# acstro

# Transport Statement

Maes yr Esgob Llanrhaeadr-ym-Mochnant Powys

September 2023

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#### **Revision History**

Α	6 <sup>th</sup> December 2023	First Issue

1724-ACS-ZZ-XX-RP-T-001-A Transport Statement.docx

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#### 1 Introduction

1.1 Acstro has been appointed by Powys County Council to prepare a Transport Statement to support a planning application for development of land adjacent to Maes yr Esgob, Llanrhaeadr-ym-Mochnant, Powys. Planning permission is sought for a development comprising of 17 dwellings. The extent and location of the site is shown in Figure 1 below.

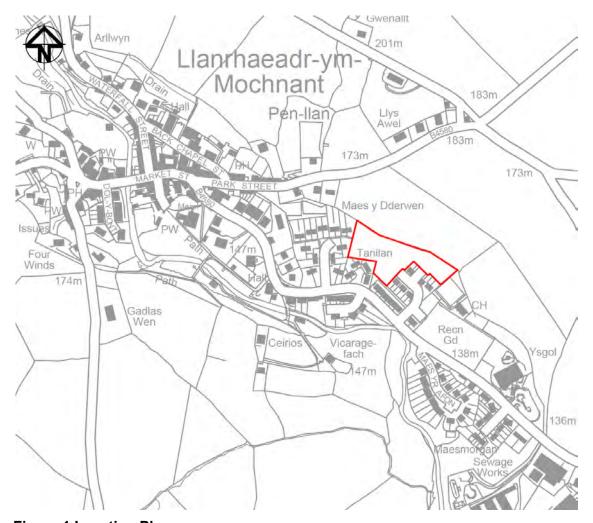


Figure 1 Location Plan

- 1.2 This document considers the transport implications of the proposed development. It demonstrates that the site is in a sustainable location that is closely related to existing facilities and services and is accessible to pedestrians, cyclists and public transport users. It is also demonstrated that safe vehicular access to the site can be provided and adequate parking provision is made for the future occupiers and users of the site. The structure of the Transport Statement is as follows:
  - Section 2 describes the relevant planning policy context that is relevant in terms of transport issues;
  - Section 3 describes the site's location, its proximity to services and facilities and its accessibility by all forms of transport.

- Section 4 describes the proposed development and its access arrangements.
- Section 5 outlines measures that will be implemented to minimise the impact of construction traffic.
- Section 6 provides a summary and conclusion.



#### 2 Policy Context

#### Future Wales - The National Plan 2040

- 2.1 This is the national development framework that sets out the direction for development in Wales to 2040.
- 2.2 Policies 11 and 12 relate to national and regional connectivity, respectively. These seek to encourage longer-distance trips to be made by public transport, while also making longer journeys possible by electric vehicles. In urban areas, to support sustainable growth and regeneration, the priorities are improving and integrating active travel and public transport. In rural areas the priorities are supporting the uptake of ultra-low emission vehicles and diversifying and sustaining local bus services. Active travel must be an essential and integral component of all new developments.
- 2.3 Planning authorities must act to reduce levels of car parking in urban areas, including supporting car-free developments in accessible locations and developments with car parking spaces that allow them to be converted to other uses over time. Where car parking is provided for new non-residential development, planning authorities should seek a minimum of 10% of car parking spaces to have electric vehicle charging points.

#### Planning Policy Wales (11th Edition)

- 2.4 Planning Policy Wales (PPW) sets out the land use planning policies of the Welsh Government. The primary objective of PPW is to ensure that the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural well-being of Wales.
- 2.5 In terms of transport related policies paragraph 4.1.1 states that "the planning system should enable people to access jobs and services through shorter, more efficient and sustainable journeys, by walking, cycling and public transport".
- 2.6 Paragraph 4.1.10 states that "the planning system has a key role to play in reducing the need to travel and supporting sustainable transport, by facilitating developments which:
  - are sited in the right locations, where they can be easily accessed by sustainable modes of travel and without the need for a car;
  - are designed in a way which integrates them with existing land uses and neighbourhoods; and
  - make it possible for all short journeys within and beyond the development to be easily made by walking and cycling."
- 2.7 PPW advocates a sustainable transport hierarchy for planning, the hierarchy being, from top to bottom:
  - Walking and Cycling
  - Public Transport
  - Ultra Low Emission Vehicles
  - Other Private Motor Vehicles
- 2.8 It is Welsh Government policy to require the use of a sustainable transport hierarchy in relation to new development, which prioritises walking, cycling and public transport ahead of the private motor vehicles.

- 2.9 However, for most rural areas the opportunities for reducing car use and increasing walking, cycling and use of public transport are more limited than in urban areas. In rural areas most new development should be located in settlements which have relatively good accessibility by non-car modes when compared to the rural area as a whole. (paragraph 3.39).
- 2.10 The transport hierarchy recognises that Ultra Low Emission Vehicles (ULEV) also have an important role to play in the decarbonisation of transport, particularly in rural areas with limited public transport services. To this end the provision of ULEV charging points is encouraged within new developments.
- 2.11 PPW recommends (4.1.50) that "a design-led approach to the provision of car parking should be taken, which ensures an appropriate level of car parking is integrated in a way which does not dominate the development. Parking provision should be informed by the local context, including public transport accessibility, urban design principles and the objective of reducing reliance on the private car and supporting a modal shift to walking, cycling and public transport. Planning authorities must support schemes which keep parking levels down, especially off-street parking, when well designed".

#### **TAN18 Transportation**

- 2.12 Planning Policy Wales Technical Advice Note 18 (TAN18) details the Welsh Government Government's policies in terms of transportation and repeats the general principles advocated in PPW i.e. that development is encouraged in sustainable, accessible, locations that will reduce the need to travel by car. Its aim is to promote an efficient and sustainable transport system and to counter the negative impacts associated with road traffic growth, for example increased air pollution, green house gases and congestion (2.1). It sees the integration of transport and land use planning as key (2.3) in achieving the Welsh Government Governments' sustainable development policy objectives by:
  - promoting travel efficient settlement patterns;
  - ensuring new development is located where there is good access by public transport, walking and cycling thereby minimizing the need for travel and fostering social inclusion;
  - managing parking provision;
  - ensuring that new development includes appropriate provision for pedestrians, cycling, public transport, and traffic management and parking/servicing;
  - encouraging the location of development near other related uses to encourage multi-purpose trips; and
  - ensuring that transport infrastructure necessary to serve new development allows existing transport networks to continue to perform their identified functions.
- 2.13 The needs of walkers and cyclists must be taken into consideration and the use of these most sustainable forms of transport encouraged in all developments (TAN18 Chapter 6). Similarly, all development should be accessible by public transport (Chapter 7).

#### The Active Travel (Wales) Act 2013

2.14 The Active Travel (Wales) Act 2013 is Welsh Government legislation aimed to support an increase in the level of walking and cycling in Wales; to encourage a shift in travel behaviour to active travel modes, and to facilitate the building of walking and cycling infrastructure.

#### Powys Local Development Plan (2018)

- 2.15 The application site is allocated for residential development under policy P36 HA1.
- 2.16 In terms of highway and transport related policies it is considered that the following are relevant.
- 2.17 Under Policy SP5 Llanrhaeadr-ym-Mochnant is classified as a 'large village' in the LDP's settlement hierarchy, second only to 'towns'. Towns and large villages offer the highest level of service provision within the County's settlement hierarchy and are therefore the most sustainable location for development, reducing the need for residents of new development to travel to access services elsewhere.
- 2.18 Policy DM13 requires that proposals must be designed and located to minimise the impacts on the transport network journey times, resilience and efficient operation whilst ensuring that highway safety for all transport users is not detrimentally impacted upon. As such, development proposals should meet all highway access requirements, (for all transport users), vehicular parking standards and demonstrate that the strategic and local highway network can absorb the traffic impacts of the development without adversely affecting the safe and efficient flow of traffic on the network or that traffic impacts can be managed to acceptable levels to reduce and mitigate any adverse impacts from the development.
- 2.19 Policy T1 states that development proposals should incorporate the following principal requirements:
  - 1. Safe and efficient flow of traffic for all transport users, including more vulnerable users, and especially those making 'Active Travel' journeys by walking or cycling;
  - 2. Manage any impacts to the network and the local environment to acceptable levels and mitigate any adverse impacts; and,
  - 3. Minimise demand for travel by private transport and encourage, promote and improve sustainable forms of travel including Active Travel opportunities in all areas.

#### CSS Wales Parking Standards (2014)

2.20 This sets out the parking requirements for new developments. For residential developments the requirement is that one car parking space per bedroom be provided up to a maximum of three spaces per dwelling. In addition, one visitor parking space per five dwellings is recommended.



#### 3 Existing Conditions

3.1 The site is shown in context in Appendix 1.

#### Appendix 1 Site Context

- 3.2 The site is enclosed to the west and south by residential development (Maes yr Esgob and Maes y Dderwen). To the east is the village's bowling green and football club and to the north is agricultural land.
- 3.3 The site will be accessed by extending the existing Maes yr Esgob estate road.

#### Proximity to Services and Accessibility

- 3.4 Llanrhaeadr-ym-Mochnant has a number of amenities, including a primary school, several shops including a convenience store, a GP surgery, cashpoint machine, football club, bowling green, several food and drink outlets, church, chapel and community hall. There is an industrial estate located at the village's south eastern edge.
- 3.5 The village therefore provides a good selection of amenities that can be accessed by residents.
- 3.6 A broader range of amenities is available in Oswestry, some 20km to the east, and Weslshpool, some 28km to the south east.

#### Pedestrian & Cycle Links

- 3.7 The site is accessible to pedestrians from the footways that run on both sides of Maes yr Eglwys. The existing footways are approximately 2m wide, benefit from street lighting and link with the footways on the B4580. The B4580 continue south to the village's primary school and north to the village centre.
- 3.8 All of the village's amenities are within a short and safe walk of the site.
- 3.9 There are no designated cycle routes near the site but the village's quiet roads are suitable for trips to access the village amenities to be made by bike.

#### **Public Transport Network**

- 3.10 There are bus stops located on the B4580 near the Maes yr Eglwys junction. They provide access to the 79, 79A and 79B services. There bus services provide 3 trips per weekday to and from Llangynog or Oswestry. The bus journey to Oswestry takes around 38 minutes.
- 3.11 Connecting public transport services can be accessed at Oswestry.

#### **Highway Network**

- 3.12 The site will be accessed by extending the existing Maes yr Esgob estate road. Maes yr Esgob is built to modern standards and has a 5.5m wide carriageway and 2m footways on each side. Street lighting is present. Maes yr Esgob is a cul-de-sac that currently serves 12 dwellings, the football club and bowling green.
- 3.13 Maes yr Esgob is accessed from the B4580, which is the primary road link for the village.
- 3.14 A review of injury accident records for the area around the site has been undertaken for latest five-year period for which data is available (2018 2022 inclusive). There is only one recorded injury accident within that period, a slight severity accident on Market Street in the village centre. This appears to be an isolated incident and the absence of accident clusters or accidents of greater severity indicate that highway network in the village operates safely.



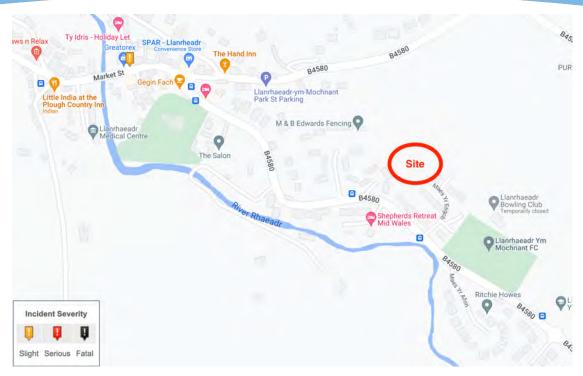


Figure 2 Injury Accident Location & Severity

#### Summary

- 3.15 The site is in a sustainable and accessible location where there is a good selection of amenities available within walking and cycling distance. Public transport links between the site and Oswestry are available. This increases the possibility that journeys generated by the development can be made by sustainable forms of transport and that future occupiers of the proposed development will not be wholly reliant on car travel to access day-to-day services.
- 3.16 The highway network serving the site has a good safety record.

#### 4 Proposed Development

4.1 Planning permission is sought for development comprising of 17 social-rented dwellings.



**Figure 3 Proposed Development** 

#### Access & Parking

4.2 The site's access arrangements are shown in Appendix 2.

#### Appendix 2 Proposed Access Arrangement

- 4.3 The main body of the site (13 dwellings) will be accessed by extending the existing Maes yr Esgob estate road. The current 5.5m wide carriageway will be continued with 2m footways provided on both sides. A turning area capable of accommodating a refuse lorry will be provided at the end of the new section of road.
- 4.4 Two 1-bedroomed dwellings will be accessed from a shared driveway. This driveway will also access five additional car parking spaces intended for the use of existing bungalows to the south that have no off-street parking.
- 4.5 Another four dwellings will be accessed by a shared private drive that will extend from the north eastern end of the existing Maes yr Esgob.
- 4.6 Off street car parking is provided for each dwelling and parking provision accords with the requirements of the CSS Wales Parking Standards at 1 space per bedroom.

#### **Trip Generation**

4.7 The potential trip generation of the proposed development of the sites has been estimated by reference to the TRICS trip rate database, a database of over 8,000 traffic surveys of various types of development throughout the UK and Ireland.

- 4.8 From the TRICS database evidence of the trip rates of privately owned housing developments in suburban and edge of town locations in mainland Britain (excluding Greater London) have been analysed. The use of trip rates from privately owned homes assures a robust assessment as the trip rates from the social rented homes that will be delivered by this scheme are likely to be lower.
- 4.9 The detailed TRICS output is provided as Appendix 3 and summarised in the following tables.

Appendix 3 TRICS Trip Rate Data

	Trip Rate per Dwelling			Trip Gene	ration (17 Dwe	ellings)
Time Range	Arrivals	Departures	Total	Arrivals	Departures	Total
am peak Hour 08:00-09:00	0.137	0.37	0.507	2	6	9
pm Peak Hour 17:00-18:00	0.341	0.16	0.501	6	3	9

**Table 1 Vehicle Trip Rates & Proposed Development Trip Generation** 

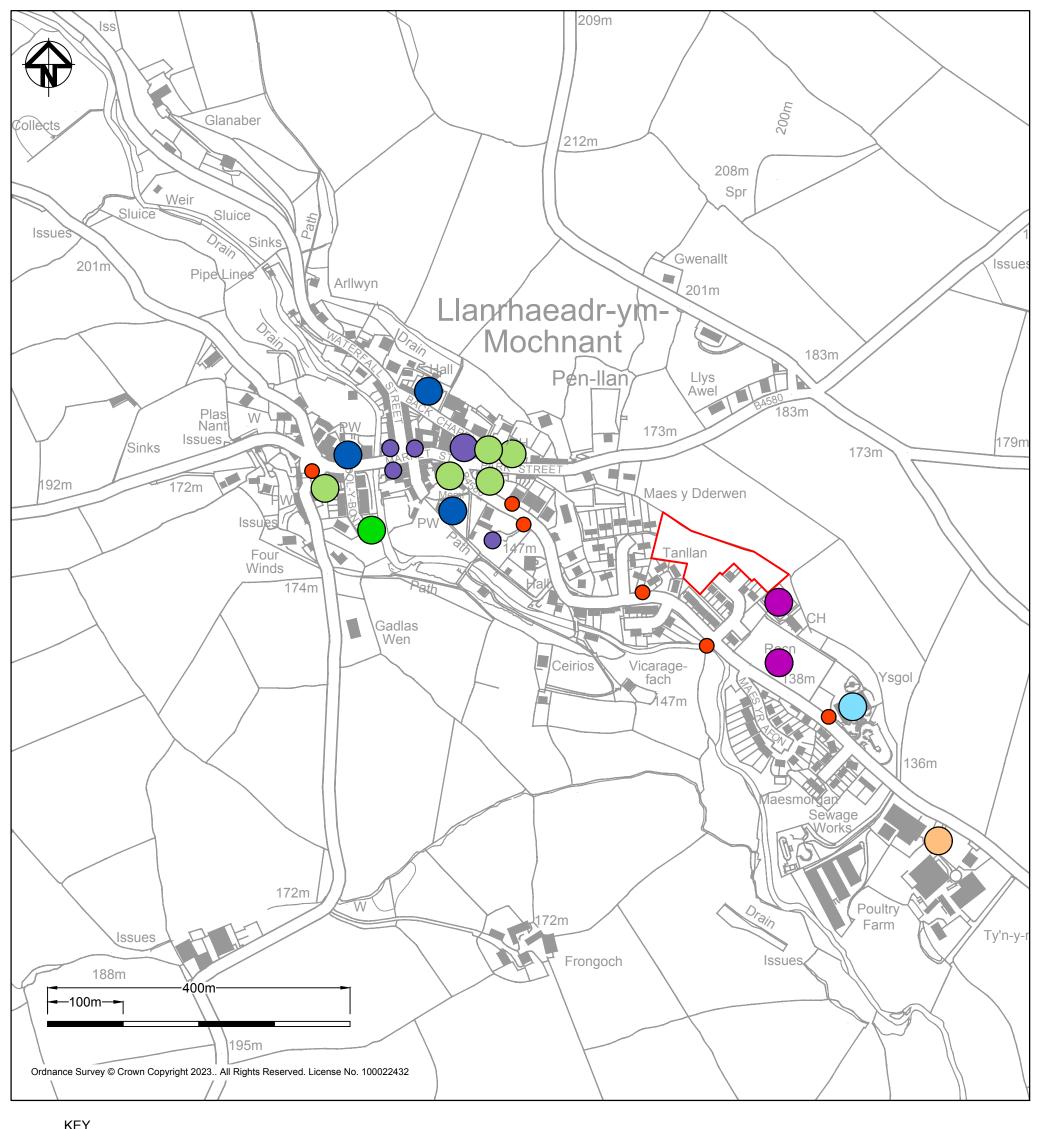
4.10 The TRICS data suggests that the site has the potential to generate around 9 peak hour vehicle movements. This equates to no more than around one additional vehicle movement every 6 to 7 minutes, on average, during the busiest hours and is not considered to be significant.

#### 5 Summary & Conclusion

- 5.1 In summary this Transport Statement has demonstrated that:
  - There is a good range of amenities within the village that are accessible to the future residents of the development on foot or by bike. Residents of the development will therefore not be reliant on the car to access essential day-to-day services.
  - There are regular bus services that connect the village to Oswestry, where a wider range of amenities is available and onward public transport connections can be made.
  - The highway network in the village operates safely.
  - Planning permission is sought for a development comprising of 17 social-rented dwellings.
  - The proposed development will be served by extending an existing residential estate road. The development's access will be to adoptable standards.
  - Car parking provision meets the requirements of the current Parking Standards and also makes provision for existing bungalows to the south of the site that currently have no off-street parking.
  - The development will generate an estimates 9 peak hour vehicle movements. This is not considered to be significant.
- 5.2 It is considered that the site meets planning policy requirements in terms of being in an appropriate location that is safely accessible by all forms of transport and that the impacts of the development on the continued operation and safety of the surrounding highway network would be acceptable.
- 5.3 It is concluded therefore that there are no transport related issues that should prevent planning permission for the proposed development.



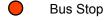
## **Appendix 1 Site Context**







Site





School

Convenience Store

Shops

Food & Drink

**GP Surgery** 

Leisure / Sports

Industrial Estate



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First Issue	06-12-23		
MAES YR ESGOB LLANRHAEADR-YM-MOCHNANT			
Drawing SITE CONTEXT			
Drawing No. 1724-ACS-XX-ZZ-DR-T-001-A			
1:1500 @ A3			
	SITE CONTEXT  1724-ACS-XX-ZZ-DR-T-001-A		

### **Appendix 2 Proposed Access Arrangement**



## **Appendix 3 TRICS Trip Rate Data**

Calculation Reference: AUDIT-648801-221207-1248

Acstro Ltd Salem Llandeilo Licence No: 648801

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL

Category : A - HOUSES PRIVATELY OWNED TOTAL VEHICLES

10 17 te Veriri deled			
Solo	cted regions and areas:		
02	SOUTH EAST		
02	BO BEDFORD	1 days	
		1 days	
	CT CENTRAL BEDFORDSHIRE	1 days	
	ES EAST SUSSEX	4 days	
	EX ESSEX	2 days	
	HC HAMPSHIRE	8 days	
	HF HERTFORDSHIRE	2 days	
	KC KENT	5 days	
	MW MEDWAY	1 days	
	SC SURREY	3 days	
	SP SOUTHAMPTON	1 days	
	WS WEST SUSSEX	5 days	
03	SOUTH WEST		
	BC BOURNEMOUTH CHRISTCHURCH & POOLE	1 days	
	DC DORSET	1 days	
	DV DEVON	2 days	
	SD SWINDON	1 days	
	SM SOMERSET	1 days	
	TB TORBAY	1 days	
04	EAST ANGLI A		
	NF NORFOLK	10 days	
	PB PETERBOROUGH	1 days	
	SF SUFFOLK	3 days	
05	EAST MIDLANDS	,	
	DY DERBY	1 days	
	LN LINCOLNSHIRE	1 days	
	NT NOTTINGHAMSHIRE	1 days	
06	WEST MIDLANDS	,	
	SH SHROPSHIRE	1 days	
	ST STAFFORDSHIRE	3 days	
	WK WARWICKSHIRE	2 days	
	WM WEST MIDLANDS	1 days	
	WO WORCESTERSHIRE	1 days	
07	YORKSHIRE & NORTH LINCOLNSHIRE	,	
	NE NORTH EAST LINCOLNSHIRE	1 days	
	NY NORTH YORKSHIRE	3 days	
80	NORTH WEST	,	
	AC CHESHIRE WEST & CHESTER	1 days	
	EC CHESHIRE EAST	1 days	
	LC LANCASHIRE	1 days	
09	NORTH		
	CB CUMBRIA	1 days	
	DH DURHAM	2 days	
10	WALES		
	PS POWYS	2 days	
	VG VALE OF GLAMORGAN	1 days	
		. aays	

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

TRICS 7.9.3 071022 B20.58 Database right of TRICS Consortium Limited, 2022. All rights reserved

Wednesday 07/12/22

Page 2

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#### 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: 8 to 371 (units: ) Range Selected by User: 6 to 400 (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: 01/01/14 to 30/06/22

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
 18 days

 Tuesday
 13 days

 Wednesday
 23 days

 Thursday
 15 days

 Friday
 9 days

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

#### Selected survey types:

Manual count 72 days
Directional ATC Count 6 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

#### Selected Locations:

Edge of Town Centre	7
Suburban Area (PPS6 Out of Centre)	14
Edge of Town	57

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	
Village	1
Out of Town	3
No Sub Category	2

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

Secondary Filtering selection:

#### Use Class:

C3 78 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

Page

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#### Secondary Filtering selection (Cont.):

#### Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	5 days
5,001 to 10,000	18 days
10,001 to 15,000	26 days
15,001 to 20,000	10 days
20,001 to 25,000	10 days
25,001 to 50,000	8 days

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

#### Population within 5 miles:

5,001 to 25,000	14 days
25,001 to 50,000	7 days
50,001 to 75,000	9 days
75,001 to 100,000	12 days
100,001 to 125,000	2 days
125,001 to 250,000	25 days
250,001 to 500,000	9 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	1 days
0.6 to 1.0	21 days
1.1 to 1.5	53 days
1.6 to 2.0	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:

Yes	32 days
No	46 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	77 days
2 Poor	1 days

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

Covid-19 Restrictions Yes At least one survey within

At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

Licence No: 648801 Acstro Ltd Salem Llandeilo

LIST OF SITES relevant to selection parameters

CHESHIRE WEST & CHESTER AC-03-A-04 **TOWN HOUSES** 

LONDON ROAD NORTHWICH LEFTWICH

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 24

Survey date: THURSDAY 06/06/19 Survey Type: MANUAL

BC-03-A-02 BOURNEMOUTH CHRISTCHURCH & POOLE **BUNGALOWS** 

HURSTDENE ROAD **BOURNEMOUTH** CASTLE LANE WEST Edge of Town Residential Zone

Total No of Dwellings: 28

24/03/14 Survey date: MONDAY Survey Type: MANUAL

3 BO-03-A-01 **DETACHED HOUSES** BEDFORD

CARNOUSTIE DRIVE

**BEDFORD GREAT DENHAM** Edge of Town Residential Zone

Total No of Dwellings: 30

Survey date: THURSDAY 15/10/20 Survey Type: MANUAL

CB-03-A-05 DETACHED/TERRACED HOUSING **CUMBRIA** 

MACADAM WAY **PENRITH** 

Edge of Town Centre Residential Zone

Total No of Dwellings: 50

Survey Type: MANUAL Survey date: TUESDAY 21/06/16 CENTRAL BEDFORDSHIRE

5 CT-03-A-01 MIXED HOUSES

ARLESEY ROAD **STOTFOLD** 

Edge of Town Residential Zone

Total No of Dwellings: 46

Survey date: WEDNESDAY 22/06/22 Survey Type: MANUAL

DC-03-A-09 MIXED HOUSES **DORSET** 

A350

**SHAFTESBURY** 

Edge of Town No Sub Category

Total No of Dwellings: 50

Survey date: FRIDAY 19/11/21 Survey Type: MANUAL

DH-03-A-01 SEMI DETACHED DURHAM

GREENFIELDS ROAD **BISHOP AUCKLAND** 

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 50

Survey date: TUESDAY 28/03/17 Survey Type: MANUAL

Acstro Ltd Salem Llandeilo Licence No: 648801

LIST OF SITES relevant to selection parameters (Cont.)

8 DH-03-A-03 SEMI-DETACHED & TERRACED DURHAM

PILGRIMS WAY DURHAM

Edge of Town
Residential Zone
Tatal No. of Dwalling

Total No of Dwellings: 57

Survey date: FRIDAY 19/10/18 Survey Type: MANUAL

DV-03-A-02 HOUSES & BUNGALOWS DEVON

MILLHEAD ROAD HONITON

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 116

Survey date: FRIDAY 25/09/15 Survey Type: MANUAL

10 DV-03-A-03 TERRACED & SEMI DETACHED DEVON

LOWER BRAND LANE

**HONITON** 

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 70

Survey date: MONDAY 28/09/15 Survey Type: MANUAL

11 DY-03-A-01 MI XED HOUSES DERBY

RADBOURNE LANE

**DERBY** 

Edge of Town Residential Zone

Total No of Dwellings: 371

Survey date: TUESDAY 10/07/18 Survey Type: MANUAL

2 EC-03-A-06 TERRACED HOUSES CHESHIRE ÉAST

GREYSTOKE ROAD MACCLESFIELD HURDSFIELD Edge of Town

Residential Zone

Total No of Dwellings: 24

Survey date: MONDAY 24/11/14 Survey Type: MANUAL

13 ES-03-A-03 MI XED HOUSES & FLATS EAST SUSSEX

SHEPHAM LANE POLEGATE

Edge of Town Residential Zone

Total No of Dwellings: 212

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

14 ES-03-A-04 MI XED HOUSES & FLATS EAST SUSSEX

NEW LYDD ROAD

CAMBER

Edge of Town Residential Zone

Total No of Dwellings: 134

Survey date: FRIDAY 15/07/16 Survey Type: MANUAL

Acstro Ltd Salem Llandeilo Licence No: 648801

LIST OF SITES relevant to selection parameters (Cont.)

15 ES-03-A-05 MI XED HOUSES & FLATS EAST SUSSEX

RATTLE ROAD NEAR EASTBOURNE STONE CROSS Edge of Town Residential Zone

Total No of Dwellings: 99

Survey date: WEDNESDAY 05/06/19 Survey Type: MANUAL

16 ES-03-A-07 MI XED HOUSES & FLATS EAST SUSSEX

NEW ROAD HAILSHAM HELLINGLY Edge of Town Residential Zone

Total No of Dwellings: 91

Survey date: THURSDAY 07/11/19 Survey Type: MANUAL

17 EX-03-A-02 DETACHED & SEMI-DETACHED ESSEX

MANOR ROAD CHIGWELL GRANGE HILL Edge of Town Residential Zone

Total No of Dwellings: 97

Survey date: MONDAY 27/11/17 Survey Type: MANUAL

18 EX-03-A-03 MI XED HOUSES ESSEX

KESTREL GROVE RAYLEIGH

> Edge of Town Residential Zone

Total No of Dwellings: 123

Survey date: MONDAY 27/09/21 Survey Type: MANUAL

19 HC-03-A-21 TERRACED & SEMI-DETACHED HAMPSHIRE

PRIESTLEY ROAD BASINGSTOKE HOUNDMILLS Edge of Town Residential Zone

Total No of Dwellings: 39

Survey date: TUESDAY 13/11/18 Survey Type: MANUAL

20 HC-03-A-22 MI XED HOUSES HAMPSHI RE

BOW LAKE GARDENS NEAR EASTLEIGH BISHOPSTOKE Edge of Town Residential Zone

Total No of Dwellings: 40

Survey date: WEDNESDAY 31/10/18 Survey Type: MANUAL

21 HC-03-A-23 HOUSES & FLATS HAMPSHIRE

CANADA WAY LIPHOOK

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 62

Survey date: TUESDAY 19/11/19 Survey Type: MANUAL

Acstro Ltd Salem Llandeilo Licence No: 648801

LIST OF SITES relevant to selection parameters (Cont.)

22 HC-03-A-24 MIXED HOUSES & FLATS HAMPSHIRE

STONEHAM LANE EASTLEIGH

Edge of Town Residential Zone

Total No of Dwellings: 243

Survey date: WEDNESDAY 10/11/21 Survey Type: MANUAL

23 HC-03-A-26 MI XED HOUSES & FLATS HAMPSHI RE

BOTLEY ROAD WHITELEY

Edge of Town Out of Town

Total No of Dwellings: 270

Survey date: THURSDAY 24/06/21 Survey Type: MANUAL

24 HC-03-A-27 MI XED HOUSES HAMPSHÎ RÊ

DAIRY ROAD

ANDOVER

Edge of Town Residential Zone

Total No of Dwellings: 73

Survey date: TUESDAY 16/11/21 Survey Type: MANUAL

25 HC-03-A-28 MI XED HOUSES & FLATS HAMPSHI RE

EAGLE AVENUE WATERLOOVILLE LOVEDEAN Edge of Town Residential Zone

Total No of Dwellings: 125

Survey date: MONDAY 08/11/21 Survey Type: MANUAL

26 HC-03-A-29 MI XED HOUSES & FLATS HAMPSHÍ RÉ

CROW LANE RINGWOOD CROW Edge of Town Residential Zone

Total No of Dwellings: 195

Survey date: THURSDAY 30/06/22 Survey Type: MANUAL

27 HF-03-A-03 MIXED HOUSES HERTFORDSHIRE

HARE STREET ROAD BUNTINGFORD

Edge of Town Residential Zone

Total No of Dwellings: 160

Survey daté: MONDAY 08/07/19 Survey Type: MANUAL

28 HF-03-A-04 TERRACED HOUSES HERTFORDSHIRE

HOLMSIDE RISE WATFORD SOUTH OXHEY Edge of Town Residential Zone

Total No of Dwellings: 8

Survey date: TUESDAY 08/06/21 Survey Type: MANUAL

Acstro Ltd Salem Llandeilo Licence No: 648801

LIST OF SITES relevant to selection parameters (Cont.)

29 KC-03-A-03 MI XED HOUSES & FLATS KENT

HYTHE ROAD ASHFORD

WILLESBOROUGH

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 51

Survey date: THURSDAY 14/07/16 Survey Type: MANUAL

30 KC-03-A-04 SEMI-DETACHED & TERRACED KENT

KILN BARN ROAD AYLESFORD DITTON Edge of Town Residential Zone

Total No of Dwellings: 110

Survey date: FRIDAY 22/09/17 Survey Type: MANUAL

31 KC-03-A-06 MIXED HOUSES & FLATS KENT

MARGATE ROAD HERNE BAY

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 363

Survey date: WEDNESDAY 27/09/17 Survey Type: MANUAL

32 KC-03-A-07 MI XED HOUSES KENT

RECULVER ROAD HERNE BAY

> Edge of Town Residential Zone

Total No of Dwellings: 288

Survey date: WEDNESDAY 27/09/17 Survey Type: MANUAL

33 KC-03-A-09 MI XED HOUSES & FLATS KENT

WESTERN LINK FAVERSHAM DAVINGTON Edge of Town Residential Zone

Total No of Dwellings: 14

Survey date: WEDNESDAY 09/06/21 Survey Type: MANUAL

34 LC-03-A-31 DETACHED HOUSES LANCASHIRE

GREENSIDE PRESTON COTTAM Edge of Town Residential Zone

Total No of Dwellings: 32

Survey date: FRIDAY 17/11/17 Survey Type: MANUAL

35 LN-03-A-04 DETACHED & SEMI-DETACHED LINCOLNSHIRE

EGERTON ROAD LINCOLN

Edge of Town Centre Residential Zone

Total No of Dwellings: 30

Survey date: MONDAY 29/06/15 Survey Type: MANUAL

Licence No: 648801 Acstro Ltd Salem Llandeilo

LIST OF SITES relevant to selection parameters (Cont.)

**MEDWAY** MW-03-A-02 MI XED HOUSES

OTTERHAM QUAY LANE

RAINHAM

Edge of Town Residential Zone

Total No of Dwellings: 19

Survey date: MONDAY 06/06/22 Survey Type: MANUAL NORTH EAST LINCOLNSHIRE

37 NE-03-A-03 PRIVATE HOUSES

STATION ROAD **SCUNTHORPE** 

Edge of Town Centre Residential Zone

Total No of Dwellings: 180

Survey date: TUESDAY 20/05/14 Survey Type: MANUAL

38 NF-03-A-03 **DETACHED HOUSES** NORFOLK

HALING WAY **THETFORD** 

Edge of Town Residential Zone

Total No of Dwellings: 10

Survey date: WEDNESDAY 16/09/15 Survey Type: MANUAL

NF-03-A-06 NORFOLK MI XED HOUSES

**BEAUFORT WAY GREAT YARMOUTH BRADWELL** 

Edge of Town Residential Zone

Total No of Dwellings: 275

Survey date: MONDAY 23/09/19 Survey Type: MANUAL

40 NF-03-A-07 MIXED HOUSES & FLATS NORFOLK

SILFIELD ROAD **WYMONDHAM** 

Edge of Town Out of Town

297 Total No of Dwellings:

Survey date: FRIDAY 20/09/19 Survey Type: DIRECTIONAL ATC COUNT

NF-03-A-10 NORFOLK MIXED HOUSES & FLATS

**HUNSTANTON ROAD HUNSTANTON** 

Edge of Town Residential Zone

Total No of Dwellings: 17

Survey date: WEDNESDAY 12/09/18 Survey Type: DIRECTIONAL ATC COUNT

NF-03-A-16 42 MIXED HOUSES & FLATS NORFOLK

NORWICH COMMON **WYMONDHAM** 

Edge of Town Residential Zone

Total No of Dwellings: 138

Survey date: TUESDAY 20/10/15 Survey Type: DIRECTIONAL ATC COUNT

43 NF-03-A-24 MIXED HOUSES & FLATS NORFOLK

**HUNSTANTON ROAD** HUNSTANTON

> Edge of Town Residential Zone

Total No of Dwellings: 127

22/09/21 Survey date: WEDNESDAY Survey Type: DIRECTIONAL ATC COUNT

Acstro Ltd Salem Llandeilo Licence No: 648801

LIST OF SITES relevant to selection parameters (Cont.)

44 NF-03-A-25 MI XED HOUSES & FLATS NORFOLK

WOODFARM LANE GORLESTON-ON-SEA

Edge of Town Residential Zone

Total No of Dwellings: 55

Survey date: TUESDAY 21/09/21 Survey Type: MANUAL

45 NF-03-A-26 MI XED HOUSES NORFOLK

HEATH DRIVE

HOLT

Edge of Town
Residential Zone
Total No of Dwellin

Total No of Dwellings: 91

Survey date: WEDNESDAY 22/09/21 Survey Type: DIRECTIONAL ATC COUNT

46 NF-03-A-28 MIXED HOUSES NORFOLK

NORTH WALSHAM ROAD

NORTH WALSHAM

Edge of Town Residential Zone

Total No of Dwellings: 100

Survey date: WEDNESDAY 22/09/21 Survey Type: DIRECTIONAL ATC COUNT

7 NF-03-A-30 MI XED HOUSES NORFOLK

BRANDON ROAD SWAFFHAM

> Edge of Town Residential Zone

Total No of Dwellings: 266

Survey date: THURSDAY 23/09/21 Survey Type: MANUAL
48 NT-03-A-08 DETACHED HOUSES NOTTI NGHAMSHI RE

48 NT-03-A-08 DETACHED HOUSES WIGHAY ROAD

HUCKNALL

Edge of Town
Residential Zone
Total No. of Dwelling

Total No of Dwellings: 36

Survey date: MONDAY 18/10/21 Survey Type: MANUAL
49 NY-03-A-12 TOWN HOUSES NORTH YORKSHIRE

RACECOURSE LANE

NORTHALLERTON

Edge of Town Centre Residential Zone

Total No of Dwellings: 47

Survey date: TUESDAY 27/09/16 Survey Type: MANUAL
50 NY-03-A-13 TERRACED HOUSES NORTH YORKSHIRE

CATTERICK ROAD CATTERICK GARRISON OLD HOSPITAL COMPOUND

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 10

Survey date: WEDNESDAY 10/05/17 Survey Type: MANUAL

Acstro Ltd Salem Llandeilo Licence No: 648801

LIST OF SITES relevant to selection parameters (Cont.)

51 NY-03-A-14 DETACHED & BUNGALOWS NORTH YORKSHIRE

PALACE ROAD RIPON

Edge of Town

Residential Zone
Total No of Dwellings: 45

Survey date: WEDNESDAY 18/05/22 Survey Type: MANUAL

52 PB-03-A-04 DETACHED HOUSES PETERBOROUGH

EASTFIELD ROAD PETERBOROUGH

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 28

Survey date: MONDAY 17/10/16 Survey Type: MANUAL

53 PS-03-A-01 MI XED HOUSES POWYS

BRYN GLAS WELSHPOOL

Edge of Town Centre

Residential Zone Total No of Dwellings: 16

Survey date: MONDAY 11/05/15 Survey Type: MANUAL

54 PS-03-A-02 DETACHED/SEMI-DETACHED POWYS

GUNROG ROAD WELSHPOOL

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 28

Survey date: MONDAY 11/05/15 Survey Type: MANUAL

55 SC-03-A-04 DETACHED & TERRACED SURREY

HIGH ROAD BYFLEET

Edge of Town Residential Zone

Total No of Dwellings: 71

Survey date: THURSDAY 23/01/14 Survey Type: MANUAL

56 SC-03-A-05 MI XED HOUSES SURREY

REIGATE ROAD

**HORLEY** 

Edge of Town Residential Zone

Total No of Dwellings: 207

Survey date: MONDAY 01/04/19 Survey Type: MANUAL

57 SC-03-A-07 MIXED HOUSES SURREY

FOLLY HILL FARNHAM

> Edge of Town Residential Zone

Total No of Dwellings: 4

Survey date: WEDNESDAY 11/05/22 Survey Type: MANUAL

Acstro Ltd Salem Llandeilo Licence No: 648801

LIST OF SITES relevant to selection parameters (Cont.)

58 SD-03-A-01 SEMI DETACHED SWINDON

HEADLANDS GROVE

SWINDON

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 27

Survey date: THURSDAY 22/09/16 Survey Type: MANUAL

59 SF-03-A-05 DETACHED HOUSES SUFFOLK

VALE LANE

**BURY ST EDMUNDS** 

Edge of Town Residential Zone

Total No of Dwellings: 18

Survey date: WEDNESDAY 09/09/15 Survey Type: MANUAL

60 SF-03-A-09 MIXED HOUSES & FLATS SUFFOLK

FOXHALL ROAD IPSWICH

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 179

Survey date: THURSDAY 24/06/21 Survey Type: MANUAL

61 SF-03-A-10 TERRACED & SEMI-DETACHED SUFFOLK

LOVETOFTS DRIVE

IPSWICH WHITEHOUSE

Edge of Town Residential Zone

Total No of Dwellings: 149

Survey date: TUESDAY 22/06/21 Survey Type: MANUAL

62 SH-03-A-06 BUNGALOWS SHROPSHIRE

ELLESMERE ROAD SHREWSBURY

> Edge of Town Residential Zone

Total No of Dwellings: 16

Survey date: THURSDAY 22/05/14 Survey Type: MANUAL

63 SM-03-A-01 DETACHED & SEMI SOMERSET

WEMBDON ROAD BRIDGWATER NORTHFIELD Edge of Town Residential Zone

Total No of Dwellings: 33

Survey datë: THURSDAY 24/09/15 Survey Type: MANUAL

64 SP-03-A-02 MIXED HOUSES & FLATS SOUTHAMPTON

BARNFIELD WAY NEAR SOUTHAMPTON HEDGE END

Edge of Town
Out of Town

Total No of Dwellings: 250

Survey date: TUESDAY 12/10/21 Survey Type: MANUAL

65 ST-03-A-06 SEMI-DET. & TERRACED STAFFORDSHIRE

STANFORD ROAD
WOLVERHAMPTON
BLAKENHALL
Edge of Town Centre
No Sub Category

Total No of Dwellings: 17

Survey date: FRIDAY 09/05/14 Survey Type: MANUAL

Llandeilo Licence No: 648801 Acstro Ltd Salem

LIST OF SITES relevant to selection parameters (Cont.)

STAFFORDSHI RE ST-03-A-07 **DETACHED & SEMI-DETACHED** 

**BEACONSIDE STAFFORD** MARSTON GATE Edge of Town Residential Zone

Total No of Dwellings: 248

Survey date: WEDNESDAY 22/11/17 Survey Type: MANUAL

67 ST-03-A-08 **DETACHED HOUSES** STAFFORDSHI RE

SILKMORE CRESCENT **STAFFORD** 

MEADOWCROFT PARK

Edge of Town Residential Zone

Total No of Dwellings: 26

Survey date: WEDNESDAY 22/11/17 Survey Type: MANUAL

68 TB-03-A-01 **TERRACED HOUSES TORBAY** 

**BRONSHILL ROAD** 

**TORQUAY** 

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings:

Survey date: WEDNESDAY 30/09/15 Survey Type: MANUAL VG-03-A-01 SEMI-DETACHED & TERRACED VALE OF GLAMORGAN

ARTHUR STREET

**BARRY** 

Edge of Town Residential Zone

Total No of Dwellings: 12

Survey Type: MANUAL Survey date: MONDAY 08/05/17

WARWIČKŚHIRE WK-03-A-03 **DETACHED HOUSES** 

**BRESE AVENUE** WARWICK **GUYS CLIFFE** 

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 23

Survey date: WEDNESDAY 25/09/19 Survey Type: MANUAL

WK-03-A-04 **DETACHED HOUSES** WARWICKSHIRE

DALEHOUSE LANE **KENILWORTH** 

> Edge of Town Residential Zone

Total No of Dwellings: 49

Survey date: FRIDAY 27/09/19 Survey Type: MANUAL

WEST MIDLANDS 72 WM-03-A-05 TERRACED & DETACHED

**COUNDON ROAD** COVENTRY

Edge of Town Centre Residential Zone

Total No of Dwellings: 89

Survey Type: MANUAL Survey date: MONDAY 21/11/16

WO-03-A-07 MIXED HOUSES & FLATS **WORCESTERSHIRE** 73

RYE GRASS LANE

REDDITCH

Edge of Town Residential Zone

Total No of Dwellings: 47

> 01/10/20 Survey date: THURSDAY Survey Type: MANUAL

Licence No: 648801 Acstro Ltd Salem Llandeilo

LIST OF SITES relevant to selection parameters (Cont.)

WEST SUSSEX WS-03-A-04 MI XED HOUSES

HILLS FARM LANE

**HORSHAM** 

**BROADBRIDGE HEATH** 

Edge of Town Residential Zone

Total No of Dwellings: 151

Survey date: THURSDAY 11/12/14 Survey Type: MANUAL

75 WS-03-A-08 MI XED HOUSES WEST SUSSEX

**ROUNDSTONE LANE** 

**ANGMERING** 

Edge of Town Residential Zone

Total No of Dwellings: 180

Survey date: THURSDAY Survey Type: MANUAL 19/04/18

WS-03-A-12 WEST SÚSSÉX 76 MI XED HOUSES

MADGWICK LANE CHICHESTER WESTHAMPNETT Edge of Town Village

Total No of Dwellings: 152

Survey date: WEDNESDAY Survey Type: MANUAL 16/06/21

WS-03-A-13 MIXED HOUSES & FLATS WEST SUSSEX

LITTLEHAMPTON ROAD

WORTHING

WEST DURRINGTON Edge of Town

Residential Zone

Total No of Dwellings: 197

Survey date: WEDNESDAY Survey Type: MANUAL 23/06/21 WEST SUSSEX

WS-03-A-14 MIXED HOUSES

**TODDINGTON LANE** 

LITTLEHAMPTON

WICK

Edge of Town Residential Zone

Total No of Dwellings: 117

Survey date: WEDNESDAY Survey Type: MANUAL 20/10/21

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.

Acstro Ltd Salem Llandeilo Licence No: 648801

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	78	101	0.083	78	101	0.300	78	101	0.383
08:00 - 09:00	78	101	0.137	78	101	0.370	78	101	0.507
09:00 - 10:00	78	101	0.135	78	101	0.172	78	101	0.307
10:00 - 11:00	78	101	0.129	78	101	0.156	78	101	0.285
11:00 - 12:00	78	101	0.137	78	101	0.150	78	101	0.287
12:00 - 13:00	78	101	0.155	78	101	0.159	78	101	0.314
13:00 - 14:00	78	101	0.165	78	101	0.149	78	101	0.314
14:00 - 15:00	78	101	0.158	78	101	0.185	78	101	0.343
15:00 - 16:00	78	101	0.259	78	101	0.169	78	101	0.428
16:00 - 17:00	78	101	0.277	78	101	0.162	78	101	0.439
17:00 - 18:00	78	101	0.341	78	101	0.160	78	101	0.501
18:00 - 19:00	78	101	0.268	78	101	0.152	78	101	0.420
19:00 - 20:00	1	97	0.062	1	97	0.052	1	97	0.114
20:00 - 21:00	1	97	0.031	1	97	0.021	1	97	0.052
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates: 2.337 2.357									4.694

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: 8 - 371 (units: )
Survey date date range: 01/01/14 - 30/06/22

Number of weekdays (Monday-Friday): 82
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 12
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.

# acstro

Acstro Ltd., Yr Hen Farchnad, Unit 19, Carmarthen Street, Llandeilo, Carmarthenshire SA19 6BJ