SCP

Transportation Planning : Infrastructure Design

Transport Statement

Proposed Residential Development

14 Chorlton Street, Manchester

Makkma Jersey Limited

October 2017

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Document Revision Control

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0	26.10.17	Final	VAL	GW

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CONTENTS

1.0 INTRODUCTION 1
2.0 EXISTING TRANSPORT NETWORK 2
3.0 ACCESSIBILITY OF THE SITE 3
4.0 DEVELOPMENT PROPOSALS 12
5.0 DEVELOPMENT RELATED TRAFFIC MOVEMENTS 14
6.0 SUMMARY AND CONCLUSION 15

APPENDICES

1 Proposed Site Layout Plan
2 TRICS Output; Residential Privately Owned

1.0 INTRODUCTION

1.1 SCP have been instructed by Makkma Jersey Ltd to provide transport advice in connection with their proposal to change the use of an existing building from A4/A5 to C3 residential at 14 Chorlton Street, Manchester. The location of the site is indicated on the aerial photograph below:

Figure 1.1 – Site Location



Source: GoogleMaps

1.2 The site is bounded by; Chorlton Street to the south-east, Bloom Street to the north-west and Richmond Street to south-west which all contain a mix of residential properties, retail units, offices and restaurants/bars. The site is located in the heart of Manchester City Centre.

1.3 The existing building is currently 3 stories high and is accessed from Chorlton Street. The GFA is 11,241 Sq.Ft/ 1044m2. The building is currently car-free and the new proposals are for it to remain a car-free site.

1.4 The proposal is for 10 apartments in a building which is currently vacant but has previously been used for A4 drinking establishments and A5 Hot Food Take-away. The proposed site layout is attached as **Appendix 1.**

2.0 EXISTING TRANSPORT NETWORK

2.1 The local highway network consists of Chorlton Street, to which the site has a direct access. The site also fronts Richmond Street and Bloom Street.

2.2 Directly outside of the site Chorlton Street has a one-way system north-west bound in the direction of where it meets Aytoun Street/ Whitworth Street at a signalised junction. The speed limit is 30mph and traffic speeds are generally within the speed limit due to; traffic volumes, regular junctions and high volume of pedestrian and cyclists in the area.

2.3 Richmond Street is a narrow single carriage road which provides service access to rear entrances of restaurants and offices as well as pedestrian access to some apartments. Bloom Street is two-way road with significant on-street parking which means there is only enough room for one vehicle in one direction at a time.

3.0 ACCESSIBILITY OF THE SITE

3.1 The accessibility of the application site by non-car modes is a key consideration in the planning process. The requirement to ensure that sites are accessible by non-car modes of transport is set out in both local and national planning policy (National Planning Policy Framework).

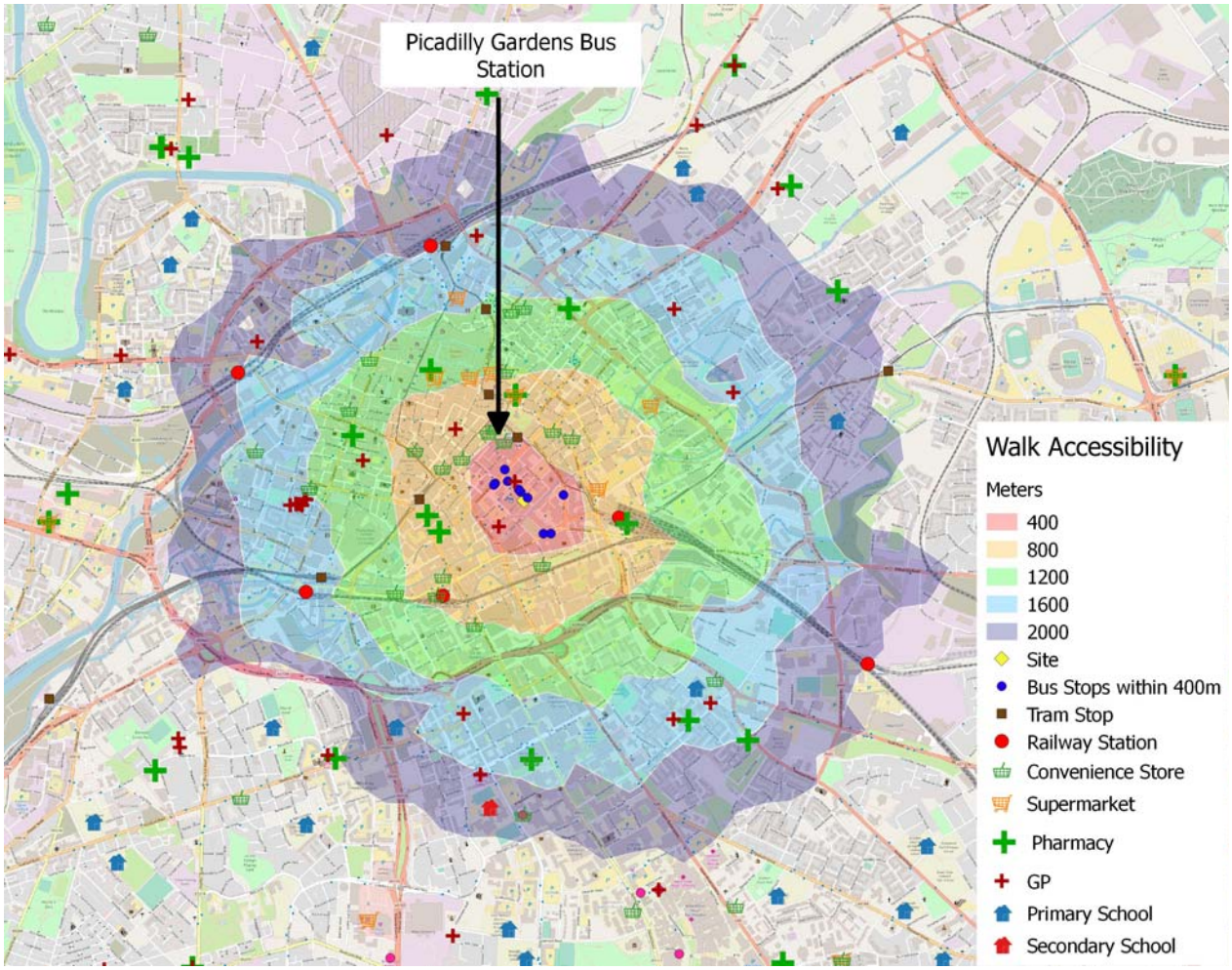
Walking

3.2 The surrounding area benefits from an excellent level of pedestrian infrastructure. The quality of the footways adjacent to the site are good, well lit, and also of sufficient width to facilitate two way pedestrian movement. Pedestrian crossing points with dropped kerbs and tactile paving are provided at most side roads in the vicinity of the site. Tactile paving and dropped kerbs are in place at the Chorlton Street / Aytoun Street/ Whitworth Street signalised junction to the south east of the site and at the Chorlton Street/ Portland Street Junction to the north-west of the site. There are signalised crossing facilities on all the above arms.

3.3 A walk distance of 2km is suggested as being able to replace short car journeys. As illustrated by **Figure 3.1** overleaf the site is within easy walk distance of numerous amenities and employment areas. This demonstrates that, residents will be able to access a whole range of facilities within an easy walk of the site.

3.4 The site is also within a 2km walk distance from numerous bus stops, metrolink stops and railway stations, including Manchester Piccadilly, Victoria and Oxford Road providing easy access to a range of destinations.

Figure 3.1 – 2km Walk Accessibility



Source: Basemap Visography

3.5 In summary the site is well located with available opportunity for residents to access a wide range of amenities, leisure and employment opportunities, reducing the requirement to travel by car.

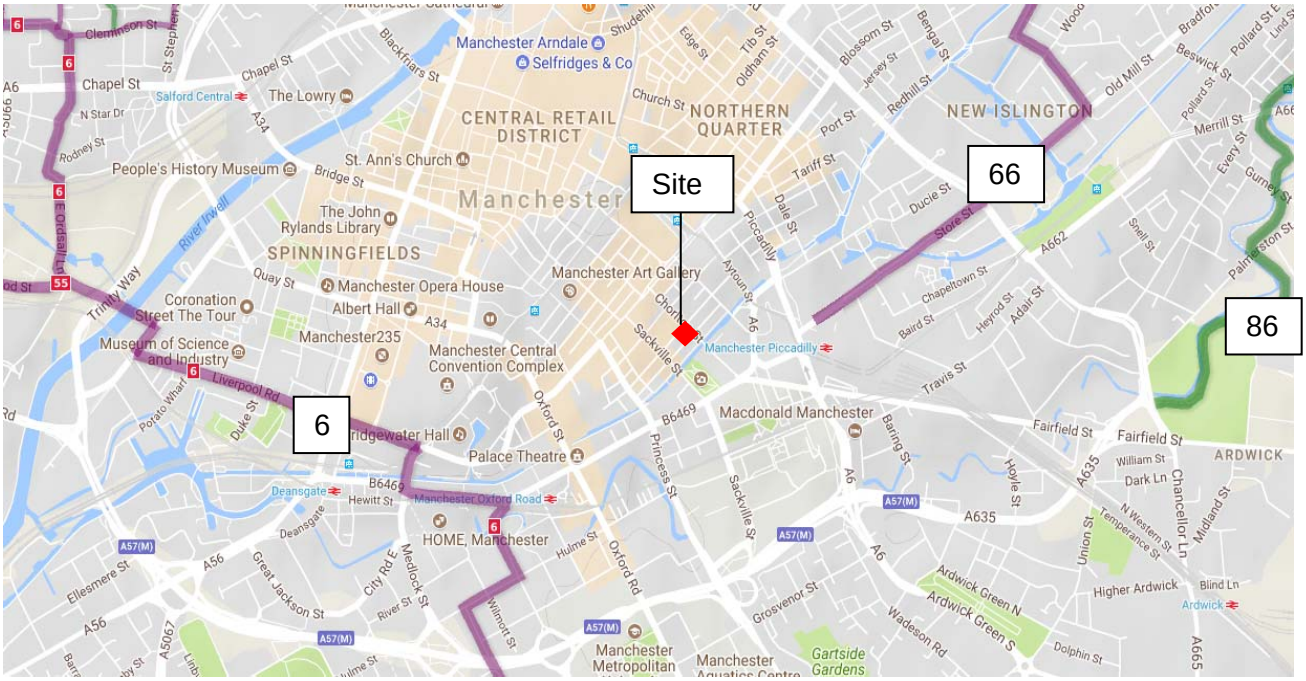
Cycling

3.6 Cycling is a cheap, efficient and healthy way to travel. Cycling also provides a predictable arrival time which is often quicker than driving or using public transport, and is subject to fewer traffic and congestion delays.

3.7 Transport Policy identifies that cycling represents a realistic and healthy alternative to the use of the private car for making journeys up to 5km as a whole journey or as part of a longer journey by public transport.

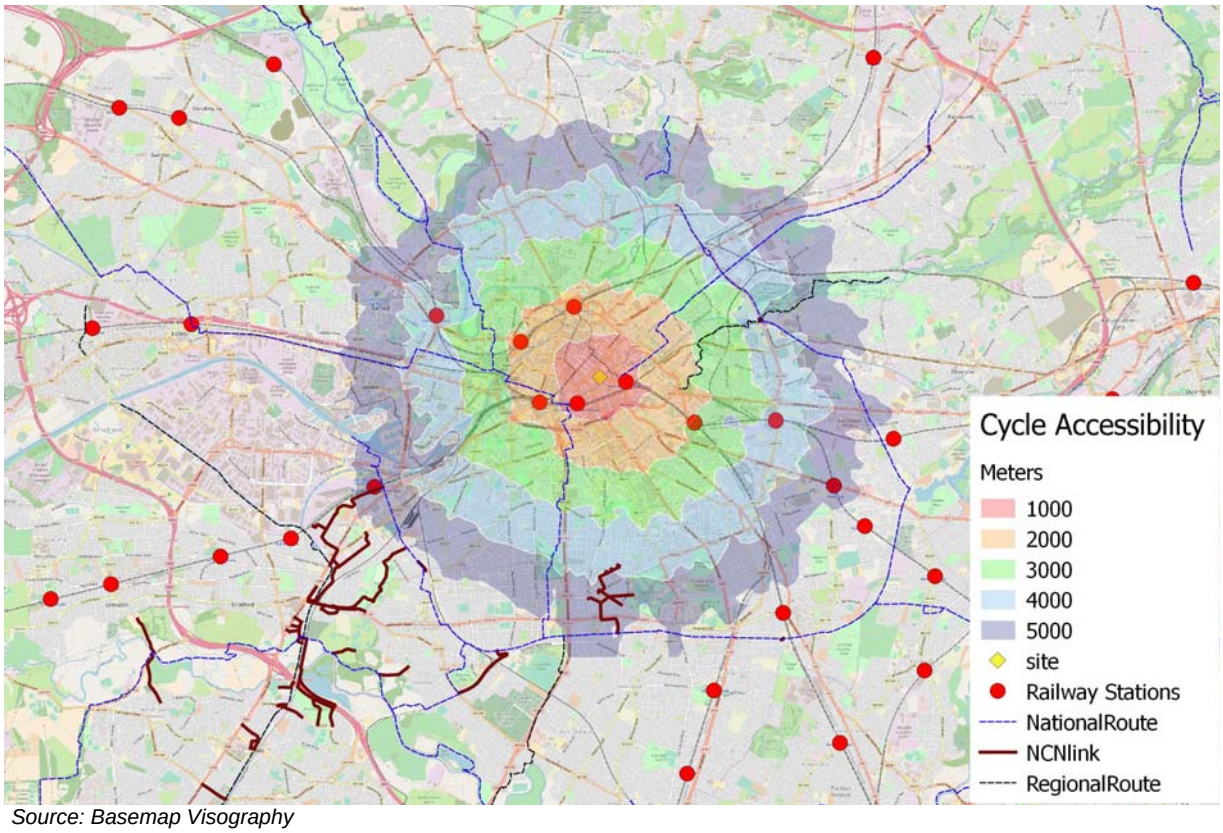
3.8 There are good cycle facilities within the surrounding area of the application site, including the National Cycle Route 66 which is located to the east of the site. This runs from Central Manchester to Spurn Head via Bradford, Leeds and York. National Cycle Route 6 is located to the south west of the site and passes through Manchester, Blackburn, Sheffield and Preston amongst other places. These routes can be seen in figure 3.2 below.

Figure 3.2 – Cycle Routes



3.9 GIS software has been used to model a 5km cycle catchment from the site and is shown on Figure 3.3 overleaf. The plan demonstrates that the whole of Manchester amongst other places are within 5km of the development.

Figure 3.3 – 5km Cycle Accessibility



Source: Basemap Visography

3.10 The existing cycle infrastructure within Manchester combined with the accessibility of the development by distance will allow future residents to easily access the proposed development by bike.

Public Transport

3.11 Guidance published by the IHT 'Planning for Public Transport in Developments' (1999), recommends that the maximum walking distance to a bus stop should be 400 metres, equating approximately to a five minute walk.

3.12 The nearest bus stops to the site are located on Chorlton Street within the 400m range. There are further bus stops located at Manchester Piccadilly Bus Station which is approximately 400m to north-west of the site.

3.13 The table overleaf summarises the buses which currently from Chorlton Street.

Table 3.1 – Bus Services

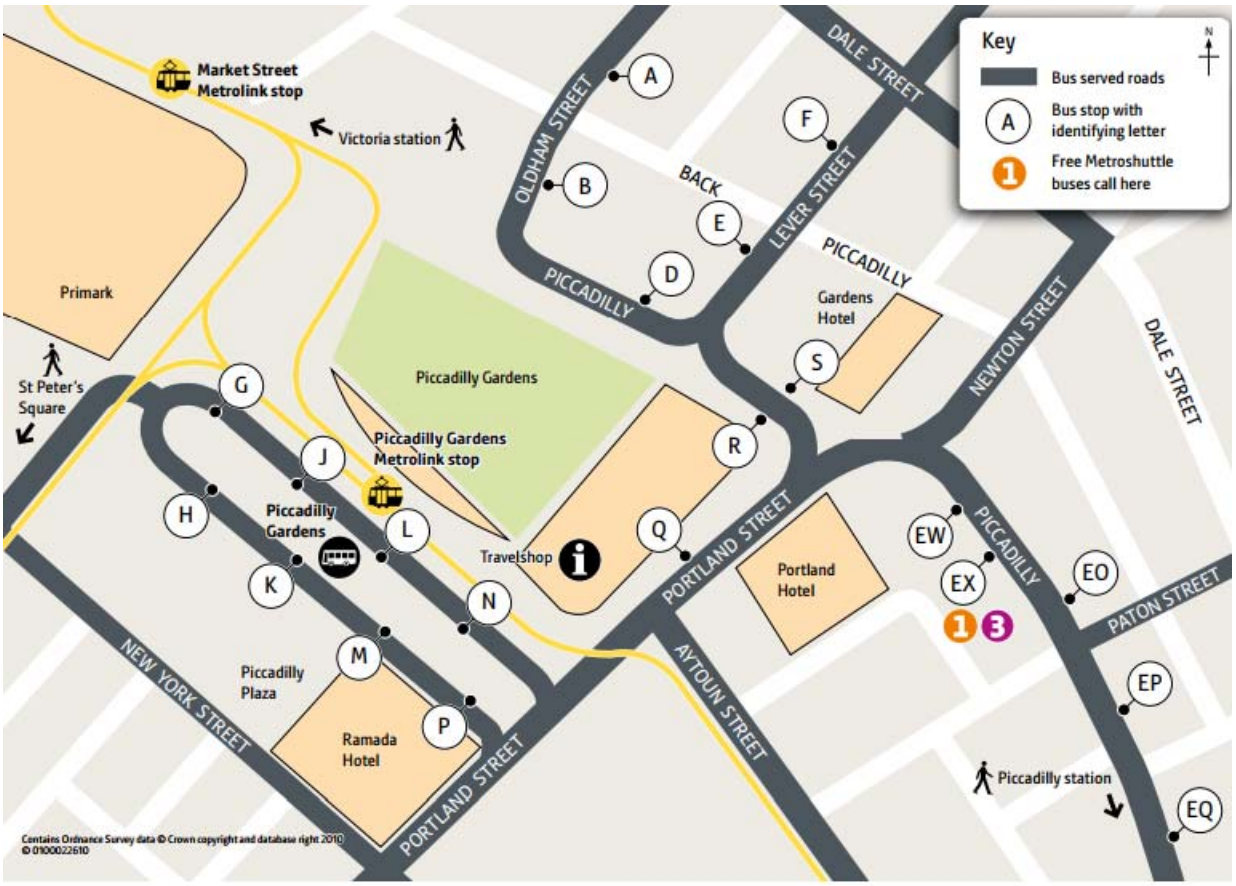
Service Number	Route	Bus Stop Location	Operator	Average Service Headway (mins) each Direction of Travel		
				Mon-Fri	Sat	Sun
42	Manchester – North Manchester General hospital – Cheetham Hill - Middleton	Chorlton Street (Stop EU)	First Group	20	20	-
173	Manchester – Stepping Hill Hospital	Chorton Street (Stop EU)	StageCoach	60	60	-
Red Express X41	Manchester – Prestwich – Haslingden – Accrington – Blackburn	Chorlton Street (Stop EZ)	Lancashire Bus	30	30	60
The Witch Way X43	Manchester – Prestwich – Burnley- Nelson - Skipton	Chorlton Street (Stop EZ)	Lancashire Bus			
ZAP	Manchester – Chadderton – Ainley Top – Leeds (**Service begins 5th November 2017)**	Chorlton Street (EZ)	Transdev Burnley	60 (TBC)	60 (TBC)	60 (TBC)
Metroshuttle 3*	Manchester Piccadilly – Charlotte Street – St Mary's Gate – New York Street – Chorlton Street – Piccadilly	Chorlton St (Stop EU)	TFGM	10	10	12
TP TransPeak	Manchester – Buxton – Matlock – Derby	Chorlton Street (Central Coach Station)	High Peak	2 hours	Twice	Twice

**This service is free.*

3.14 In addition, national express buses run from the Manchester Coach Station located on Chorlton Street.

3.15 The above tables shows the buses which run from Chorlton Street, there are a numerous other buses which run from all over Manchester which are in walking distance of the site which connects the site to a wide range of locations making it extremely accessible. The below image shows a map of Piccadilly Gardens and the bus stops and their identifying letter.

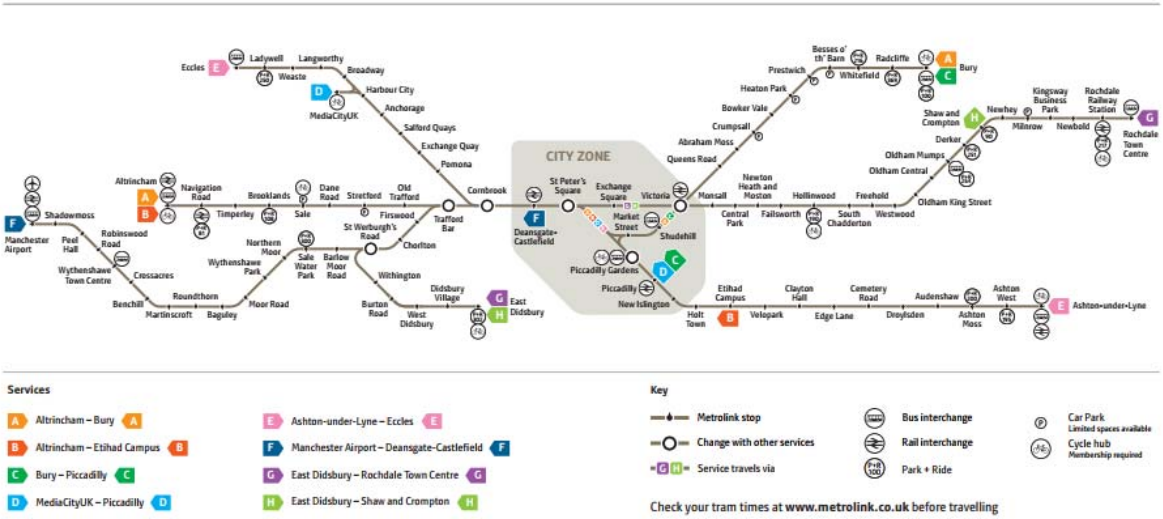
Figure 3.4 – Map of Piccadilly Gardens



Public Transport - Tram

3.16 Several Metrolink Tram Stops are also located within walking distance from the site. The main tram stop which is located within walking distance is Piccadilly Gardens which is located next to the bus station as seen in **Figure 3.4** above. A map of the Metrolink network is shown overleaf in **Figure 3.5**.

Figure 3.6 – Greater Manchester Tram network

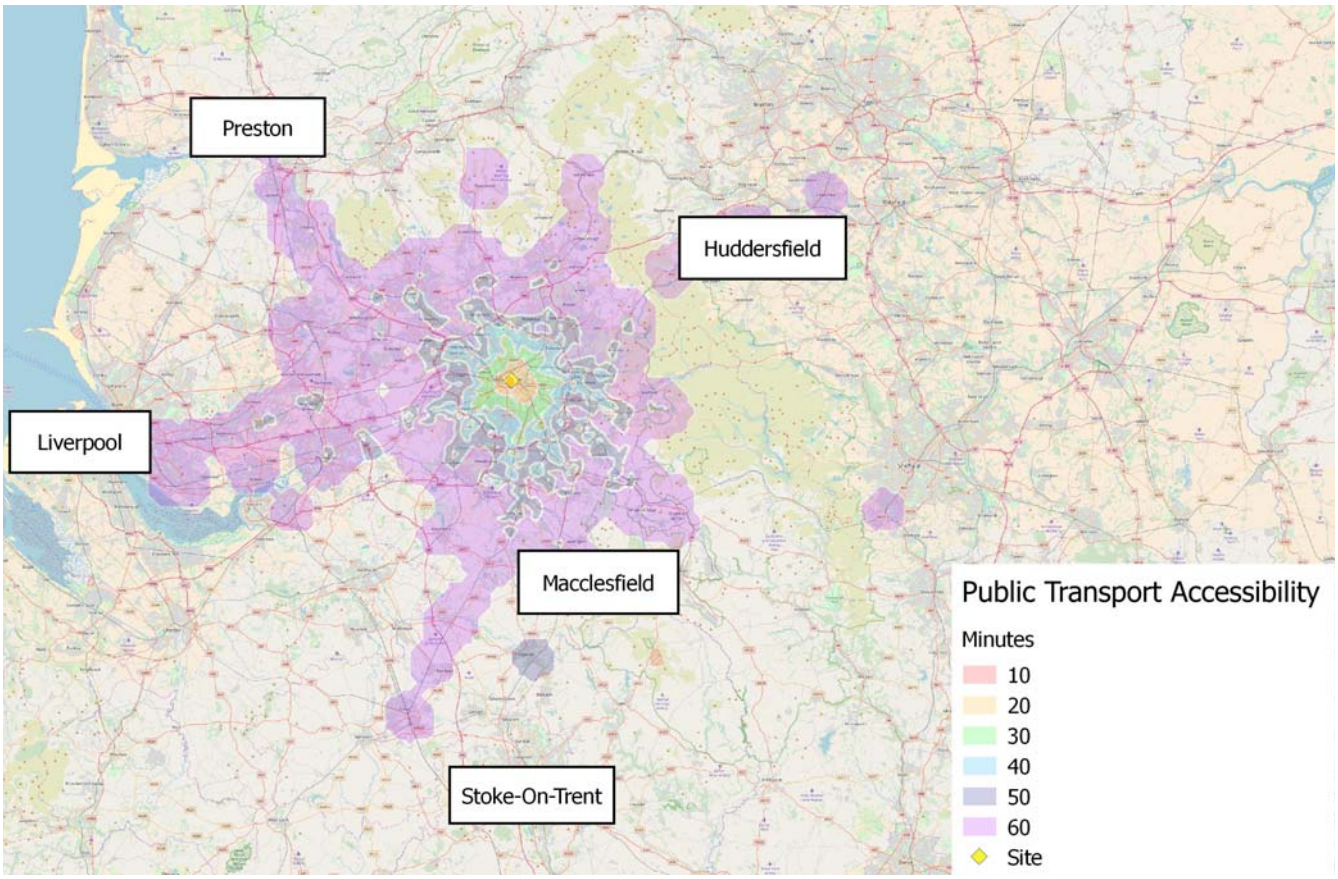


Public Transport - Train

3.17 Manchester Oxford Road, Manchester Piccadilly and Manchester Victoria Station are located within walking distance of the site. These stations provide a wide range of facilities including, convenience stores, safe bicycle parking, ATM machines, waiting rooms, first class lounges, toilets and more. These Railway Stations also provide frequent services to London Euston, Cardiff Central, Glasgow, Newcastle amongst others places across the UK.

3.18 TRACC software has been used to map a 60 minute journey time using public transport, including the walk to the nearby bus stops, tram stops and railway stations, and are presented in **Figure 3.7.** The analysis demonstrates that it is possible to reach a vast array of areas in the north-west region such as Preston, Liverpool, Macclesfield, and Stoke-On-Trent amongst others, within an acceptable 60 minute commute time.

Figure 3.5 - 60-Minute Public Transport Accessibility



Source: Basemap Visography

3.19 Therefore, future residents of the site will have access to bus, tram and train services which provide access to a range of destinations at a high frequency, making the site extremely accessible without the use of a private car.

Car Club

3.20 City Car Club is a pay by the hour car hire scheme. Manchester City Council sees it as an important tool for tackling congestion in Manchester as they offer practical, cost-effective access to a car when needed. Vehicles are booked on the internet or by phone, weeks, months or as little as a minute before the vehicle is needed. Once a booking is completed, members simply walk to a vehicle, unlock it and drive away. Hourly Rates start at £4.95 and daily rates start at £39.95. There nearest location of vehicles is located on Bloom Street approximately 50m from the site access point. There are further vehicles located across Manchester within a 2km radius making these cars accessible for non-car owning residents.

Summary

3.21 Having regard to the above, it is therefore considered that the site has an excellent level of accessibility by all the main non-car modes of transport. Access to the site by foot, cycle and public transport is of a high standard making the site highly accessible.

4.0 DEVELOPMENT PROPOSALS

4.1 The development proposals consist of a residential scheme of 10 apartments which will be accessed from Chorlton Street. The proposals include the change of use from A4/A5 to residential and the proposal is car free.

4.2 A plan showing the site layout is included at **Appendix 1**.

Pedestrian Access

4.3 The main access to the site will be off Chorlton Street. Residents will leave the site onto the paving on Chorlton Street. Access will be restricted to residents only, by a pass-code or card system.

Cycle Parking

4.4 The site will have cycle storage in the basement of the apartments. This will more than accommodate one cycle per apartment.

Car Parks

4.5 Due to the City Centre location of the site there will be no parking provided to residents. This is common practise in city centre locations which are highly accessible by non-car modes. However there are numerous long stay car parking in the vicinity of the site should residents or visitors need car parking. A summary of car parks where residents could stay are shown overleaf in table 4.1.

Table 4.1 – Car Parks

Car Park Location	Distance from site	Number of Spaces	Long Stay	Season Ticket Available?
NCP Manchester Chorlton Street	45m	559	Yes	Yes
NCP Major Street	220m	130	Yes	Yes
NCP Manchester China Town	300m	78	Yes	Yes
NCP Manchester Palace	450m	411	Yes	Yes
CitiPark 75 Dale Street	600m	285	Yes	Yes

5.0 DEVELOPMENT RELATED TRAFFIC MOVEMENTS

5.1 Although the site has been and will remain car-free, it has the potential to generate local car trips to nearby long-stay car parks. An exercise has been carried out to establish the potential traffic generation of the residential development.

Trip Generation

5.2 The Trip Rate Information Computer System (TRICS) database has been used to derive suitable vehicle trip generation rates for the development site of 10 apartments.

5.3 The following criteria were applied to the TRICS category “Flats, Privately Owned”:

- Sites in London, Republic of Ireland, Northern Ireland or Highlands were excluded;
- Only Edge of Town and Town Centre areas were selected;
- Only surveys on weekdays are included;
- Sites between 6 and 154 dwellings were included which includes only privately-owned flats; and
- Only the most recent survey was included for each site.

5.4 Vehicle trip rates for the AM and PM peak hours extracted from the sample are shown at Table 5.1. The TRICS output files are included at **Appendix 2**.

Table 5.1: Trip Rates and Generated Trips

	Trip Rate		Trips	
	Arrivals	Departures	Arrivals	Departures
AM	0.047	0.109	0	1
PM	0.139	0.09	1	1

Trip rates are per dwelling

5.5 Table 5.1 shows that the proposals will generate a single vehicle trip in the AM peak period and 1 two-way vehicle trip in the PM peak period.

5.6 The current building use has the potential to generate much more traffic throughout the date and late into the night, particularly associated with taxi movements.

In summary the above trip rates show that the proposed development will have a benefit to the local highway network and the proposed development will generate very few car trips.

6.0 SUMMARY AND CONCLUSION

6.1 This Transport Statement has assessed the impact of the redevelopment of 14 Chorlton Street to form 10 apartments in Manchester City Centre. The proposals include a change of use from A4/A5 to residential.

6.2 It has been demonstrated that access to sustainable transport infrastructure from the site is excellent with a high frequency of bus services, tram services, train services and excellent cycle and pedestrian facilities to a wide range of facilities.

6.3 The proposed development is predicted to generate very low levels of vehicular traffic in both the morning and evening peak hour periods which would not have a material impact on the adjacent highway network.

6.4 The development proposal will be car-free however there are long stay car parks in the immediate vicinity of the site if residents choose to have a car. Any prospective residents will be made aware that there is no on-site parking. Prospective residents will also be made aware of the Car Club scheme which operates in Manchester and residents can hire a car for as little as £4.95 an hour.

6.5 Pedestrian access to the site will be from Chorlton Street and there will be cycle parking available on the basement floor of the site.

6.6 Overall, our investigations have confirmed that there are no transport, traffic or highways reasons to resist the grant of planning permission for change of use to residential.

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APPENDIX 1

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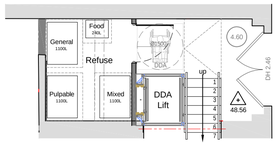
Contractors are to check all levels & dimensions on site prior to site works commencing & report discrepancies to the Designers.

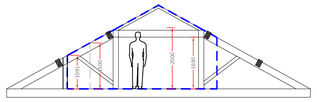
DO NOT SCALE THIS DRAWING

PLANNING

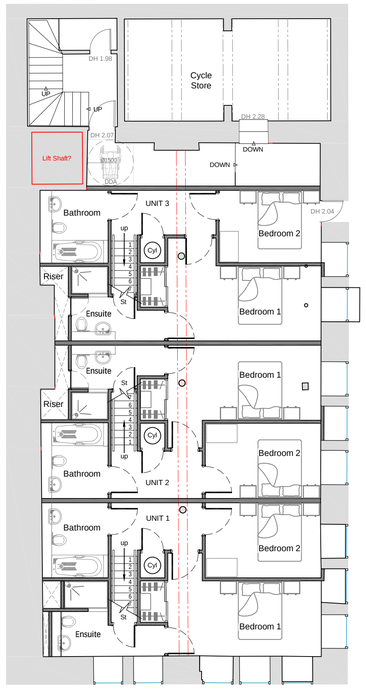
NOTES:-



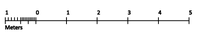
Proposed Lower Ground Floor
Scale 1:100

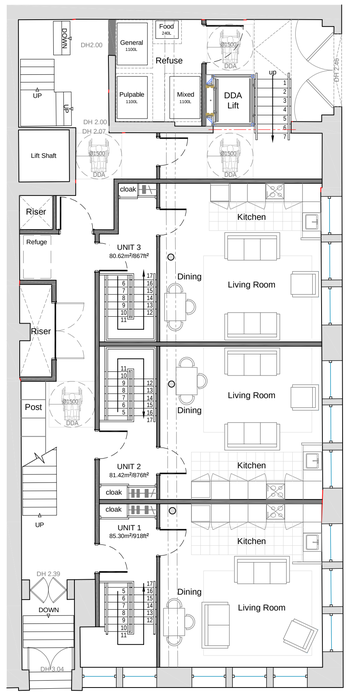


Proposed Mezzanine Section
Scale 1:100

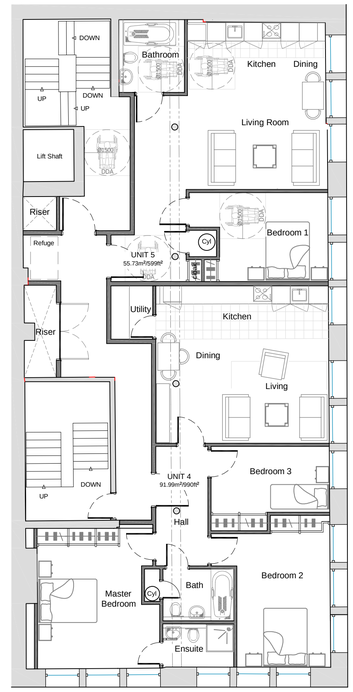


Proposed Basement
Scale 1:100

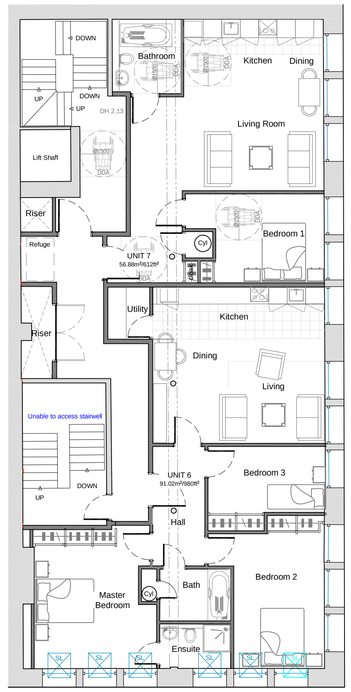




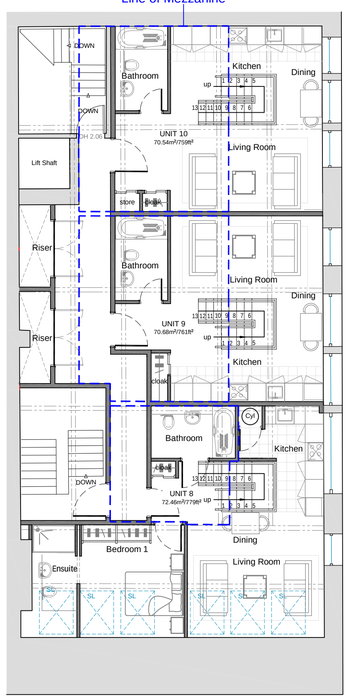
Proposed Ground Floor
Scale 1:100



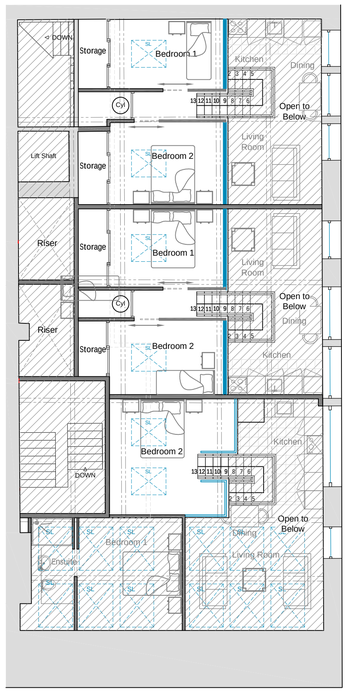
Proposed First Floor
Scale 1:100



Proposed Second Floor
Scale 1:100



Proposed Third Floor
Scale 1:100



Proposed Mezzanine
Scale 1:100

rev	description	by	date
D	Scheme approved by client. Drawing noted as Planning Issue.	TR	11.08.17

Project:	Chorlton Street Apartments 14 Chorlton Street, Manchester, M1 3HW
Title:	Proposed Floor Plans
Client:	Kamani Projects Ltd
Drawn By:	TR
Checked By:	MH on 12/04/2017
Original Size:	A1
Project Number:	21725
Drawing Number:	B1-ZZ-DR-A-2002D

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S|C|P

APPENDIX 2

Calculation Reference: AUDIT-726001-171018-1024

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST		
	EX	ESSEX	2 days
04	EAST ANGLIA		
	NF	NORFOLK	1 days
	SF	SUFFOLK	1 days
08	NORTH WEST		
	GM	GREATER MANCHESTER	2 days
09	NORTH		
	CB	CUMBRIA	1 days
10	WALES		
	FS	FLINTSHIRE	1 days
11	SCOTLAND		
	HI	HIGHLAND	1 days
	SA	SOUTH AYRSHIRE	1 days
	SR	STIRLING	2 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.

Parameter: Number of dwellings
Actual Range: 6 to 154 (units:)
Range Selected by User: 6 to 154 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/09 to 09/11/16

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	1 days
Tuesday	3 days
Wednesday	3 days
Thursday	4 days
Friday	1 days

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

Selected survey types:

Manual count	12 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	4
Edge of Town Centre	8

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	6

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	12 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	4 days
15,001 to 20,000	2 days
25,001 to 50,000	6 days

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

Population within 5 miles:

50,001 to 75,000	4 days
75,001 to 100,000	4 days
125,001 to 250,000	2 days
500,001 or More	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	9 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:

No	12 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	12 days

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

LIST OF SITES relevant to selection parameters

1 CB-03-C-01 BLOCK OF FLATS CUMBRIA
KING STREET

CARLISLE
Town Centre
Built-Up Zone
Total Number of dwellings: 40
Survey date: THURSDAY 12/06/14 Survey Type: MANUAL

2 EX-03-C-01 FLATS ESSEX
WESTCLIFF PARADE
WESTCLIFF
SOUTHEND-ON-SEA
Edge of Town Centre
Residential Zone
Total Number of dwellings: 6
Survey date: TUESDAY 22/10/13 Survey Type: MANUAL

3 EX-03-C-02 BLOCK OF FLATS ESSEX
WESTCLIFF PARADE
WESTCLIFF
SOUTHEND-ON-SEA
Edge of Town Centre
Residential Zone
Total Number of dwellings: 94
Survey date: TUESDAY 22/10/13 Survey Type: MANUAL

4 FS-03-C-01 BLOCK OF FLATS FLINTSHIRE
WREXHAM STREET

MOLD
Edge of Town Centre
Built-Up Zone
Total Number of dwellings: 30
Survey date: MONDAY 06/07/09 Survey Type: MANUAL

5 GM-03-C-02 BLOCK OF FLATS GREATER MANCHESTER
WHITWORTH STREET W.

MANCHESTER
Town Centre
Built-Up Zone
Total Number of dwellings: 154
Survey date: THURSDAY 13/10/11 Survey Type: MANUAL

6 GM-03-C-03 BLOCK OF FLATS GREATER MANCHESTER
FAIRFIELD STREET

MANCHESTER
Town Centre
Built-Up Zone
Total Number of dwellings: 20
Survey date: FRIDAY 14/10/11 Survey Type: MANUAL

7 HI-03-C-01 FLATS HIGHLAND
SHORE STREET

INVERNESS
Town Centre
Residential Zone
Total Number of dwellings: 38
Survey date: WEDNESDAY 20/05/09 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8 NF-03-C-01 BLOCKS OF FLATS NORFOLK
PAGE STAIR LANE

KING'S LYNN
Edge of Town Centre
Built-Up Zone
Total Number of dwellings: 51
Survey date: THURSDAY 11/12/14 Survey Type: MANUAL

9 SA-03-C-01 BLOCK OF FLATS SOUTH AYRSHIRE
RACECOURSE ROAD

AYR
Edge of Town Centre
Residential Zone
Total Number of dwellings: 51
Survey date: TUESDAY 16/09/14 Survey Type: MANUAL

10 SF-03-C-01 BLOCKS OF FLATS SUFFOLK
STATION HILL

BURY ST EDMUNDS
Edge of Town Centre
Built-Up Zone
Total Number of dwellings: 85
Survey date: THURSDAY 18/12/14 Survey Type: MANUAL

11 SR-03-C-01 FLATS STIRLING
FORTHSIDE WAY

STIRLING
Edge of Town Centre
No Sub Category
Total Number of dwellings: 80
Survey date: WEDNESDAY 18/06/14 Survey Type: MANUAL

12 SR-03-C-02 FLATS STIRLING
ROSEBERRY TERRACE

STIRLING
Edge of Town Centre
Residential Zone
Total Number of dwellings: 48
Survey date: WEDNESDAY 18/06/14 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	12	58	0.033	12	58	0.077	12	58	0.110
08:00 - 09:00	12	58	0.047	12	58	0.109	12	58	0.156
09:00 - 10:00	12	58	0.050	12	58	0.073	12	58	0.123
10:00 - 11:00	12	58	0.075	12	58	0.088	12	58	0.163
11:00 - 12:00	12	58	0.072	12	58	0.080	12	58	0.152
12:00 - 13:00	12	58	0.100	12	58	0.066	12	58	0.166
13:00 - 14:00	12	58	0.079	12	58	0.103	12	58	0.182
14:00 - 15:00	12	58	0.080	12	58	0.092	12	58	0.172
15:00 - 16:00	12	58	0.070	12	58	0.055	12	58	0.125
16:00 - 17:00	12	58	0.102	12	58	0.073	12	58	0.175
17:00 - 18:00	12	58	0.139	12	58	0.090	12	58	0.229
18:00 - 19:00	12	58	0.100	12	58	0.072	12	58	0.172
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.947			0.978			1.925

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.

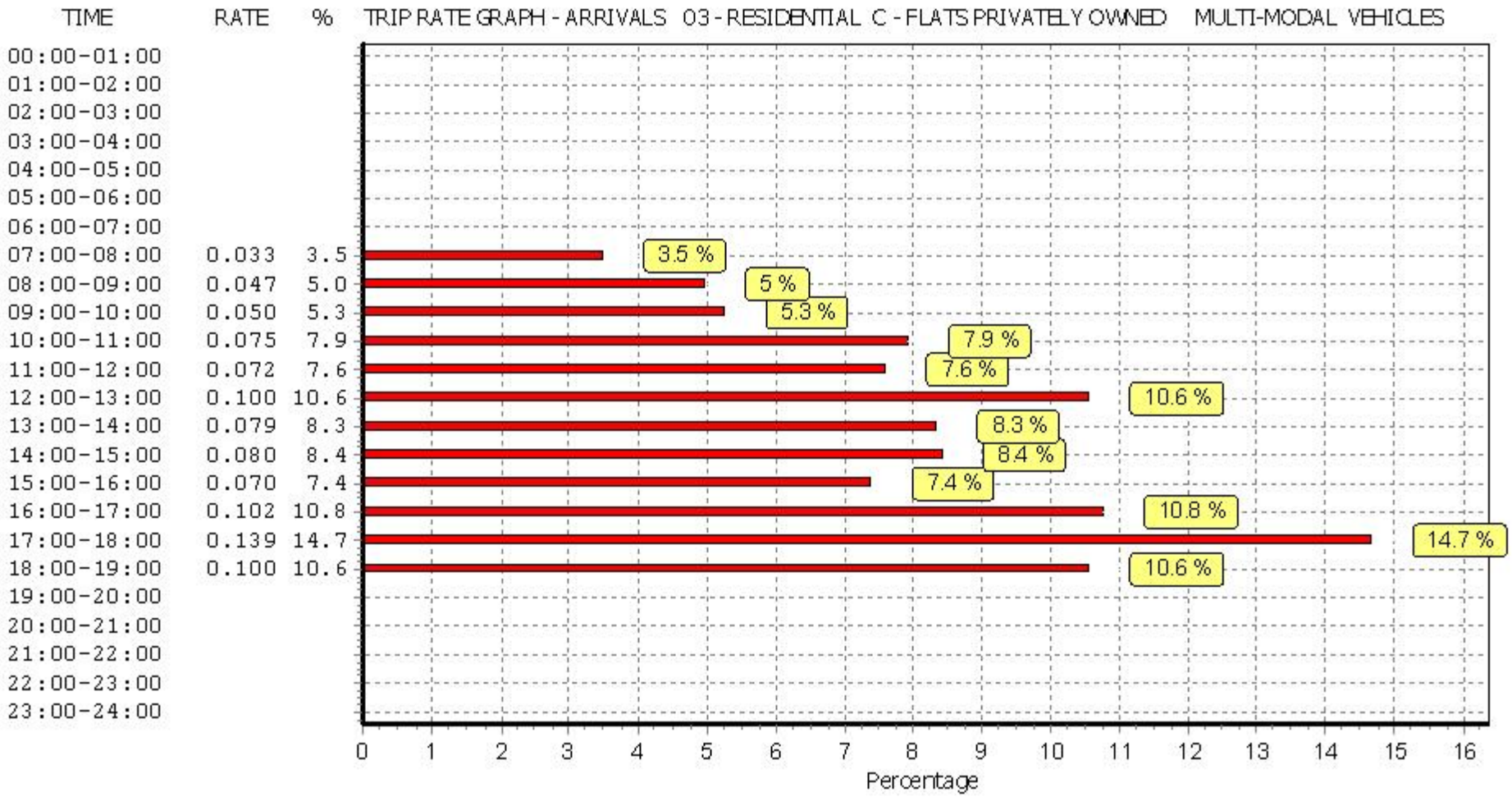
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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

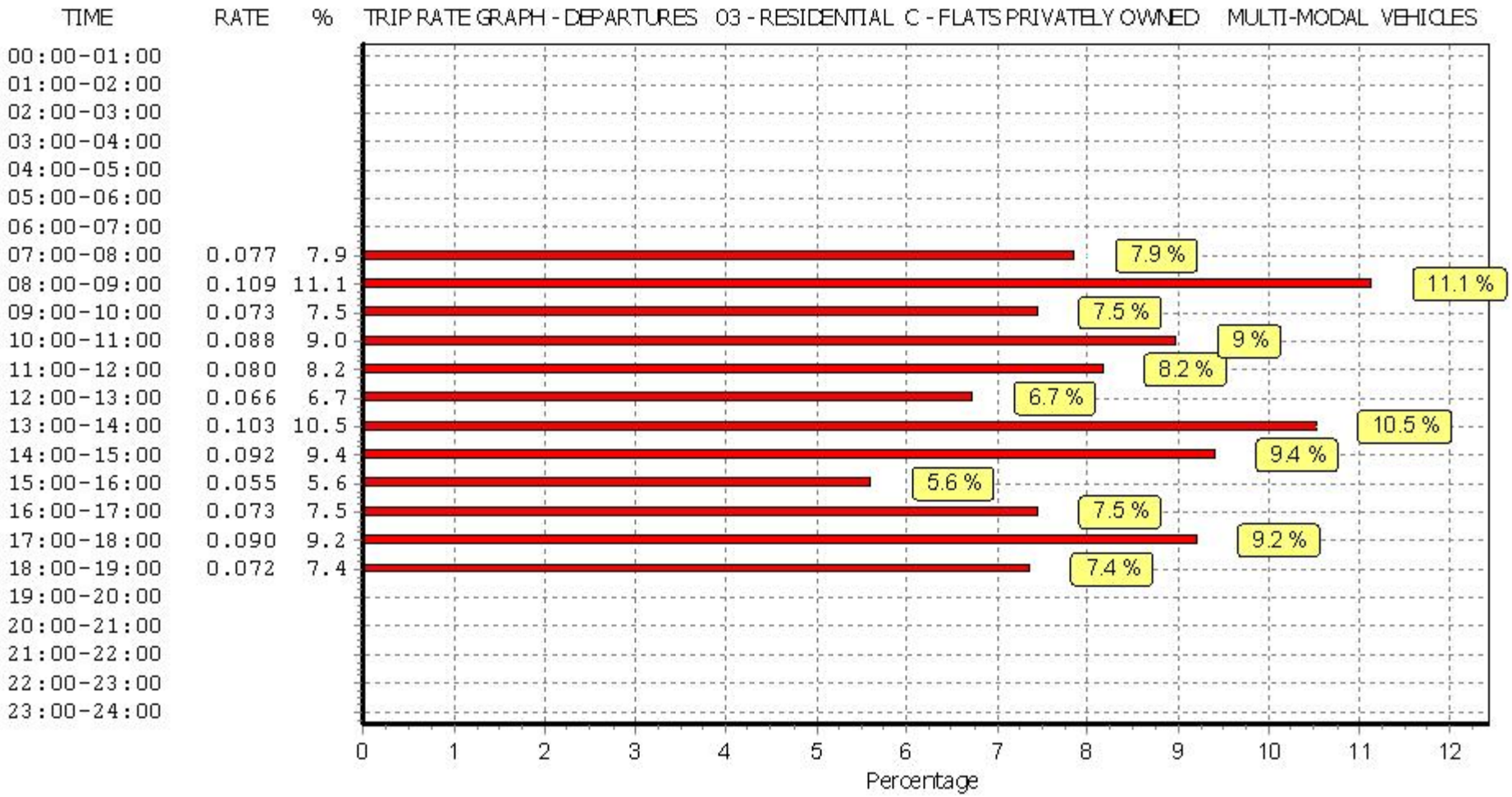
Trip rate parameter range selected:	6 - 154 (units:)
Survey date date range:	01/01/09 - 09/11/16
Number of weekdays (Monday-Friday):	12
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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.

Singleton Clamp & Partners Mount Street Manchester Licence No: 726001

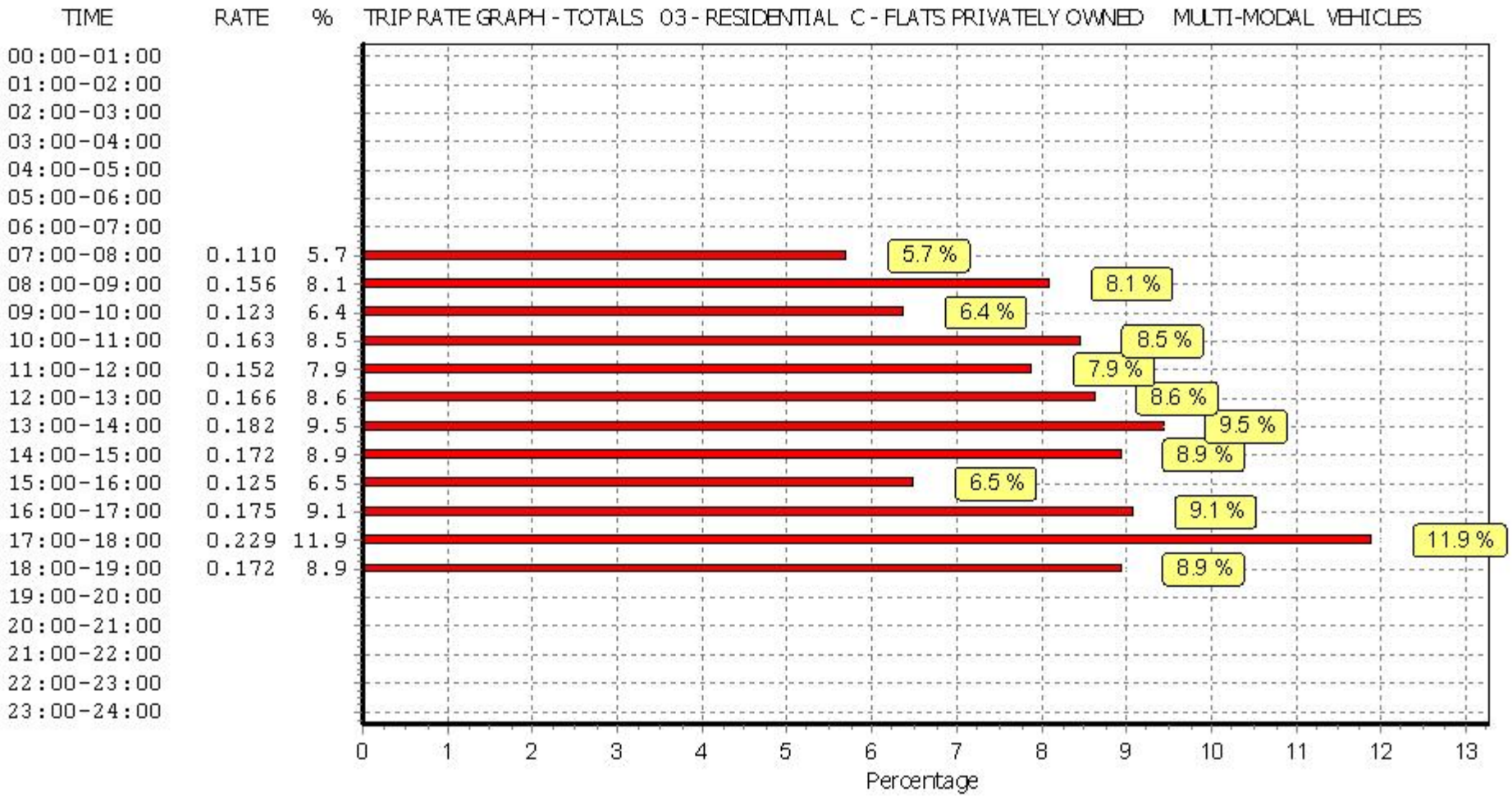


This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

Singleton Clamp & Partners Mount Street Manchester Licence No: 726001



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

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	12	58	0.003	12	58	0.010	12	58	0.013
08:00 - 09:00	12	58	0.001	12	58	0.004	12	58	0.005
09:00 - 10:00	12	58	0.003	12	58	0.004	12	58	0.007
10:00 - 11:00	12	58	0.000	12	58	0.004	12	58	0.004
11:00 - 12:00	12	58	0.006	12	58	0.003	12	58	0.009
12:00 - 13:00	12	58	0.003	12	58	0.010	12	58	0.013
13:00 - 14:00	12	58	0.001	12	58	0.003	12	58	0.004
14:00 - 15:00	12	58	0.001	12	58	0.001	12	58	0.002
15:00 - 16:00	12	58	0.004	12	58	0.003	12	58	0.007
16:00 - 17:00	12	58	0.000	12	58	0.001	12	58	0.001
17:00 - 18:00	12	58	0.019	12	58	0.001	12	58	0.020
18:00 - 19:00	12	58	0.009	12	58	0.001	12	58	0.010
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.050			0.045			0.095

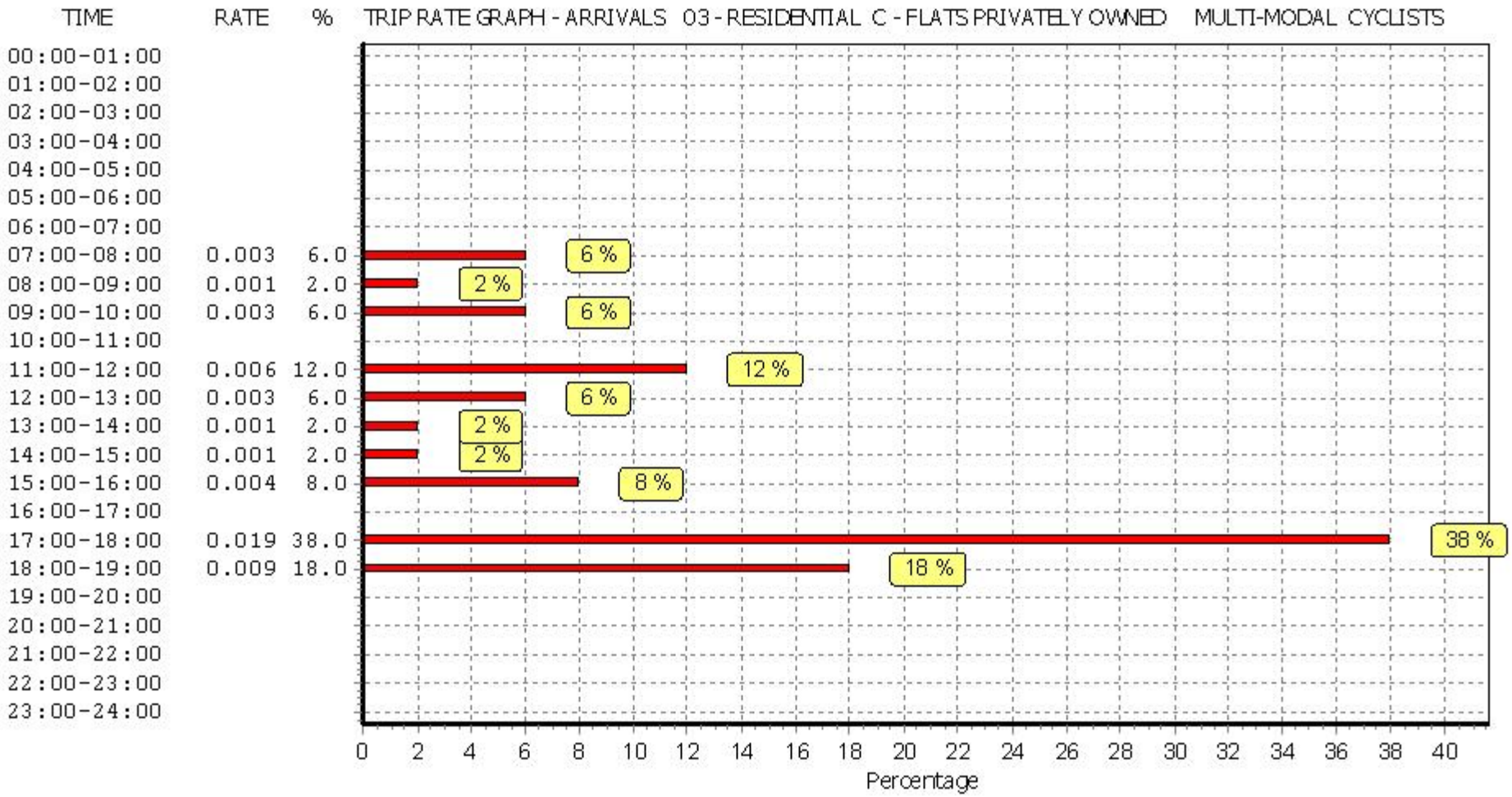
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are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

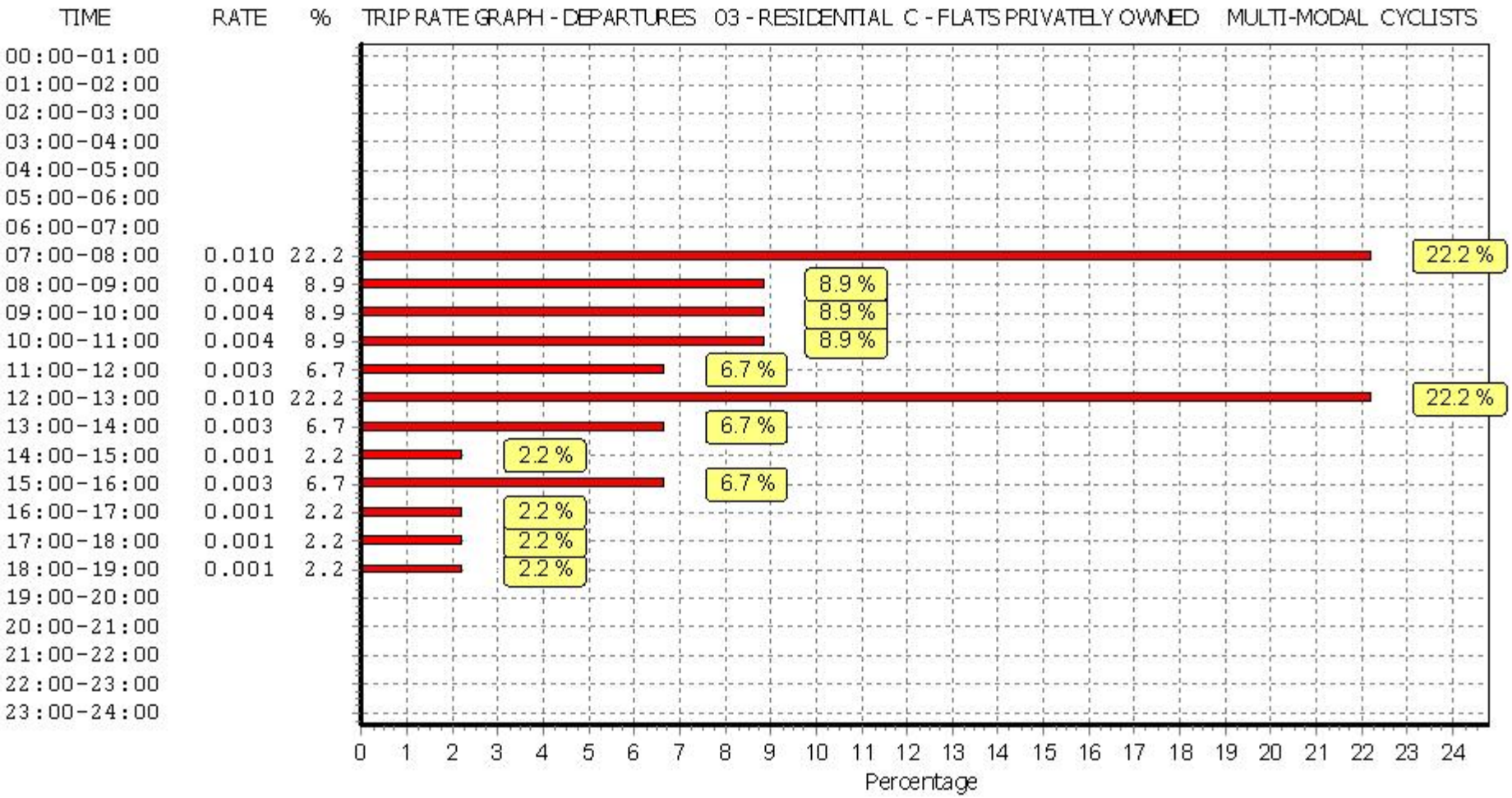
Parameter summary

Trip rate parameter range selected:	6 - 154 (units:)
Survey date date range:	01/01/09 - 09/11/16
Number of weekdays (Monday-Friday):	12
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.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



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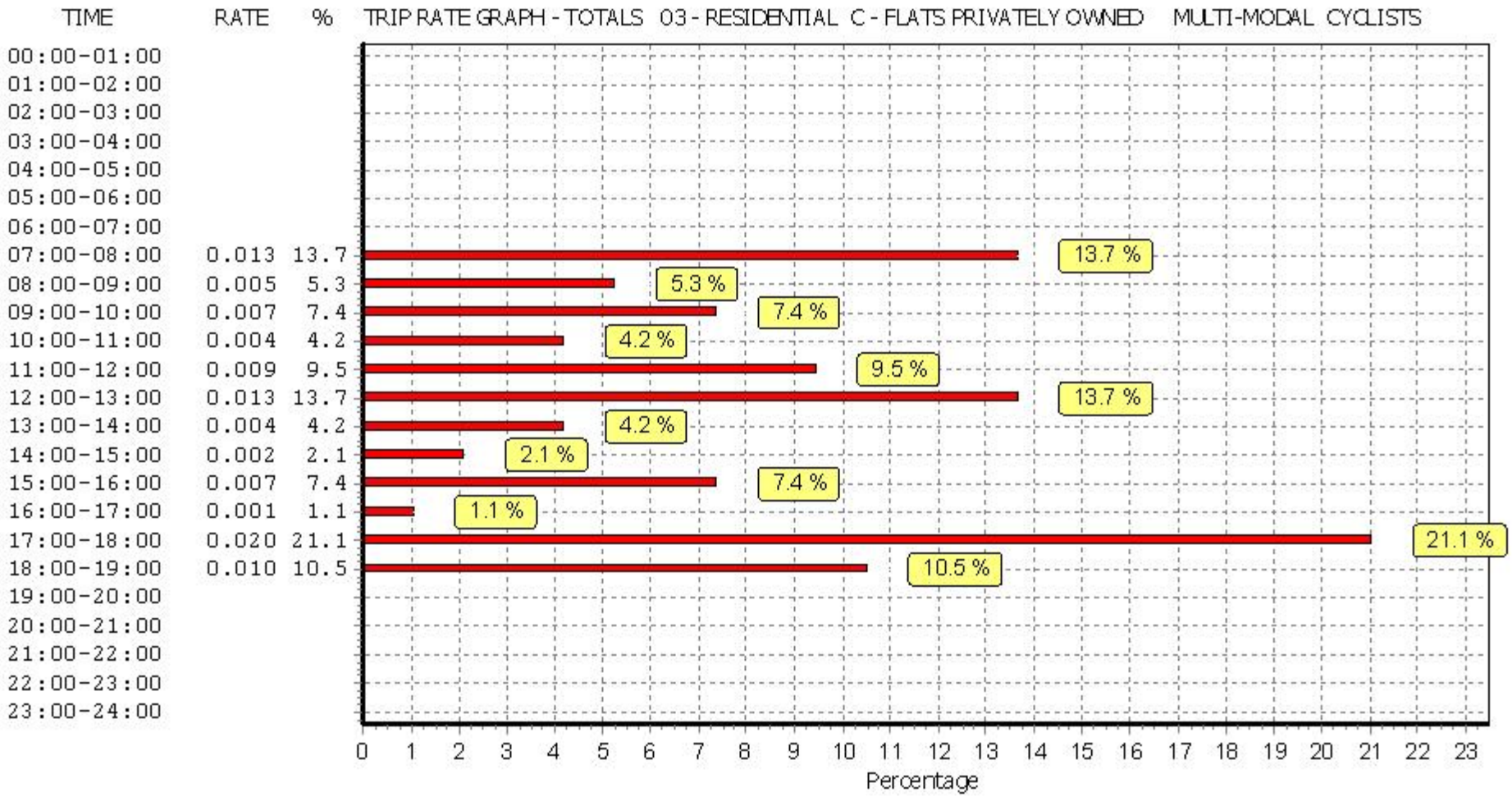

This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

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	12	58	0.017	12	58	0.042	12	58	0.059
08:00 - 09:00	12	58	0.019	12	58	0.154	12	58	0.173
09:00 - 10:00	12	58	0.030	12	58	0.105	12	58	0.135
10:00 - 11:00	12	58	0.056	12	58	0.063	12	58	0.119
11:00 - 12:00	12	58	0.062	12	58	0.069	12	58	0.131
12:00 - 13:00	12	58	0.095	12	58	0.083	12	58	0.178
13:00 - 14:00	12	58	0.086	12	58	0.077	12	58	0.163
14:00 - 15:00	12	58	0.093	12	58	0.056	12	58	0.149
15:00 - 16:00	12	58	0.095	12	58	0.076	12	58	0.171
16:00 - 17:00	12	58	0.136	12	58	0.123	12	58	0.259
17:00 - 18:00	12	58	0.176	12	58	0.079	12	58	0.255
18:00 - 19:00	12	58	0.108	12	58	0.047	12	58	0.155
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.973			0.974			1.947

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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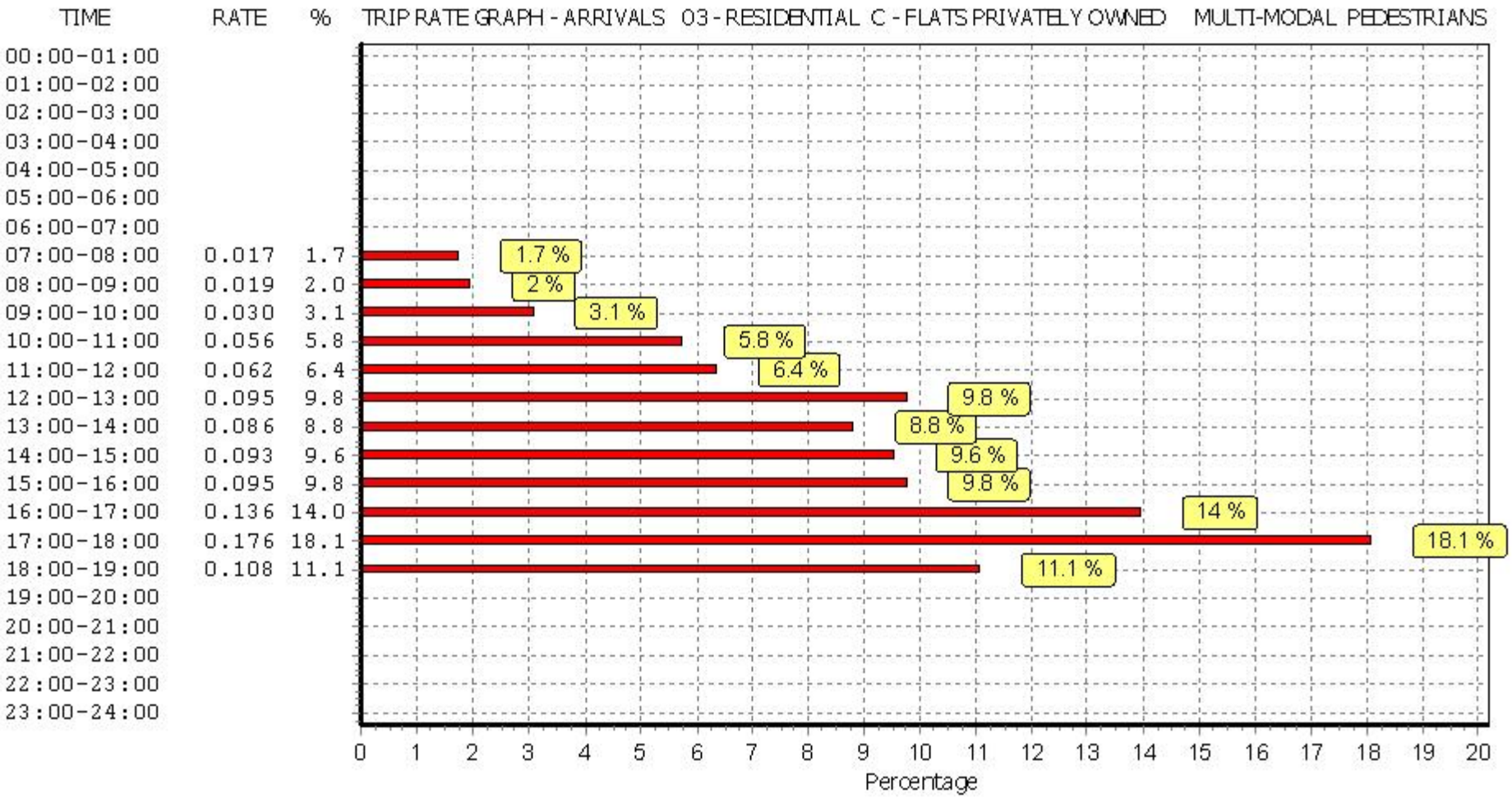
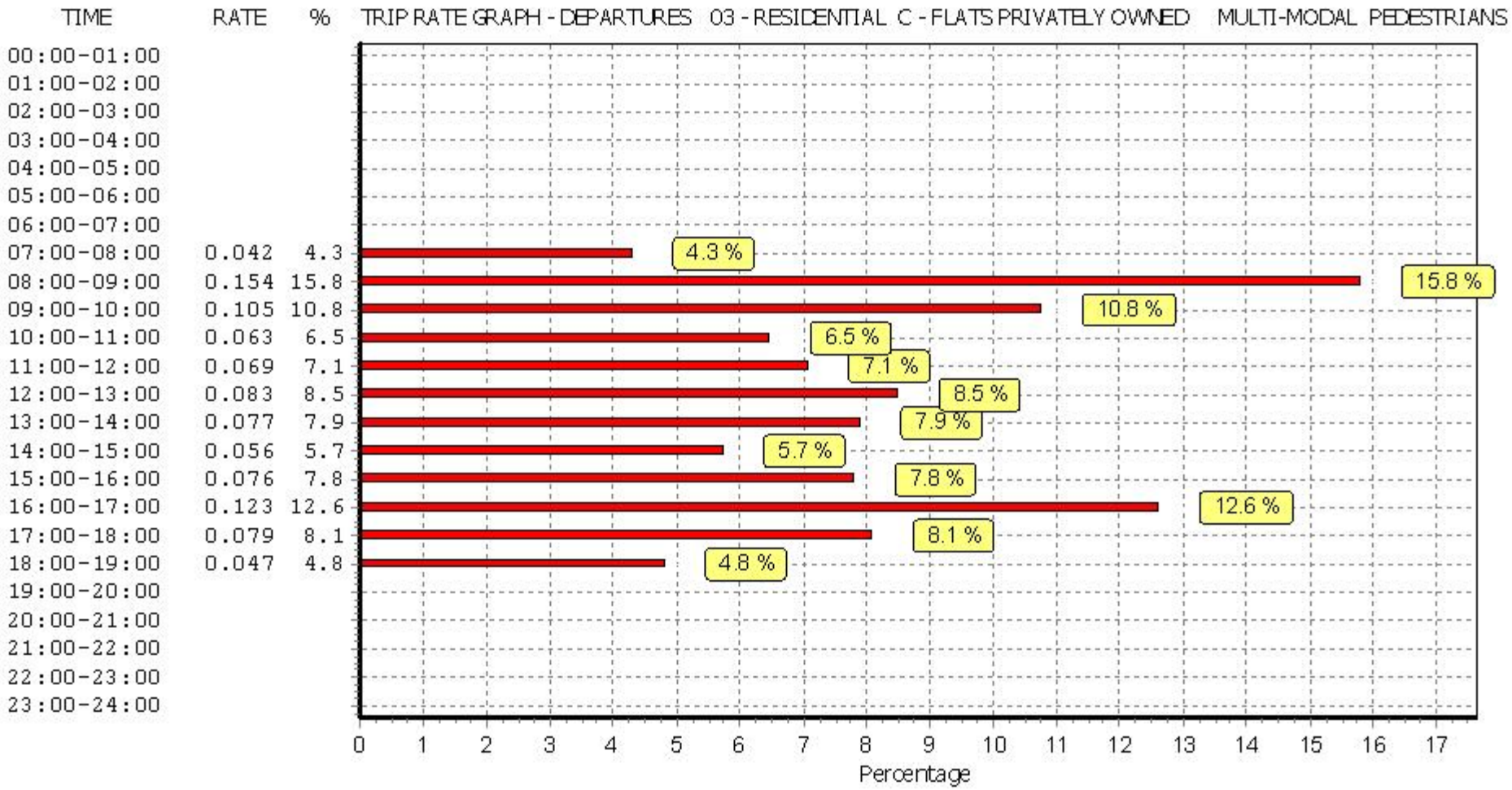
Parameter summary

Trip rate parameter range selected:	6 - 154 (units:)
Survey date date range:	01/01/09 - 09/11/16
Number of weekdays (Monday-Friday):	12
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.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



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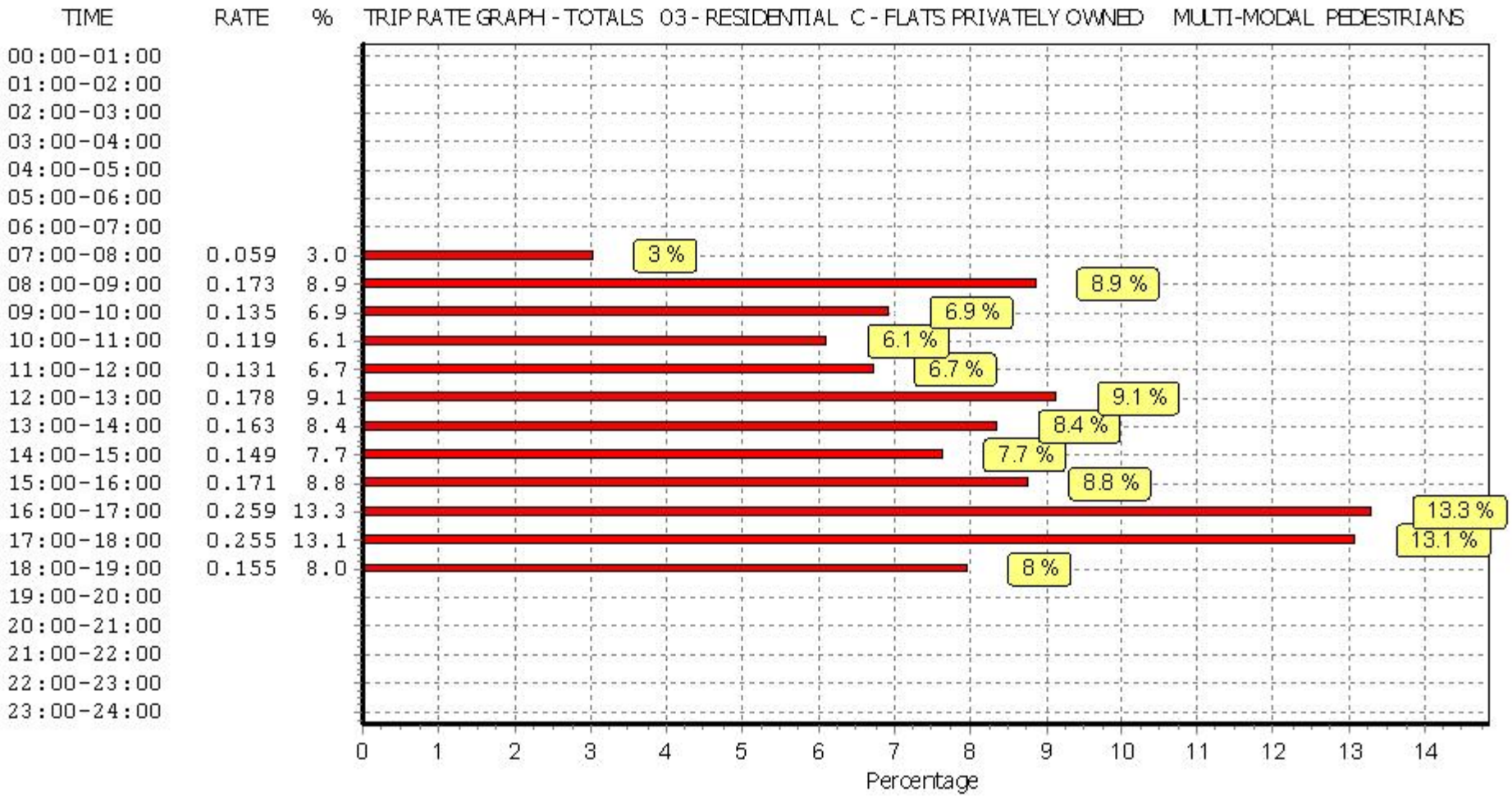

This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

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	12	58	0.001	12	58	0.060	12	58	0.061
08:00 - 09:00	12	58	0.004	12	58	0.075	12	58	0.079
09:00 - 10:00	12	58	0.003	12	58	0.026	12	58	0.029
10:00 - 11:00	12	58	0.004	12	58	0.016	12	58	0.020
11:00 - 12:00	12	58	0.020	12	58	0.014	12	58	0.034
12:00 - 13:00	12	58	0.014	12	58	0.024	12	58	0.038
13:00 - 14:00	12	58	0.004	12	58	0.014	12	58	0.018
14:00 - 15:00	12	58	0.007	12	58	0.003	12	58	0.010
15:00 - 16:00	12	58	0.036	12	58	0.006	12	58	0.042
16:00 - 17:00	12	58	0.042	12	58	0.013	12	58	0.055
17:00 - 18:00	12	58	0.093	12	58	0.004	12	58	0.097
18:00 - 19:00	12	58	0.030	12	58	0.001	12	58	0.031
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.258			0.256			0.514

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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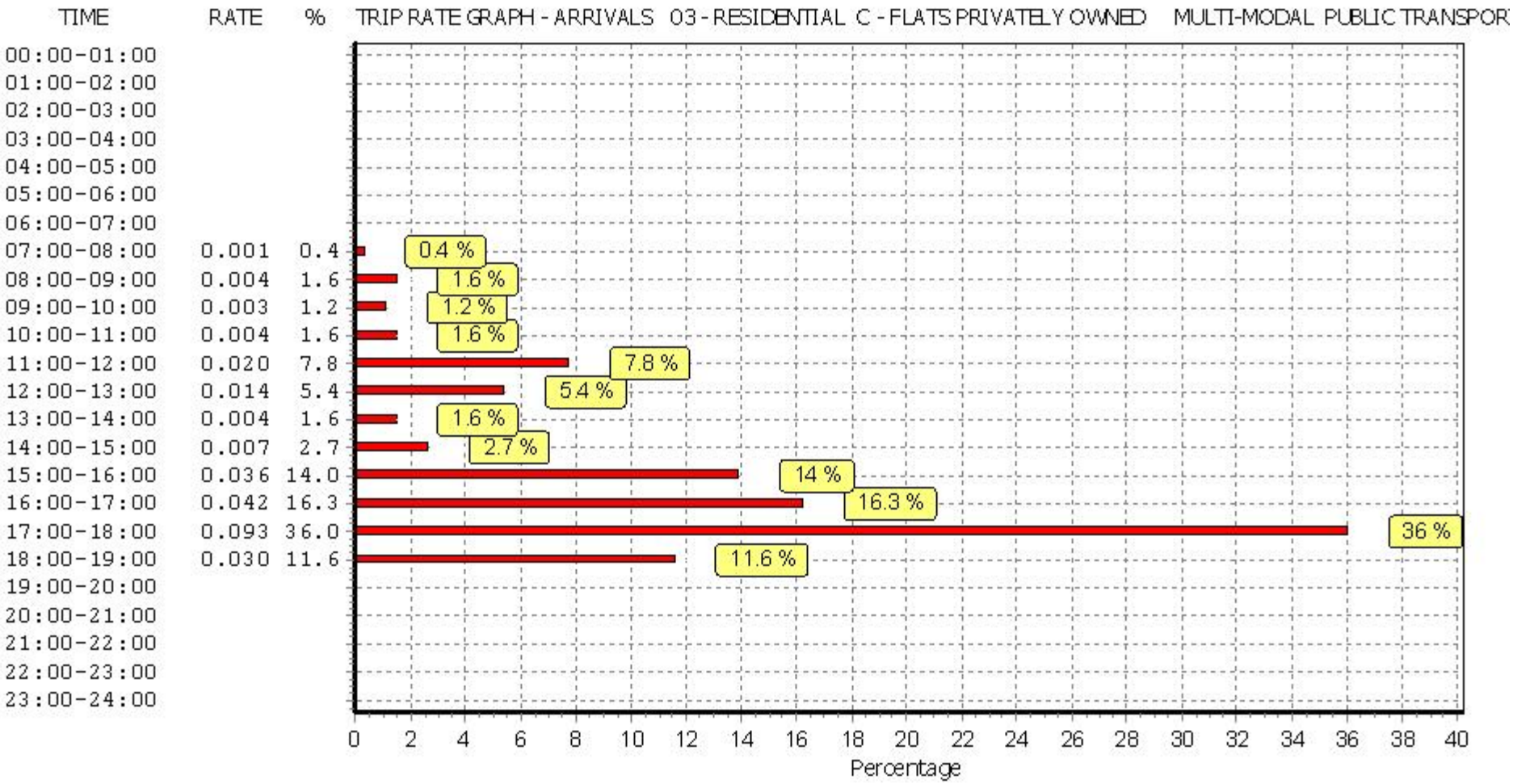
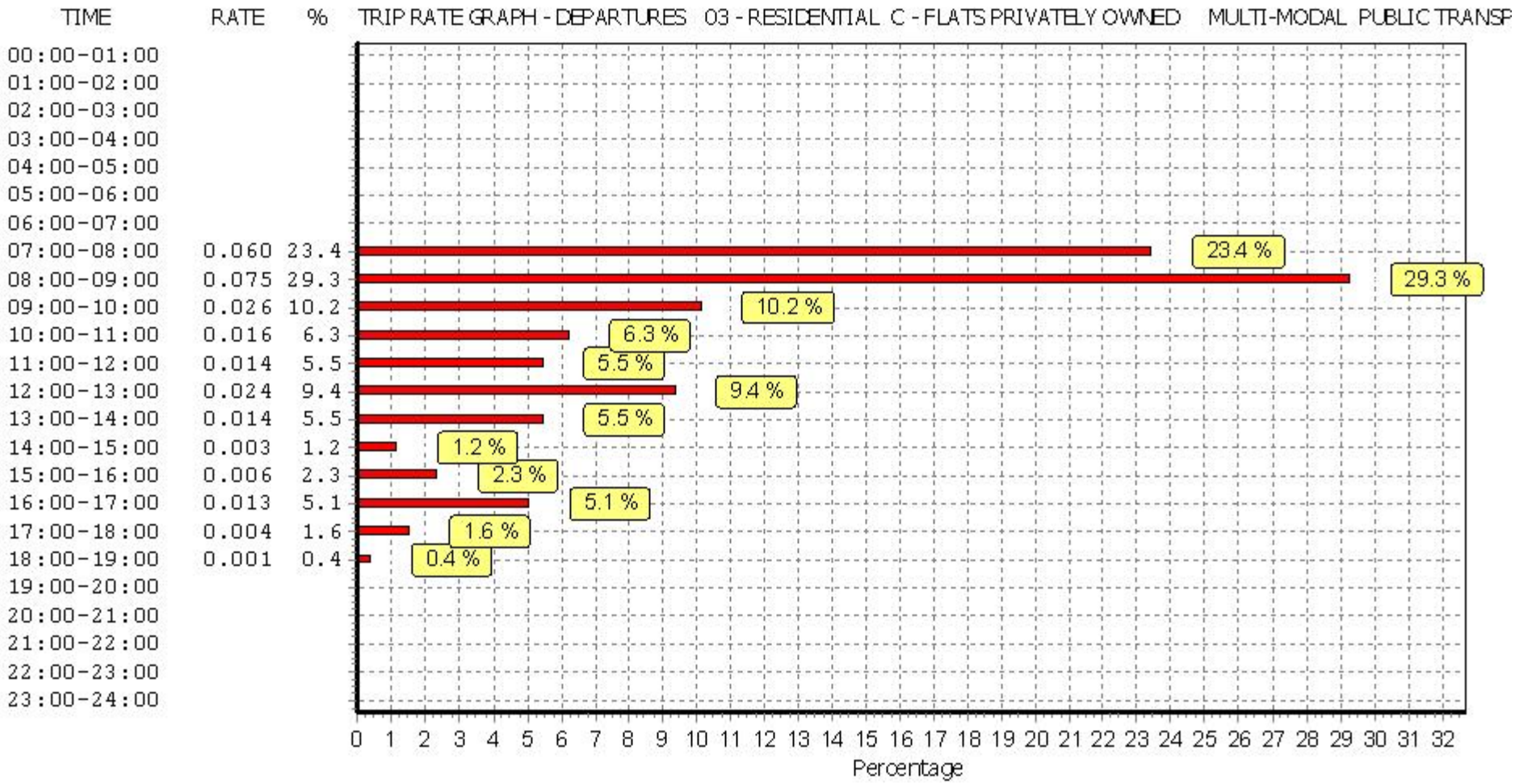
Parameter summary

Trip rate parameter range selected:	6 - 154 (units:)
Survey date date range:	01/01/09 - 09/11/16
Number of weekdays (Monday-Friday):	12
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.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



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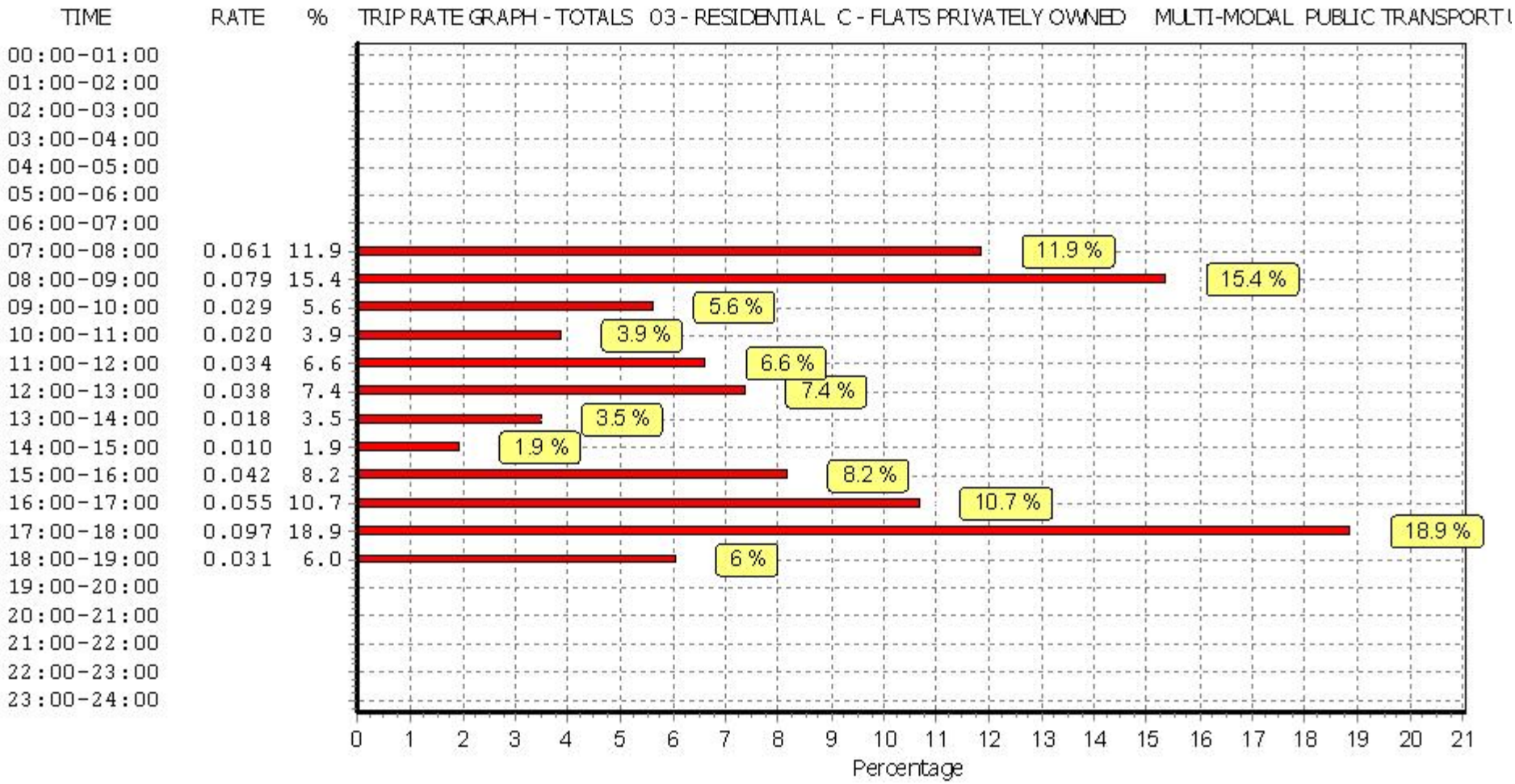

This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.