat Quarter Proposed Plans



Source: Collado Collins Architecture

3.3.4 HCC are requested to confirm whether the future Wheat Quarter layout will provide the north/ south pedestrian links as set out within the SPD.

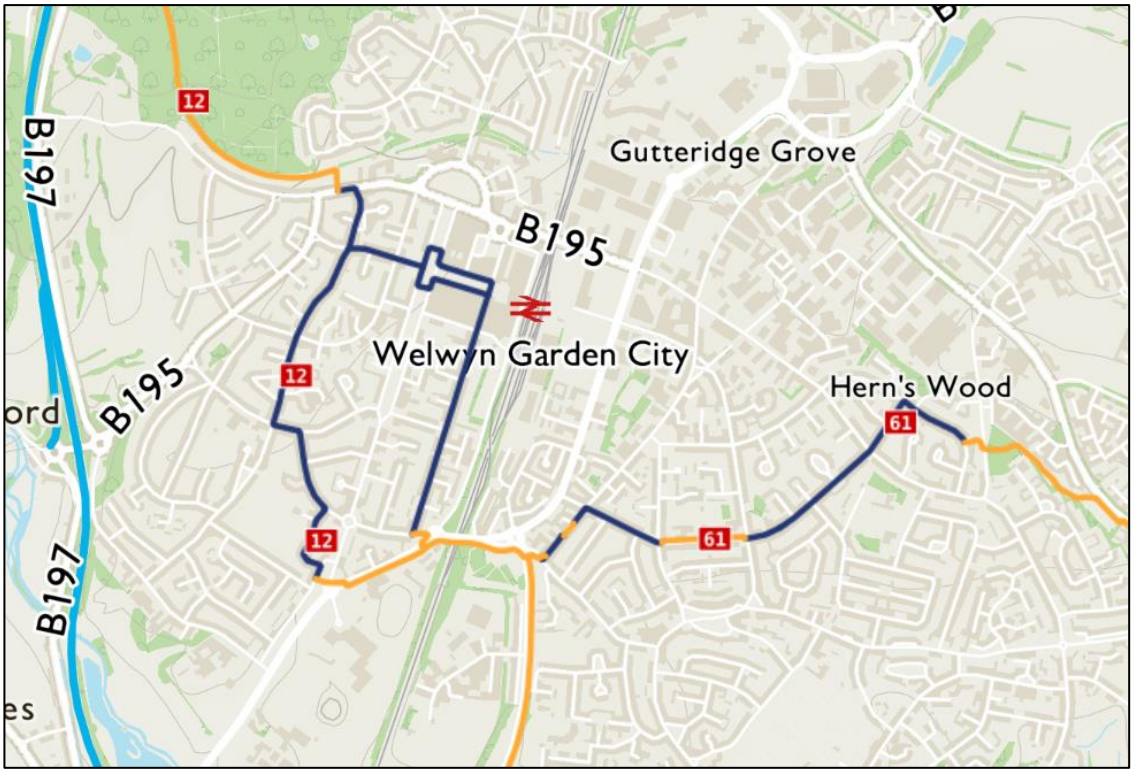
3.3.5 A footbridge at Welwyn Garden City railway station, which links the station to the east of Welwyn Garden City, is currently undergoing a £1 million refurbishment. The works are anticipated to be completed later in Summer 2020. Further, additional phases of the works, including new lifts and improved stairs will be delivered by the Wheat Quarter.

Cycling

3.3.6 There are a number of cycle routes in the vicinity of the site. Route 12 can be joined on the A6129 which is 400m to the south. Route 12 runs in sections from Enfield Lock in north London to Spalding via Stevenage, St Neots and Peterborough.

3.3.7 Route 61 travels from Maidenhead to Hatfield, Welwyn Garden City and Hertford and terminates near Hoddesdon. Image 3.3 provides a capture from the Sustrans website.

Image 3.3: National Cycle Network Routes



Source: Sustrans

3.4 Public Transport

Bus

3.4.1 The Penn Way bus stops are located circa 160m walking distance from the site on Broadwater Road. Both stops are served by the 601 AlbanWay bus route. The 601 bus service routes between Welwyn Garden City and Borehamwood via Hatfield and St Albans, and there are two services per hour across the weekday.

3.4.2 Both of the bus stops provide a shelter, seating and timetable information. Passengers accessing the northbound bus stop will be required to cross Broadwater Road.

Rail

3.4.3 Welwyn Garden City railway station is located circa 1km walking distance, via BioPark Drive and Broadwater Road, from the site (equivalent to a 12-minute walk). A future link, through the Wheat Quarter development to the station and via the new footbridge, is anticipated to less than 600m from the site.

3.4.4 The station is served by Great Northern and Thameslink rail services. A summary of the principal rail services that operate from the station is provided in Table 3.1.

Table 3.1: Summary of Rail Services – Welwyn Garden City Railway Station

Destination	Approximate Journey Time	Typical Off-Peak Frequency
Moorgate	48 mins	4 per hour
London Kings Cross	28 mins	2 per hour
Cambridge	58 mins	1 per hour
Royston	37 mins	2 per hour

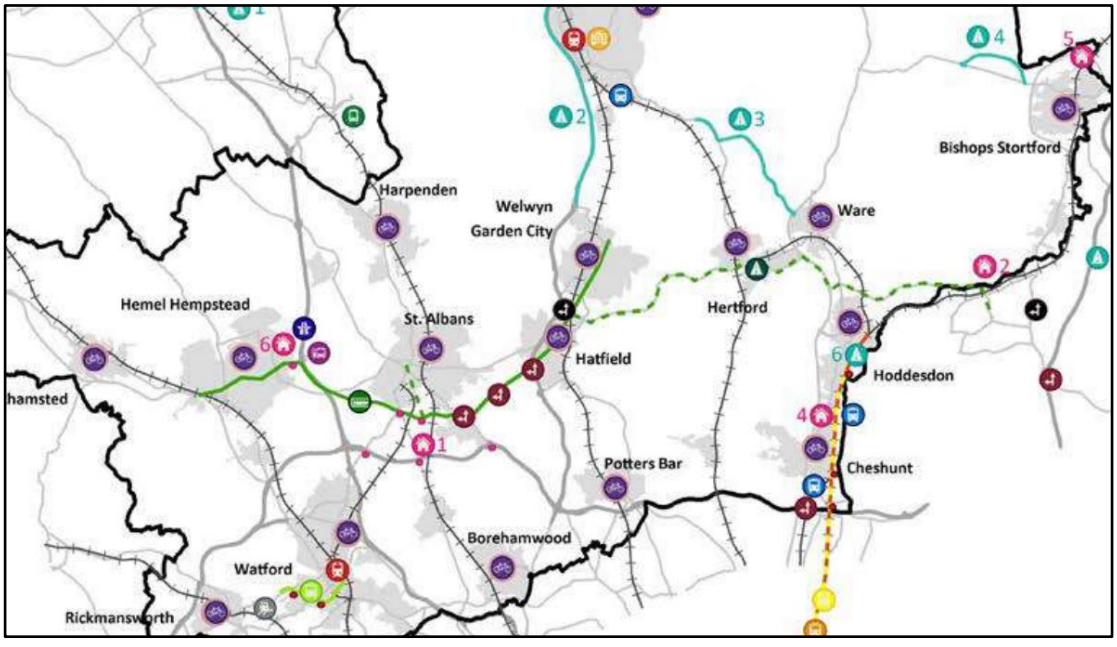
Source: National Rail (Accessed August 2020)

3.4.5 It can be seen from Table 3.1 that a number of fast and frequent rail services operate from Welwyn Garden City to key destinations, with around six services per hour to London.

Future Bus

3.4.6 HCC's Local Transport Plan 4 includes the aspiration for a Bus Rapid Transport (BRT) network across Hertfordshire from Hemel Hempstead and Welwyn, via St Albans. The BRT seeks to promote bus travel through a range of bus priority measures to deliver improved journey times and enhance journey reliability. An extract of the proposed route is shown on green in Image 3.4.

Image 3.4: Local Transport Plan – Transport Proposals Map Extract



Source: Hertfordshire County Council Local Transport Plan 5

3.4.7 The proposed routing illustrates the BRT routing to the east of the railway lines in Welwyn and therefore it may a potential routing along Broadwater Road. The BRT will therefore provide a key east to west link across Hertfordshire.

3.5 Local Highway Network

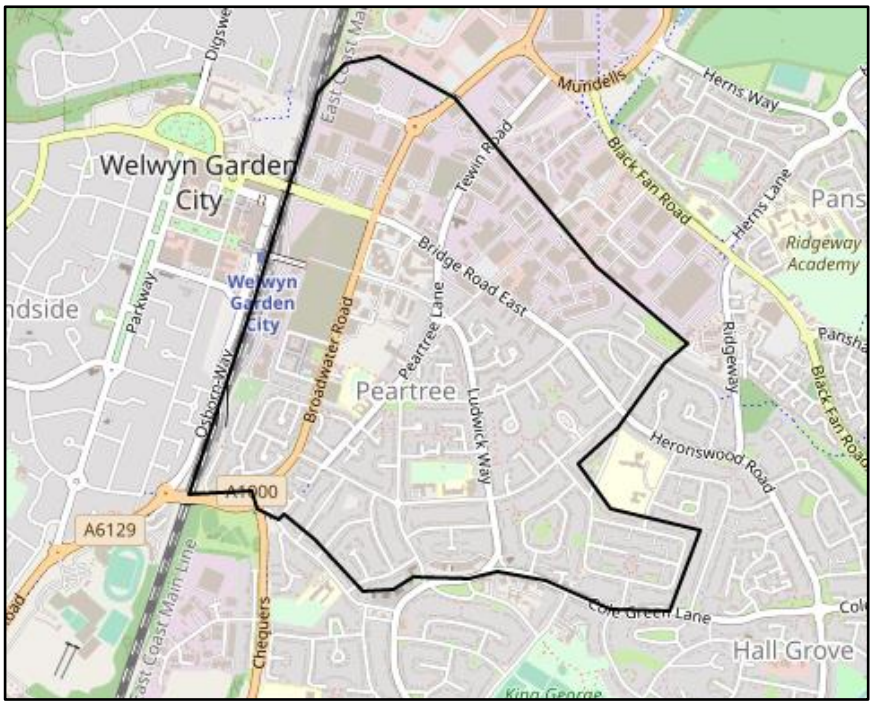
3.5.1 BioPark Drive, which is the site's only existing link to the wider highway network, is a private road and subject to a 15mph speed limit. The access forms a simple crossover to Broadwater Road.

3.5.2 Broadwater Road is a two-way single carriageway road subject to a 30mph speed limit. It is streetlit and there are footways on both sides of the road. Broadwater Road runs north towards Welwyn and access to the A1 (M) and south towards Hatfield and the A414. There are single yellow lines present on Broadwater Road, in the vicinity of the site which indicated that parking is prohibited between 0800-1800 Monday to Saturday. In addition, there are loading restrictions on Broadwater Road which prohibit loading between 0800-0900 and 1700-1800 Monday to Friday.

3.6 Local Travel Characteristics

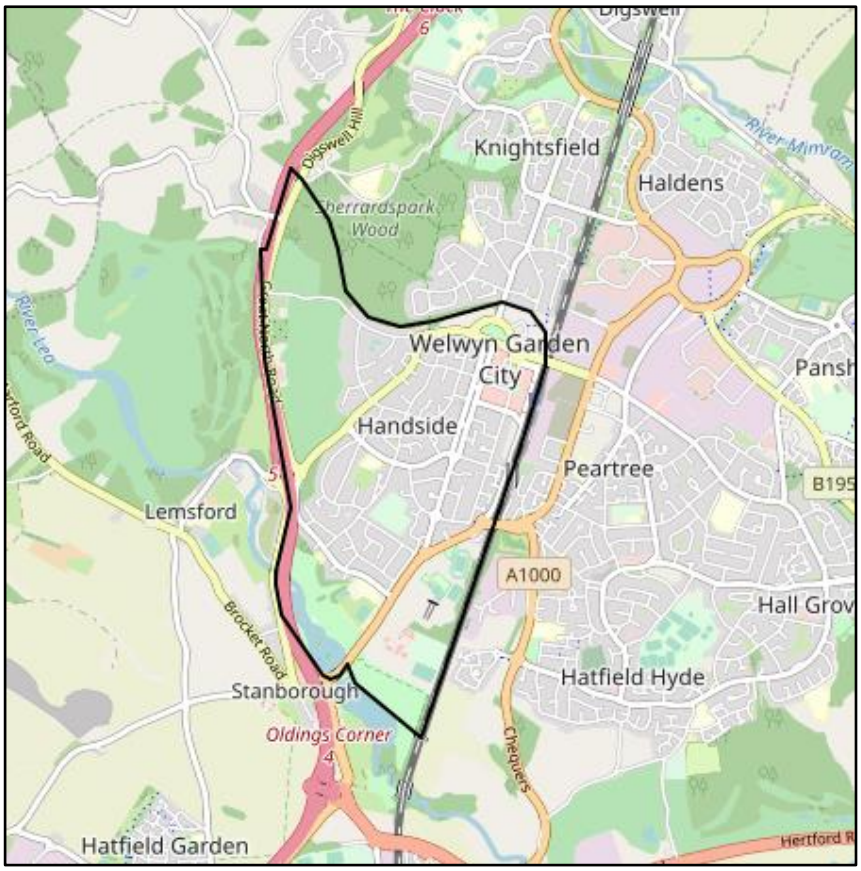
3.6.1 The site is located within the 2011 Census Middle Super Output Area (MSOA) 'Welwyn and Hatfield 007. Future residents may demonstrate similar travel patterns to residents already contained with this MSOA. The MSOA boundary is shown at Image 3.5. It is noted that the site is located at the far western side of the MSOA, adjacent to the town centre and railway station, whilst much of the MSOA contains the low density residential areas of Peartree, some approaching 2km from the station. As such, the MSOA 006 (to the west of the railway line) has also been reviewed, with its boundary shown at Image 3.6.

Image 3.5: Middle Super Output Area (MSOA) Welwyn and Hatfield 007



Source: Nomis

Image 3.6: Middle Super Output Area (MSOA) Welwyn and Hatfield 006



Source: Nomis

Method of Travel to Work - Mode Share

3.6.2 The method of travel to work data has been extracted from the 2011 Census for residents in the local area of both MSOAs. A summary of the modal split data for each of the MSOAs and the average across the two is summarised in Table 3.2.

Table 3.2: Method of Travel to Work – MSOAs Welwyn and Hatfield 006 and 007

Mode	MSOA 007		MSOA 006		Average	
	Count	%	Count	%	Count	%
Driving a Car or Van	1,941	57%	1,650	57%	3,591	**57%**
On Foot	563	17%	384	13%	947	**15%**
Train	329	10%	523	18%	852	**14%**
Bicycle	175	5%	77	3%	252	**4%**
Passenger in a Car or Van	170	5%	103	4%	273	**4%**
Bus, Minibus, Coach	121	4%	81	3%	202	**3%**
Motorcycle, scooter	37	1%	17	1%	54	**1%**

Mode	MSOA 007		MSOA 006		Average	
	Count	%	Count	%	Count	%
Underground, metro, light rail	33	1%	32	1%	65	**1%**
Taxi	24	1%	12	0%	36	**1%**
Other	12	0%	16	1%	28	**0%**
Total	3,405	100%	2,895	100%	6,300	**100%**

Source: 2011 Census and Consultant's Estimates.

Note: Excludes those who work from home and not in employment.

3.6.3 The data demonstrates that existing residents in the local area predominately travel to work by car (57%) with a further 19% walking or cycling and 17% by public transport.

Car Ownership

3.6.4 The level of local car ownership rates for the Welwyn and Hatfield MSOAs 007 and 006 has also been obtained from the 2011 census data. A summary of the car ownership data is outlined in Table 3.3.

Table 3.3: Local Car Ownership Data – MSOA Welwyn and Hatfield 006 and 007

Car or Van Availability	MSOA Welwyn and Hatfield 007		MSOA Welwyn and Hatfield 007	
	Households	Cars	Households	Cars
No cars or vans in household	803	0	721	0
1 car or van in household	1,373	1,373	1,271	1,271
2 cars or vans in household	622	1,244	813	1,626
3 cars or vans in household	107	321	148	444
4 or more cars or vans in household	30	130	44	204
All households	2,935	-	2,997	-
All cars or vans in area	-	3,068	-	3,545
Car Ownership	1.05 per household		1.18 per household	

Source: 2011 Census and Consultant's Estimates

3.6.5 The data demonstrates that the average car ownership level across the two MSOAs is 1.11 cars/vans per household. Table 3.3 also demonstrates that on average circa 26% of the total households in these areas live car free whilst on average 45% have access to one car.

Car Ownership for Flats

3.6.6 The 2011 Census data for the car ownership levels in the immediate area has been examined further to obtain the car ownership rates for flats/maisonettes within the MSOAs Welwyn and Hatfield 007 and 006. A summary of the number of cars or vans available to the flats/maisonettes within the MSOA and subsequent car ownership level for flats is provided in Table 3.4.

Table 3.4: Accommodation Type by Car or Van Availability

Car or Van Availability	MSOA Welwyn and Hatfield 007		MSOA Welwyn and Hatfield 006	
	No. of Flats or Maisonettes	No. of Cars	No. of Flats or Maisonettes	No. of Cars
No cars or vans in household	271	0	446	0
1 car or van in household	297	297	325	325
2 or more cars or vans in household	65	145	52	118
Total	633	442	823	443
Car Ownership for flats/maisonettes	0.70 per flat/maisonette		0.54 per flat/maisonette	

Source: 2011 Census and Consultant's Estimates

Note: The car ownership for 2 or more cars is 2.23 for MSOA 007 and 2.26 for MSOA 006.

3.6.7 The data demonstrates that the average car ownership for flats/ maisonettes across the two MSOAs Welwyn and Hatfield 007 and 006 is 0.62 cars per unit per unit. This figure therefore illustrates that there is a demand for less than one car/van per flat/maisonette in the area. Further, the data demonstrates that, on average, nearly half (49%) of residents residing in a flat live car free.

3.7 Local Facilities

3.7.1 A review of the local facilities close to the site is presented in Table 3.5. Welwyn Garden City town centre is located less than 1km walking distance from the site which includes access to a range of local services and facilities. Further, in the future with the potential link through the Wheat Quarter, the walking distance to the town centre, and other destinations, from the site will be less than 600m.

Table 3.5: Summary of Local Facilities

Destination	Approx. Distance from Site	Walking Time	Cycling Time
Retail			
Little Orchards Green Grocers	700m	8 min	3 mins
Welwyn Garden City town centre	950m	11 min	4 mins
The Howard Shopping Centre Centre	950m	11 min	4 mins
Waitrose & Partners Supermarket	1.2km	14 min	5 mins
Education			
Peartree Primary School	600m	7 mins	2 mins
Stanborough School	1.8km	21 mins	7 mins
Leisure			
Anytime Fitness Welwyn Garden City	1.1km	13 mins	4 mins
Gosling Sports Park	1.3km	15 mins	5 mins
Campus West Cinema	1.6km	19 mins	7 mins
Health			
Peartree Lane Surgery	500	6 mins	2 mins
Peartree Pharmacy	500	6 mins	2 mins
Church Road Dental Practice	1.3km	15 mins	5 mins

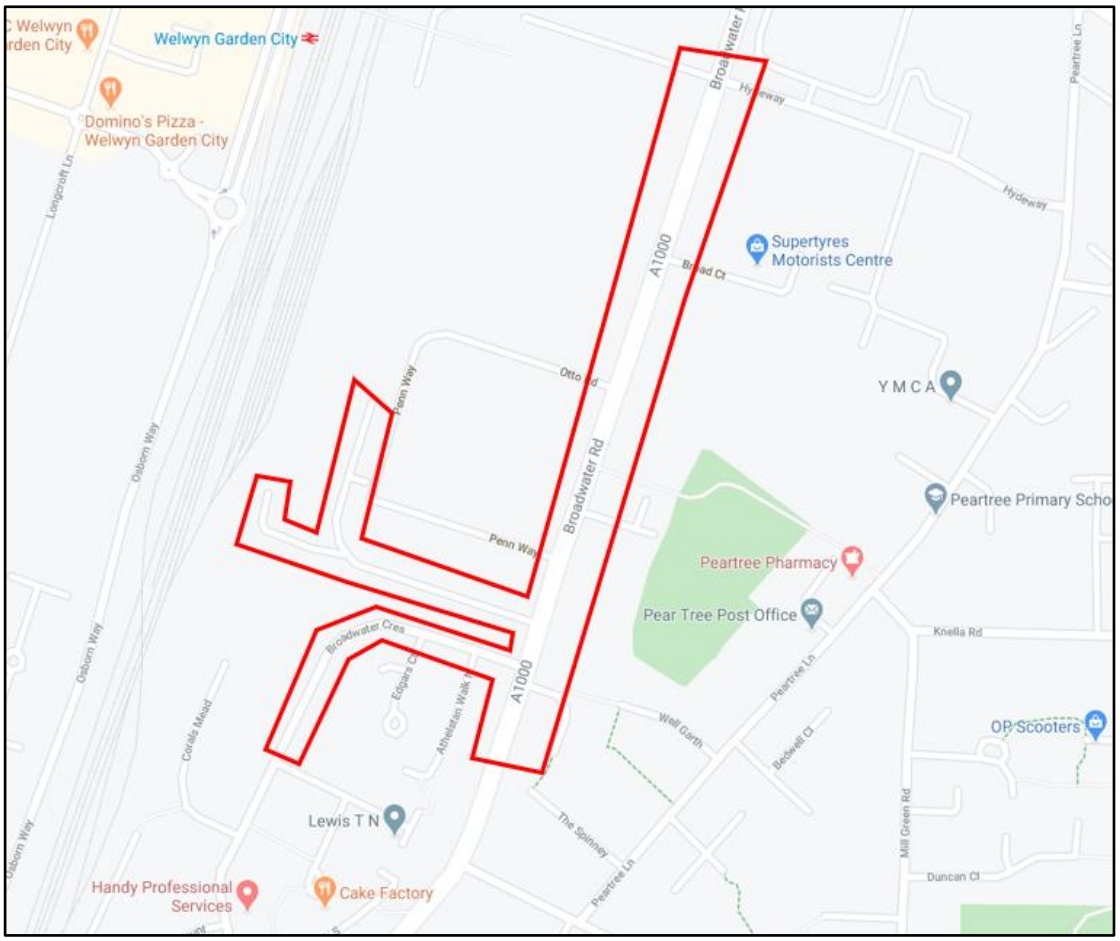
Source: Consultant's Estimates

Note: Distanced measured via BioPark Drive – distance reduced by circa 400m once access via Wheat Quarter site available.

3.8 Road Safety

3.8.1 Personal Injury Accident (PIA) data for the local highway network will be obtained and reviewed. This will cover the last five years for which data is available for the study area shown in Image 3.7.

Image 3.7: Proposed PIA Study Area



Source: Google Maps

SECTION 4 Emerging Development Proposal

4.1 Overview

4.1.1 The emerging proposal is for the redevelopment of the site to provide circa 300 residential units with some ancillary commercial space.

4.1.2 The current emerging proposals are for a mix of 1-3 bedroom units (102 x 1 bed, 123 x 2 bed, 64 x 3 bed) and eight 4 bedroom town houses with less than 100 sqm of commercial use (anticipated to be occupied by a resident's gym and coffee shop).

4.1.3 The TA will set out in further details the development proposal including access arrangements, parking provision and servicing and delivery arrangements. This section sets out the emerging proposals with regard to these key points.

4.2 Access Arrangements

4.2.1 Access to the site will be via the existing BioPark Drive access. The access is shown in Image 4.1. The access will be for all modes including vehicular, pedestrian and cycle.

Image 4.1: BioPark Drive Access

Source: Google Maps

4.2.2 The access will be improved to provide a wider shared footway/ cycleway on the northern side of the access road. This footway will connect with the existing infrastructure on Broadwater Road and will route directly into the site. any alterations to the adopted highway network on Broadwater Road will be subject to a Stage 1 Road Safety Audit.

4.2.3 An access road through the site will provide access to a basement car park for the residential units as well as a delivery zone (for servicing and deliveries) and access to on-street car club spaces.

4.2.4 The proposal will also safeguard a potential pedestrian and cycle route to the north of the site to connect with the emerging Wheat Quarter development. This will provide future residents and visitors a more direct route towards Welwyn Garden City railway station and Welwyn town centre for access for additional services and facilities.

4.3 Parking Provision

Vehicles

4.3.1 As set out in Table 2.1, the site is located within Zone 2 of WHBC's parking standards which allows a reduction in car parking provision to take account of the site's good accessibility via non-car modes. Further, it is noted that the standards are to be used as a guideline for future development.

4.3.2 Based on the reduced parking permissible within this Zone 2 site, the maximum parking permissible would be:

- 102 x 1 bed – 20-41 spaces
- 123 x 2 bed – 31-62 spaces
- 64 x 3 bed – 26-48 spaces
- 8 x 4 bed – 4-8 spaces
- Total - 81-159 spaces

4.3.3 The emerging proposal includes some 156 car parking spaces across the site. This equates to a parking ratio of approximately 0.5 spaces per unit and is consistent with the policy requirements as residential development in this location. The spaces will be distributed across the site as follows:

- 126 parking spaces within the basement (including 28 disabled spaces);
- 4 garage parking spaces;
- 16 under croft parking spaces (for the houses); and
- 10 car club parking spaces.

Cycle

4.3.4 The proposal also includes cycle parking for both the residential and commercial uses. The cycle parking will be provided at a rate of one cycle parking space per home, in accordance with WHBC's standards.

4.3.5 In addition, some three cycle parking spaces will be provided for the gym and coffee shop, in line with WHBC's standards.

4.4 Servicing and Deliveries

4.4.1 The emerging proposal currently includes a servicing and delivery area for vehicles. The area will be used for the commercial units as well as any deliveries to the residential units. Refuse vehicles will also collect the bins from this location.

4.4.2 The TA will provide further information with regard to the design of this area and will include swept path analysis of a range of vehicles, including a refuse vehicle, using this area.

SECTION 5 Traffic Impact

5.1 Overview

5.1.1 This section of the Scoping Note sets out the proposed approach to assessing the transport impacts of the development.

5.1.2 The scope of the traffic impact section has been guided by the traffic principles set out within the Wheat Quarter TA.

5.2 Existing Trip Attraction

5.2.1 The site is currently occupied by a vacant employment site known as the BioPark, a research and development (B1b land use) complex formerly owned and used by the University of Hertfordshire. The existing floor area of the site is some 13,872 sqm.

5.2.2 The potential trip attraction of the site as a research and development centre has been estimated using the TRICS database. The site has been vacant since the beginning of 2020 and therefore existing multi-modal surveys of the site are unavailable.

5.2.3 The trip rates for the existing land using have been extracted from the TRICS database based on the following parameters:

- **Land use category:** Employment (Office);
- **Size Range:** up to 20,000 sqm;
- **Date range:** January 2012 onwards; and
- **Location:** Town Centre and Edge of Town Centre sites within England (excluding Greater London) were included.

5.2.4 The extracted trip rates and resultant trip attraction (based on the existing floor area of 13,872sqm) is summarised in Table 5.1. The full trip rate report is provided at Appendix A.

Table 5.1: Existing Office Trip Rates and Trip Attraction

	Morning Peak Hour (0800-0900)			Evening Peak Hour (1700-1800)			12 Hour (0700-1900)		
	Arr	Dep	Two-Way	Arr	Dep	Two-Way	Arr	Dep	Two-Way
Total Persons									
Trip Rates (per 100 sqm)	1.61	0.13	1.74	0.13	1.51	1.64	8.84	8.72	17.56
Trip Attraction (13,872 sqm)	223	18	241	18	210	228	1,227	1,210	2,436
Vehicles									
Trip Rates (per 100 sqm)	0.87	0.11	0.98	0.09	0.76	0.85	3.36	3.28	6.64
Trip Attraction (13,872 sqm)	121	15	137	12	106	118	466	455	922

Source: TRICS and Consultant's Estimates

Note: Numbers may not sum due to rounding.

5.2.5 Table 5.1 demonstrates the following:

- Up to 241 two-way total person trips and up to 137 two-way vehicle trips during the morning peak hour;
- Some 228 two-way total person trips and up to 118 two-way vehicle trips during the evening peak hour; and
- Circa 2,436 two-way total person trips and some 922 two-way vehicle trips across the 12 hour (0700-1900) weekday.

5.3 Proposed Trip Generation

5.3.1 In order to derive the trip generation for the proposed residential development, trip rates have been obtained from the TRICS trip generation database for comparable residential sites with the following selection criteria:

- **Land use category:** Residential (flats privately owned);
- **Size Range:** 100-500 dwellings;
- **Date range:** Only recent surveys since January 2012 were included; and
- **Location:** Edge of Town Centre and Suburban sites within England (excluding Greater London) were included.

5.3.2 Table 5.2 summarises the residential trip rates for the morning and evening peak hour obtained from the TRICS trip generation database and the subsequent total person and vehicular trip generation of the proposed 300 residential dwellings. The full TRICS output is included as Appendix B.

Table 5.2: Proposed Residential Trip Rates and Trip Generation – Private Flats

	Morning Peak Hour (0800-0900)			Evening Peak Hour (1700-1800)			12 Hour (0700-1900)		
	Arr	Dep	Two-Way	Arr	Dep	Two-Way	Arr	Dep	Two-Way
Total Persons									
Trip Rates (per dwelling)	0.10	0.50	0.60	0.43	0.21	0.64	2.65	2.72	5.37
Trip Generation (300 Units)	30	150	180	130	62	191	795	817	1,612
Vehicles									
Trip Rates (per dwelling)	0.06	0.18	0.24	0.18	0.10	0.28	1.18	1.22	2.40
Trip Generation (300 Units)	17	54	71	54	29	83	355	365	721

Source: TRICS and Consultant's Estimates.

Note: Numbers may not sum due to rounding.

5.3.3 Table 5.2 demonstrates that the proposal is expected to generate the following:

- Up to 180 two-way total person trips and up to 71 two-way vehicle trips during the morning peak hour;
- Some 190 two-way total person trips and up to 83 two-way vehicle trips during the evening peak hour; and
- Circa 1,612 two-way total person trips and some 721 two-way vehicle trips across the 12 hour (0700-1900) weekday.

Modal Split Trip Generation

5.3.4 The proposed multi-modal trip generation of the site has been estimated using the TRICS data. The resultant multi-modal trip generation of the proposed development is summarised in Table 5.3.

Table 5.3: Residential Multi-Modal Trip Generation

	Multi-Modal Trip Generation								
	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)			12 Hour (0700-1900)		
	Arr	Dep	Two Way	Arr	Dep	Two Way	Arr	Dep	Two Way
Vehicle	17	54	71	54	29	83	355	365	721
Public Transport	3	34	37	22	3	25	102	103	205
Walk	6	21	28	20	18	38	165	182	347
Cycle	1	3	4	3	1	4	12	13	25
Other	3	38	40	31	11	41	161	154	314
TOTAL	30	150	180	130	62	191	795	817	1,612

Source: TRICS. Note: Numbers may not sum due to rounding.

Other: Includes taxi, vehicle occupant and OGVs

5.3.5 The multi-modal trip generation of the site, using TRICs trip generation, reveals the site has the potential to generate the following:

- Up to 42 (two-way) walking and cycling trips during the peak hours; and
- Up to 37 (two-way) trips by public transport (including rail and bus) during the network peak hours.

5.4 Net Impact

5.4.1 The net impact of the development proposal at the site, with regard to total persons and vehicles, across the network peak hours and across the 12 hour day is demonstrated in Table 5.4.

Table 5.4: Net Impact

	Morning Peak Hour (0800-0900)			Evening Peak Hour (1700-1800)			12 Hour (0700-1900)		
	Arr	Dep	Two-Way	Arr	Dep	Two-Way	Arr	Dep	Two-Way
Total Persons									
Existing	223	18	241	18	210	228	1,227	1,210	2,436
Proposed	30	150	180	130	62	191	795	817	1,612
Difference	-193	+132	-61	+112	-148	-37	-432	-393	-824
Vehicles									
Existing	121	15	137	12	106	118	466	455	922
Proposed	17	54	71	54	29	83	355	365	721
Difference	-104	+39	-66	+42	-77	-35	-111	-90	-201

Source: Consultant's Estimates

5.4.2 It can be seen from Table 5.4 that the development proposal will result in the following:

- An overall reduction in total two-way person trips across the day, including a reduction of up 60 two-way total person trips during the network peak hours;
- An overall reduction in two-way vehicle trips across the day and during the network peak hours, including:
  - A reduction of up to 66 vehicles during the morning peak hour; and
  - Circa 35 fewer vehicles during the evening peak hour.

5.5 Operational Assessments

5.5.1 The TA will undertake operational assessments of the site access with Broadwater Road for a with and without development future scenario.

5.5.2 The proposal is anticipated to reduce both the number of vehicle and total person trips generated by the site during the network peak hours. As such, due to the overall reduction in vehicle trips as a result of the proposal, no detailed assessment of the impact of the proposal is considered on further links or junctions.

5.6 Travel Plan

5.6.1 The planning application will also be supported by a Travel Plan. The Travel Plan will include detailed information with regard to the sustainable transport options available to future residents, targets to reduce single occupancy car driver trips, and measures that will be implemented to encourage and support sustainable travel.

SECTION 6 Planning Application Submission

6.1.1 The following documents will be prepared by i-Transport and submitted with the planning application. A summary of the proposed contents of each report is provided below.

6.2 Transport Assessment

6.2.1 The Transport Assessment will include the following:

- Site Assessment – detailed review of the local walking and cycling routes, public transport services and road safety (for the latest five year period) on the local highway network within the immediate vicinity of the site.
- Proposed Development – detailed summary of the proposal, including:
  - Access arrangements;
  - Parking provision; and
  - Servicing and deliveries arrangements for both the commercial and residential elements.
- Existing Trip Attraction – a summary of the existing site's trip attraction;
- Proposed Trip Generation – a summary of the proposed development's trip generation.
- Transport Impact – a review of the likely impact of the proposal on the local network. This will include assessing the change in number of vehicles on the local highway network as well as the number of future residents/ visitors using public transport services and walking and cycling to the site. Operational assessments of the site access junction with Broadwater Road will also be undertaken.

6.3 Travel Plan

6.3.1 The Travel Plan will include the following:

- Aims and Benefits – the main aims and benefits of the Travel Plan.
- Measures – a summary of measures that will be implemented at the site to encourage and support sustainable travel modes.
- Targets – indicative targets to help support the main aims of the Travel Plan.

SECTION 7 Summary and Conclusion

7.1 Summary

7.1.1 Welwyn Park Homes Ltd has appointed i-Transport LLP to provide highways and transport advice in relation to the forthcoming planning application and redevelopment of the Bio-Park site in Welywn Garden City for circa 300 dwellings. This Transport Assessment Scoping Report sets out the key parameters to be used in the Transport Assessment (TA) that will accompany the forthcoming planning application.

7.1.2 The site is located within Welwyn and Hatfield Borough Council (WHBC) district and Hertfordshire County Council (HCC) is the local highway authority. The site is within the southern end of the Broadwater West Opportunity Area (BWOA) which is covered in a Supplementary Planning Document (SPD). The SPD did not propose the redevelopment of this application site.

7.1.3 The is bordered to the north and east by the BWOA, existing housing to the south and railway lines to the west. Access to the site is via BioPark Drive from the A100 Broadwater Road.

7.1.4 The emerging proposal is for the redevelopment of the site for the construction of some 300 residential dwellings, accessed via BioPark Drive with an ancillary coffee shop and residents gym on-site. The proposal includes a mix of townhouses and flats and will be supported by car and cycle parking spaces, including car club spaces.

7.1.5 The proposal will also encourage and promote sustainable travel through links to existing and future infrastructure in the local area. To the north of the site is the Wheat Quarter which obtained planning permission in 2018 for the redevelopment of the site to provide some 1,500 new homes, a wellness centre, employment spaces and community uses (planning ref: 6/2018/0171/MAJ). The proposal provides the opportunity to provide a pedestrian and cycle link towards this development for future residents to access new facilities and for more direct connections to the facilities and services within the city centre and the railway station.

7.2 Conclusions

7.2.1 Guidance is requested from HCC in relation to the acceptability of the following points for inclusion within an assessment to support the forthcoming planning application:

- The access and movement strategy put forward, including details of any safeguarded routes from the adjacent site secured as part of the consented application to be consistent with the BWOA SPD;
- The multi-modal trip assessment methodology
- The geographic extent of walking, cycling, and public transport infrastructure assessment;
- The quantum of car and cycle parking proposed;
- The extent of operational highway assessment being limited to the site access to Broadwater Road, due to the net reduction in vehicle trips associated with the proposal; and
- Any emerging policy or guidance documents to be considered that have not been identified.

APPENDIX A. Office Trip Rates

Calculation Reference: AUDIT-236603-200811-0809

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : A - OFFICE
MULTI-MODAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	BD	BEDFORDSHIRE	1 days
	ES	EAST SUSSEX	2 days
	EX	ESSEX	1 days
	HF	HERTFORDSHIRE	2 days
	SO	SLOUGH	1 days
03	SOUTH WEST		
	BR	BRISTOL CITY	1 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
	NF	NORFOLK	2 days
	SF	SUFFOLK	1 days
05	EAST MIDLANDS		
	DS	DERBYSHIRE	1 days
06	WEST MIDLANDS		
	WK	WARWICKSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH YORKSHIRE	2 days
08	NORTH WEST		
	GM	GREATER MANCHESTER	2 days
09	NORTH		
	CB	CUMBRIA	1 days
	TV	TEES VALLEY	1 days
	TW	TYNE & WEAR	1 days

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

Primary Filtering 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: Gross floor area
Actual Range: 178 to 45000 (units: sqm)
Range Selected by User: 178 to 20000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/12 to 13/11/19

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	5 days
Tuesday	3 days
Wednesday	4 days
Thursday	6 days
Friday	3 days

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

Selected survey types:

Manual count	21 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:

Town Centre	8
Edge of Town Centre	13

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.

Selected Location Sub Categories:

Industrial Zone	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.

Secondary Filtering selection:

Use Class:

B1	21 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	3 days
15,001 to 20,000	5 days
20,001 to 25,000	3 days
25,001 to 50,000	9 days
50,001 to 100,000	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	3 days
75,001 to 100,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	7 days
250,001 to 500,000	5 days
500,001 or More	3 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	11 days
1.1 to 1.5	9 days
1.6 to 2.0	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	4 days
No	17 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.

PTAL Rating:

No PTAL Present	21 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 BD-02-A-03 OFFICES BEDFORDSHIRE
BROMHAM ROAD
BEDFORD

Edge of Town Centre
No Sub Category
Total Gross floor area: 1469 sqm
Survey date: MONDAY *14/10/13* *Survey Type: MANUAL*

2 BR-02-A-02 PLANNING & ENGINEERING BRISTOL CITY
ST THOMAS STREET
BRISTOL

Town Centre
Built-Up Zone
Total Gross floor area: 5736 sqm
Survey date: FRIDAY *29/11/13* *Survey Type: MANUAL*

3 CA-02-A-05 OFFICES CAMBRIDGESHIRE
NEW ROAD
PETERBOROUGH

Town Centre
Built-Up Zone
Total Gross floor area: 8793 sqm
Survey date: TUESDAY *16/12/14* *Survey Type: MANUAL*

4 CB-02-A-02 OFFICE CUMBRIA
PORT ROAD
CARLISLE

Edge of Town Centre
Industrial Zone
Total Gross floor area: 925 sqm
Survey date: FRIDAY *24/06/16* *Survey Type: MANUAL*

5 DS-02-A-01 REAL ESTATE DEVELOPERS DERBYSHIRE
PRIME PARK WAY
DERBY

Edge of Town Centre
No Sub Category
Total Gross floor area: 594 sqm
Survey date: WEDNESDAY *25/09/19* *Survey Type: MANUAL*

6 ES-02-A-12 COUNCIL OFFICES EAST SUSSEX
VICARAGE LANE
HAILSHAM

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 3640 sqm
Survey date: THURSDAY *26/11/15* *Survey Type: MANUAL*

7 ES-02-A-13 OFFICES EAST SUSSEX
ROMAN ROAD
HOVE

Edge of Town Centre
Residential Zone
Total Gross floor area: 280 sqm
Survey date: WEDNESDAY *04/07/18* *Survey Type: MANUAL*

8 EX-02-A-03 HMRC ESSEX
VICTORIA AVENUE
SOUTHEND-ON-SEA

Town Centre
Built-Up Zone
Total Gross floor area: 45000 sqm
Survey date: WEDNESDAY *23/10/13* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 GM-02-A-08 REGUS GREATER MANCHESTER
FOUNTAIN STREET
MANCHESTER

Town Centre
Built-Up Zone
Total Gross floor area: 3960 sqm
Survey date: MONDAY *26/09/16* *Survey Type: MANUAL*

10 GM-02-A-09 LEASED OFFICES GREATER MANCHESTER
NEW MOUNT STREET
MANCHESTER

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 2500 sqm
Survey date: MONDAY *26/09/16* *Survey Type: MANUAL*

11 HF-02-A-03 OFFICE HERTFORDSHIRE
60 VICTORIA STREET
ST ALBANS

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 610 sqm
Survey date: WEDNESDAY *16/10/13* *Survey Type: MANUAL*

12 HF-02-A-04 OFFICES HERTFORDSHIRE
STATION WAY
ST ALBANS

Edge of Town Centre
Residential Zone
Total Gross floor area: 5000 sqm
Survey date: THURSDAY *02/10/14* *Survey Type: MANUAL*

13 NF-02-A-02 FINANCIAL PLANNERS NORFOLK
NORTH QUAY
GREAT YARMOUTH

Edge of Town Centre
Commercial Zone
Total Gross floor area: 894 sqm
Survey date: MONDAY *11/09/17* *Survey Type: MANUAL*

14 NF-02-A-03 OFFICES NORFOLK
NORTH QUAY
GREAT YARMOUTH

Edge of Town Centre
Commercial Zone
Total Gross floor area: 5500 sqm
Survey date: TUESDAY *12/09/17* *Survey Type: MANUAL*

15 NY-02-A-01 SOLICITORS NORTH YORKSHIRE
NORTH PARK ROAD
HARROGATE

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 178 sqm
Survey date: THURSDAY *04/10/18* *Survey Type: MANUAL*

16 NY-02-A-02 DISTRICT COUNCIL OFFICES NORTH YORKSHIRE
STATION ROAD
RICHMOND

Edge of Town Centre
No Sub Category
Total Gross floor area: 1930 sqm
Survey date: THURSDAY *14/03/19* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

17 SF-02-A-02 OFFICES SUFFOLK
BATH STREET
IPSWICH

Edge of Town Centre
Commercial Zone
Total Gross floor area: 6505 sqm
Survey date: FRIDAY *19/07/13* *Survey Type: MANUAL*

18 SO-02-A-01 COUNCIL OFFICES SLOUGH
HIGH STREET
SLOUGH

Town Centre
High Street
Total Gross floor area: 1800 sqm
Survey date: THURSDAY *27/02/14* *Survey Type: MANUAL*

19 TV-02-A-04 COUNCIL OFFICES TEES VALLEY
CORPORATION ROAD
MIDDLESBROUGH

Town Centre
Commercial Zone
Total Gross floor area: 3950 sqm
Survey date: TUESDAY *08/10/13* *Survey Type: MANUAL*

20 TW-02-A-07 OFFICES TYNE & WEAR
MULGRAVE TERRACE
GATESHEAD

Town Centre
Built-Up Zone
Total Gross floor area: 2090 sqm
Survey date: MONDAY *13/06/16* *Survey Type: MANUAL*

21 WK-02-A-01 OFFICES WARWICKSHIRE
WARWICK ROAD
COVENTRY

Town Centre
Built-Up Zone
Total Gross floor area: 960 sqm
Survey date: THURSDAY *17/10/13* *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 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	20	5107	0.155	20	5107	0.011	20	5107	0.166
07:30 - 08:00	20	5107	0.278	20	5107	0.023	20	5107	0.301
08:00 - 08:30	21	4872	0.414	21	4872	0.048	21	4872	0.462
08:30 - 09:00	21	4872	0.460	21	4872	0.062	21	4872	0.522
09:00 - 09:30	21	4872	0.363	21	4872	0.076	21	4872	0.439
09:30 - 10:00	21	4872	0.236	21	4872	0.082	21	4872	0.318
10:00 - 10:30	21	4872	0.148	21	4872	0.106	21	4872	0.254
10:30 - 11:00	21	4872	0.128	21	4872	0.086	21	4872	0.214
11:00 - 11:30	21	4872	0.079	21	4872	0.069	21	4872	0.148
11:30 - 12:00	21	4872	0.094	21	4872	0.089	21	4872	0.183
12:00 - 12:30	21	4872	0.095	21	4872	0.109	21	4872	0.204
12:30 - 13:00	21	4872	0.116	21	4872	0.129	21	4872	0.245
13:00 - 13:30	21	4872	0.119	21	4872	0.104	21	4872	0.223
13:30 - 14:00	21	4872	0.124	21	4872	0.098	21	4872	0.222
14:00 - 14:30	21	4872	0.077	21	4872	0.082	21	4872	0.159
14:30 - 15:00	21	4872	0.071	21	4872	0.129	21	4872	0.200
15:00 - 15:30	21	4872	0.068	21	4872	0.168	21	4872	0.236
15:30 - 16:00	21	4872	0.076	21	4872	0.220	21	4872	0.296
16:00 - 16:30	21	4872	0.074	21	4872	0.293	21	4872	0.367
16:30 - 17:00	21	4872	0.056	21	4872	0.292	21	4872	0.348
17:00 - 17:30	21	4872	0.054	21	4872	0.495	21	4872	0.549
17:30 - 18:00	21	4872	0.033	21	4872	0.268	21	4872	0.301
18:00 - 18:30	20	5107	0.017	20	5107	0.164	20	5107	0.181
18:30 - 19:00	20	5107	0.027	20	5107	0.078	20	5107	0.105
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			3.362			3.281			6.643

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:	178 - 45000 (units: sqm)
Survey date date range:	01/01/12 - 13/11/19
Number of weekdays (Monday-Friday):	21
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	2
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL TAXIS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	20	5107	0.000	20	5107	0.000	20	5107	0.000
07:30 - 08:00	20	5107	0.001	20	5107	0.001	20	5107	0.002
08:00 - 08:30	21	4872	0.009	21	4872	0.008	21	4872	0.017
08:30 - 09:00	21	4872	0.009	21	4872	0.008	21	4872	0.017
09:00 - 09:30	21	4872	0.006	21	4872	0.006	21	4872	0.012
09:30 - 10:00	21	4872	0.003	21	4872	0.005	21	4872	0.008
10:00 - 10:30	21	4872	0.008	21	4872	0.008	21	4872	0.016
10:30 - 11:00	21	4872	0.006	21	4872	0.006	21	4872	0.012
11:00 - 11:30	21	4872	0.004	21	4872	0.004	21	4872	0.008
11:30 - 12:00	21	4872	0.005	21	4872	0.005	21	4872	0.010
12:00 - 12:30	21	4872	0.007	21	4872	0.007	21	4872	0.014
12:30 - 13:00	21	4872	0.001	21	4872	0.001	21	4872	0.002
13:00 - 13:30	21	4872	0.005	21	4872	0.004	21	4872	0.009
13:30 - 14:00	21	4872	0.006	21	4872	0.006	21	4872	0.012
14:00 - 14:30	21	4872	0.002	21	4872	0.003	21	4872	0.005
14:30 - 15:00	21	4872	0.005	21	4872	0.005	21	4872	0.010
15:00 - 15:30	21	4872	0.000	21	4872	0.000	21	4872	0.000
15:30 - 16:00	21	4872	0.002	21	4872	0.002	21	4872	0.004
16:00 - 16:30	21	4872	0.004	21	4872	0.003	21	4872	0.007
16:30 - 17:00	21	4872	0.001	21	4872	0.002	21	4872	0.003
17:00 - 17:30	21	4872	0.010	21	4872	0.008	21	4872	0.018
17:30 - 18:00	21	4872	0.001	21	4872	0.003	21	4872	0.004
18:00 - 18:30	20	5107	0.000	20	5107	0.000	20	5107	0.000
18:30 - 19:00	20	5107	0.001	20	5107	0.001	20	5107	0.002
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.096			0.096			0.192

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.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	20	5107	0.000	20	5107	0.000	20	5107	0.000
07:30 - 08:00	20	5107	0.001	20	5107	0.000	20	5107	0.001
08:00 - 08:30	21	4872	0.000	21	4872	0.000	21	4872	0.000
08:30 - 09:00	21	4872	0.001	21	4872	0.002	21	4872	0.003
09:00 - 09:30	21	4872	0.000	21	4872	0.000	21	4872	0.000
09:30 - 10:00	21	4872	0.000	21	4872	0.000	21	4872	0.000
10:00 - 10:30	21	4872	0.001	21	4872	0.000	21	4872	0.001
10:30 - 11:00	21	4872	0.000	21	4872	0.001	21	4872	0.001
11:00 - 11:30	21	4872	0.000	21	4872	0.000	21	4872	0.000
11:30 - 12:00	21	4872	0.000	21	4872	0.000	21	4872	0.000
12:00 - 12:30	21	4872	0.000	21	4872	0.000	21	4872	0.000
12:30 - 13:00	21	4872	0.001	21	4872	0.001	21	4872	0.002
13:00 - 13:30	21	4872	0.000	21	4872	0.000	21	4872	0.000
13:30 - 14:00	21	4872	0.000	21	4872	0.000	21	4872	0.000
14:00 - 14:30	21	4872	0.001	21	4872	0.001	21	4872	0.002
14:30 - 15:00	21	4872	0.000	21	4872	0.000	21	4872	0.000
15:00 - 15:30	21	4872	0.000	21	4872	0.000	21	4872	0.000
15:30 - 16:00	21	4872	0.003	21	4872	0.002	21	4872	0.005
16:00 - 16:30	21	4872	0.000	21	4872	0.001	21	4872	0.001
16:30 - 17:00	21	4872	0.000	21	4872	0.000	21	4872	0.000
17:00 - 17:30	21	4872	0.000	21	4872	0.000	21	4872	0.000
17:30 - 18:00	21	4872	0.000	21	4872	0.000	21	4872	0.000
18:00 - 18:30	20	5107	0.000	20	5107	0.000	20	5107	0.000
18:30 - 19:00	20	5107	0.000	20	5107	0.000	20	5107	0.000
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 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.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	20	5107	0.005	20	5107	0.000	20	5107	0.005
07:30 - 08:00	20	5107	0.007	20	5107	0.000	20	5107	0.007
08:00 - 08:30	21	4872	0.028	21	4872	0.000	21	4872	0.028
08:30 - 09:00	21	4872	0.047	21	4872	0.000	21	4872	0.047
09:00 - 09:30	21	4872	0.025	21	4872	0.000	21	4872	0.025
09:30 - 10:00	21	4872	0.005	21	4872	0.000	21	4872	0.005
10:00 - 10:30	21	4872	0.011	21	4872	0.002	21	4872	0.013
10:30 - 11:00	21	4872	0.002	21	4872	0.003	21	4872	0.005
11:00 - 11:30	21	4872	0.000	21	4872	0.003	21	4872	0.003
11:30 - 12:00	21	4872	0.004	21	4872	0.001	21	4872	0.005
12:00 - 12:30	21	4872	0.005	21	4872	0.007	21	4872	0.012
12:30 - 13:00	21	4872	0.005	21	4872	0.006	21	4872	0.011
13:00 - 13:30	21	4872	0.007	21	4872	0.003	21	4872	0.010
13:30 - 14:00	21	4872	0.002	21	4872	0.004	21	4872	0.006
14:00 - 14:30	21	4872	0.000	21	4872	0.003	21	4872	0.003
14:30 - 15:00	21	4872	0.002	21	4872	0.004	21	4872	0.006
15:00 - 15:30	21	4872	0.005	21	4872	0.005	21	4872	0.010
15:30 - 16:00	21	4872	0.001	21	4872	0.012	21	4872	0.013
16:00 - 16:30	21	4872	0.001	21	4872	0.016	21	4872	0.017
16:30 - 17:00	21	4872	0.002	21	4872	0.005	21	4872	0.007
17:00 - 17:30	21	4872	0.001	21	4872	0.026	21	4872	0.027
17:30 - 18:00	21	4872	0.001	21	4872	0.038	21	4872	0.039
18:00 - 18:30	20	5107	0.002	20	5107	0.023	20	5107	0.025
18:30 - 19:00	20	5107	0.001	20	5107	0.003	20	5107	0.004
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.169			0.164			0.333

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.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL VEHICLE OCCUPANTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	20	5107	0.162	20	5107	0.011	20	5107	0.173
07:30 - 08:00	20	5107	0.306	20	5107	0.019	20	5107	0.325
08:00 - 08:30	21	4872	0.468	21	4872	0.038	21	4872	0.506
08:30 - 09:00	21	4872	0.497	21	4872	0.046	21	4872	0.543
09:00 - 09:30	21	4872	0.411	21	4872	0.079	21	4872	0.490
09:30 - 10:00	21	4872	0.262	21	4872	0.084	21	4872	0.346
10:00 - 10:30	21	4872	0.167	21	4872	0.103	21	4872	0.270
10:30 - 11:00	21	4872	0.137	21	4872	0.080	21	4872	0.217
11:00 - 11:30	21	4872	0.090	21	4872	0.075	21	4872	0.165
11:30 - 12:00	21	4872	0.108	21	4872	0.099	21	4872	0.207
12:00 - 12:30	21	4872	0.102	21	4872	0.126	21	4872	0.228
12:30 - 13:00	21	4872	0.138	21	4872	0.142	21	4872	0.280
13:00 - 13:30	21	4872	0.143	21	4872	0.114	21	4872	0.257
13:30 - 14:00	21	4872	0.144	21	4872	0.110	21	4872	0.254
14:00 - 14:30	21	4872	0.092	21	4872	0.095	21	4872	0.187
14:30 - 15:00	21	4872	0.077	21	4872	0.156	21	4872	0.233
15:00 - 15:30	21	4872	0.077	21	4872	0.187	21	4872	0.264
15:30 - 16:00	21	4872	0.085	21	4872	0.251	21	4872	0.336
16:00 - 16:30	21	4872	0.075	21	4872	0.334	21	4872	0.409
16:30 - 17:00	21	4872	0.058	21	4872	0.330	21	4872	0.388
17:00 - 17:30	21	4872	0.052	21	4872	0.558	21	4872	0.610
17:30 - 18:00	21	4872	0.026	21	4872	0.298	21	4872	0.324
18:00 - 18:30	20	5107	0.014	20	5107	0.194	20	5107	0.208
18:30 - 19:00	20	5107	0.027	20	5107	0.094	20	5107	0.121
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			3.718			3.623			7.341

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.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL PEDESTRIANS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	20	5107	0.066	20	5107	0.004	20	5107	0.070
07:30 - 08:00	20	5107	0.074	20	5107	0.003	20	5107	0.077
08:00 - 08:30	21	4872	0.116	21	4872	0.008	21	4872	0.124
08:30 - 09:00	21	4872	0.174	21	4872	0.022	21	4872	0.196
09:00 - 09:30	21	4872	0.153	21	4872	0.045	21	4872	0.198
09:30 - 10:00	21	4872	0.132	21	4872	0.058	21	4872	0.190
10:00 - 10:30	21	4872	0.126	21	4872	0.087	21	4872	0.213
10:30 - 11:00	21	4872	0.158	21	4872	0.108	21	4872	0.266
11:00 - 11:30	21	4872	0.132	21	4872	0.153	21	4872	0.285
11:30 - 12:00	21	4872	0.138	21	4872	0.207	21	4872	0.345
12:00 - 12:30	21	4872	0.375	21	4872	0.635	21	4872	1.010
12:30 - 13:00	21	4872	0.457	21	4872	0.508	21	4872	0.965
13:00 - 13:30	21	4872	0.488	21	4872	0.489	21	4872	0.977
13:30 - 14:00	21	4872	0.464	21	4872	0.227	21	4872	0.691
14:00 - 14:30	21	4872	0.296	21	4872	0.177	21	4872	0.473
14:30 - 15:00	21	4872	0.156	21	4872	0.151	21	4872	0.307
15:00 - 15:30	21	4872	0.099	21	4872	0.145	21	4872	0.244
15:30 - 16:00	21	4872	0.082	21	4872	0.112	21	4872	0.194
16:00 - 16:30	21	4872	0.058	21	4872	0.137	21	4872	0.195
16:30 - 17:00	21	4872	0.029	21	4872	0.119	21	4872	0.148
17:00 - 17:30	21	4872	0.023	21	4872	0.189	21	4872	0.212
17:30 - 18:00	21	4872	0.016	21	4872	0.164	21	4872	0.180
18:00 - 18:30	20	5107	0.008	20	5107	0.065	20	5107	0.073
18:30 - 19:00	20	5107	0.005	20	5107	0.023	20	5107	0.028
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			3.825			3.836			7.661

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.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL BUS/TRAM PASSENGERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	20	5107	0.044	20	5107	0.000	20	5107	0.044
07:30 - 08:00	20	5107	0.037	20	5107	0.000	20	5107	0.037
08:00 - 08:30	21	4872	0.064	21	4872	0.000	21	4872	0.064
08:30 - 09:00	21	4872	0.080	21	4872	0.006	21	4872	0.086
09:00 - 09:30	21	4872	0.078	21	4872	0.007	21	4872	0.085
09:30 - 10:00	21	4872	0.059	21	4872	0.008	21	4872	0.067
10:00 - 10:30	21	4872	0.042	21	4872	0.018	21	4872	0.060
10:30 - 11:00	21	4872	0.024	21	4872	0.015	21	4872	0.039
11:00 - 11:30	21	4872	0.040	21	4872	0.042	21	4872	0.082
11:30 - 12:00	21	4872	0.018	21	4872	0.027	21	4872	0.045
12:00 - 12:30	21	4872	0.030	21	4872	0.031	21	4872	0.061
12:30 - 13:00	21	4872	0.023	21	4872	0.054	21	4872	0.077
13:00 - 13:30	21	4872	0.024	21	4872	0.046	21	4872	0.070
13:30 - 14:00	21	4872	0.022	21	4872	0.025	21	4872	0.047
14:00 - 14:30	21	4872	0.018	21	4872	0.021	21	4872	0.039
14:30 - 15:00	21	4872	0.024	21	4872	0.039	21	4872	0.063
15:00 - 15:30	21	4872	0.007	21	4872	0.041	21	4872	0.048
15:30 - 16:00	21	4872	0.026	21	4872	0.044	21	4872	0.070
16:00 - 16:30	21	4872	0.010	21	4872	0.037	21	4872	0.047
16:30 - 17:00	21	4872	0.011	21	4872	0.049	21	4872	0.060
17:00 - 17:30	21	4872	0.001	21	4872	0.078	21	4872	0.079
17:30 - 18:00	21	4872	0.000	21	4872	0.036	21	4872	0.036
18:00 - 18:30	20	5107	0.001	20	5107	0.032	20	5107	0.033
18:30 - 19:00	20	5107	0.001	20	5107	0.013	20	5107	0.014
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.684			0.669			1.353

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.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL TOTAL RAIL PASSENGERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	20	5107	0.028	20	5107	0.002	20	5107	0.030
07:30 - 08:00	20	5107	0.049	20	5107	0.001	20	5107	0.050
08:00 - 08:30	21	4872	0.049	21	4872	0.006	21	4872	0.055
08:30 - 09:00	21	4872	0.087	21	4872	0.001	21	4872	0.088
09:00 - 09:30	21	4872	0.077	21	4872	0.002	21	4872	0.079
09:30 - 10:00	21	4872	0.045	21	4872	0.005	21	4872	0.050
10:00 - 10:30	21	4872	0.012	21	4872	0.003	21	4872	0.015
10:30 - 11:00	21	4872	0.011	21	4872	0.003	21	4872	0.014
11:00 - 11:30	21	4872	0.009	21	4872	0.000	21	4872	0.009
11:30 - 12:00	21	4872	0.006	21	4872	0.004	21	4872	0.010
12:00 - 12:30	21	4872	0.005	21	4872	0.005	21	4872	0.010
12:30 - 13:00	21	4872	0.004	21	4872	0.010	21	4872	0.014
13:00 - 13:30	21	4872	0.005	21	4872	0.011	21	4872	0.016
13:30 - 14:00	21	4872	0.006	21	4872	0.010	21	4872	0.016
14:00 - 14:30	21	4872	0.011	21	4872	0.003	21	4872	0.014
14:30 - 15:00	21	4872	0.012	21	4872	0.037	21	4872	0.049
15:00 - 15:30	21	4872	0.002	21	4872	0.027	21	4872	0.029
15:30 - 16:00	21	4872	0.010	21	4872	0.038	21	4872	0.048
16:00 - 16:30	21	4872	0.005	21	4872	0.035	21	4872	0.040
16:30 - 17:00	21	4872	0.001	21	4872	0.048	21	4872	0.049
17:00 - 17:30	21	4872	0.008	21	4872	0.082	21	4872	0.090
17:30 - 18:00	21	4872	0.001	21	4872	0.041	21	4872	0.042
18:00 - 18:30	20	5107	0.004	20	5107	0.036	20	5107	0.040
18:30 - 19:00	20	5107	0.001	20	5107	0.020	20	5107	0.021
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.448			0.430			0.878

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.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	20	5107	0.072	20	5107	0.002	20	5107	0.074
07:30 - 08:00	20	5107	0.086	20	5107	0.001	20	5107	0.087
08:00 - 08:30	21	4872	0.112	21	4872	0.006	21	4872	0.118
08:30 - 09:00	21	4872	0.167	21	4872	0.007	21	4872	0.174
09:00 - 09:30	21	4872	0.155	21	4872	0.009	21	4872	0.164
09:30 - 10:00	21	4872	0.104	21	4872	0.013	21	4872	0.117
10:00 - 10:30	21	4872	0.054	21	4872	0.021	21	4872	0.075
10:30 - 11:00	21	4872	0.035	21	4872	0.018	21	4872	0.053
11:00 - 11:30	21	4872	0.049	21	4872	0.042	21	4872	0.091
11:30 - 12:00	21	4872	0.023	21	4872	0.031	21	4872	0.054
12:00 - 12:30	21	4872	0.035	21	4872	0.036	21	4872	0.071
12:30 - 13:00	21	4872	0.027	21	4872	0.064	21	4872	0.091
13:00 - 13:30	21	4872	0.029	21	4872	0.057	21	4872	0.086
13:30 - 14:00	21	4872	0.028	21	4872	0.035	21	4872	0.063
14:00 - 14:30	21	4872	0.028	21	4872	0.023	21	4872	0.051
14:30 - 15:00	21	4872	0.036	21	4872	0.076	21	4872	0.112
15:00 - 15:30	21	4872	0.009	21	4872	0.068	21	4872	0.077
15:30 - 16:00	21	4872	0.036	21	4872	0.082	21	4872	0.118
16:00 - 16:30	21	4872	0.015	21	4872	0.072	21	4872	0.087
16:30 - 17:00	21	4872	0.012	21	4872	0.097	21	4872	0.109
17:00 - 17:30	21	4872	0.009	21	4872	0.160	21	4872	0.169
17:30 - 18:00	21	4872	0.001	21	4872	0.077	21	4872	0.078
18:00 - 18:30	20	5107	0.005	20	5107	0.069	20	5107	0.074
18:30 - 19:00	20	5107	0.002	20	5107	0.032	20	5107	0.034
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			1.129			1.098			2.227

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.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	20	5107	0.304	20	5107	0.017	20	5107	0.321
07:30 - 08:00	20	5107	0.474	20	5107	0.023	20	5107	0.497
08:00 - 08:30	21	4872	0.725	21	4872	0.052	21	4872	0.777
08:30 - 09:00	21	4872	0.886	21	4872	0.075	21	4872	0.961
09:00 - 09:30	21	4872	0.745	21	4872	0.133	21	4872	0.878
09:30 - 10:00	21	4872	0.502	21	4872	0.154	21	4872	0.656
10:00 - 10:30	21	4872	0.358	21	4872	0.212	21	4872	0.570
10:30 - 11:00	21	4872	0.332	21	4872	0.209	21	4872	0.541
11:00 - 11:30	21	4872	0.271	21	4872	0.274	21	4872	0.545
11:30 - 12:00	21	4872	0.273	21	4872	0.338	21	4872	0.611
12:00 - 12:30	21	4872	0.517	21	4872	0.804	21	4872	1.321
12:30 - 13:00	21	4872	0.627	21	4872	0.719	21	4872	1.346
13:00 - 13:30	21	4872	0.667	21	4872	0.663	21	4872	1.330
13:30 - 14:00	21	4872	0.638	21	4872	0.376	21	4872	1.014
14:00 - 14:30	21	4872	0.416	21	4872	0.298	21	4872	0.714
14:30 - 15:00	21	4872	0.272	21	4872	0.387	21	4872	0.659
15:00 - 15:30	21	4872	0.190	21	4872	0.405	21	4872	0.595
15:30 - 16:00	21	4872	0.204	21	4872	0.457	21	4872	0.661
16:00 - 16:30	21	4872	0.149	21	4872	0.559	21	4872	0.708
16:30 - 17:00	21	4872	0.101	21	4872	0.551	21	4872	0.652
17:00 - 17:30	21	4872	0.085	21	4872	0.933	21	4872	1.018
17:30 - 18:00	21	4872	0.044	21	4872	0.578	21	4872	0.622
18:00 - 18:30	20	5107	0.028	20	5107	0.350	20	5107	0.378
18:30 - 19:00	20	5107	0.035	20	5107	0.153	20	5107	0.188
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			8.843			8.720			17.563

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.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL CARS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	20	5107	0.037	20	5107	0.003	20	5107	0.040
07:30 - 08:00	20	5107	0.117	20	5107	0.011	20	5107	0.128
08:00 - 08:30	21	4872	0.199	21	4872	0.008	21	4872	0.207
08:30 - 09:00	21	4872	0.245	21	4872	0.021	21	4872	0.266
09:00 - 09:30	21	4872	0.179	21	4872	0.040	21	4872	0.219
09:30 - 10:00	21	4872	0.118	21	4872	0.046	21	4872	0.164
10:00 - 10:30	21	4872	0.074	21	4872	0.065	21	4872	0.139
10:30 - 11:00	21	4872	0.073	21	4872	0.054	21	4872	0.127
11:00 - 11:30	21	4872	0.042	21	4872	0.034	21	4872	0.076
11:30 - 12:00	21	4872	0.056	21	4872	0.050	21	4872	0.106
12:00 - 12:30	21	4872	0.050	21	4872	0.066	21	4872	0.116
12:30 - 13:00	21	4872	0.063	21	4872	0.075	21	4872	0.138
13:00 - 13:30	21	4872	0.070	21	4872	0.060	21	4872	0.130
13:30 - 14:00	21	4872	0.079	21	4872	0.059	21	4872	0.138
14:00 - 14:30	21	4872	0.046	21	4872	0.055	21	4872	0.101
14:30 - 15:00	21	4872	0.038	21	4872	0.073	21	4872	0.111
15:00 - 15:30	21	4872	0.040	21	4872	0.072	21	4872	0.112
15:30 - 16:00	21	4872	0.036	21	4872	0.074	21	4872	0.110
16:00 - 16:30	21	4872	0.040	21	4872	0.123	21	4872	0.163
16:30 - 17:00	21	4872	0.031	21	4872	0.118	21	4872	0.149
17:00 - 17:30	21	4872	0.019	21	4872	0.248	21	4872	0.267
17:30 - 18:00	21	4872	0.017	21	4872	0.134	21	4872	0.151
18:00 - 18:30	20	5107	0.007	20	5107	0.112	20	5107	0.119
18:30 - 19:00	20	5107	0.006	20	5107	0.045	20	5107	0.051
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			1.682			1.646			3.328

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.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL LGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	20	5107	0.005	20	5107	0.004	20	5107	0.009
07:30 - 08:00	20	5107	0.012	20	5107	0.007	20	5107	0.019
08:00 - 08:30	21	4872	0.015	21	4872	0.022	21	4872	0.037
08:30 - 09:00	21	4872	0.018	21	4872	0.014	21	4872	0.032
09:00 - 09:30	21	4872	0.006	21	4872	0.015	21	4872	0.021
09:30 - 10:00	21	4872	0.011	21	4872	0.007	21	4872	0.018
10:00 - 10:30	21	4872	0.006	21	4872	0.009	21	4872	0.015
10:30 - 11:00	21	4872	0.011	21	4872	0.007	21	4872	0.018
11:00 - 11:30	21	4872	0.008	21	4872	0.010	21	4872	0.018
11:30 - 12:00	21	4872	0.007	21	4872	0.004	21	4872	0.011
12:00 - 12:30	21	4872	0.009	21	4872	0.008	21	4872	0.017
12:30 - 13:00	21	4872	0.011	21	4872	0.014	21	4872	0.025
13:00 - 13:30	21	4872	0.004	21	4872	0.004	21	4872	0.008
13:30 - 14:00	21	4872	0.008	21	4872	0.004	21	4872	0.012
14:00 - 14:30	21	4872	0.008	21	4872	0.003	21	4872	0.011
14:30 - 15:00	21	4872	0.007	21	4872	0.007	21	4872	0.014
15:00 - 15:30	21	4872	0.008	21	4872	0.011	21	4872	0.019
15:30 - 16:00	21	4872	0.011	21	4872	0.010	21	4872	0.021
16:00 - 16:30	21	4872	0.015	21	4872	0.019	21	4872	0.034
16:30 - 17:00	21	4872	0.012	21	4872	0.010	21	4872	0.022
17:00 - 17:30	21	4872	0.009	21	4872	0.007	21	4872	0.016
17:30 - 18:00	21	4872	0.008	21	4872	0.008	21	4872	0.016
18:00 - 18:30	20	5107	0.004	20	5107	0.006	20	5107	0.010
18:30 - 19:00	20	5107	0.002	20	5107	0.004	20	5107	0.006
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.215			0.214			0.429

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.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL MOTOR CYCLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	20	5107	0.001	20	5107	0.000	20	5107	0.001
07:30 - 08:00	20	5107	0.002	20	5107	0.000	20	5107	0.002
08:00 - 08:30	21	4872	0.003	21	4872	0.001	21	4872	0.004
08:30 - 09:00	21	4872	0.006	21	4872	0.001	21	4872	0.007
09:00 - 09:30	21	4872	0.005	21	4872	0.001	21	4872	0.006
09:30 - 10:00	21	4872	0.001	21	4872	0.001	21	4872	0.002
10:00 - 10:30	21	4872	0.003	21	4872	0.000	21	4872	0.003
10:30 - 11:00	21	4872	0.000	21	4872	0.000	21	4872	0.000
11:00 - 11:30	21	4872	0.000	21	4872	0.000	21	4872	0.000
11:30 - 12:00	21	4872	0.000	21	4872	0.001	21	4872	0.001
12:00 - 12:30	21	4872	0.001	21	4872	0.000	21	4872	0.001
12:30 - 13:00	21	4872	0.000	21	4872	0.001	21	4872	0.001
13:00 - 13:30	21	4872	0.000	21	4872	0.000	21	4872	0.000
13:30 - 14:00	21	4872	0.000	21	4872	0.000	21	4872	0.000
14:00 - 14:30	21	4872	0.002	21	4872	0.001	21	4872	0.003
14:30 - 15:00	21	4872	0.000	21	4872	0.000	21	4872	0.000
15:00 - 15:30	21	4872	0.000	21	4872	0.002	21	4872	0.002
15:30 - 16:00	21	4872	0.000	21	4872	0.003	21	4872	0.003
16:00 - 16:30	21	4872	0.001	21	4872	0.001	21	4872	0.002
16:30 - 17:00	21	4872	0.001	21	4872	0.002	21	4872	0.003
17:00 - 17:30	21	4872	0.001	21	4872	0.006	21	4872	0.007
17:30 - 18:00	21	4872	0.000	21	4872	0.005	21	4872	0.005
18:00 - 18:30	20	5107	0.000	20	5107	0.001	20	5107	0.001
18:30 - 19:00	20	5107	0.000	20	5107	0.000	20	5107	0.000
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 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.*

APPENDIX B. Residential Trip Rates

i-Transport LLP 4 Lombard Street London Licence No: 236603

Filtering Summary

Land Use	03/C	RESIDENTIAL/FLATS PRIVATELY OWNED
Selected Trip Rate Calculation Parameter Range	100-500 DWELLS	
Actual Trip Rate Calculation Parameter Range	6-175 DWELLS	
Date Range	Minimum: 01/01/12	Maximum: 18/11/19
Parking Spaces Range	All Surveys Included	
Parking Spaces Per Dwelling Range:	All Surveys Included	
Bedrooms Per Dwelling Range:	All Surveys Included	
Percentage of dwellings privately owned:	All Surveys Included	
Days of the week selected	Tuesday	7
	Wednesday	1
	Thursday	3
Main Location Types selected	Edge of Town Centre	9
	Edge of Town	2
Population <1 Mile ranges selected	10,001 to 15,000	3
	15,001 to 20,000	1
	25,001 to 50,000	7
Population <5 Mile ranges selected	5,001 to 25,000	1
	50,001 to 75,000	5
	125,001 to 250,000	3
	250,001 to 500,000	2
Car Ownership <5 Mile ranges selected	0.6 to 1.0	3
	1.1 to 1.5	8
PTAL Rating	No PTAL Present	11

Calculation Reference: AUDIT-236603-200806-0859

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : C - FLATS PRIVATELY OWNED
MULTI-MODAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	BD	BEDFORDSHIRE	3 days
	EX	ESSEX	2 days
	HC	HAMPSHIRE	1 days
	HF	HERTFORDSHIRE	1 days
04	EAST ANGLIA		
	NF	NORFOLK	1 days
	SF	SUFFOLK	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	RI	EAST RIDING OF YORKSHIRE	1 days
09	NORTH		
	CB	CUMBRIA	1 days

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

Primary Filtering 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: No of Dwellings
Actual Range: 6 to 175 (units:)
Range Selected by User: 100 to 500 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/12 to 18/11/19

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	7 days
Wednesday	1 days
Thursday	3 days

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

Selected survey types:

Manual count	11 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:

Edge of Town Centre	9
Edge of Town	2

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.

Selected Location Sub Categories:

Residential Zone	5
Built-Up Zone	4
No Sub Category	2

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.

Secondary Filtering selection:

Use Class:

C3	11 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:

10,001 to 15,000	3 days
15,001 to 20,000	1 days
25,001 to 50,000	7 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
50,001 to 75,000	5 days
125,001 to 250,000	3 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	3 days
1.1 to 1.5	8 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	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.

PTAL Rating:

No PTAL Present	11 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 BD-03-C-01 BLOCKS OF FLATS BEDFORDSHIRE
WING ROAD
LEIGHTON BUZZARD
LINSLADE
Edge of Town Centre
Residential Zone
Total No of Dwellings: 175
Survey date: TUESDAY *15/05/18* *Survey Type: MANUAL*

2 BD-03-C-02 BLOCKS OF FLATS BEDFORDSHIRE
STANBRIDGE ROAD
LEIGHTON BUZZARD

Edge of Town Centre
Residential Zone
Total No of Dwellings: 62
Survey date: TUESDAY *15/05/18* *Survey Type: MANUAL*

3 BD-03-C-03 BLOCKS OF FLATS BEDFORDSHIRE
COURT DRIVE
DUNSTABLE

Edge of Town Centre
No Sub Category
Total No of Dwellings: 146
Survey date: TUESDAY *15/05/18* *Survey Type: MANUAL*

4 CB-03-C-02 BLOCK OF FLATS CUMBRIA
BRIDGE LANE
PENRITH

Edge of Town
No Sub Category
Total No of Dwellings: 35
Survey date: WEDNESDAY *11/06/14* *Survey Type: MANUAL*

5 EX-03-C-01 FLATS ESSEX
WESTCLIFF PARADE
SOUTHEND-ON-SEA
WESTCLIFF
Edge of Town Centre
Residential Zone
Total No of Dwellings: 6
Survey date: TUESDAY *22/10/13* *Survey Type: MANUAL*

6 EX-03-C-02 BLOCK OF FLATS ESSEX
WESTCLIFF PARADE
SOUTHEND-ON-SEA
WESTCLIFF
Edge of Town Centre
Residential Zone
Total No of Dwellings: 94
Survey date: TUESDAY *22/10/13* *Survey Type: MANUAL*

7 HC-03-C-01 BLOCKS OF FLATS HAMPSHIRE
CROSS STREET
PORTSMOUTH

Edge of Town Centre
Built-Up Zone
Total No of Dwellings: 90
Survey date: TUESDAY *05/06/18* *Survey Type: MANUAL*

8 HF-03-C-03 BLOCK OF FLATS HERTFORDSHIRE
SHENLEY ROAD
BOREHAMWOOD

Edge of Town Centre
Built-Up Zone
Total No of Dwellings: 91
Survey date: THURSDAY *14/11/19* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9	NF-03-C-01 PAGE STAIR LANE KING'S LYNN	BLOCKS OF FLATS		NORFOLK
	Edge of Town Centre Built-Up Zone			
	Total No of Dwellings:		51	
	Survey date: THURSDAY		*11/12/14*	*Survey Type: MANUAL*
10	RI-03-C-01 465 PRIORY ROAD HULL	FLATS		EAST RIDING OF YORKSHIRE
	Edge of Town Residential Zone			
	Total No of Dwellings:		20	
	Survey date: TUESDAY		*13/05/14*	*Survey Type: MANUAL*
11	SF-03-C-01 STATION HILL BURY ST EDMUNDS	BLOCKS OF FLATS		SUFFOLK
	Edge of Town Centre Built-Up Zone			
	Total No of Dwellings:		85	
	Survey date: THURSDAY		*18/12/14*	*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/C - FLATS PRIVATELY OWNED
MULTI-MODAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	78	0.044	11	78	0.160	11	78	0.204
08:00 - 09:00	11	78	0.056	11	78	0.180	11	78	0.236
09:00 - 10:00	11	78	0.073	11	78	0.084	11	78	0.157
10:00 - 11:00	11	78	0.073	11	78	0.091	11	78	0.164
11:00 - 12:00	11	78	0.075	11	78	0.085	11	78	0.160
12:00 - 13:00	11	78	0.113	11	78	0.105	11	78	0.218
13:00 - 14:00	11	78	0.090	11	78	0.096	11	78	0.186
14:00 - 15:00	11	78	0.071	11	78	0.076	11	78	0.147
15:00 - 16:00	11	78	0.089	11	78	0.071	11	78	0.160
16:00 - 17:00	11	78	0.126	11	78	0.068	11	78	0.194
17:00 - 18:00	11	78	0.181	11	78	0.096	11	78	0.277
18:00 - 19:00	11	78	0.193	11	78	0.106	11	78	0.299
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.184			1.218			2.402

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:	6 - 175 (units:)
Survey date date range:	01/01/12 - 18/11/19
Number of weekdays (Monday-Friday):	11
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL TAXIS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	78	0.001	11	78	0.002	11	78	0.003
08:00 - 09:00	11	78	0.004	11	78	0.002	11	78	0.006
09:00 - 10:00	11	78	0.002	11	78	0.004	11	78	0.006
10:00 - 11:00	11	78	0.002	11	78	0.002	11	78	0.004
11:00 - 12:00	11	78	0.006	11	78	0.006	11	78	0.012
12:00 - 13:00	11	78	0.007	11	78	0.007	11	78	0.014
13:00 - 14:00	11	78	0.001	11	78	0.001	11	78	0.002
14:00 - 15:00	11	78	0.000	11	78	0.000	11	78	0.000
15:00 - 16:00	11	78	0.001	11	78	0.001	11	78	0.002
16:00 - 17:00	11	78	0.005	11	78	0.005	11	78	0.010
17:00 - 18:00	11	78	0.004	11	78	0.004	11	78	0.008
18:00 - 19:00	11	78	0.002	11	78	0.001	11	78	0.003
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.035			0.035			0.070

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.*

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL OGVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	78	0.005	11	78	0.005	11	78	0.010
08:00 - 09:00	11	78	0.000	11	78	0.000	11	78	0.000
09:00 - 10:00	11	78	0.001	11	78	0.001	11	78	0.002
10:00 - 11:00	11	78	0.000	11	78	0.000	11	78	0.000
11:00 - 12:00	11	78	0.001	11	78	0.000	11	78	0.001
12:00 - 13:00	11	78	0.001	11	78	0.002	11	78	0.003
13:00 - 14:00	11	78	0.001	11	78	0.001	11	78	0.002
14:00 - 15:00	11	78	0.000	11	78	0.000	11	78	0.000
15:00 - 16:00	11	78	0.000	11	78	0.000	11	78	0.000
16:00 - 17:00	11	78	0.000	11	78	0.000	11	78	0.000
17:00 - 18:00	11	78	0.000	11	78	0.000	11	78	0.000
18:00 - 19:00	11	78	0.000	11	78	0.000	11	78	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.009			0.009			0.018

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.*

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL CYCLISTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	78	0.001	11	78	0.008	11	78	0.009
08:00 - 09:00	11	78	0.002	11	78	0.011	11	78	0.013
09:00 - 10:00	11	78	0.001	11	78	0.001	11	78	0.002
10:00 - 11:00	11	78	0.002	11	78	0.004	11	78	0.006
11:00 - 12:00	11	78	0.007	11	78	0.006	11	78	0.013
12:00 - 13:00	11	78	0.002	11	78	0.004	11	78	0.006
13:00 - 14:00	11	78	0.002	11	78	0.002	11	78	0.004
14:00 - 15:00	11	78	0.004	11	78	0.001	11	78	0.005
15:00 - 16:00	11	78	0.005	11	78	0.001	11	78	0.006
16:00 - 17:00	11	78	0.002	11	78	0.001	11	78	0.003
17:00 - 18:00	11	78	0.009	11	78	0.004	11	78	0.013
18:00 - 19:00	11	78	0.004	11	78	0.000	11	78	0.004
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.041			0.043			0.084

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.*

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL VEHICLE OCCUPANTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	78	0.056	11	78	0.234	11	78	0.290
08:00 - 09:00	11	78	0.067	11	78	0.304	11	78	0.371
09:00 - 10:00	11	78	0.101	11	78	0.112	11	78	0.213
10:00 - 11:00	11	78	0.094	11	78	0.127	11	78	0.221
11:00 - 12:00	11	78	0.095	11	78	0.113	11	78	0.208
12:00 - 13:00	11	78	0.151	11	78	0.156	11	78	0.307
13:00 - 14:00	11	78	0.129	11	78	0.117	11	78	0.246
14:00 - 15:00	11	78	0.087	11	78	0.103	11	78	0.190
15:00 - 16:00	11	78	0.136	11	78	0.099	11	78	0.235
16:00 - 17:00	11	78	0.199	11	78	0.087	11	78	0.286
17:00 - 18:00	11	78	0.283	11	78	0.131	11	78	0.414
18:00 - 19:00	11	78	0.322	11	78	0.146	11	78	0.468
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.720			1.729			3.449

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.*

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL PEDESTRIANS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	78	0.020	11	78	0.064	11	78	0.084
08:00 - 09:00	11	78	0.021	11	78	0.071	11	78	0.092
09:00 - 10:00	11	78	0.040	11	78	0.049	11	78	0.089
10:00 - 11:00	11	78	0.053	11	78	0.040	11	78	0.093
11:00 - 12:00	11	78	0.033	11	78	0.036	11	78	0.069
12:00 - 13:00	11	78	0.050	11	78	0.044	11	78	0.094
13:00 - 14:00	11	78	0.044	11	78	0.036	11	78	0.080
14:00 - 15:00	11	78	0.041	11	78	0.042	11	78	0.083
15:00 - 16:00	11	78	0.054	11	78	0.046	11	78	0.100
16:00 - 17:00	11	78	0.057	11	78	0.055	11	78	0.112
17:00 - 18:00	11	78	0.067	11	78	0.061	11	78	0.128
18:00 - 19:00	11	78	0.071	11	78	0.062	11	78	0.133
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.551			0.606			1.157

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.*

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL BUS/TRAM PASSENGERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	78	0.001	11	78	0.042	11	78	0.043
08:00 - 09:00	11	78	0.009	11	78	0.090	11	78	0.099
09:00 - 10:00	11	78	0.002	11	78	0.026	11	78	0.028
10:00 - 11:00	11	78	0.006	11	78	0.006	11	78	0.012
11:00 - 12:00	11	78	0.009	11	78	0.007	11	78	0.016
12:00 - 13:00	11	78	0.019	11	78	0.020	11	78	0.039
13:00 - 14:00	11	78	0.012	11	78	0.025	11	78	0.037
14:00 - 15:00	11	78	0.019	11	78	0.011	11	78	0.030
15:00 - 16:00	11	78	0.060	11	78	0.015	11	78	0.075
16:00 - 17:00	11	78	0.027	11	78	0.009	11	78	0.036
17:00 - 18:00	11	78	0.051	11	78	0.009	11	78	0.060
18:00 - 19:00	11	78	0.046	11	78	0.011	11	78	0.057
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.261			0.271			0.532

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.*

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL TOTAL RAIL PASSENGERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	78	0.000	11	78	0.026	11	78	0.026
08:00 - 09:00	11	78	0.001	11	78	0.023	11	78	0.024
09:00 - 10:00	11	78	0.000	11	78	0.009	11	78	0.009
10:00 - 11:00	11	78	0.006	11	78	0.004	11	78	0.010
11:00 - 12:00	11	78	0.002	11	78	0.001	11	78	0.003
12:00 - 13:00	11	78	0.005	11	78	0.004	11	78	0.009
13:00 - 14:00	11	78	0.002	11	78	0.004	11	78	0.006
14:00 - 15:00	11	78	0.002	11	78	0.001	11	78	0.003
15:00 - 16:00	11	78	0.006	11	78	0.000	11	78	0.006
16:00 - 17:00	11	78	0.020	11	78	0.000	11	78	0.020
17:00 - 18:00	11	78	0.022	11	78	0.000	11	78	0.022
18:00 - 19:00	11	78	0.013	11	78	0.002	11	78	0.015
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.079			0.074			0.153

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.*

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	78	0.001	11	78	0.068	11	78	0.069
08:00 - 09:00	11	78	0.011	11	78	0.113	11	78	0.124
09:00 - 10:00	11	78	0.002	11	78	0.035	11	78	0.037
10:00 - 11:00	11	78	0.011	11	78	0.009	11	78	0.020
11:00 - 12:00	11	78	0.009	11	78	0.008	11	78	0.017
12:00 - 13:00	11	78	0.023	11	78	0.023	11	78	0.046
13:00 - 14:00	11	78	0.015	11	78	0.028	11	78	0.043
14:00 - 15:00	11	78	0.020	11	78	0.012	11	78	0.032
15:00 - 16:00	11	78	0.067	11	78	0.015	11	78	0.082
16:00 - 17:00	11	78	0.047	11	78	0.009	11	78	0.056
17:00 - 18:00	11	78	0.074	11	78	0.009	11	78	0.083
18:00 - 19:00	11	78	0.061	11	78	0.013	11	78	0.074
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.341			0.342			0.683

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.*

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	78	0.078	11	78	0.374	11	78	0.452
08:00 - 09:00	11	78	0.101	11	78	0.499	11	78	0.600
09:00 - 10:00	11	78	0.144	11	78	0.198	11	78	0.342
10:00 - 11:00	11	78	0.159	11	78	0.180	11	78	0.339
11:00 - 12:00	11	78	0.144	11	78	0.164	11	78	0.308
12:00 - 13:00	11	78	0.227	11	78	0.227	11	78	0.454
13:00 - 14:00	11	78	0.191	11	78	0.184	11	78	0.375
14:00 - 15:00	11	78	0.151	11	78	0.158	11	78	0.309
15:00 - 16:00	11	78	0.261	11	78	0.161	11	78	0.422
16:00 - 17:00	11	78	0.305	11	78	0.152	11	78	0.457
17:00 - 18:00	11	78	0.433	11	78	0.205	11	78	0.638
18:00 - 19:00	11	78	0.457	11	78	0.221	11	78	0.678
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.651			2.723			5.374

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.*

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL CARS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	78	0.026	11	78	0.127	11	78	0.153
08:00 - 09:00	11	78	0.032	11	78	0.146	11	78	0.178
09:00 - 10:00	11	78	0.039	11	78	0.048	11	78	0.087
10:00 - 11:00	11	78	0.042	11	78	0.050	11	78	0.092
11:00 - 12:00	11	78	0.036	11	78	0.049	11	78	0.085
12:00 - 13:00	11	78	0.062	11	78	0.058	11	78	0.120
13:00 - 14:00	11	78	0.047	11	78	0.049	11	78	0.096
14:00 - 15:00	11	78	0.042	11	78	0.044	11	78	0.086
15:00 - 16:00	11	78	0.055	11	78	0.039	11	78	0.094
16:00 - 17:00	11	78	0.084	11	78	0.035	11	78	0.119
17:00 - 18:00	11	78	0.135	11	78	0.070	11	78	0.205
18:00 - 19:00	11	78	0.163	11	78	0.084	11	78	0.247
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.763			0.799			1.562

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.*

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL LGVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	78	0.006	11	78	0.013	11	78	0.019
08:00 - 09:00	11	78	0.009	11	78	0.012	11	78	0.021
09:00 - 10:00	11	78	0.012	11	78	0.009	11	78	0.021
10:00 - 11:00	11	78	0.009	11	78	0.013	11	78	0.022
11:00 - 12:00	11	78	0.016	11	78	0.016	11	78	0.032
12:00 - 13:00	11	78	0.021	11	78	0.018	11	78	0.039
13:00 - 14:00	11	78	0.011	11	78	0.014	11	78	0.025
14:00 - 15:00	11	78	0.009	11	78	0.009	11	78	0.018
15:00 - 16:00	11	78	0.015	11	78	0.013	11	78	0.028
16:00 - 17:00	11	78	0.012	11	78	0.014	11	78	0.026
17:00 - 18:00	11	78	0.013	11	78	0.004	11	78	0.017
18:00 - 19:00	11	78	0.007	11	78	0.006	11	78	0.013
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.140			0.141			0.281

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.*

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL MOTOR CYCLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	11	78	0.001	11	78	0.000	11	78	0.001
08:00 - 09:00	11	78	0.000	11	78	0.000	11	78	0.000
09:00 - 10:00	11	78	0.000	11	78	0.000	11	78	0.000
10:00 - 11:00	11	78	0.000	11	78	0.000	11	78	0.000
11:00 - 12:00	11	78	0.000	11	78	0.000	11	78	0.000
12:00 - 13:00	11	78	0.001	11	78	0.001	11	78	0.002
13:00 - 14:00	11	78	0.001	11	78	0.002	11	78	0.003
14:00 - 15:00	11	78	0.000	11	78	0.000	11	78	0.000
15:00 - 16:00	11	78	0.000	11	78	0.000	11	78	0.000
16:00 - 17:00	11	78	0.000	11	78	0.000	11	78	0.000
17:00 - 18:00	11	78	0.002	11	78	0.001	11	78	0.003
18:00 - 19:00	11	78	0.001	11	78	0.001	11	78	0.002
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.006			0.005			0.011

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.*

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