

RIDGE

TRANSPORT STATEMENT ST JOHN'S WOOD PARK – LONDON

INDIGO PLANNING

ST JOHN'S WOOD PARK - LONDON INDIGO PLANNING

1st October 2018

Prepared for

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CONTENTS

1. INTRO	DUCTION	3
1.1.	Background	3
1.2.	Site Location	3
2. PLANN	IING POLICY	5
2.1.	National Planning Policy Framework – July 2018	5
2.2.	Mayor's Transport Strategy – March 2018	5
2.3.	London Borough of Camden Policies	6
3. EXISTII	NG TRANSPORT CONDITIONS	8
3.1.	Highway Network	8
3.2.	Accessibility	8
3.3.	Sustainability of Site Location	11
3.4.	Current Modal Splits in the Borough	12
3.5.	Personal Injury Collision Data	12
4. DEVEL	OPMENT PROPOSAL	15
4.1.	Overview	15
4.2.	Parking Standards	15
4.3.	Access and servicing	16
5. TRAFFI	IC IMPACT	17
5.1.	Trip Generation	17
5.2.	Trip Generation Impact	18
6. SUMM	1ARY AND CONCLUSION	19
6.1.	Summary	19
6.2.	Conclusions	19
APPENDI	IX A – SITE LAYOUT	21
APPENDI	IX B – PTAL MAP	22
APPENDI	X C – TRICS OUTPUT	23

1. INTRODUCTION

1.1. Background

Ridge & Partners LLP has been commissioned by Indigo Planning to provide transport planning consultancy services to support the submission of a planning application relating to the construction of a new 6 storey block comprising a mixture of 9 two, three and four-bedroom apartment units. The existing site is vacant, with the previous building having been demolished.

This assessment has been prepared in accordance with Transport for London (TfL) and London Borough of Camden's (LBC) development policies and is compatible with National Planning Policy Guidance (NPPF).

1.2. Site Location

The proposed development site is located adjacent to 1 St John's Wood Park, NW8 6QS, approximately 1 mile south of Hampstead, London. The site is located within a primarily residential area and is bounded by housing on all sides. The location of the site in the context of the wider area is shown in Figure 1 below.



Figure 1. Site Location. (Source: Google Maps)

This Transport Statement has been produced based on the requirements of the National Planning Policy Framework (NPPF) and Local Authority guidance to assess the transport impacts of the proposed redevelopment in terms of trip generation, impact on the local highway network resulting from development, historical traffic collision analysis along with the sustainability of the site as well as site access and parking provisions.

This Transport Assessment is structured as follows;

• Chapter 2 provides a summary of the relevant policies from the NPPF (2018), The Mayor's Transport Strategy and the Camden Local Development Framework in relation to the proposed re-development;

- Chapter 3 summarises the baseline highway network, public transport, walking and cycling as well as analysing the sustainability of the proposed site location. It also provides analysis of traffic collision data obtained from CrashMap;
- Chapter 4 provides an overview of the proposed development, parking and access provisions along with layout suitability in terms of access, servicing and delivery;
- Chapter 5 details the trip generation calculations carried out to establish the impact upon the local network.
- Chapter 6 presents the summary and conclusions of the Transport Statement.

The architects layout of the site has been included as Appendix A.

2. PLANNING POLICY

2.1. National Planning Policy Framework – July 2018

The updated National Planning Policy Framework (NPPF) was published by the Department for Communities and Local Government in July 2018 to replace the NPPF published in March 2012 and National Planning Policy Guidance Notes and Planning Policy Statements.

The document states that Transport issues should be considered from the earliest stages of plan-making and development proposals so that the potential impacts of development on transport networks can be addressed;

- Opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;
- Opportunities to promote walking, cycling and public transport use are identified and pursued;
- The environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and
- Patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places

Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes.

At a more detailed level, the NPPF states that developments should be located and designed in order to:

- Give priority to pedestrian and cycle movements and have access to high quality public transport facilities;
- Address the needs of people with disabilities and reduced mobility;
- Create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians

2.2. Mayor's Transport Strategy – March 2018

The Mayor of London's Transport Strategy was formally adopted in March 2018, following a detailed consultation process by Transport for London and the publication of a draft document in 2017, and sets out the Mayor's core transport policies in London over the next two decades.

The foundation of the Mayor's strategy is dependent upon 'Good Growth' in terms of connecting economic components of the city and residential developments through the availability of good transport connections. Planning streets and places around walking, cycling and public transport will increase active and sustainable travel for short trips and will support a shift away from car dependency. The 'Good Growth' strategy aims to ensure that regeneration and new development schemes incorporate the Mayor's principles. Transport has a role to play in delivering growth that satisfies the following principles:

- Good access to public transport
- High-density, mixed-use developments
- People choose to walk and cycle
- Car-free and car-lite places
- Inclusive, accessible design
- Carbon-free travel
- Efficient freight

The principles of 'Good Growth' feed directly into Policy 21, which states that:

"The Mayor, through TfL and the boroughs, and working with stakeholders, will ensure that new homes and jobs in London are delivered in line with the transport principles of Good Growth for current and future Londoners by using transport to:

a) Create high-density, mixed-use places, andb) Unlock growth potential in underdeveloped parts of the city"

The Mayor's strategy goes onto outline that commercial and residential development should be planned around good public transport access and well-connected town centres, so fewer people need to rely on cars. Fundamentally, this means that development should be suitably located where there is good access to public transport.

2.3. London Borough of Camden Policies

Camden Planning Guidance (CPG) 7: Transport

This guidance is consistent with the Core Strategy and the Development Policies and forms a Supplementary Planning Document (SPD) which is an additional 'material consideration' in planning divisions. The guidance supports the following Local Development Framework Policies:

Core Strategy

- CS11 promoting sustainable and efficient travel
- DP16 the transport implications of development
- DP17 walking, cycling and public transport
- DP18 Parking standards and limiting the availability of car parking
- DP19 Managing the impact of parking

Local Development Framework – 2010-2025

The Camden Local Development Framework sets out the planning strategy and policies for the Borough from 2010 to 2025. The framework helps to achieve the vision and objectives of Camden's Community Strategy.

Policy DP16 – The Transport Implications of Development states that:

"The Council will seek to ensure that development is properly integrated with the transport network and is supported by adequate walking, cycling and public transport links. We will resist development that fails to assess and address any need for: a) movements to, from and within the site, including links to existing transport networks. We will expect proposals to make appropriate connections to highways and street spaces, in accordance with Camden's road hierarchy, and to public transport networks; b) additional transport capacity off-site (such as improved infrastructure and services) where existing or committed capacity cannot meet the additional need generated by the development. Where appropriate, the Council will expect proposals to provide information to indicate the likely impacts of the development and the steps that will be taken to mitigate those impacts, for example using transport assessments and travel plans; c) safe pick-up, drop-off and waiting areas for taxis, private cars and coaches, where this activity is likely to be associated with the development."

Policy DP17 – Walking, Cycling and Public Transport states that:

"The Council will promote walking, cycling and public transport use. Development should make suitable provision for pedestrians, cyclists and public transport and, where appropriate, will also be required to provide for interchanging between different modes of transport."

Policy DP18 - Parking Standards and Limiting the Availability of Car Parking

The Council will expect development to be car free in the Central London Area, the town centres of Camden Town, Finchley Road / Swiss Cottage, Kentish Town, Kilburn High Road and West Hampstead, and other areas within Controlled Parking Zones that are easily accessible by public transport.

Policy DP19 - Managing the Impact of Parking

Development that will reduce the amount of on-street parking or add to on-street parking demand will be resisted where it would cause unacceptable parking pressure, particularly in areas of identified parking stress. Policy DP18 states that, where the need for parking is accepted, developments in areas of high on-street parking stress should be 'car capped'.

Camden Core Strategy 2010 - 2025

Camden's Core Strategy sets out the key elements of the Council's planning vision and strategy for the borough. It will be the central part of our Local Development Framework (LDF), a group of documents setting out our planning strategy and policies. All other Local Development Framework documents must be consistent with the Core Strategy.

The Core Strategy contributes to achieving the vision and objectives of Camden's Community Strategy and helps the Council's partners and other organisations deliver relevant parts of their programmes. Almost 210,000 people currently live in the borough and it is estimated that Camden's population will grow by 18% between 2006 and 2026.

Camden's Transport

The number of people cycling in Camden increased dramatically over the last decade, while walking accounts for nearly half of the journeys taken by Camden residents, almost twice the national average. The Borough has extensive coverage by bus, tube and suburban rail.

Camden also has three major mainline railway stations (King's Cross, Euston and St Pancras) and a gateway to/from mainland Europe in the Eurostar terminal at St Pancras. 56% of Camden households have no access to a car or van. The overall vision of the Community Strategy and the Core Strategy is that Camden will be a borough of opportunity.

CS11- Promoting Sustainable and Efficient Travel

Camden benefits from excellent transport provision. Policy CS11 promotes a range of sustainable transport measures and the delivery of additional infrastructure to support growth and relieve existing pressures on the transport system. It builds on, and helps to deliver, the sustainable transport priorities established in the Council's Green Transport Strategy. This aims to encouraging more walking and cycling and reduce traffic in the Borough by 15% from 2001 levels.

Based upon the above policy analysis the development proposal complies with core policies outlined within the NPPF, Mayor's Transport Strategy, Camden Local Development Framework and Core Strategy. The development site would be promoting sustainable development and promoting an active modal shift away from private car trips by being located in an area within close proximity to public transport hubs, with good accessibility to goods and services whilst promoting opportunities for walking and cycling.

3. EXISTING TRANSPORT CONDITIONS

3.1. Highway Network

The main access to the site is via a one-way street; St John's Wood Park connected by Boundary Road and Queens's Grove from the A41 (Finchley Road). St John's Wood Park connects to Adelaide Road (B509) in the north and on to the A41 (Finchley Road). St John's Wood Park runs in an approximate north-south alignment and is subject to a 30mph speed limit which then decreases to a 20mph restriction at a point approximately 120m south of the site until it connects to Adelaide Road (Refer Photograph 2).

All the surrounding local network are controlled parking Zones with 'Permit Holders only' from Monday to Friday, 8:30am – 6:30pm with no waiting restrictions for the same time-period (Refer Photograph 1). St John's Wood Park has 'Permit Holders only' on both approaches of the road.



Photograph 1 Speed Limits and Parking Restrictions

3.2. Accessibility

Public Transport - Bus

The proposed development is located within close proximity to bus stops on Finchley Road (A41some 340m west of the site. See Table 1 overleaf for summary of currently operating bus routes.

Footways with street lighting and signalised pedestrian crossing facilities are present for the length of pedestrian movement between the site and the bus stops, enabling safe access between the locations.

Bus stops, provided with shelters, seating and time table information are located within close proximity to the site (Photograph 2).



Photograph 2. Bus Stop SB

BUS STOP	SERVICE	ROUTE	APPROXIMATE FREQUENCY	BUS OPERATOR
	13	Victoria – North Finchley Bus Station	3-7 minutes	TfL
Finalday Dand	46	Lancaster Gate – St Bartholomew's Hospital	9-12 minutes	TfL
Finchley Road - NB	113	Oxford Circus – Edgware	5-9 minutes	TfL
	187	02 Centre – Finchley Road	11-12 minutes	TfL
	N113	Trafalgar Square – Edgware Bus Station	Night bus between 00:27 – 04:02 approximately every 30 minutes	TfL
	13	North Finchley Bus Station – Victoria	3-7 minutes	TfL
	46	St Bartholomew's Hospital – Lancaster Gate	9-12 minutes	TfL
Finchley Road - SB	113	Edgware – Oxford Circus	5-9 minutes	TfL
- 36	187	Finchley Road – 02 Centre	11-12 minutes	TfL
	N113	Edgware Bus Station – Trafalgar Square	Night bus between 00:27 – 04:02 approximately every 30 minutes	TfL

Table 1. Summary of bus routes operating within proximity to the development site.

Public Transport – Train

The closest rail station that serves the proposed development is South Hampstead, located approximately 600m north-west of the site which services the London Overground line. South Hampstead is located within Zone 2 and serves regular services to/from Euston and Watford Junction approximately every 20 minutes.

The closest London Underground station is Swiss Cottage, located approximately 340m north of the site. Swiss Cottage is located on the Jubilee Line within Zone 2 running regular services, approximately every 3 minutes. The Jubilee Line runs to/from Stanmore and Stratford with a total of 25 stops which enable connections to the Central, Circle, District, Northern, Bakerloo, Waterloo, Piccadilly, Victoria, Hammersmith and Metropolitan Lines as well as the Docklands Light Rail (DLR) and London Overground.

The site has a Public Transport Access Level (PTAL) rating of 6A. which is one step below the highest level of public transport connectivity as show in the Appendix B.

Walking and Cycling

There are wide footways (approximately up to 3.3m) and street lighting present on all roads within the vicinity of the development site and to local bus stops and the train station, enabling excellent connectivity to public transport services as well as local goods and services.

There are cycle markings (Photograph 3) present on St John's Wood Park, combined with a low speed restriction, making cycling an attractive mode of travel for residents of the proposed development.



Photograph 3 Cycle Lane and Markings

The site is located approximately 6.2km west of National Cycle Route 162. Route 162 comprises 2.2 km of shared footway connecting Highbury and Islington underground station to Finsbury Park underground station.

3.3. Sustainability of Site Location

The proposed development site is located within good walking and cycling proximity to several public transport and other core amenities, potentially minimising trips by single occupancy vehicles generated by the site. The approximate walking and cycling distances between these amenities and the site are summarised within Table 2 below. All distances have been calculated from the centre of the site.

NAME	DISTANCE (M)	1KM WALKING ¹	4KM CYCLING ²
	Retail		
TESCO EXPRESS	680	✓	√
WAITROSE	730	✓	√
O2 CENTRE	950	✓	✓
Pub	lic Transport		
FINCHLEY ROAD BUS STOPS	340	✓	✓
SWISS COTTAGE UNDERGROUND	340	✓	✓
SOUTH HAMPSTEAD	600	✓	✓
	Education		
UCL ACADEMY	280	✓	✓
SWISS COTTAGE SCHOOL	300	✓	✓
BRIGHT HORIZONS ST JOHN'S WOOD	440	✓	√
	Health		
TAVISTOCK AND PORTMAN NHS FOUNDATION	J 790	✓	√
HOSPITAL OF SAINT JOHN AND SAINT	940	✓	✓
THE WELLINGTON HOSPITAL	1,200	×	✓
	Other		
SWISS COTTAGE LEISURE CENTRE	225	✓	✓
BARCLAYS BANK	400	✓	✓
HAMPSTEAD THEATRE	560	✓	✓
POST OFFICE	590	\checkmark	√

¹Guidlines for Providing Journeys on Foot, IHT 2000 ²LTN 1/04 Policy, Planning and Design for Walking and Cycling Table 2. Walking/Cycling distances from the proposed development and local core amenities.

Based upon the data within Table 2, it can be concluded that the development site is located within excellent walking and cycling distances to a number of core amenities, thereby potentially reducing the number of vehicular trips generated by the proposed re-development.

3.4. Current Modal Splits in the Borough

Looking at the neighbourhood statistics as supplied from the 2011 census by the Office for National Statistics, the modal splits for travel to work are as noted below:

TRANSPORT MODE	LB CAMDEN (%)	BELSIZE PARK (%)
Work from home	7.2	7.6
Public Transport	33.0	43.8
Car/Van	6.6	7.3
Cycle	5.7	3.5
Motorised two wheelers	1.0	1.0
Walk	11.6	7.0
Others	1.1	1.0
Not in Employment	33.8	28.8

Table 3. Modal Split in the Borough.

Also, with regard to car/van ownership:

OWNERSHIP CONSIDERATION BY HOUSEHOLD	LB CAMDEN (%)	BELSIZE PARK (%)
No car ownership	61.1	53.1
Single car ownership	31.8	38.4
Multiple car ownership	7.1	8.5
	100	100

Table 4. Car Ownership by household.

Although the data is from 2011, more recent nationally-based data supports the trend that growth in traffic numbers is not growing as forecast in the mid-2000's and some reports indicate that the growth is flat-lining.

The site conforms to trends in urban centres, car ownership is lower where public transport provision is relatively better with majority of commuters using sustainable modes. Increase in car-free developments as proposed along with the improvement in public transport provision, is further delivering incentives for sustainable transport in accordance with local and national policies.

3.5. Personal Injury Collision Data

Personal Injury Collision (PIC) data has been obtained from CrashMap for the latest available 5-year period within the proximity of the proposed development site. The accidents displayed in Figure 2 overleaf, are colour coded according to severity, with black representing fatal accidents, red representing serious injury accidents and yellow representing slight injury accidents. The points shown have reference numbers (in red) which relate to the individual records represented in Table 5 following.



Figure 2. PIC Data. Source: CrashMap

Reference Number	Date	Severity	Number of Vehicles Involved	Number of Casualties
1	11/09/2015	Slight	5	1
2	05/06/2013	Slight	2	1
3	15/09/2013	Slight	2	2
4	01/06/2015	Slight	2	1
5	03/05/2014	Slight	1	1
6	25/12/2016	Slight	1	1
7	07/04/2015	Slight	1	3
8	13/11/2015	Slight	2	1

Table 5. PIC Data Breakdown. Source: CrashMap.

It is considered that, based on the above analysis, the PIC data presented does not suggest there are any existing issues with the highway network immediately local to the site. No fatal accidents were recorded within the study area and the slight and serious injury accidents that did occur can be classified as being due to human error, as opposed to highway network issues.

4. DEVELOPMENT PROPOSAL

4.1. Overview

The development site is located on land adjacent to 1 St John's Wood Park, NW8 6QS approximately 1 mile south of Hampstead, London. The existing site currently comprises a vacant plot of land. The development proposal relates to the construction of a 6 storey building comprising of a mixture of 9 two, three and four-bedroom units. No car parking is to be provided for the development.

4.2. Parking Standards

Taking guidance from the Camden Development Policies (2010-2025) the car parking standard requirement for C3 – Residential development (housing) states that:

"Low parking provision areas: maximum of 0.5 spaces per dwelling Rest of borough: maximum of 1 space per dwelling"

However, Policy T2 of the Camden Local Plan 2017 details Camden's parking policy in relation to new developments. It replaces the Core Strategy and Development Policies planning documents (adopted in 2010) and states the following in relation to parking provision at developments:

Policy T2 Parking and Car Free Development

The Council will limit the availability of parking and require all new developments in the borough to be car-free. We will:

a) Not issue on-street or on-site parking permits in connection with new developments and use legal agreements to ensure that future occupants are aware that they are not entitled to on-street parking permits;

b) Limit on-site parking to:

- i. Spaces designated for disabled people where necessary, and / or
- ii. Essential operational or servicing needs;
- c) Support the redevelopment of existing car parks for alternative uses; and
- d) Resist the development of boundary treatments and gardens to provide vehicle crossovers and on-site parking.

The above policy means that no parking spaces are provided within the site. It also prevents future occupiers being provided with on-street parking permits.

The car free parking policy is justified on the basis that the Camden is well connected to essential day to day services such as shops, healthcare and education facilities and employment opportunities. Such facilities are considered by Camden to be no more than a short journey away by walking, cycling or public transport. Camden also identify that the Borough benefits from the largest car club network in London with over 250 car club parking bays, that would provide an alternative to private car ownership. Details regarding car club spaces and service providers around the site can be accessed via the TfL website (https://tfl.gov.uk/modes/driving/car-clubs). A number of spaces are available in close proximity of the site as shown in Figure 3 overleaf. The nearest car club space is in Boundary Lane, approximately 280m southwest from the site.

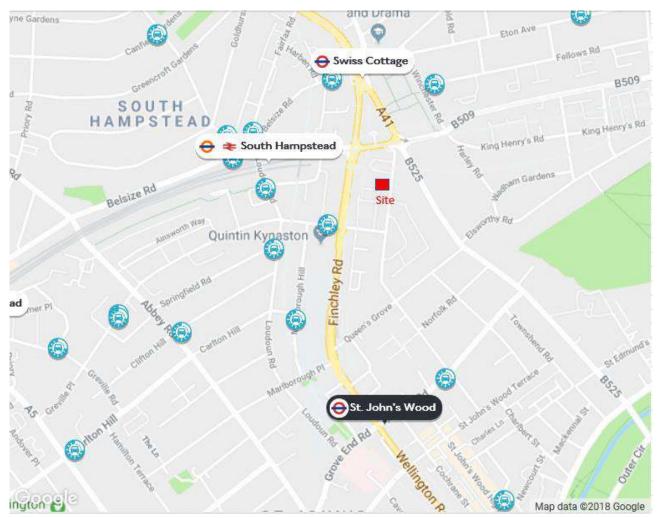


Figure 3. Car Club spaces within proximity of the site.

The cycle parking standards as set out in the London Plan are outlined within Table 6 below.

Category	Standard	Requirement	Provision
0	Long Stay: 2 storage or parking space per unit (For dwellings with more than 1 bedroom)	18	18
Cycle	Visitors: from threshold of 40 units, 1 space per 10 units or part thereof	N/A	

Table 6. Cycle Parking Standard.

The scheme includes 18 cycle spaces, 16 in double stackers in the communal cycle store and 2 in the garden of the ground floor unit.

4.3. Access and servicing

The present frontal access from St John's Wood Park will be retained for pedestrian access. A gated pedestrian route through the site provides access to the bins and cycle shed. All delivery and servicing has been proposed to be from the St John's Wood Park street front.

5. TRAFFIC IMPACT

5.1. Trip Generation

A trip generation exercise has been undertaken utilising the TRICS database in order to determine the likely multi-modal trip generation associated with the proposed development upon the local network. As no car parking is being provided for the development it is assumed that no vehicular trips will be generated by the site. Any servicing/delivery trips will already be present on the network, so can therefore not considered to be new trips generated by the proposed development. The multi-modal trip generation, as set out in Tables 7 and 10 below, are based on the 'Residential – Flats Privately Owned' selection criteria on TRICS. Only similar sites within Greater London were included within the analysis. The full TRICS output is included as Appendix C.

As no vehicular trips will be generated by the development proposal the number of trips related to 'Vehicle Occupants' within the TRICS database results have been re-distributed onto Pedestrian, Cycle, Bus and Rail trips based upon modal percentage share. All figures have been rounded to the nearest whole number.

		Arrivals	Departures	Total
Residential –	08:00-09:00	0	2	2
Flats Privately	17:00-18:00	1	1	2
Owned	07:00-21:00	11	13	24

Table 7. Pedestrian Trip Generation per 9 dwellings.

		Arrivals	Departures	Total
Residential –	08:00-09:00	0	1	1
Flats Privately	17:00-18:00	0	0	0
Owned	07:00-21:00	2	2	4

Table 8. Cycle Trip Generation per 9 dwellings.

		Arrivals	Departures	Total
Residential –	08:00-09:00	0	1	1
Flats Privately	17:00-18:00	1	0	1
Owned	07:00-21:00	3	4	7

Table 9. Bus Passenger Trip Generation per 9 dwellings.

		Arrivals	Departures	Total
Residential –	08:00-09:00	0	2	2
Flats Privately	17:00-18:00	1	0	1
Owned	07:00-21:00	7	6	13

Table 10. Rail Passenger Trip Generation per 9 dwellings.

The total person multi-modal trips generated by the site are displayed in Table 11 below.

		Arrivals	Departures	Total
Residential –	08:00-09:00	0	6	6
Flats Privately	17:00-18:00	3	1	4
Owned	07:00-21:00	23	25	48

Table 11. Total Person Trip Generation per 9 dwellings.

5.2. Trip Generation Impact

The analysis of the TRICS database has shown that the estimated number of person trips generated to be 6 and 4 two-way movements in the AM and PM peak hours respectively with a 14-hour total of some 48 two-way movements. The total number of bus and rail passenger trips generated by the development proposal are shown to be 0 in the AM peak hour and 1 and 2 in the PM peak hour respectively. Therefore, as the number of trips generated is minimal, it is considered that this will not result in a severe impact upon the operation or safety of local public transport networks.

As no car parking is being provided for the development no vehicular trips will be generated by the site. Any servicing/delivery trips will already be present on the network, so can therefore not considered to be new trips generated by the proposed development

6. SUMMARY AND CONCLUSION

6.1. Summary

Ridge & Partners LLP has been commissioned by Indigo Planning to provide transport planning consultancy services to support the submission of a planning application relating to the construction of a new 6 storey block comprising a mixture of 9 two, three and four bedroom apartment units. No car parking is to be provided for the development. 18 Secured cycle parking spaces have been provided as per the standard in the London Plan.

Based upon the relevant policy analysis the proposed development site complies with core policies outlined within the NPPF, Mayor's Transport Strategy and Camden Local Development Framework; the development would be promoting sustainable development.

The proposed development is in a sustainable location as it is located in an area within close proximity to public transport hubs, with a high PTAL rating of 6A with good accessibility to core services and amenities. Furthermore, a number of car club spaces are available within close proximity to the site.

Bus stops on Finchley Road (A41), some 340m west of the site with regular services being operated by TfL. Footways with street lighting are present for the length of pedestrian movement between the site and the bus stops, enabling safe access between the two South Hampstead, located approximately 600m north-west of the site which services the London Overground line. South Hampstead is located within Zone 2 and serves regular services to/from Euston and Watford Junction approximately every 20 minutes. The closest London Underground station that serves the proposed residential development is Swiss Cottage, located approximately 340m north of the site.

The main access to the site is via a one-way street; St John's Wood Park connected by Boundary Road and Queens's Grove from A41 (Finchley Road). St John's Wood Park connects to Adelaide Road (B509) in the north and on to A41 (Finchley Road). All the surrounding local network are controlled parking Zones with 'Permit Holders only' from Monday to Friday, 8:30am – 6:30pm with no waiting restrictions for the same time period (Refer Figure 2). St John's Wood Park has 'Permit Holders only' on both approaches of the road.

The site conforms to trends in urban centres, car ownership is lower where public transport provision is relatively better with majority of commuters using sustainable modes. Increase in car-free developments as proposed along with the improvement in public transport provision, is further delivering incentives for sustainable transport in accordance with local and national policies.

Historical traffic collision data presented from the latest five-year period showed shown that there were no operational safety issues relating to the highway operation. No fatal accidents were recorded within the study area and the slight and serious injury accidents that did occur can be classified as being due to human error, as opposed to highway network issues.

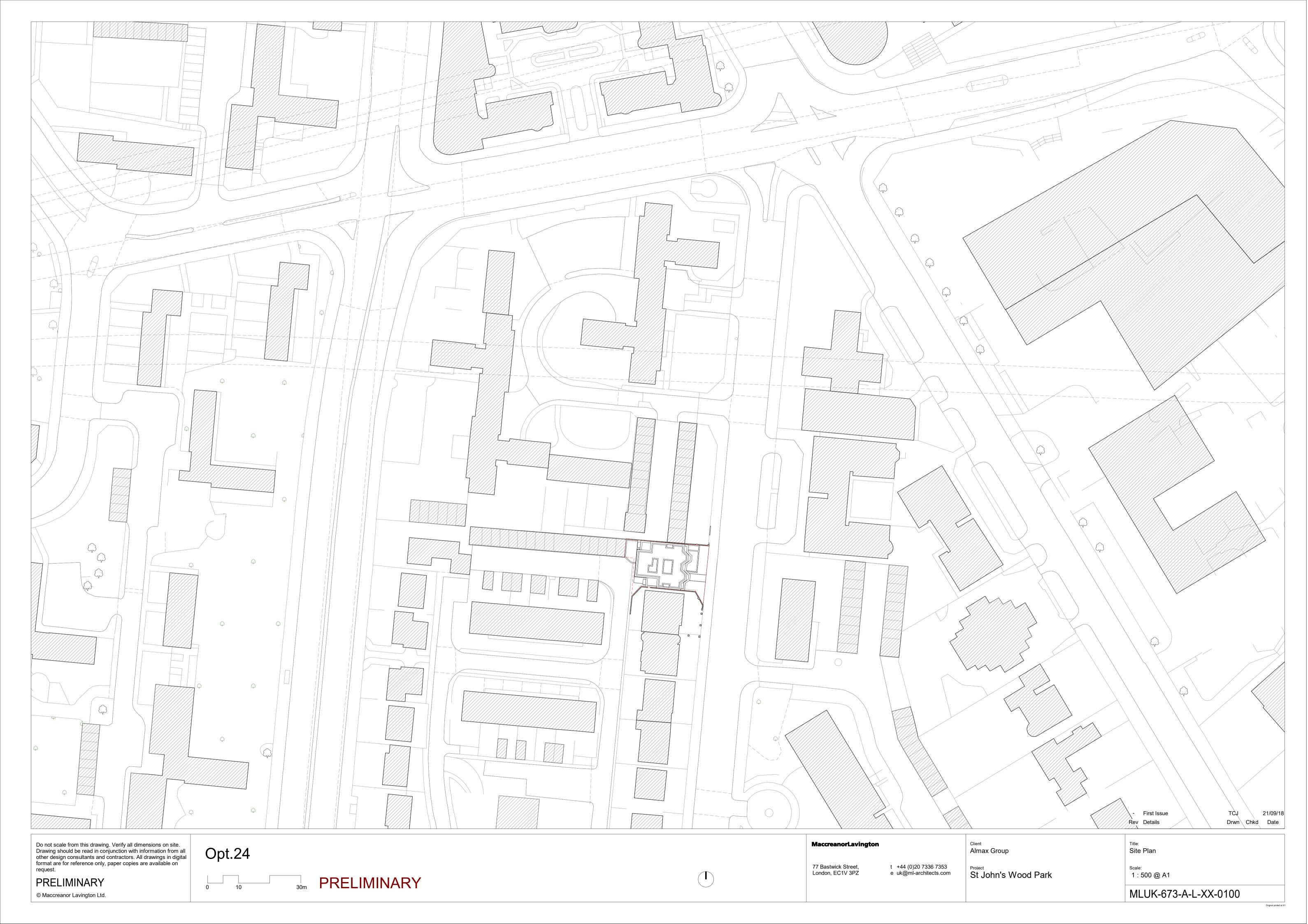
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6.2. Conclusions

Having regard to the scale of development, the resultant trip generation and the existing local highway conditions it is considered that the proposed development would not result in a severe impact upon the local highway network in terms of operation or safety.

It is concluded that in transport/highway terms the development to provide 9 apartments is acceptable subject to standard conditions.

APPENDIX A - SITE LAYOUT



Original printed at A

APPENDIX B - PTAL MAP



APPENDIX C - TRICS OUTPUT

Ridge and Partners LLP Oxford Road Woodstock Licence No: 727101

Calculation Reference: AUDIT-727101-180921-0939

TRIP RATE CALCULATION SELECTION PARAMETERS:

: 03 - RESIDENTIAL Land Use

C - FLATS PRIVATELY OWNED

Category : C - FLATS PRIVATI MULTI - MODAL VEHICLES

Selected regions and areas:

01 GREATER LONDON

ISLINGTON 2 days IS KINGSTON 1 days ΚI SK SOUTHWARK 1 days WH WANDSWORTH 1 days

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

Secondary 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.

Number of dwellings Parameter: Actual Range: 14 to 30 (units:) Range Selected by User: 9 to 40 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 11/07/16

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 2 days Wednesday 2 days 1 days Thursday

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

<u>Selected survey types:</u>

Manual count 5 days 0 days Directional ATC Count

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 5

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:

3 Residential Zone 2 Built-Up Zone

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:

5 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®.

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Secondary Filtering selection (Cont.):

Population within 1 mile:

1 days 10,001 to 15,000 25,001 to 50,000 1 days 50,001 to 100,000 1 days 2 days 100,001 or More

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

Population within 5 miles: 250,001 to 500,000 1 days 500,001 or More 4 days

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

Car ownership within 5 miles:

0.5 or Less 3 days 1 days 0.6 to 1.0 1.1 to 1.5 1 days

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

Travel Plan:

1 days Yes No 4 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:

2 Poor 1 days 2 days 6a Excellent 6b (High) Excellent 2 days

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

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LIST OF SITES relevant to selection parameters

BLOCK OF FLATS ISLINGTON

IS-03-C-05 LEVER STREET **FINSBURY**

Edge of Town Centre Built-Up Zone

Total Number of dwellings: 15

Survey date: WEDNESDAY 29/06/16 Survey Type: MANUAL

IS-03-C-06 **BLOCK OF FLATS** ISLINGTON

CALEDONIAN ROAD

HOLLOWAY

Edge of Town Centre Residential Zone

Total Number of dwellings: 14

Survey date: MONDAY 27/06/16 Survey Type: MANUAL

KI-03-C-03 BLOCK OF FLATS KINGSTON

PORTSMOUTH ROAD

SURBITON

Edge of Town Centre Residential Zone

Total Number of dwellings: 20

Survey date: MONDAY 11/07/16 Survey Type: MANUAL

SK-03-C-02 **BLOCK OF FLATS** SOUTHWARK

LAMB WALK **BERMONDSEY**

Edge of Town Centre

Built-Up Zone

Total Number of dwellings: 29

Survey date: THURSDAY 23/04/15 Survey Type: MANUAL

WANDSWORTH WH-03-C-01 **BLOCKS OF FLATS**

AMIES STREET **CLAPHAM JUNCTION**

Edge of Town Centre Residential Zone

Total Number of dwellings: 30

Survey date: WEDNESDAY 09/05/12 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.

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TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL VEHICLES
Calculation factor: 1 DWELLS

Estimated TRIP rate value per 9 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES				TOTALS				
	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated
Time Range	Days	DWELLS	Rate	Trip Rate	Days	DWELLS	Rate	Trip Rate	Days	DWELLS	Rate	Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	5	22	0.028	0.250	5	22	0.148	1.333	5	22	0.176	1.583
08:00 - 09:00	5	22	0.056	0.500	5	22	0.148	1.333	5	22	0.204	1.833
09:00 - 10:00	5	22	0.074	0.667	5	22	0.028	0.250	5	22	0.102	0.917
10:00 - 11:00	5	22	0.019	0.167	5	22	0.065	0.583	5	22	0.084	0.750
11:00 - 12:00	5	22	0.028	0.250	5	22	0.028	0.250	5	22	0.056	0.500
12:00 - 13:00	5	22	0.056	0.500	5	22	0.037	0.333	5	22	0.093	0.833
13:00 - 14:00	5	22	0.074	0.667	5	22	0.046	0.417	5	22	0.120	1.084
14:00 - 15:00	5	22	0.028	0.250	5	22	0.102	0.917	5	22	0.130	1.167
15:00 - 16:00	5	22	0.102	0.917	5	22	0.009	0.083	5	22	0.111	1.000
16:00 - 17:00	5	22	0.037	0.333	5	22	0.046	0.417	5	22	0.083	0.750
17:00 - 18:00	5	22	0.102	0.917	5	22	0.000	0.000	5	22	0.102	0.917
18:00 - 19:00	5	22	0.074	0.667	5	22	0.056	0.500	5	22	0.130	1.167
19:00 - 20:00	4	20	0.064	0.577	4	20	0.051	0.462	4	20	0.115	1.039
20:00 - 21:00	4	20	0.051	0.462	4	20	0.077	0.692	4	20	0.128	1.154
21:00 - 22:00							•				•	
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.793	7.124			0.841	7.570			1.634	14.694

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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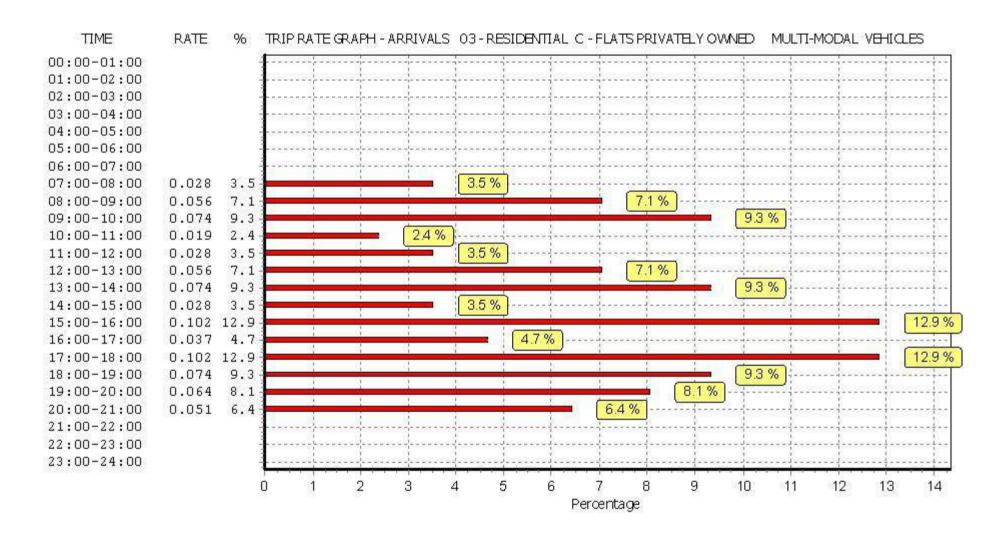
Parameter summary

Trip rate parameter range selected: 14 - 30 (units:)
Survey date date range: 01/01/10 - 11/07/16

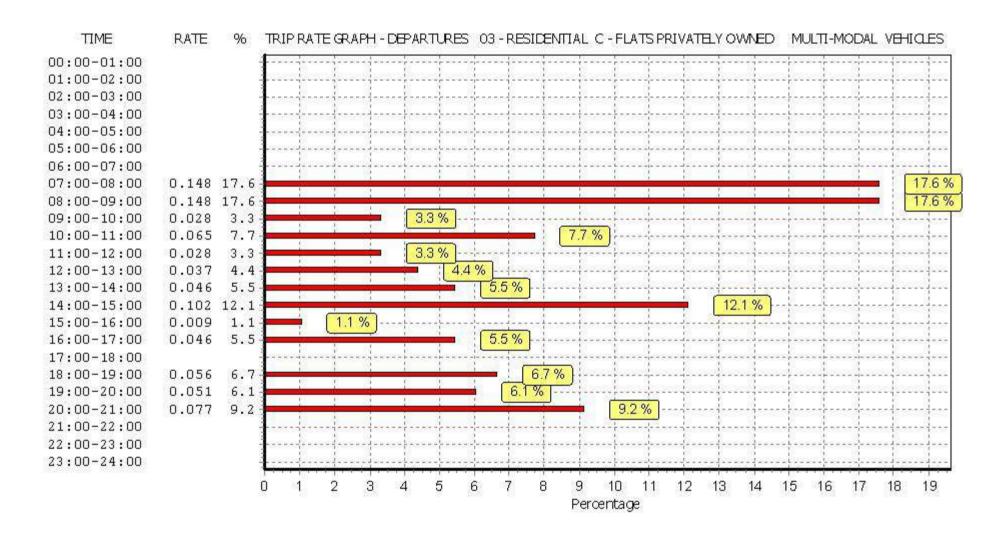
Number of weekdays (Monday-Friday): 5
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 0

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.

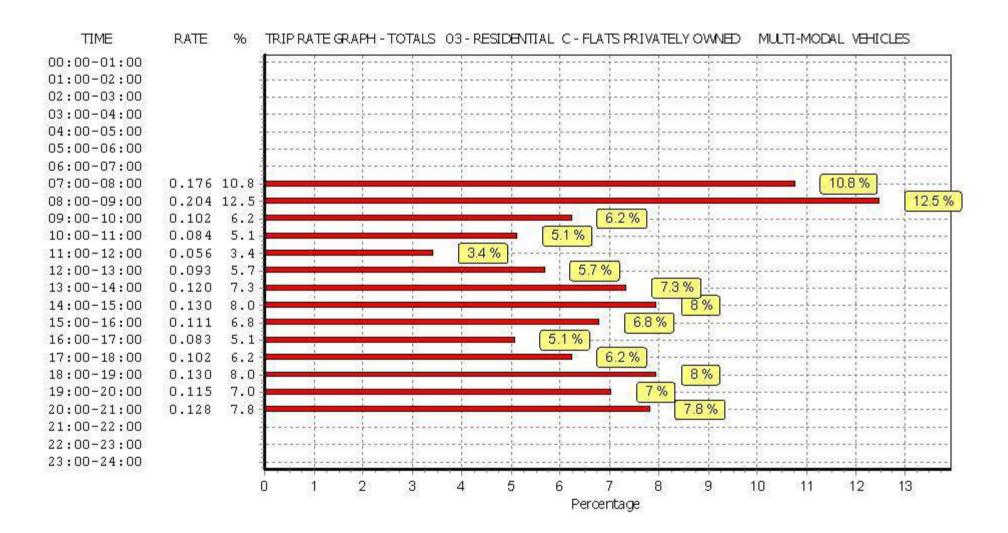
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TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL TAXIS

Calculation factor: 1 DWELLS

Estimated TRIP rate value per 9 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

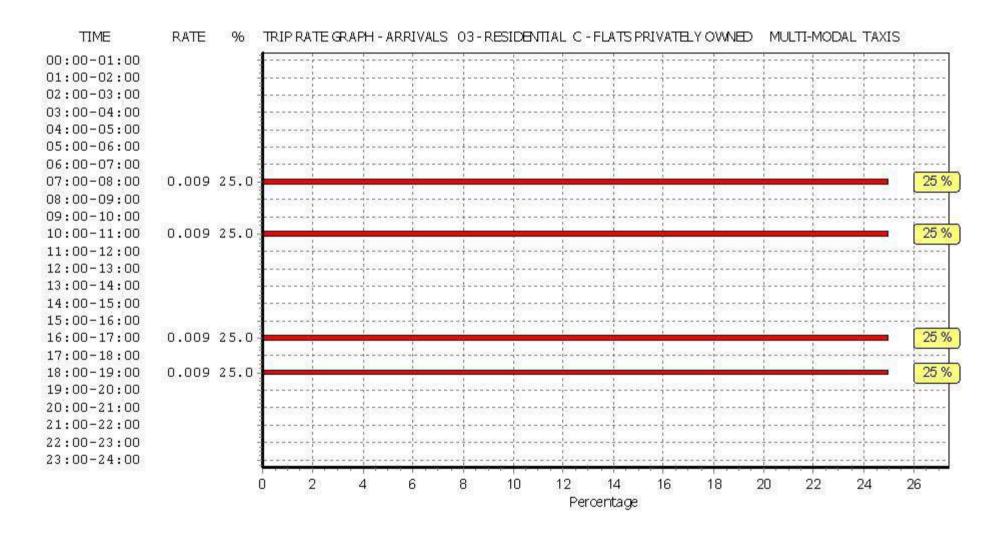
	ARRIVALS			DEPARTURES				TOTALS				
	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated
Time Range	Days	DWELLS	Rate	Trip Rate	Days	DWELLS	Rate	Trip Rate	Days	DWELLS	Rate	Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	5	22	0.009	0.083	5	22	0.009	0.083	5	22	0.018	0.166
08:00 - 09:00	5	22	0.000	0.000	5	22	0.000	0.000	5	22	0.000	0.000
09:00 - 10:00	5	22	0.000	0.000	5	22	0.000	0.000	5	22	0.000	0.000
10:00 - 11:00	5	22	0.009	0.083	5	22	0.009	0.083	5	22	0.018	0.166
11:00 - 12:00	5	22	0.000	0.000	5	22	0.000	0.000	5	22	0.000	0.000
12:00 - 13:00	5	22	0.000	0.000	5	22	0.000	0.000	5	22	0.000	0.000
13:00 - 14:00	5	22	0.000	0.000	5	22	0.000	0.000	5	22	0.000	0.000
14:00 - 15:00	5	22	0.000	0.000	5	22	0.000	0.000	5	22	0.000	0.000
15:00 - 16:00	5	22	0.000	0.000	5	22	0.000	0.000	5	22	0.000	0.000
16:00 - 17:00	5	22	0.009	0.083	5	22	0.009	0.083	5	22	0.018	0.166
17:00 - 18:00	5	22	0.000	0.000	5	22	0.000	0.000	5	22	0.000	0.000
18:00 - 19:00	5	22	0.009	0.083	5	22	0.009	0.083	5	22	0.018	0.166
19:00 - 20:00	4	20	0.000	0.000	4	20	0.000	0.000	4	20	0.000	0.000
20:00 - 21:00	4	20	0.000	0.000	4	20	0.000	0.000	4	20	0.000	0.000
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.036	0.332			0.036	0.332		•	0.072	0.664

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.

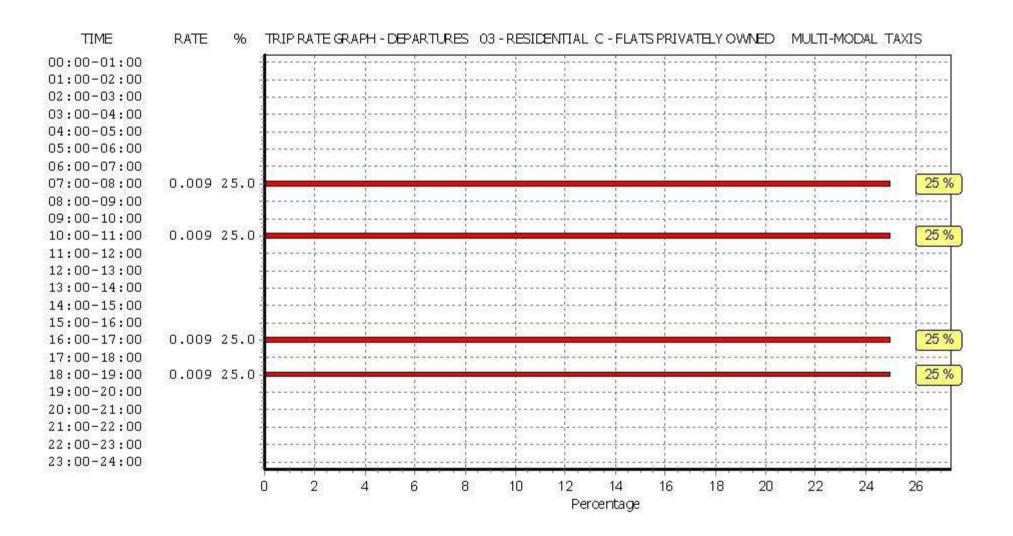
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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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TIME RATE TRIP RATE GRAPH - TOTALS 03 - RESIDENTIAL C - FLATS PRIVATELY OWNED MULTI-MODAL TAXIS: 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 0.018 25.0 25 % 08:00-09:00 09:00-10:00 0.018 25.0 25 % 10:00-11:00 11:00-12:00 12:00-13:00 13:00-14:00 14:00-15:00 15:00-16:00 25 % 16:00-17:00 0.018 25.0 17:00-18:00 ---25 % 18:00-19:00 0.018 25.0 19:00-20:00 20:00-21:00 21:00-22:00 22:00-23:00 23:00-24:00

10

12

14

Percentage

16

18

20

22

24

26

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TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI-MODAL OGVS

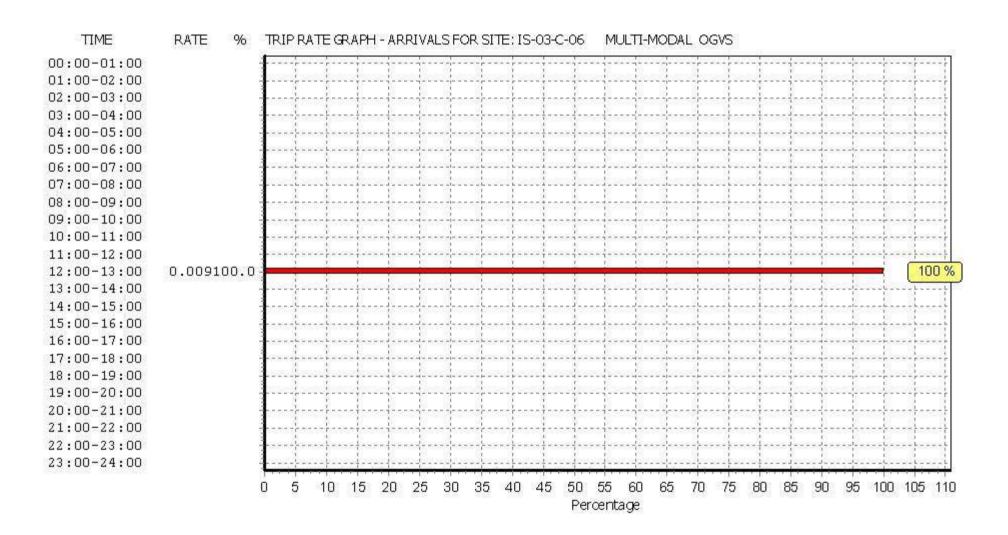
Calculation factor: 1 DWELLS

Estimated TRIP rate value per 9 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

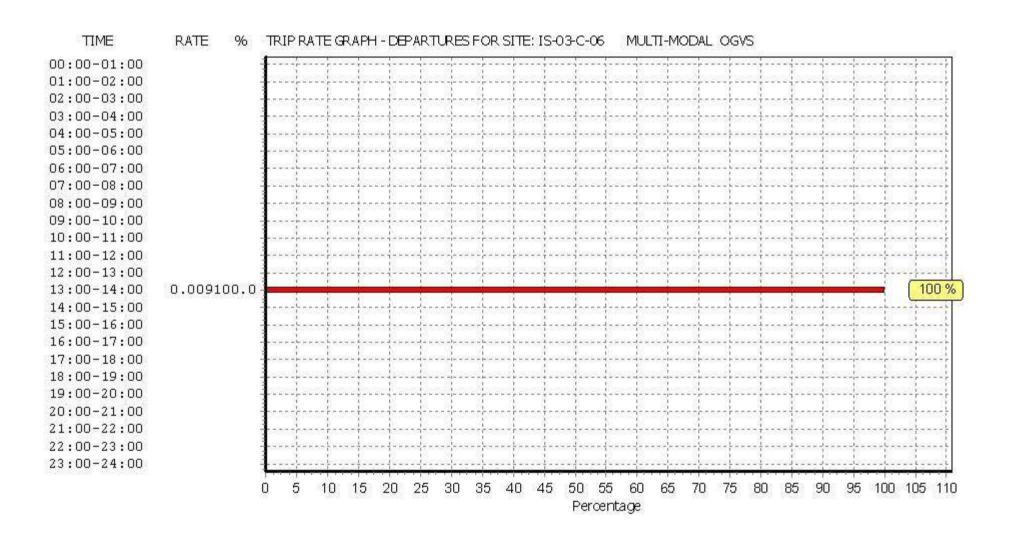
		AR	RIVALS			DEP	ARTURES			Т	OTALS	
	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated
Time Range	Days	DWELLS	Rate	Trip Rate	Days	DWELLS	Rate	Trip Rate	Days	DWELLS	Rate	Trip Rate
00:00 - 01:00				•				•				•
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	5	22	0.000	0.000	5	22	0.000	0.000	5	22	0.000	0.000
08:00 - 09:00	5	22	0.000	0.000	5	22	0.000	0.000	5	22	0.000	0.000
09:00 - 10:00	5	22	0.000	0.000	5	22	0.000	0.000	5	22	0.000	0.000
10:00 - 11:00	5	22	0.000	0.000	5	22	0.000	0.000	5	22	0.000	0.000
11:00 - 12:00	5	22	0.000	0.000	5	22	0.000	0.000	5	22	0.000	0.000
12:00 - 13:00	5	22	0.009	0.083	5	22	0.000	0.000	5	22	0.009	0.083
13:00 - 14:00	5	22	0.000	0.000	5	22	0.009	0.083	5	22	0.009	0.083
14:00 - 15:00	5	22	0.000	0.000	5	22	0.000	0.000	5	22	0.000	0.000
15:00 - 16:00	5	22	0.000	0.000	5	22	0.000	0.000	5	22	0.000	0.000
16:00 - 17:00	5	22	0.000	0.000	5	22	0.000	0.000	5	22	0.000	0.000
17:00 - 18:00	5	22	0.000	0.000	5	22	0.000	0.000	5	22	0.000	0.000
18:00 - 19:00	5	22	0.000	0.000	5	22	0.000	0.000	5	22	0.000	0.000
19:00 - 20:00	4	20	0.000	0.000	4	20	0.000	0.000	4	20	0.000	0.000
20:00 - 21:00	4	20	0.000	0.000	4	20	0.000	0.000	4	20	0.000	0.000
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.009	0.083			0.009	0.083			0.018	0.166

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.

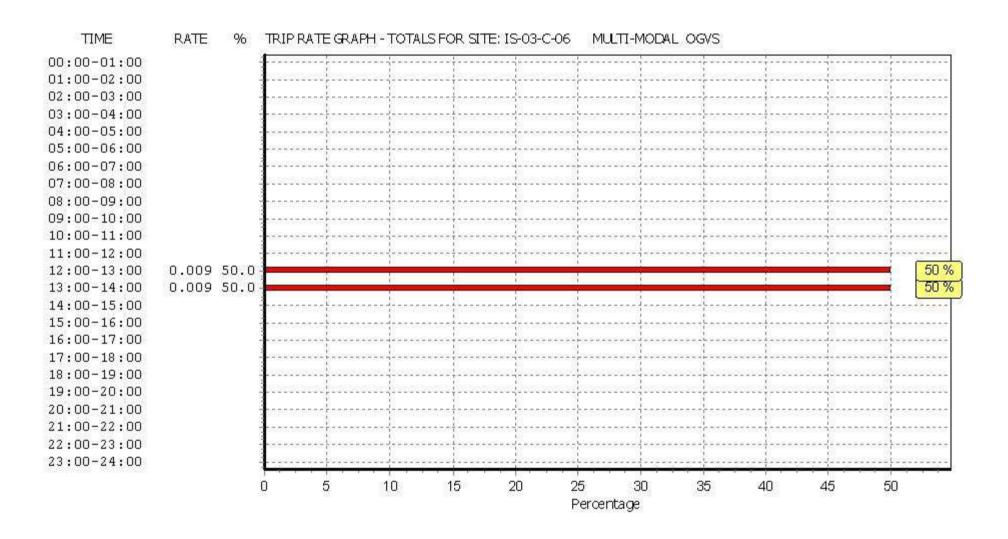


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TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI-MODAL CYCLISTS

Calculation factor: 1 DWELLS

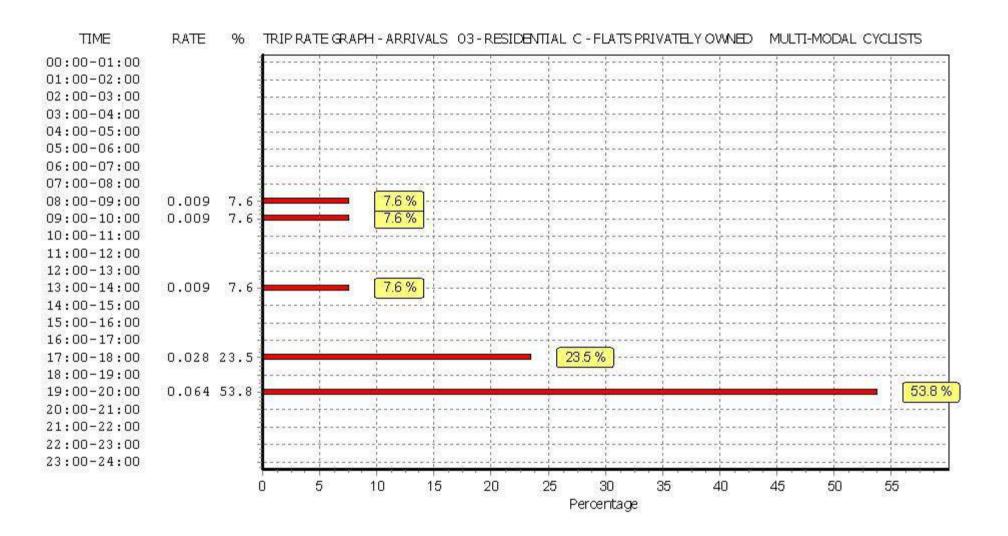
Estimated TRIP rate value per 9 DWELLS shown in shaded columns

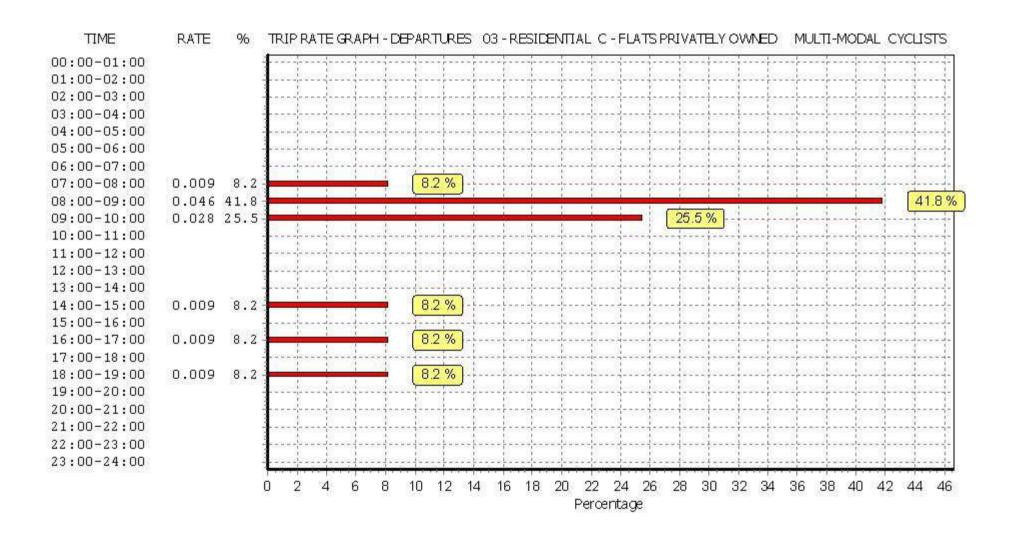
BOLD print indicates peak (busiest) period

		AR	RIVALS			DEP	ARTURES			Т	OTALS	
	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated
Time Range	Days	DWELLS	Rate	Trip Rate	Days	DWELLS	Rate	Trip Rate	Days	DWELLS	Rate	Trip Rate
00:00 - 01:00				•								
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	5	22	0.000	0.000	5	22	0.009	0.083	5	22	0.009	0.083
08:00 - 09:00	5	22	0.009	0.083	5	22	0.046	0.417	5	22	0.055	0.500
09:00 - 10:00	5	22	0.009	0.083	5	22	0.028	0.250	5	22	0.037	0.333
10:00 - 11:00	5	22	0.000	0.000	5	22	0.000	0.000	5	22	0.000	0.000
11:00 - 12:00	5	22	0.000	0.000	5	22	0.000	0.000	5	22	0.000	0.000
12:00 - 13:00	5	22	0.000	0.000	5	22	0.000	0.000	5	22	0.000	0.000
13:00 - 14:00	5	22	0.009	0.083	5	22	0.000	0.000	5	22	0.009	0.083
14:00 - 15:00	5	22	0.000	0.000	5	22	0.009	0.083	5	22	0.009	0.083
15:00 - 16:00	5	22	0.000	0.000	5	22	0.000	0.000	5	22	0.000	0.000
16:00 - 17:00	5	22	0.000	0.000	5	22	0.009	0.083	5	22	0.009	0.083
17:00 - 18:00	5	22	0.028	0.250	5	22	0.000	0.000	5	22	0.028	0.250
18:00 - 19:00	5	22	0.000	0.000	5	22	0.009	0.083	5	22	0.009	0.083
19:00 - 20:00	4	20	0.064	0.577	4	20	0.000	0.000	4	20	0.064	0.577
20:00 - 21:00	4	20	0.000	0.000	4	20	0.000	0.000	4	20	0.000	0.000
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.119	1.076			0.110	0.999			0.229	2.075

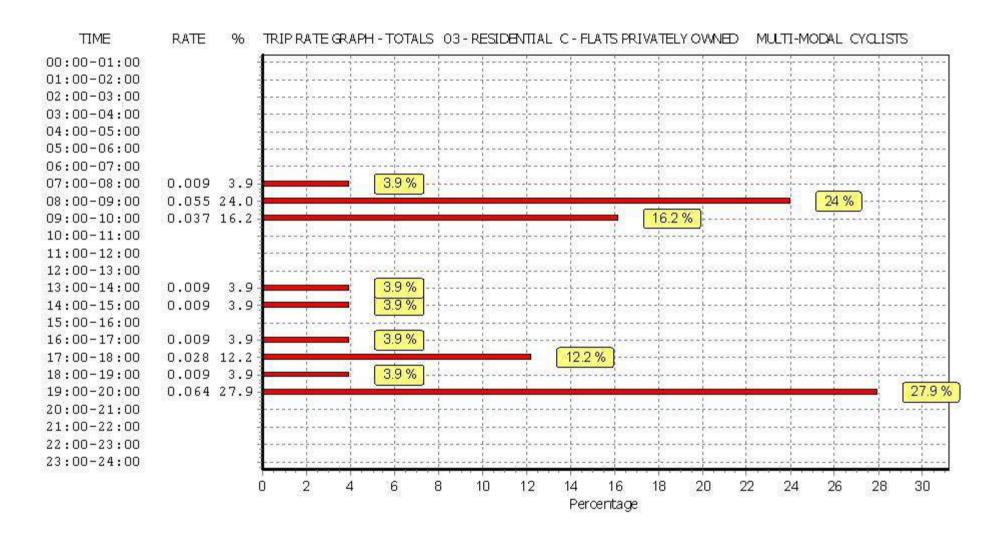
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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.

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TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI - MODAL VEHICLE OCCUPANTS

Calculation factor: 1 DWELLS

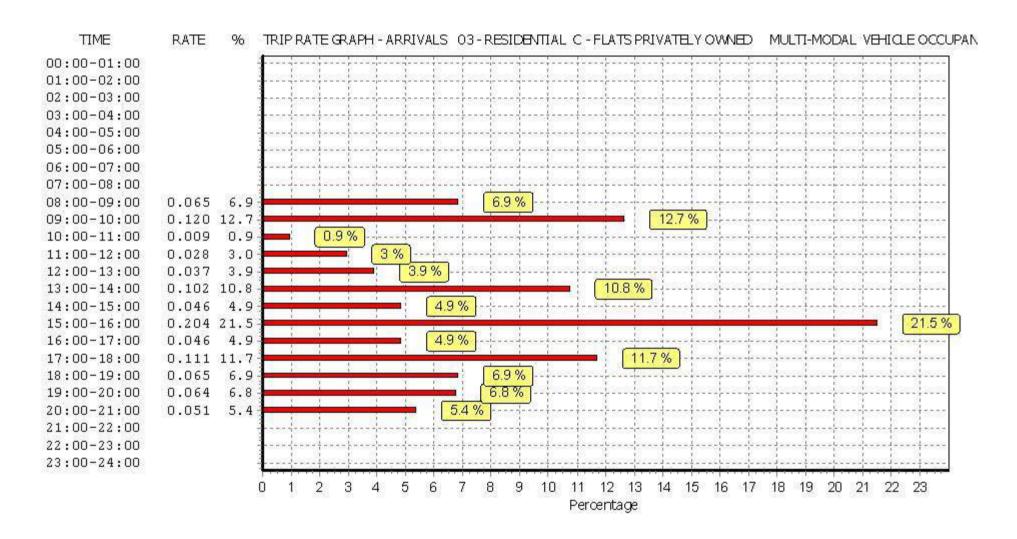
Estimated TRIP rate value per 9 DWELLS shown in shaded columns

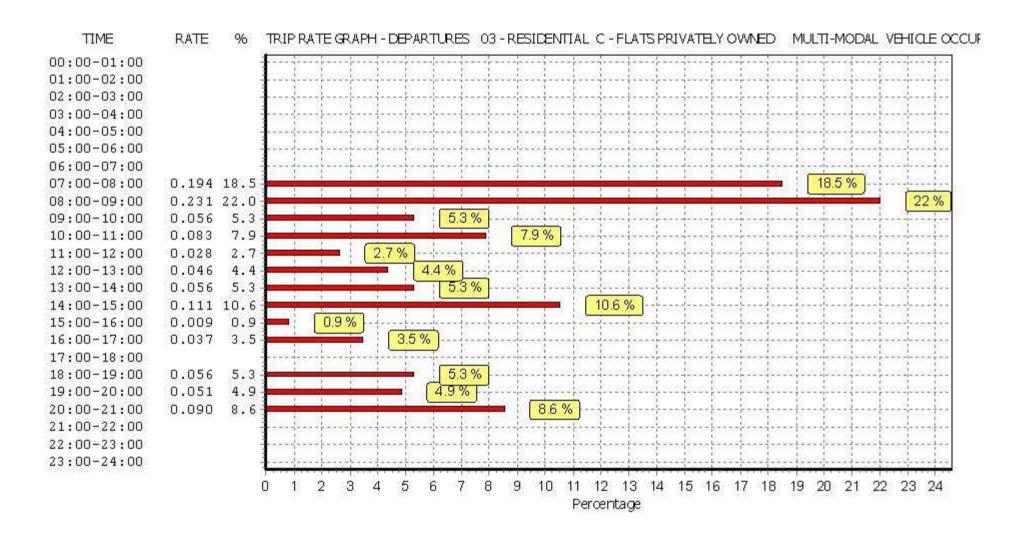
BOLD print indicates peak (busiest) period

		AR	RRIVALS			DEP	ARTURES			Т	OTALS	
	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated
Time Range	Days	DWELLS	Rate	Trip Rate	Days	DWELLS	Rate	Trip Rate	Days	DWELLS	Rate	Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	5	22	0.000	0.000	5	22	0.194	1.750	5	22	0.194	1.750
08:00 - 09:00	5	22	0.065	0.583	5	22	0.231	2.083	5	22	0.296	2.666
09:00 - 10:00	5	22	0.120	1.083	5	22	0.056	0.500	5	22	0.176	1.583
10:00 - 11:00	5	22	0.009	0.083	5	22	0.083	0.750	5	22	0.092	0.833
11:00 - 12:00	5	22	0.028	0.250	5	22	0.028	0.250	5	22	0.056	0.500
12:00 - 13:00	5	22	0.037	0.333	5	22	0.046	0.417	5	22	0.083	0.750
13:00 - 14:00	5	22	0.102	0.917	5	22	0.056	0.500	5	22	0.158	1.417
14:00 - 15:00	5	22	0.046	0.417	5	22	0.111	1.000	5	22	0.157	1.417
15:00 - 16:00	5	22	0.204	1.833	5	22	0.009	0.083	5	22	0.213	1.916
16:00 - 17:00	5	22	0.046	0.417	5	22	0.037	0.333	5	22	0.083	0.750
17:00 - 18:00	5	22	0.111	1.000	5	22	0.000	0.000	5	22	0.111	1.000
18:00 - 19:00	5	22	0.065	0.583	5	22	0.056	0.500	5	22	0.121	1.083
19:00 - 20:00	4	20	0.064	0.577	4	20	0.051	0.462	4	20	0.115	1.039
20:00 - 21:00	4	20	0.051	0.462	4	20	0.090	0.808	4	20	0.141	1.270
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.948	8.538			1.048	9.436			1.996	17.974

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.

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TIME RATE TRIP RATE GRAPH - TOTALS 03 - RESIDENTIAL C - FLATS PRIVATELY OWNED MULTI-MODAL VEHICLE OCCUPANTS 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 9.7% 07:00-08:00 0.194 9.7 0.296 14.8 14.8 % 08:00-09:00 8.8 % 09:00-10:00 0.176 8.8 10:00-11:00 0.092 4.6 4.6 % 2.8 % 11:00-12:00 0.056 2.8 4.2 4.2 % 12:00-13:00 0.083 7.9% 13:00-14:00 0.158 7.9 7.9 7.9 % 14:00-15:00 0.157 15:00-16:00 0.213 10.7 10.7 % 4.2 % 16:00-17:00 0.083 4.2 5.6 % 17:00-18:00 0.111 5.6 6.1 % 18:00-19:00 0.121 6.1 0.115 5.8 5.8% 19:00-20:00 20:00-21:00 0.141 7.1 7.1 % 21:00-22:00 22:00-23:00 23:00-24:00 12 6 8 10 11 13 14 15 16

Percentage

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TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI-MODAL PEDESTRIANS

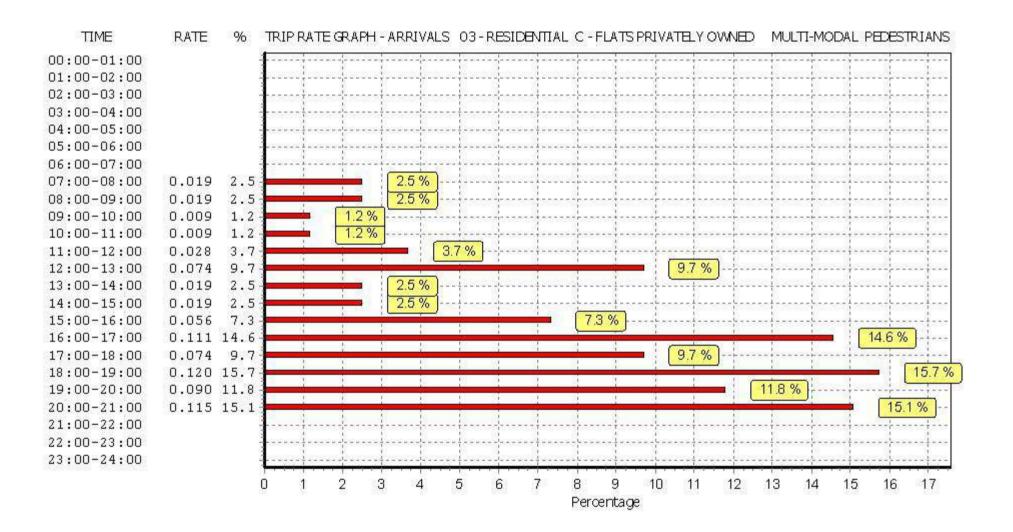
Calculation factor: 1 DWELLS

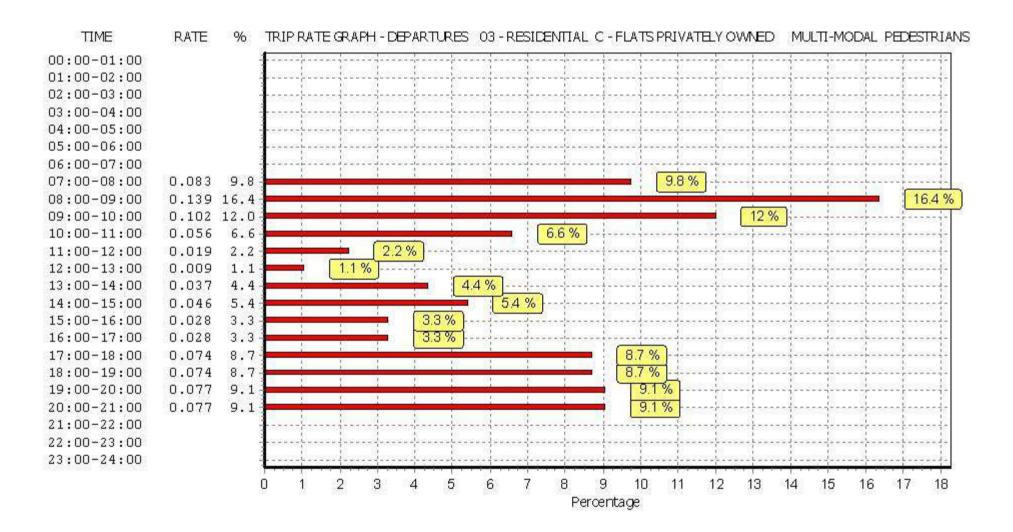
Estimated TRIP rate value per 9 DWELLS shown in shaded columns BOLD print indicates peak (busiest) period

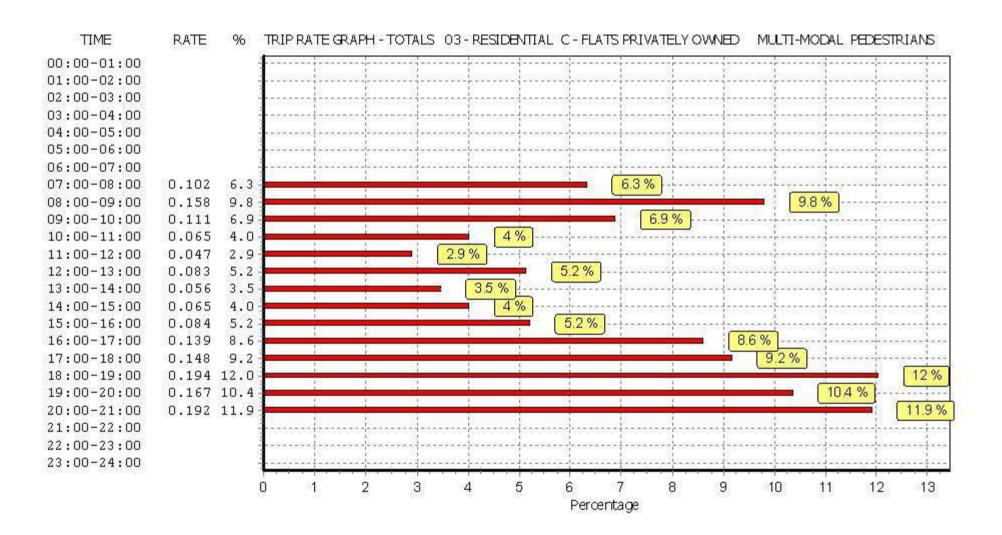
		AF	RRIVALS			DEP	ARTURES		TOTALS				
	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated	
Time Range	Days	DWELLS	Rate	Trip Rate	Days	DWELLS	Rate	Trip Rate	Days	DWELLS	Rate	Trip Rate	
00:00 - 01:00													
01:00 - 02:00													
02:00 - 03:00													
03:00 - 04:00													
04:00 - 05:00													
05:00 - 06:00													
06:00 - 07:00													
07:00 - 08:00	5	22	0.019	0.167	5	22	0.083	0.750	5	22	0.102	0.917	
08:00 - 09:00	5	22	0.019	0.167	5	22	0.139	1.250	5	22	0.158	1.417	
09:00 - 10:00	5	22	0.009	0.083	5	22	0.102	0.917	5	22	0.111	1.000	
10:00 - 11:00	5	22	0.009	0.083	5	22	0.056	0.500	5	22	0.065	0.583	
11:00 - 12:00	5	22	0.028	0.250	5	22	0.019	0.167	5	22	0.047	0.417	
12:00 - 13:00	5	22	0.074	0.667	5	22	0.009	0.083	5	22	0.083	0.750	
13:00 - 14:00	5	22	0.019	0.167	5	22	0.037	0.333	5	22	0.056	0.500	
14:00 - 15:00	5	22	0.019	0.167	5	22	0.046	0.417	5	22	0.065	0.584	
15:00 - 16:00	5	22	0.056	0.500	5	22	0.028	0.250	5	22	0.084	0.750	
16:00 - 17:00	5	22	0.111	1.000	5	22	0.028	0.250	5	22	0.139	1.250	
17:00 - 18:00	5	22	0.074	0.667	5	22	0.074	0.667	5	22	0.148	1.334	
18:00 - 19:00	5	22	0.120	1.083	5	22	0.074	0.667	5	22	0.194	1.750	
19:00 - 20:00	4	20	0.090	0.808	4	20	0.077	0.692	4	20	0.167	1.500	
20:00 - 21:00	4	20	0.115	1.038	4	20	0.077	0.692	4	20	0.192	1.730	
21:00 - 22:00													
22:00 - 23:00													
23:00 - 24:00													
Total Rates:			0.762	6.847			0.849	7.635			1.611	14.482	

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.

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Licence No: 727101

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI - MODAL BUS/TRAM PASSENGERS

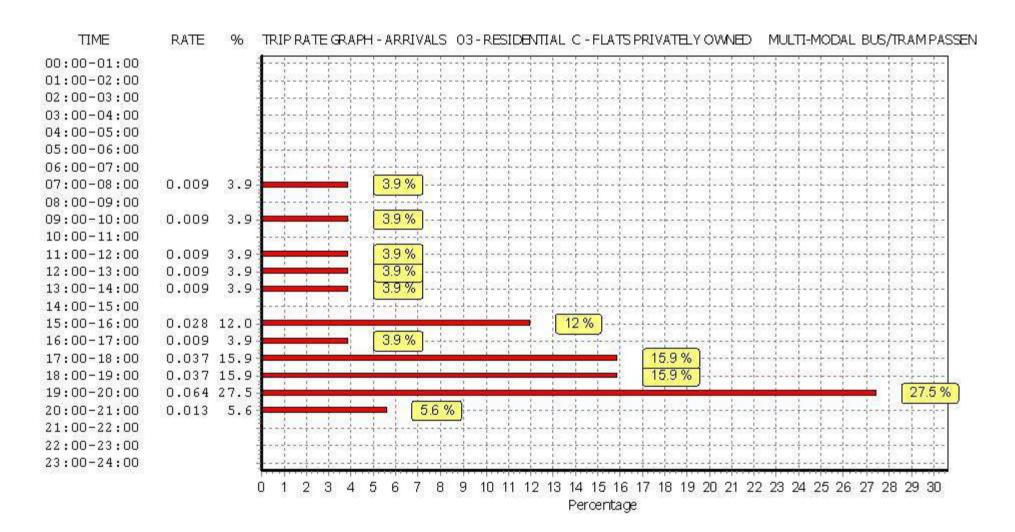
Calculation factor: 1 DWELLS

Estimated TRIP rate value per 9 DWELLS shown in shaded columns

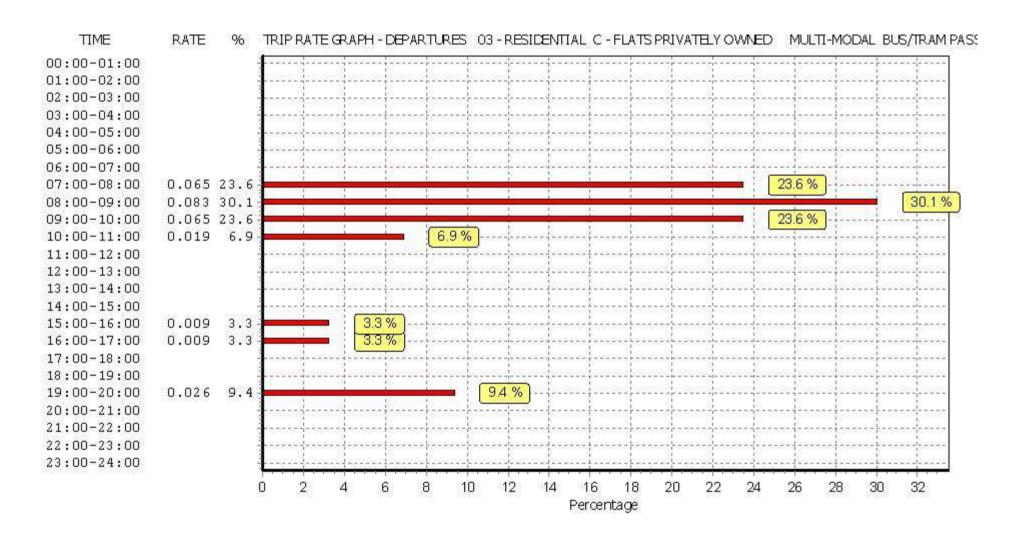
BOLD print indicates peak (busiest) period

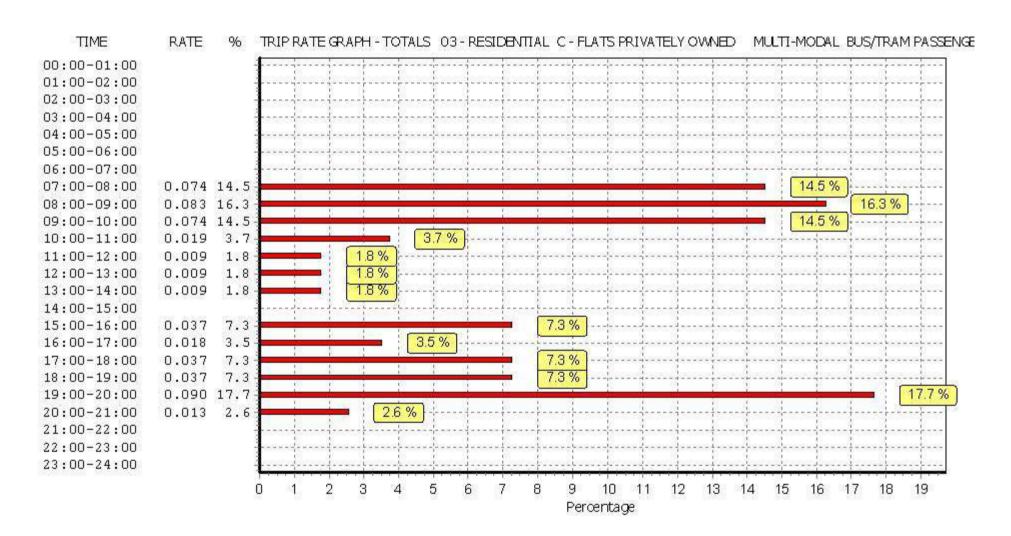
		AR	RRIVALS			DEP	ARTURES			Т	OTALS	
	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated
Time Range	Days	DWELLS	Rate	Trip Rate	Days	DWELLS	Rate	Trip Rate	Days	DWELLS	Rate	Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	5	22	0.009	0.083	5	22	0.065	0.583	5	22	0.074	0.666
08:00 - 09:00	5	22	0.000	0.000	5	22	0.083	0.750	5	22	0.083	0.750
09:00 - 10:00	5	22	0.009	0.083	5	22	0.065	0.583	5	22	0.074	0.666
10:00 - 11:00	5	22	0.000	0.000	5	22	0.019	0.167	5	22	0.019	0.167
11:00 - 12:00	5	22	0.009	0.083	5	22	0.000	0.000	5	22	0.009	0.083
12:00 - 13:00	5	22	0.009	0.083	5	22	0.000	0.000	5	22	0.009	0.083
13:00 - 14:00	5	22	0.009	0.083	5	22	0.000	0.000	5	22	0.009	0.083
14:00 - 15:00	5	22	0.000	0.000	5	22	0.000	0.000	5	22	0.000	0.000
15:00 - 16:00	5	22	0.028	0.250	5	22	0.009	0.083	5	22	0.037	0.333
16:00 - 17:00	5	22	0.009	0.083	5	22	0.009	0.083	5	22	0.018	0.166
17:00 - 18:00	5	22	0.037	0.333	5	22	0.000	0.000	5	22	0.037	0.333
18:00 - 19:00	5	22	0.037	0.333	5	22	0.000	0.000	5	22	0.037	0.333
19:00 - 20:00	4	20	0.064	0.577	4	20	0.026	0.231	4	20	0.090	0.808
20:00 - 21:00	4	20	0.013	0.115	4	20	0.000	0.000	4	20	0.013	0.115
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.233	2.106			0.276	2.480			0.509	4.586

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.



Licence No: 727101





Licence No: 727101

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI-MODAL TOTAL RAIL PASSENGERS

Calculation factor: 1 DWELLS

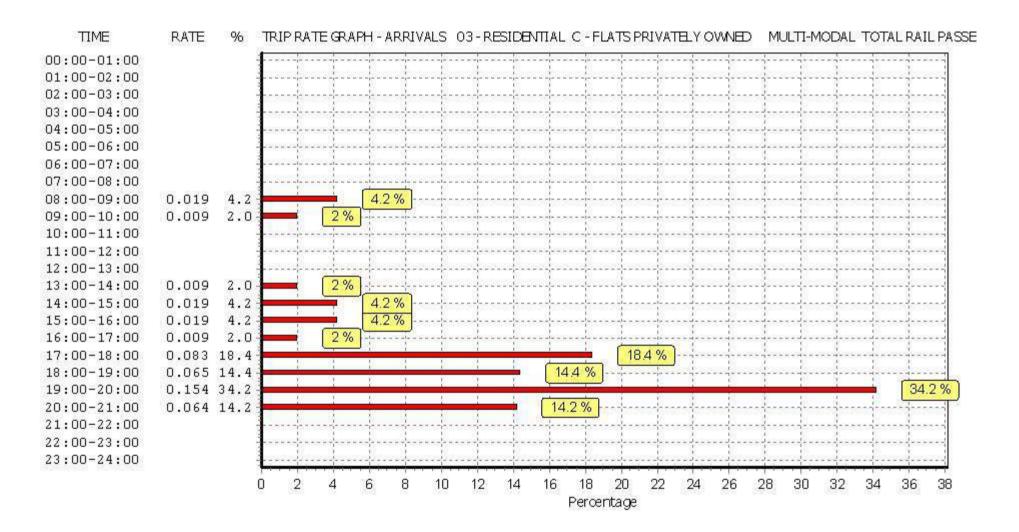
Estimated TRIP rate value per 9 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

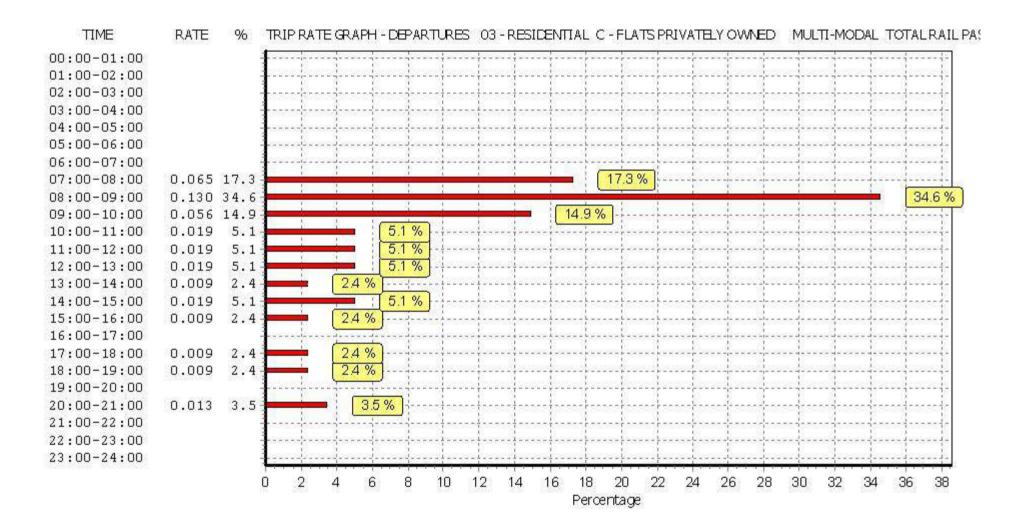
		AR	RIVALS			DEP	ARTURES			Т	OTALS	
	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated
Time Range	Days	DWELLS	Rate	Trip Rate	Days	DWELLS	Rate	Trip Rate	Days	DWELLS	Rate	Trip Rate
00:00 - 01:00				•				•				•
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	5	22	0.000	0.000	5	22	0.065	0.583	5	22	0.065	0.583
08:00 - 09:00	5	22	0.019	0.167	5	22	0.130	1.167	5	22	0.149	1.334
09:00 - 10:00	5	22	0.009	0.083	5	22	0.056	0.500	5	22	0.065	0.583
10:00 - 11:00	5	22	0.000	0.000	5	22	0.019	0.167	5	22	0.019	0.167
11:00 - 12:00	5	22	0.000	0.000	5	22	0.019	0.167	5	22	0.019	0.167
12:00 - 13:00	5	22	0.000	0.000	5	22	0.019	0.167	5	22	0.019	0.167
13:00 - 14:00	5	22	0.009	0.083	5	22	0.009	0.083	5	22	0.018	0.166
14:00 - 15:00	5	22	0.019	0.167	5	22	0.019	0.167	5	22	0.038	0.334
15:00 - 16:00	5	22	0.019	0.167	5	22	0.009	0.083	5	22	0.028	0.250
16:00 - 17:00	5	22	0.009	0.083	5	22	0.000	0.000	5	22	0.009	0.083
17:00 - 18:00	5	22	0.083	0.750	5	22	0.009	0.083	5	22	0.092	0.833
18:00 - 19:00	5	22	0.065	0.583	5	22	0.009	0.083	5	22	0.074	0.666
19:00 - 20:00	4	20	0.154	1.385	4	20	0.000	0.000	4	20	0.154	1.385
20:00 - 21:00	4	20	0.064	0.577	4	20	0.013	0.115	4	20	0.077	0.692
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.450	4.045			0.376	3.365			0.826	7.410

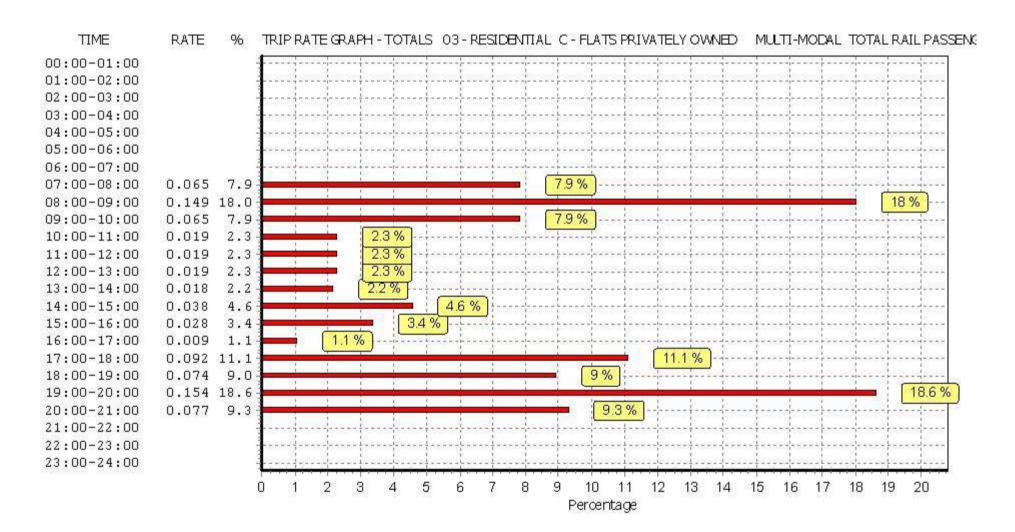
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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.

Licence No: 727101



Licence No: 727101





Licence No: 727101

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 1 DWELLS

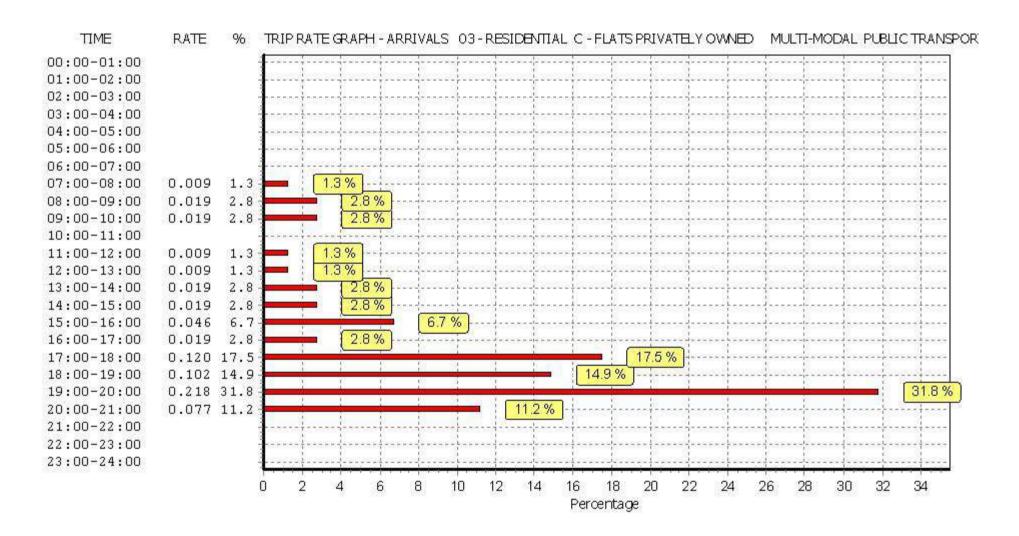
Estimated TRIP rate value per 9 DWELLS shown in shaded columns

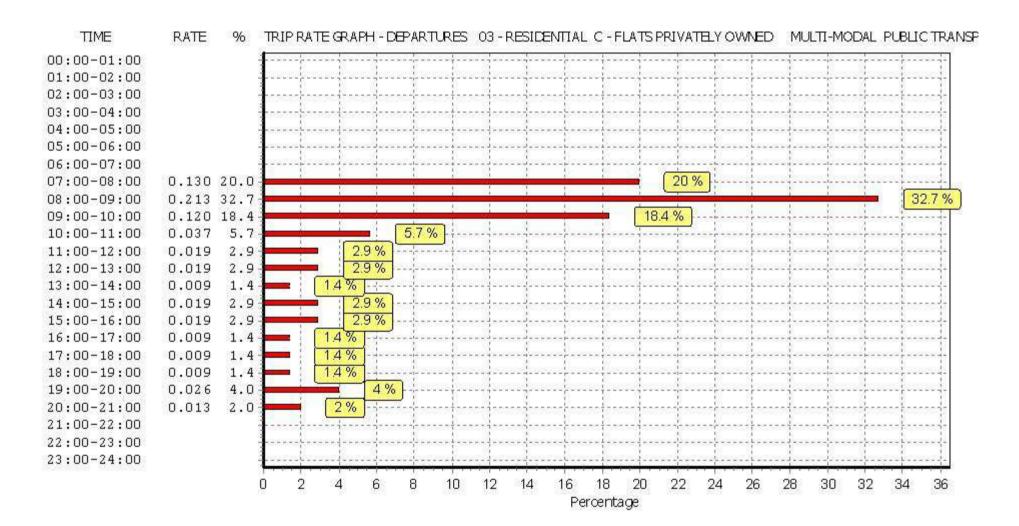
BOLD print indicates peak (busiest) period

		AR	RIVALS			DEP	ARTURES		TOTALS				
	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated	
Time Range	Days	DWELLS	Rate	Trip Rate	Days	DWELLS	Rate	Trip Rate	Days	DWELLS	Rate	Trip Rate	
00:00 - 01:00													
01:00 - 02:00													
02:00 - 03:00													
03:00 - 04:00													
04:00 - 05:00													
05:00 - 06:00													
06:00 - 07:00													
07:00 - 08:00	5	22	0.009	0.083	5	22	0.130	1.167	5	22	0.139	1.250	
08:00 - 09:00	5	22	0.019	0.167	5	22	0.213	1.917	5	22	0.232	2.084	
09:00 - 10:00	5	22	0.019	0.167	5	22	0.120	1.083	5	22	0.139	1.250	
10:00 - 11:00	5	22	0.000	0.000	5	22	0.037	0.333	5	22	0.037	0.333	
11:00 - 12:00	5	22	0.009	0.083	5	22	0.019	0.167	5	22	0.028	0.250	
12:00 - 13:00	5	22	0.009	0.083	5	22	0.019	0.167	5	22	0.028	0.250	
13:00 - 14:00	5	22	0.019	0.167	5	22	0.009	0.083	5	22	0.028	0.250	
14:00 - 15:00	5	22	0.019	0.167	5	22	0.019	0.167	5	22	0.038	0.334	
15:00 - 16:00	5	22	0.046	0.417	5	22	0.019	0.167	5	22	0.065	0.584	
16:00 - 17:00	5	22	0.019	0.167	5	22	0.009	0.083	5	22	0.028	0.250	
17:00 - 18:00	5	22	0.120	1.083	5	22	0.009	0.083	5	22	0.129	1.166	
18:00 - 19:00	5	22	0.102	0.917	5	22	0.009	0.083	5	22	0.111	1.000	
19:00 - 20:00	4	20	0.218	1.962	4	20	0.026	0.231	4	20	0.244	2.193	
20:00 - 21:00	4	20	0.077	0.692	4	20	0.013	0.115	4	20	0.090	0.807	
21:00 - 22:00							·						
22:00 - 23:00													
23:00 - 24:00													
Total Rates:			0.685	6.155			0.651	5.846			1.336	12.001	

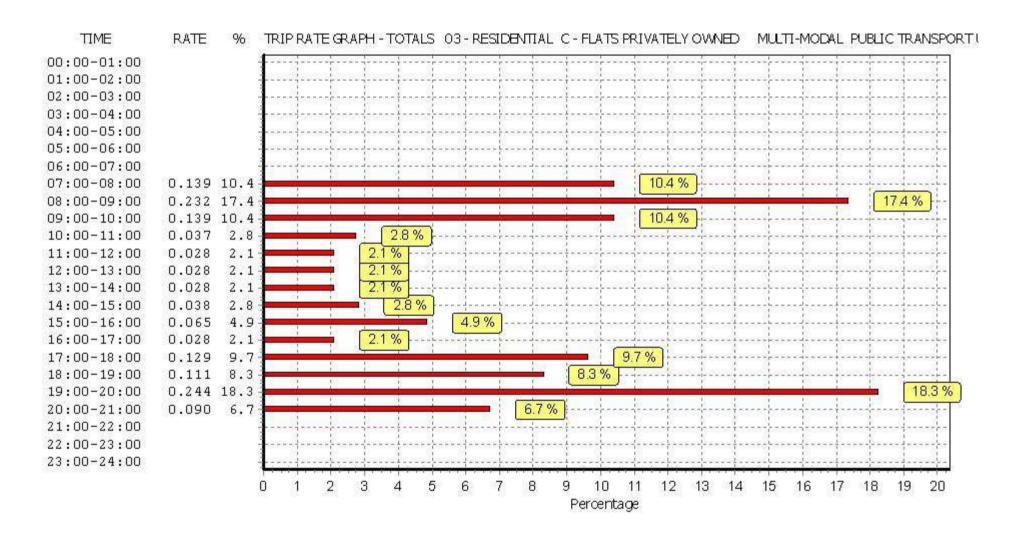
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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.

Licence No: 727101





Licence No: 727101



Licence No: 727101

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI - MODAL TOTAL PEOPLE

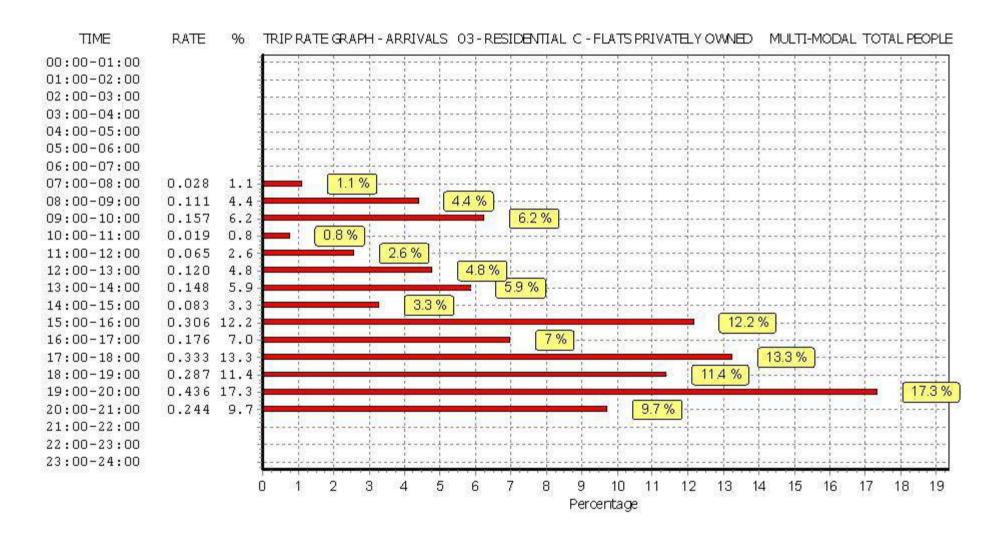
Calculation factor: 1 DWELLS

Estimated TRIP rate value per 9 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

		AF	RRIVALS			DEP	ARTURES			Т	OTALS	
	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated
Time Range	Days	DWELLS	Rate	Trip Rate	Days	DWELLS	Rate	Trip Rate	Days	DWELLS	Rate	Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	5	22	0.028	0.250	5	22	0.417	3.750	5	22	0.445	4.000
08:00 - 09:00	5	22	0.111	1.000	5	22	0.630	5.667	5	22	0.741	6.667
09:00 - 10:00	5	22	0.157	1.417	5	22	0.306	2.750	5	22	0.463	4.167
10:00 - 11:00	5	22	0.019	0.167	5	22	0.176	1.583	5	22	0.195	1.750
11:00 - 12:00	5	22	0.065	0.583	5	22	0.065	0.583	5	22	0.130	1.166
12:00 - 13:00	5	22	0.120	1.083	5	22	0.074	0.667	5	22	0.194	1.750
13:00 - 14:00	5	22	0.148	1.333	5	22	0.102	0.917	5	22	0.250	2.250
14:00 - 15:00	5	22	0.083	0.750	5	22	0.185	1.667	5	22	0.268	2.417
15:00 - 16:00	5	22	0.306	2.750	5	22	0.056	0.500	5	22	0.362	3.250
16:00 - 17:00	5	22	0.176	1.583	5	22	0.083	0.750	5	22	0.259	2.333
17:00 - 18:00	5	22	0.333	3.000	5	22	0.083	0.750	5	22	0.416	3.750
18:00 - 19:00	5	22	0.287	2.583	5	22	0.148	1.333	5	22	0.435	3.916
19:00 - 20:00	4	20	0.436	3.923	4	20	0.154	1.385	4	20	0.590	5.308
20:00 - 21:00	4	20	0.244	2.192	4	20	0.179	1.615	4	20	0.423	3.807
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			2.513	22.614	•		2.658	23.917			5.171	46.531

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.



TIME RATE TRIP RATE GRAPH - DEPARTURES 03 - RESIDENTIAL C - FLATS PRIVATELY OWNED MULTI-MODAL TOTAL PEOPLE 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 15.7 % 07:00-08:00 0.417 15.7 0.630 23.7 23.7 % 08:00-09:00 11.5 % 09:00-10:00 0.306 11.5 10:00-11:00 0.176 6.6 6.6 % 24% 11:00-12:00 0.065 2.4 2.8 2.8 % 12:00-13:00 0.074 3.8 % 13:00-14:00 0.102 3.8 7.0 7% 14:00-15:00 0.185 2.1 % 15:00-16:00 0.056 2.1 3.1 % 16:00-17:00 0.083 3.1 3.1 % 17:00-18:00 0.083 3.1 5.6% 18:00-19:00 0.148 5.6 5.8% 0.154 5.8 19:00-20:00 20:00-21:00 0.179 6.7 6.7 % 21:00-22:00 22:00-23:00 23:00-24:00 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 3 8 9 5 6 Percentage

TIME RATE TRIP RATE GRAPH - TOTALS 03 - RESIDENTIAL C - FLATS PRIVATELY OWNED MULTI-MODAL TOTAL PEOPLE 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 0.445 8.6 8.6 % 0.741 14.3 08:00-09:00 14.3 % 9% 09:00-10:00 0.463 9.0 10:00-11:00 0.195 3.8 3.8% 11:00-12:00 0.130 2.5 2.5 % 3.8 % 12:00-13:00 0.194 3.8 4.8 % 13:00-14:00 0.250 4.8 5.2 5.2 % 14:00-15:00 0.268 7% 7.0 15:00-16:00 0.362 0.259 5% 16:00-17:00 5.0 8% 17:00-18:00 0.416 8.0 8.4 % 18:00-19:00 0.435 8.4 0.590 11.4 11.4% 19:00-20:00 8.2 % 20:00-21:00 0.423 8.2 21:00-22:00 22:00-23:00 23:00-24:00 9 11 12 6 10 13 14 15 Percentage



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