TRANSPORT STATEMENT August 2018

CLDP Proposed Residential Allocation on Land Adjacent to Traveller's Rest Carmarthen West







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Revision History

Issue 1	1 st May 2018	
Issue 2	9 th August 2018	

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1 Introduction

- 1.1 Acstro has been appointed to prepare a Transport Statement to support the promotion of land at Travellers Rest, Carmarthen as a candidate site for inclusion, as suitable for residential development, in Carmarthenshire County Council's Revised Local Development Plan 2018 2033.
- 1.2 The site is currently in agricultural use. It is considered that the candidate site has the potential to deliver up to around 70 dwellings. The candidate site's location is shown in Appendix 1.

Appendix 1 Location Plan

- 1.3 This document considers the transport implications of the candidate site and follows the general guidance of Carmarthenshire's 'Site Assessment Methodology February 2018". In particular, this Transport Statement demonstrates that the candidate 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.
- 1.4 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. An estimate of the likely trip generation of the proposed development of the land is also provided.
 - Section 5 provides a summary and conclusion.



2 Policy Context

Planning Policy Wales

- 2.1 Planning Policy Wales (PPW) sets out the land use planning policies of the Welsh Government.
- 2.2 In terms of transport related policies it places the sustainability of development at the heart of the decision making process (pp 4.7.4) and requires that new development proposals minimize the need to travel and increase accessibility by modes other than the private car. It requires that major generators of travel demand be located within existing urban areas that are well served by public transport, or can be reached by walking or cycling.
- 2.3 The principles discussed above are repeated again in PPW's Chapter 8, which deals specifically with Transport issues. In 8.1.4 it reinforces the Welsh Government's objectives for transport through:
 - reducing the need to travel, especially by private car, by locating development where there is good access by public transport, walking and cycling;
 - locating development near other related uses to encourage multi-purpose trips and reduce the length of journeys;
 - improving accessibility by walking, cycling and public transport;
 - ensuring that transport is accessible to all, taking into account the needs of disabled and other less mobile people;
 - promoting walking and cycling;
 - supporting the provision of high quality public transport;
 - supporting traffic management measures;
 - promoting sustainable transport options for freight and commerce;
 - supporting sustainable travel options in rural areas;
 - supporting necessary infrastructure improvements; and
 - ensuring that, as far as possible, transport infrastructure does not contribute to land take, urban sprawl or neighbourhood severance.
- 2.4 In terms of plan making and development control it advises (8.7.1) that the following issues should be taken into account:
 - the impacts of the proposed development on travel demand;
 - the level and nature of public transport provision;
 - accessibility by a range of different transport modes;
 - the willingness of a developer to promote travel by public transport, walking or cycling, or to provide infrastructure or measures to manage traffic
 - the environmental impact of both transport infrastructure and the traffic generated; and
 - the effects on the safety and convenience of other users.



2.5 PPW also requires that the proposed access to a development should reflect the likely travel patterns involved. It should ensure that people can reach the development, as far as practicable, by walking, cycling and public transport, as well as by car (pp 8.7.3).

TAN18 Transportation

- 2.6 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.
- 2.7 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

- 2.8 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.
- 2.9 The Active Travel (Wales) Act 2013 makes it a legal requirement for local authorities in Wales to map and plan for suitable routes for active travel, and to build and improve infrastructure for walking and cycling every year. It creates new duties to consider the needs of walkers and cyclists and make better provision for them. It also requires the consideration of walking and cycling as a mode of transport and the Act focuses on the promotion of walking and cycling for purposeful journeys, rather than as a purely recreational activity.
- 2.10 The Act is supported by the Active Travel Action Plan Wales (2014), and many of the actions of the Active Travel Action Plan Wales document also benefit recreational or competitive walking and cycling. 'Walking' in the Active Travel Action Plan for Wales includes the use of wheelchairs and mobility scooters and 'cycling' includes the use of electric bikes, but not motorcycles.



Carmarthenshire Local Development Plan 2006 -2021

- 2.11 The LDP seeks to promote sustainable development. Policy GP1 requires that development, amongst other things, has an appropriate and safe access and does not give rise to parking or highway safety concerns and that it promotes ease of access by pedestrians, cyclists and public transport users.
- 2.12 Policy SP3 sets out the settlement framework for the County. The site is within the Carmarthen Growth Area and within the currently defined development limits (Policy GP2).
- 2.13 The site is also within the current mixed use GA1/MU5 West Carmarthen allocation that allows for a mix of uses consisting of residential (allowance for 1,100 units), employment, community facilities and amenity.
- 2.14 Policy TR3 relates to the design of highways in developments and requires that developments provide:
 - An integrated network of convenient and safe pedestrian and cycle routes (within and from the site) which promotes the interests of pedestrians, cyclists and public transport;
 - Suitable provision for access by public transport;
 - Appropriate parking and where applicable, servicing space in accordance with required standards;
 - Infrastructure and spaces allowing safe and easy access for those with mobility difficulties;
 - Required access standards reflective of the relevant Class of road and speed restrictions including visibility splays and design features and calming measures necessary to ensure highway safety and the ease of movement is maintained, and where required enhanced;
 - Provision for Sustainable Urban Drainage Systems to allow for the disposal of surface water run off from the highway.
- 2.15 Proposals that do not generate unacceptable levels of traffic on the surrounding road network and would not be detrimental to highway safety or cause significant harm to the amenity of residents will be permitted.
- 2.16 Proposals that will not result in offsite congestion in terms of parking or service provision or where the capacity of the network is sufficient to serve the development will be permitted. Developers may be required to facilitate appropriate works as part of the granting of any permission.



3 Location & Accessibility

Location

3.1 The site is shown in the context of nearby facilities and the surrounding transport network in Appendix 2.

Appendix 2 Site Context

- 3.2 The site is located near Travellers Rest, on the western edge of Carmarthen. It is located approximately 1km west of Johnstown, where there are a nu,mber of facilities including a primary and secondary schools, convenience stores, public houses and leisure centre. The site is some 3km west of Carmarthen's town centre where a wider range of services and facilities are located.
- 3.3 The site is located adjacent to a county road that runs parallel with and north of the A40 dual carriageway. We believe that the county road adjacent to the site is 'Llysonnen Road' but have found that some maps/plans show Llysonnen Road to be the name for the section of A40 adjacent to it. For clarity, references to Llysonnen Road within this report refer to the county road and the adjacent trunk road is referred to as the A40.
- 3.4 To the west of the site is the hamlet of Travellers Rest. Immediately to the east of the site is a recently developed residential site (Maes Pedr).

Active Travel

- 3.5 The Chartered Institution of Highways and Transportation's (CIHT) 'Planning for Walking' (2015) states that "Across Britain about 80 per cent of journeys shorter than 1 mile (1.6km) are made wholly on foot something that has changed little in thirty years. In 2012 walkers accounted for 79 per cent of all journeys shorter than 1 mile, but beyond that distance cars are the dominant mode (DfT, annual)". It is considered that 2km, a distance that can be walked in around 25 to 30 minutes, represents a reasonable distance to expect that walking can be a viable option.
- 3.6 The existing services and facilities available in Johnstown, some 1km walk from the site, are therefore within reasonable walking distance to the site.
- 3.7 The Chartered Institution of Highways and Transportation's 'Planning for Cycling' (2014) states that 'cycle use is more seasonal than for other modes, with up to twice as many cyclists in summer compared with winter. The majority of cycling trips are for short distances, with 80% being less than five miles (8km) and with 40% being less than two miles (3km). However, the majority of trips by all modes are also short distances (67% are less than five miles, and 38% are less than two miles); therefore, the bicycle is a potential mode for many of these trips (National Travel Survey, 2013, Department for Transport).'
- 3.8 The whole of Carmarthen is therefore within reasonable cycling distance to the site.
- 3.9 There is a footway alongside the northern section of Llysonnen Road that links the site to Johnstown via St Clears Road. The footway continues to the west to Travellers Rest.
- 3.10 There is a pedestrian subway beneath the A40 at Travellers Rest, approximately 300m from the site. This provides a safe link to bus stops located to the south of the A40. Public transport services are discussed in more detail later in this section of the Transport Statement.
- 3.11 The footway passing the site along Llysonnen Road is a shared cycle way that continues west alongside the A40 to St. Clears and east via Johnstown into Carmarthen.



3.12 The existing cycle and pedestrian network is being augmented by the infrastructure being developed as part of the wider West Carmarthen development. This will provide new pedestrian and cycle routes that will link the candidate site to the north western area of the town that includes Trinity St David's University, the new S4C Headquarters and Parc Dewi Sant employment site.

Public Transport Network

3.13 The locations of the nearest bus stops to the site are shown in Figure 3 above. The most easily accessible stops (Bus Stops 1 and 2) are located adjacent to the A40 and south of the A40 at the Nantyci Park & Ride (Bus Stop 3). Details of these stops and the services that are accessible from them are provided below.

Bus Stop	Walk Distance to/from site	Service No	Route	Frequency
1	100m	221	Login - Carmarthen	1 Service Wed & Sat Only
		222	Pendine - Carmarthen	5 Services Mon to Sat Between 0800 & 1725
		223	Glandwr - Carmarthen	1 Service First Wed of Each Month
		224	Whitland - Carmarthen	5 Services Mon to Sat Between 0815 & 1720
		230	Cardigan - Carmarthen	1 Service First Wed of Each Month
		322	Haverfordwest – Carmarthen	3 Service Mon to Sat
2	450m (via	221	Carmarthen - Login	1 Service Wed & Sat Only
	pedestrian subway)	222	Carmarthen - Pendine	5 Services Mon-Sat Between 0840 & 1750
		223	Carmarthen - Glandwr	1 Service First Wed of Each Month
		224	Carmarthen – Whitland	5 Services Mon to Sat Between 0900 & 1740
		322	Carmarthen - Cardigan	1 Service First Wed of Each Month
		333	Carmarthen – Haverfordwest	3 Service Mon to Sat
3	450m (via pedestrian subway)	PR1	Nantyci – Carmarthen Town Centre - Nantyci	30 Minute Frequency

Table 1 Public Transport Services

3.14 The bus services passing the site provide access to Carmarthen's bus and rail stations that provide national public transport links.



Highway Network

- 3.15 The site is adjacent to and will be accessed from Llysonnen Road which, in turn, is accessed from the Nant y Ci A40 grade separated junction.
- 3.16 Llysonnen Road is subject to a 30mph speed limit and benefits from street lighting. It is a no-through-road that provides access to the hamlet of Travellers Rest, new residential development (part of the West Carmarthen development), an animal feeds plant and several rural properties and farms.
- 3.17 From the Nant y Ci junction there is access to and from the A40 towards Carmarthen to the east and St Clears and Pembrokeshire to the west.
- 3.18 From the Nant y Ci junction access to Johnstown is available via St Clears Road. The initial section of St Clears Road is 'One-Way' towards Carmarthen/Johnstown and therefore return journeys to the site from the town have to be made via the A40.
- 3.19 The Carmarthen West Link Road is currently being constructed that will link the Nant y Ci junction to College Road the north west of Carmarthen.



4 Proposed Development

4.1 It is considered that the candidate site is capable of delivering approximately 70 dwellings.

<u>Access</u>

4.2 An indicative access arrangement is shown as Appendix 3.

Appendix 3 Indicative Access Arrangement

- 4.3 The access shown is to adoptable standards, providing a 5.5m wide carriageway with 2m wide footways on both sides that connect with the existing Llysonnen Road footway.
- 4.4 As the access is located within a 30mph speed limit area, visibility splays of 2.4 x 43m would normally be the minimum requirement. In this case it is possible to provide in excess of the minimum requirement; 2.4 x 90m in both directions.
- 4.5 The access is immediately to the west of an existing pedestrian crossing point and therefore is located on the pedestrian desire line between the site and the bus stop tpo the south of it.
- 4.6 The access is separated from the existing Maes Pedr access by some 63m. This exceeds the stopping sight distance (SSD) for drivers travelling at up to 37mph (60kph)¹ and therefore ensures that drivers travelling along Llysonnen Road will be able to safely view conditions at each junction, and if necessary stop, one after another rather than simultaneously.

Trip Generation

- 4.7 The potential trip generation of the proposed development of the site has been estimated by reference to the TRICS trip rate database, a database of over 7,100 traffic surveys of various types of development throughout the UK and Ireland.
- 4.8 From the TRICS database evidence of the trip rates of developments of privately owned houses (development of up to 100 units) in urban locations (but not town/city centres) in mainland Britain (excluding Greater London) have been analysed. Full details are provided as Appendix 4 and summarised below.

	Trip Rate per House			Trip Gen	eration (70 Ho	ouses)
Time Range	Arrivals	Departures	Total	Arrivals	Departures	Total
am peak Hour 08:00-09:00	0.177	0.383	0.56	12	27	39
pm Peak Hour 16:00-17:00	0.307	0.177	0.484	21	12	34
Daily	2.315	2.327	4.642	162	163	325

Appendix 4 TRICS Trip Rate Data

Table 2 Vehicle Trip Rates & Proposed Development Trip Generation

4.9 The TRICS data suggests that the proposed development will generate some 34 to 39 peak hour vehicle movements.

¹ SSD for 37mph = 59m



4.10 This represents an increase of, on average, one additional movement every 1½ minutes or so during peak times. It is unlikely that this level of traffic will cause any significant traffic issues on the surrounding highway network.



5 Summary & Conclusion

- 5.1 In summary this Transport Statement has demonstrated that:
 - The candidate site's location is closely related to Carmarthen and Johnstown's existing settlement and the facilities that they provide. The site is currently within the West Carmarthen mixed-use allocation area and is adjacent to recent residential development that has been delivered as part of that allocation:
 - There are a good range of services and facilities within walking and cycling distance to the site offering education, shopping, employment, leisure and social opportunities.
 - The site is accessible to pedestrians and is well connected to the existing footway network.
 - The site is accessible to public transport users with bus stops located within a short walk of the site;
 - A safe and appropriate access, that meets current design standards, can be provided to the site from Llysonnen Road.
 - The estimated traffic generation of the proposed development is unlikely to cause significant detrimental impact to the safe operation of the surrounding highway network.
- 5.2 As such it is considered that the candidate 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 the inclusion of this candidate site in Carmarthenshire County Council's Revised Local Development Plan 2018 2033.



Appendix 1 Location Plan



Appendix 2 Site Context



Appendix 3 Indicative Access Arrangement



Appendix 4 TRICS Trip Rate Data

Calculation Reference: AUDIT-648801-180426-0401

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL Category : A - HOUSES PRIVATELY OWNED VEHICLES

Cala	atad ray	riana and araga	
<u>38/80</u> 02		<u>pions and areas:</u> TH EAST	
02	HC	HAMPSHIRE	1 days
	WS	WEST SUSSEX	1 days
03		TH WEST	i uays
05	DV	DEVON	1 days
	SM	SOMERSET	1 days
04		ANGLIA	i uays
04	NF	NORFOLK	2 days
	SF	SUFFOLK	2 days 2 days
06		MIDLANDS	z uays
00	SH	SHROPSHIRE	1 days
	WK	WARWICKSHIRE	1 days
07		SHIRE & NORTH LINCOLNSHIRE	T uays
07	NY	NORTH YORKSHIRE	3 days
10	WALE		5 uays
10	PS	POWYS	1 days
11		LAND	r uays
	AG	ANGUS	1 days
	HI	HIGHLAND	1 days
	PK	PERTH & KINROSS	1 days
			i uuys

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:	7 to 70 (units:)
Range Selected by User:	5 to 100 (units:)

Public Transport Provision: Selection by:

Include all surveys

Date Range: 01/01/10 to 27/11/17

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.

<u>Selected survey days:</u>	
Monday	3 days
Tuesday	3 days
Wednesday	6 days
Thursday	4 days
Friday	1 days

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

<u>Selected survey types:</u>	
Manual count	17 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.

<u>Selected Locations:</u>	
Suburban Area (PPS6 Out of Centre)	8
Edge of Town	7
Neighbourhood Centre (PPS6 Local Centre)	2

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

Selected Location Sub Categories:	
Residential Zone	
Village	
No Sub Category	

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,

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Secondary Filtering selection:

Use	Class.
C3	}

17 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:

1,000 or Less	1 days
1,001 to 5,000	3 days
5,001 to 10,000	5 days
10,001 to 15,000	3 days
15,001 to 20,000	4 days
20,001 to 25,000	1 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	4 days
25,001 to 50,000	8 days
50,001 to 75,000	5 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	5 days
1.1 to 1.5	11 days
1.6 to 2.0	1 days

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

<u>Travel Plan:</u>	
Yes	1 days
No	16 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.

<u>PTAL Rating:</u> No PTAL Present

17 days

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

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LIST OF SITES relevant to selection parameters

LIST	OF SITES relevant to	<u>selection parameters</u>		
1	AG-03-A-01 KEPTIE ROAD	BUNGALOWS/DET.		ANGUS
2	ARBROATH Suburban Area (PPS Residential Zone Total Number of dwe <i>Survey date:</i> DV-03-A-03 LOWER BRAND LANE	ellings: <i>TUESDAY</i> TERRACED & SEMI DE	7 <i>22/05/12</i> TACHED	<i>Survey Type: MANUAL</i> DEVON
3	HONITON Suburban Area (PPS Residential Zone Total Number of dwe <i>Survey date:</i> HC-03-A-19 CANADA WAY	ellings:	70 <i>28/09/15</i>	<i>Survey Type: MANUAL</i> HAMPSHI RE
4	LIPHOOK Suburban Area (PPS) Residential Zone Total Number of dwe <i>Survey date:</i> HI-03-A-14 KING BRUDE ROAD SCORGUIE INVERNESS	ellings:	62 <i>27/11/17</i> RRACED	<i>Survey Type: MANUAL</i> HI GHLAND
5	Suburban Area (PPS Residential Zone Total Number of dwe <i>Survey date:</i> NF-03-A-01 YARMOUTH ROAD CAISTER-ON-SEA		40 <i>23/03/16</i> DWS	<i>Survey Type: MANUAL</i> NORFOLK
6	Suburban Area (PPS Residential Zone Total Number of dwe <i>Survey date:</i> NF-03-A-03 HALING WAY	ellings:	27 <i>16/10/12</i>	<i>Survey Type: MANUAL</i> NORFOLK
7	THETFORD Edge of Town Residential Zone Total Number of dwe <i>Survey date:</i> NY-03-A-07 CRAVEN WAY	ellings: <i>WEDNESDAY</i> DETACHED & SEMI DE	10 <i>16/09/15</i> T.	<i>Survey Type: MANUAL</i> NORTH YORKSHIRE
8	BOROUGHBRIDGE Edge of Town No Sub Category Total Number of dwe <i>Survey date:</i> NY-03-A-11 HORSEFAIR		23 <i>18/10/11</i>	<i>Survey Type: MANUAL</i> NORTH YORKSHI RE
	BOROUGHBRIDGE Edge of Town Residential Zone Total Number of dwe <i>Survey date:</i>	ellings: <i>WEDNESDAY</i>	23 <i>18/09/13</i>	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

LISI	OF STIES relevant to s	selection parameters (Cor	<u>17. /</u>	
9	NY-03-A-13 CATTERICK ROAD OLD HOSPITAL COMF	TERRACED HOUSES		NORTH YORKSHIRE
	CATTERICK GARRISC			
	Suburban Area (PPS6	o Out of Centre)		
	Residential Zone Total Number of dwel	llings	10	
	Survey date:		10/05/17	Survey Type: MANUAL
10	PK-03-A-01	DETAC. & BUNGALOWS	S	PERTH & KÍNROSS
	TULLYLUMB TERRACE			
	GORNHILL PERTH			
	Suburban Area (PPS6	Out of Centre)		
	Residential Zone			
	Total Number of dwel		36	
1 1		WEDNESDAY	<i>11/05/11</i>	Survey Type: MANUAL
11	PS-03-A-02 GUNROG ROAD	DETACHED/SEMI-DET	ACHED	POWYS
	GUNRUG RUAD			
	WELSHPOOL			
	Suburban Area (PPS6	Out of Centre)		
	Residential Zone	lline mail	20	
	Total Number of dwel Survey date:		28 <i>11/05/15</i>	Survey Type: MANUAL
12		DETACHED HOUSES	11/00/10	SUFFOLK
	VALE LANE			
	BURY ST EDMUNDS Edge of Town			
	Residential Zone			
	Total Number of dwel	llings:	18	
	Survey date:		09/09/15	Survey Type: MANUAL
13	SF-03-A-06	DETACHED & SEMI-DE	TACHED	SUFFOLK
	BURY ROAD			
	KENTFORD			
		e (PPS6 Local Centre)		
	Village	W	20	
	Total Number of dwel Survey date:		38 <i>22/09/17</i>	Survey Type: MANUAL
14		SEMI-DETACHED/TERI		SHROPSHIRE
	SANDCROFT			
	SUTTON HILL			
	TELFORD			
	Edge of Town Residential Zone			
	Total Number of dwel	llings:	54	
	Survey date:		24/10/13	Survey Type: MANUAL
15	SM-03-A-01	DETACHED & SEMI		SOMERSET
	WEMBDON ROAD			
	BRIDGWATER			
	Edge of Town			
	Residential Zone			
	Total Number of dwel	9	33	Company Trans Adda 1144
16	<i>Survey date:</i> WK-03-A-02	<i>THURSDAY</i> BUNGALOWS	24/09/15	<i>Survey Type: MANUAL</i> WARWICKSHIRE
10	NARBERTH WAY	DUNUALUVVJ		VANVIONSIIIRE
	POTTERS GREEN			
	COVENTRY			
	Edge of Town			
	Residential Zone Total Number of dwel	llings	17	
	Survey date:		17/10/13	Survey Type: MANUAL
		-		· · · · · · · · · · · · · · · · · · ·

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LIST OF SITES relevant to selection parameters (Cont.)

17 WS-03-A-07 BUNGALOWS WEST SUSSEX EMMS LANE BROOKS GREEN NEAR HORSHAM Neighbourhood Centre (PPS6 Local Centre) Village Total Number of dwellings: 57 Survey date: THURSDAY 19/10/17 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/A - HOUSES PRIVATELY OWNED 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	17	33	0.092	17	33	0.286	17	33	0.378
08:00 - 09:00	17	33	0.177	17	33	0.383	17	33	0.560
09:00 - 10:00	17	33	0.161	17	33	0.174	17	33	0.335
10:00 - 11:00	17	33	0.136	17	33	0.136	17	33	0.272
11:00 - 12:00	17	33	0.130	17	33	0.161	17	33	0.291
12:00 - 13:00	17	33	0.168	17	33	0.165	17	33	0.333
13:00 - 14:00	17	33	0.148	17	33	0.150	17	33	0.298
14:00 - 15:00	17	33	0.186	17	33	0.213	17	33	0.399
15:00 - 16:00	17	33	0.237	17	33	0.184	17	33	0.421
16:00 - 17:00	17	33	0.307	17	33	0.177	17	33	0.484
17:00 - 18:00	17	33	0.320	17	33	0.159	17	33	0.479
18:00 - 19:00	17	33	0.253	17	33	0.139	17	33	0.392
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.315			2.327			4.642

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

Salem

Llandeilo

Acstro Ltd

Trip rate parameter range selected:7 - 70 (units:)Survey date date range:01/01/10 - 27/11/17Number of weekdays (Monday-Friday):17Number of Saturdays:0Number of Sundays:0Surveys automatically removed from selection:2Surveys manually removed from selection:0

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

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TIME RATE TRIP RATE GRAPH - ARRIVALS 03 - RESIDENTIAL A - HOUSES PRIVATELY OWNED 96 VEHICLES 00:00-01:00 01:00-02:0002:00-03:00 03:00-04:0004:00-05:0005:00-06:00 06:00-07:00 07:00-08:00 0.092 4.0 4% 7.6 7.6% 08:00-09:00 0.177 09:00-10:00 0.161 7.0 7% 5.9 % 10:00-11:00 0.136 5.9 5.6% 11:00-12:00 0.130 5.6 12:00-13:000.168 7.3 7.3 % 13:00-14:00 0.148 6.4 6.4 % 8% 14:00-15:00 0.186 8.0 15:00-16:00 0.237 10.2 10.2 % 13.3 % 16:00-17:00 0.307 13.3 13.8 % 17:00-18:00 0.320 13.8 10.9 % 18:00-19:00 0.253 10.9 19:00-20:00 20:00-21:00 21:00-22:00 22:00-23:00 23:00-24:00

5

6

8

Percentage

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10

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12

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14

15

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.

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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.

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