

Technical Note



57 River Road, Littlehampton

Fourways House
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Manchester
M1 2EU
UK

Trip Assessment

Our reference: 663188-TN01-Rev00

Planning reference: LU/247/20/PL

Author: Abigail Thornley	Date: 10/11/20	Reviewed: Ian Wickett	Date: 10/11/20
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This Technical Note has been prepared in response to comments from West Sussex County Council (WSCC), as highway authority, in relation to a planning application for proposed residential development at the above site.

The proposals comprise the redevelopment of an existing vehicle garage (B2 general industrial) with a GFA of 226m² and external yard used for parking, to provide six residential apartments (4 x 3-bed, 2 x 2-bed) with associated car parking.

The proposals will include the extension of the existing footway from the west across the site frontage. All proposed works are either within the applicant's ownership or is designated as adopted highway. The construction of a footway will improve visibility splays for vehicles emerging from the site, securing a layout commensurate with neighbouring residential schemes.

WSCC has requested a vehicular trip generation associated with the existing and proposed uses of the site to determine the likely change in traffic patterns resulting from the proposals. This is outlined in the remainder of this Technical Note.

Existing Site Use – Vehicle Repair Garage Trip Rates

The TRICS database, version 7.7.2, has been used to identify comparable sites with which to generate trip rates. Only vehicular surveys were available from which to derive trip rates. These have been generated using the selection criteria below for commercial use:

- Land use, 'Vehicle Services', sub-category, 'Vehicle Repair Garage (Slow Fit)';
- Mainland UK excluding Greater London sites;
- GFA < 900 sqm;
- Weekday surveys; and
- 'Edge of Town' and 'Suburban Area' location types.

The resulting trip rates for the AM and PM peak hours of 08:00-09:00 and 17:00-18:00 along with daily values are summarised in Table 1 below. Full details of the TRICS outputs can be found in Appendix 1.



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Table 1: Trip rates for 'vehicle repair garage (slow fit)' – per 100m²

	Vehicles	
	Arr	Dep
AM Peak	1.388	0.564
PM Peak	0.520	1.214
Daily Total	10.309	10.146

Based on the above trip rates, the calculated trip generation for the existing 226m² GFA is summarised in Table 2 below.

Table 2: Trip generation for 'vehicle repair garage (slow fit)' -226m²

	Vehicles	
	Arr	Dep
AM Peak	3	1
PM Peak	1	3
Daily Total	23	23

Table 2 indicates that the existing commercial use at the site can generate 4 two-way vehicular trips in each of the peak hours. The overall daily vehicular trips generated by the existing site would be 23 arrivals and 23 departures.

Proposed Site Use – Residential Trip Rates

The TRICS database, version 7.7.2, has been used to identify comparable sites with which to generate trip rates. Multimodal trip rates have been generated using the selection criteria below for residential use:

- Land use, 'Residential', sub-category, 'Flats Privately Owned';
- Mainland UK excluding Greater London sites;
- Up to 184 units;
- Weekday surveys; and
- 'Edge of Town Centre' and 'Suburban Area' location types.

The resulting trip rates for the AM and PM peak hours of 08:00-09:00 and 17:00-18:00 along with daily values are summarised in Table 3 below. Full details of the TRICS outputs can be found in Appendix 2.

Table 3: Trip rates for 'flats privately owned' – per unit

	Vehicles		Cycling		Walking		Public Transport		Total People	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
AM Peak	0.056	0.186	0.002	0.016	0.024	0.112	0.005	0.102	0.100	0.522
PM Peak	0.170	0.092	0.008	0.005	0.102	0.060	0.076	0.009	0.434	0.194
Daily Total	1.140	1.214	0.049	0.055	0.663	0.736	0.319	0.336	2.593	2.802

Based on the above trip rates, the calculated trip generation for the proposed 6 residential units is summarised in Table 4 below.

Table 4: Trip generation for proposed 'flats privately owned' – 6 units

	Vehicles		Cycling		Walking		Public Transport		Total People	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
AM Peak	0	1	0	0	0	1	0	1	1	3
PM Peak	1	1	0	0	1	0	0	0	3	1
Daily Total	7	7	0	0	4	4	2	2	16	17

Table 4 indicates that the proposed residential development would be anticipated to generate 1 vehicular movement in the AM peak period, and 2 two-way vehicular movements in the PM peak period. The overall daily trips generated by the site would be 16 vehicular arrivals and 17 vehicular departures.

Net Change in Generated Trips

Table 5 below demonstrates the net change between the existing and proposed site use in terms of vehicular trip generation.

Table 5: Net change

	Existing Site		Proposed Site		Net Change	
	Arr	Dep	Arr	Dep	Arr	Dep
AM Peak	3	1	0	1	-3	0
PM Peak	1	3	1	1	0	-2
Daily Total	23	23	7	7	-16	-16

Table 5 demonstrates that both uses generate low volumes of traffic, even during peak hours. However, the nature of vehicle garages, offering multiple appointments per day and generating staff movements, will typically generate significantly higher trips than apartments where vehicle movements are often represented by an average of a single movement in each direction per day. The comparison demonstrates that there would be a reduction in vehicle movements in both peak periods and a daily reduction of up to 16 movements in each direction.

Overall

The proposed development has been assessed in terms of vehicle movements and compared with the vehicle movements likely to be generated by the existing vehicle garage. The assessment has demonstrated that the proposals will not result in an intensification in use, while improving the site access arrangements with a formal footway along the frontage, which will increase visibility for emerging drivers.

APPENDIX 1

TRICS ASSESSMENT – VEHICLE GARAGE

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 15 - VEHICLE SERVICES
 Category : A - VEHICLE REPAIR GARAGE (SLOW FIT)

TOTAL VEHICLESSelected regions and areas:

02	SOUTH EAST	
	HF HERTFORDSHIRE	1 days
	WN WINDSOR & MAIDENHEAD	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
09	NORTH	
	TW TYNE & WEAR	1 days
11	SCOTLAND	
	AD ABERDEEN CITY	1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 136 to 900 (units: sqm)
 Range Selected by User: 136 to 5100 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/12 to 28/06/19

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

Selected survey days:

Monday	1 days
Tuesday	1 days
Friday	3 days

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

Selected survey types:

Manual count	5 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 undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2
Edge of Town	3

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

Selected Location Sub Categories:

Industrial Zone	4
Residential Zone	1

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

Secondary Filtering selection:Use Class:

n/a	2 days
Not Known	3 days

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

Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000	1 days
10,001 to 15,000	1 days
15,001 to 20,000	2 days
25,001 to 50,000	1 days

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

Population within 5 miles:

125,001 to 250,000	4 days
250,001 to 500,000	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	3 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	5 days
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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	5 days
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This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	AD-15-A-01	GARAGE	ABERDEEN CITY
	12 WAVERLY PLACE		
	ABERDEEN		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Gross floor area:	136 sqm	
	Survey date: MONDAY	21/05/12	Survey Type: MANUAL
2	CA-15-A-01	GARAGE	CAMBRIDGESHIRE
	FENGATE		
	PETERBOROUGH		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	900 sqm	
	Survey date: TUESDAY	16/10/12	Survey Type: MANUAL
3	HF-15-A-01	GARAGE	HERTFORDSHIRE
	LEYDEN ROAD		
	STEVENAGE		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	290 sqm	
	Survey date: FRIDAY	28/06/19	Survey Type: MANUAL
4	TW-15-A-01	COMMERCIAL VEHICLE GARAGE	TYNE & WEAR
	HENDON STREET		
	SUNDERLAND		
	HENDON		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	400 sqm	
	Survey date: FRIDAY	24/05/19	Survey Type: MANUAL
5	WN-15-A-01	GARAGE	WINDSOR & MAIDENHEAD
	CORDWALLIS STREET		
	MAIDENHEAD		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	580 sqm	
	Survey date: FRIDAY	23/11/12	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.

TRIP RATE for Land Use 15 - VEHICLE SERVICES/A - VEHICLE REPAIR GARAGE (SLOW FIT)

TOTAL VEHICLES**Calculation factor: 100 sqm****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	1	400	0.250	1	400	0.000	1	400	0.250
07:00 - 08:00	5	461	0.477	5	461	0.087	5	461	0.564
08:00 - 09:00	5	461	1.388	5	461	0.564	5	461	1.952
09:00 - 10:00	5	461	1.605	5	461	1.388	5	461	2.993
10:00 - 11:00	5	461	0.997	5	461	0.650	5	461	1.647
11:00 - 12:00	5	461	1.127	5	461	0.867	5	461	1.994
12:00 - 13:00	5	461	0.867	5	461	0.954	5	461	1.821
13:00 - 14:00	5	461	0.954	5	461	1.127	5	461	2.081
14:00 - 15:00	5	461	0.867	5	461	1.084	5	461	1.951
15:00 - 16:00	5	461	0.564	5	461	0.737	5	461	1.301
16:00 - 17:00	5	461	0.650	5	461	1.214	5	461	1.864
17:00 - 18:00	5	461	0.520	5	461	1.214	5	461	1.734
18:00 - 19:00	5	461	0.043	5	461	0.260	5	461	0.303
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			10.309			10.146			20.455

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:	136 - 900 (units: sqm)
Survey date range:	01/01/12 - 28/06/19
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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

APPENDIX 2

TRICS ASSESSMENT – RESIDENTIAL APARTMENTS

Calculation Reference: AUDIT-453201-201109-1117

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : C - FLATS PRIVATELY OWNED

MULTI-MODAL TOTAL VEHICLESSelected regions and areas:

02	SOUTH EAST	
	BD BEDFORDSHIRE	3 days
	EX ESSEX	2 days
	HC HAMPSHIRE	1 days
	HF HERTFORDSHIRE	1 days
03	SOUTH WEST	
	DC DORSET	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	2 days
	SF SUFFOLK	2 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
	NT NOTTINGHAMSHIRE	2 days
08	NORTH WEST	
	MS MERSEYSIDE	2 days
09	NORTH	
	CB CUMBRIA	1 days
10	WALES	
	CO CONWY	1 days
11	SCOTLAND	
	EB CITY OF EDINBURGH	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

Primary Filtering selection:

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

Parameter: No of Dwellings
 Actual Range: 6 to 184 (units:)
 Range Selected by User: 6 to 184 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

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

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

Selected survey days:

Monday	4 days
Tuesday	11 days
Wednesday	5 days
Thursday	3 days
Friday	1 days

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

Selected survey types:

Manual count	24 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 undertaken using machines.

Selected Locations:

Edge of Town Centre	13
Suburban Area (PPS6 Out of Centre)	11

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:

Development Zone	2
Residential Zone	12
Built-Up Zone	5
No Sub Category	5

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	24 days
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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 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	2 days
10,001 to 15,000	6 days
15,001 to 20,000	2 days
20,001 to 25,000	5 days
25,001 to 50,000	9 days

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

Population within 5 miles:

25,001 to 50,000	1 days
50,001 to 75,000	8 days
75,001 to 100,000	2 days
125,001 to 250,000	5 days
250,001 to 500,000	6 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	9 days
1.1 to 1.5	15 days

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

Travel Plan:

Yes	2 days
No	22 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	24 days
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This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	BD-03-C-01	BLOCKS OF FLATS	BEDFORDSHIRE
	WING ROAD		
	LEIGHTON BUZZARD		
	LINSLADE		
	Edge of Town Centre		
	Residential Zone		
	Total No of Dwellings:	175	
	Survey date: TUESDAY	15/05/18	Survey Type: MANUAL
2	BD-03-C-02	BLOCKS OF FLATS	BEDFORDSHIRE
	STANBRIDGE ROAD		
	LEIGHTON BUZZARD		
	Edge of Town Centre		
	Residential Zone		
	Total No of Dwellings:	62	
	Survey date: TUESDAY	15/05/18	Survey Type: MANUAL
3	BD-03-C-03	BLOCKS OF FLATS	BEDFORDSHIRE
	COURT DRIVE		
	DUNSTABLE		
	Edge of Town Centre		
	No Sub Category		
	Total No of Dwellings:	146	
	Survey date: TUESDAY	15/05/18	Survey Type: MANUAL
4	CA-03-C-03	BLOCKS OF FLATS	CAMBRIDGESHIRE
	CROMWELL ROAD		
	CAMBRIDGE		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total No of Dwellings:	82	
	Survey date: MONDAY	18/09/17	Survey Type: MANUAL
5	CB-03-C-03	FLATS & BUNGALOWS	CUMBRIA
	LOUND STREET		
	KENDAL		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	33	
	Survey date: MONDAY	09/06/14	Survey Type: MANUAL
6	CO-03-C-01	BLOCKS OF FLATS	CONWY
	MOSTYN BROADWAY		
	LLANDUDNO		
	Edge of Town Centre		
	Built-Up Zone		
	Total No of Dwellings:	37	
	Survey date: MONDAY	26/03/18	Survey Type: MANUAL
7	DC-03-C-02	FLATS IN BLOCKS	DORSET
	PALM COURT		
	WEYMOUTH		
	SPA ROAD		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	14	
	Survey date: FRIDAY	28/03/14	Survey Type: MANUAL
8	DS-03-C-03	BLOCKS OF FLATS	DERBYSHIRE
	CAESAR STREET		
	DERBY		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	30	
	Survey date: WEDNESDAY	25/09/19	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

9	EB-03-C-01	BLOCKS OF FLATS		CITY OF EDINBURGH
	MYRESIDE ROAD			
	EDINBURGH			
	CRAIGLOCKHART			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total No of Dwellings:	32		
	Survey date: TUESDAY	26/05/15		Survey Type: MANUAL
10	EX-03-C-01	FLATS		ESSEX
	WESTCLIFF PARADE			
	SOUTHEND-ON-SEA			
	WESTCLIFF			
	Edge of Town Centre			
	Residential Zone			
	Total No of Dwellings:	6		
	Survey date: TUESDAY	22/10/13		Survey Type: MANUAL
11	EX-03-C-02	BLOCK OF FLATS		ESSEX
	WESTCLIFF PARADE			
	SOUTHEND-ON-SEA			
	WESTCLIFF			
	Edge of Town Centre			
	Residential Zone			
	Total No of Dwellings:	94		
	Survey date: TUESDAY	22/10/13		Survey Type: MANUAL
12	HC-03-C-01	BLOCKS OF FLATS		HAMPSHIRE
	CROSS STREET			
	PORTSMOUTH			
	Edge of Town Centre			
	Built-Up Zone			
	Total No of Dwellings:	90		
	Survey date: TUESDAY	05/06/18		Survey Type: MANUAL
13	HF-03-C-03	BLOCK OF FLATS		HERTFORDSHIRE
	SHENLEY ROAD			
	BOREHAMWOOD			
	Edge of Town Centre			
	Built-Up Zone			
	Total No of Dwellings:	91		
	Survey date: THURSDAY	14/11/19		Survey Type: MANUAL
14	MS-03-C-02	BLOCKS OF FLATS		MERSEYSIDE
	SOUTH FERRY QUAY			
	LIVERPOOL			
	BRUNSWICK DOCK			
	Suburban Area (PPS6 Out of Centre)			
	Development Zone			
	Total No of Dwellings:	184		
	Survey date: TUESDAY	13/11/18		Survey Type: MANUAL
15	MS-03-C-03	BLOCK OF FLATS		MERSEYSIDE
	MARINERS WHARF			
	LIVERPOOL			
	QUEENS DOCK			
	Suburban Area (PPS6 Out of Centre)			
	Development Zone			
	Total No of Dwellings:	9		
	Survey date: TUESDAY	13/11/18		Survey Type: MANUAL
16	NF-03-C-01	BLOCKS OF FLATS		NORFOLK
	PAGE STAIR LANE			
	KING'S LYNN			
	Edge of Town Centre			
	Built-Up Zone			
	Total No of Dwellings:	51		
	Survey date: THURSDAY	11/12/14		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

17	NF-03-C-02	MIXED FLATS & HOUSES	NORFOLK
	HALL ROAD		
	NORWICH		
	LAKENHAM		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	82	
	Survey date: MONDAY	18/11/19	Survey Type: MANUAL
18	NT-03-C-01	HOUSES (SPLIT INTO FLATS)	NOTTINGHAMSHIRE
	LAWRENCE WAY		
	NOTTINGHAM		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total No of Dwellings:	56	
	Survey date: TUESDAY	08/11/16	Survey Type: MANUAL
19	NT-03-C-02	HOUSES (SPLIT INTO FLATS)	NOTTINGHAMSHIRE
	CASTLE MARINA ROAD		
	NOTTINGHAM		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total No of Dwellings:	135	
	Survey date: WEDNESDAY	09/11/16	Survey Type: MANUAL
20	SA-03-C-01	BLOCK OF FLATS	SOUTH AYRSHIRE
	RACECOURSE ROAD		
	AYR		
	Edge of Town Centre		
	Residential Zone		
	Total No of Dwellings:	51	
	Survey date: TUESDAY	16/09/14	Survey Type: MANUAL
21	SF-03-C-01	BLOCKS OF FLATS	SUFFOLK
	STATION HILL		
	BURY ST EDMUNDS		
	Edge of Town Centre		
	Built-Up Zone		
	Total No of Dwellings:	85	
	Survey date: THURSDAY	18/12/14	Survey Type: MANUAL
22	SF-03-C-03	BLOCKS OF FLATS	SUFFOLK
	TOLLGATE LANE		
	BURY ST EDMUNDS		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	30	
	Survey date: WEDNESDAY	03/12/14	Survey Type: MANUAL
23	SR-03-C-01	FLATS	STIRLING
	FORTH SIDE WAY		
	STIRLING		
	Edge of Town Centre		
	No Sub Category		
	Total No of Dwellings:	80	
	Survey date: WEDNESDAY	18/06/14	Survey Type: MANUAL
24	SR-03-C-02	FLATS	STIRLING
	ROSEBERRY TERRACE		
	STIRLING		
	Edge of Town Centre		
	Residential Zone		
	Total No 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 TOTAL VEHICLESCalculation factor: **1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	24	71	0.048	24	71	0.145	24	71	0.193
08:00 - 09:00	24	71	0.056	24	71	0.186	24	71	0.242
09:00 - 10:00	24	71	0.073	24	71	0.096	24	71	0.169
10:00 - 11:00	24	71	0.073	24	71	0.089	24	71	0.162
11:00 - 12:00	24	71	0.075	24	71	0.091	24	71	0.166
12:00 - 13:00	24	71	0.103	24	71	0.093	24	71	0.196
13:00 - 14:00	24	71	0.074	24	71	0.092	24	71	0.166
14:00 - 15:00	24	71	0.078	24	71	0.089	24	71	0.167
15:00 - 16:00	24	71	0.105	24	71	0.065	24	71	0.170
16:00 - 17:00	24	71	0.125	24	71	0.080	24	71	0.205
17:00 - 18:00	24	71	0.170	24	71	0.092	24	71	0.262
18:00 - 19:00	24	71	0.160	24	71	0.096	24	71	0.256
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.140			1.214			2.354

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:	6 - 184 (units:)
Survey date range:	01/01/12 - 18/11/19
Number of weekdays (Monday-Friday):	24
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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

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

MULTI-MODAL CYCLISTSCalculation factor: **1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	24	71	0.003	24	71	0.010	24	71	0.013
08:00 - 09:00	24	71	0.002	24	71	0.016	24	71	0.018
09:00 - 10:00	24	71	0.003	24	71	0.003	24	71	0.006
10:00 - 11:00	24	71	0.002	24	71	0.005	24	71	0.007
11:00 - 12:00	24	71	0.006	24	71	0.004	24	71	0.010
12:00 - 13:00	24	71	0.002	24	71	0.002	24	71	0.004
13:00 - 14:00	24	71	0.003	24	71	0.002	24	71	0.005
14:00 - 15:00	24	71	0.005	24	71	0.002	24	71	0.007
15:00 - 16:00	24	71	0.006	24	71	0.003	24	71	0.009
16:00 - 17:00	24	71	0.003	24	71	0.001	24	71	0.004
17:00 - 18:00	24	71	0.008	24	71	0.005	24	71	0.013
18:00 - 19:00	24	71	0.006	24	71	0.002	24	71	0.008
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.049			0.055			0.104

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

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

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

MULTI-MODAL PEDESTRIANSCalculation factor: **1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	24	71	0.016	24	71	0.076	24	71	0.092
08:00 - 09:00	24	71	0.024	24	71	0.112	24	71	0.136
09:00 - 10:00	24	71	0.047	24	71	0.078	24	71	0.125
10:00 - 11:00	24	71	0.046	24	71	0.051	24	71	0.097
11:00 - 12:00	24	71	0.036	24	71	0.043	24	71	0.079
12:00 - 13:00	24	71	0.058	24	71	0.048	24	71	0.106
13:00 - 14:00	24	71	0.048	24	71	0.050	24	71	0.098
14:00 - 15:00	24	71	0.052	24	71	0.053	24	71	0.105
15:00 - 16:00	24	71	0.076	24	71	0.050	24	71	0.126
16:00 - 17:00	24	71	0.075	24	71	0.055	24	71	0.130
17:00 - 18:00	24	71	0.102	24	71	0.060	24	71	0.162
18:00 - 19:00	24	71	0.083	24	71	0.060	24	71	0.143
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.663			0.736			1.399

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

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

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

MULTI-MODAL PUBLIC TRANSPORT USERSCalculation factor: **1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	24	71	0.001	24	71	0.060	24	71	0.061
08:00 - 09:00	24	71	0.005	24	71	0.102	24	71	0.107
09:00 - 10:00	24	71	0.006	24	71	0.033	24	71	0.039
10:00 - 11:00	24	71	0.012	24	71	0.017	24	71	0.029
11:00 - 12:00	24	71	0.016	24	71	0.016	24	71	0.032
12:00 - 13:00	24	71	0.022	24	71	0.021	24	71	0.043
13:00 - 14:00	24	71	0.012	24	71	0.024	24	71	0.036
14:00 - 15:00	24	71	0.019	24	71	0.017	24	71	0.036
15:00 - 16:00	24	71	0.050	24	71	0.016	24	71	0.066
16:00 - 17:00	24	71	0.041	24	71	0.009	24	71	0.050
17:00 - 18:00	24	71	0.076	24	71	0.009	24	71	0.085
18:00 - 19:00	24	71	0.059	24	71	0.012	24	71	0.071
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.319			0.336			0.655

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

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

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

MULTI-MODAL TOTAL PEOPLECalculation factor: **1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	24	71	0.075	24	71	0.344	24	71	0.419
08:00 - 09:00	24	71	0.100	24	71	0.522	24	71	0.622
09:00 - 10:00	24	71	0.148	24	71	0.240	24	71	0.388
10:00 - 11:00	24	71	0.153	24	71	0.194	24	71	0.347
11:00 - 12:00	24	71	0.156	24	71	0.191	24	71	0.347
12:00 - 13:00	24	71	0.220	24	71	0.203	24	71	0.423
13:00 - 14:00	24	71	0.160	24	71	0.188	24	71	0.348
14:00 - 15:00	24	71	0.172	24	71	0.189	24	71	0.361
15:00 - 16:00	24	71	0.284	24	71	0.157	24	71	0.441
16:00 - 17:00	24	71	0.299	24	71	0.169	24	71	0.468
17:00 - 18:00	24	71	0.434	24	71	0.194	24	71	0.628
18:00 - 19:00	24	71	0.392	24	71	0.211	24	71	0.603
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.593			2.802			5.395

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.