MRS CATHERINE DYDLYKE

& MRS HELEN WIGHT

PROPOSED RESIDENTIAL DEVELOPMENT
LAND OFF CWMGARW ROAD, BRYNAMMAN

TRANSPORT STATEMENT

20-00660/TS/01/A

July 2022

CORUN
Transport and Highway Engineering

DOCUMENT SIGNATURE AND MODIFICATION SHEET

Project Details

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1 INTRODUCTION

1.1 Background

1.1.1 This Transport Statement (TS) has been produced by Corun Associates Ltd (Corun) on behalf of Mrs Catherine Dydlyke & Mrs Helen Wight, the applicant, to examine the highway and transportation issues associated with a proposed residential development on land south of Cwmgarw Road, Brynamman, Carmarthenshire.

1.1.2 The site is allocated in Carmarthenshire's LDP (reference T3/9/H4) for 65 units.

1.1.3 Access to the site is secured under planning permission E/17076 which allows for a 5.5 metre internal carriageway, 1.8 metre footways and 6.0 metre kerb radii at the junction with the A4068 Cwmgarw Road, directly west of the Tregib Arms public house.

1.1.4 The proposed residential development is to comprise of 60 units.

1.1.5 Guidance within Annex D of Planning Policy Wales Technical Advice Note 18: Transport (TAN18) confirms that the general trigger point for a Transport Assessment is 100 residential units.

1.1.6 As the proposed development scale falls below this figure, and the surrounding baseline traffic volume appears to be relatively low, it was not considered necessary to undertake any capacity analysis of junctions surrounding the site. A Transport Statement is therefore considered satisfactory for this application.

1.2 Scope

1.2.1 This report will discuss the following key transportation issues arising from the proposals:

(i) the existing site location and transport infrastructure;

(ii) the development proposals;

(iii) the site's compliance with applicable transport policy;

(iv) development-generated vehicular traffic; and

(v) analysis of personal injury traffic accident data.

2 EXISTING CONDITIONS

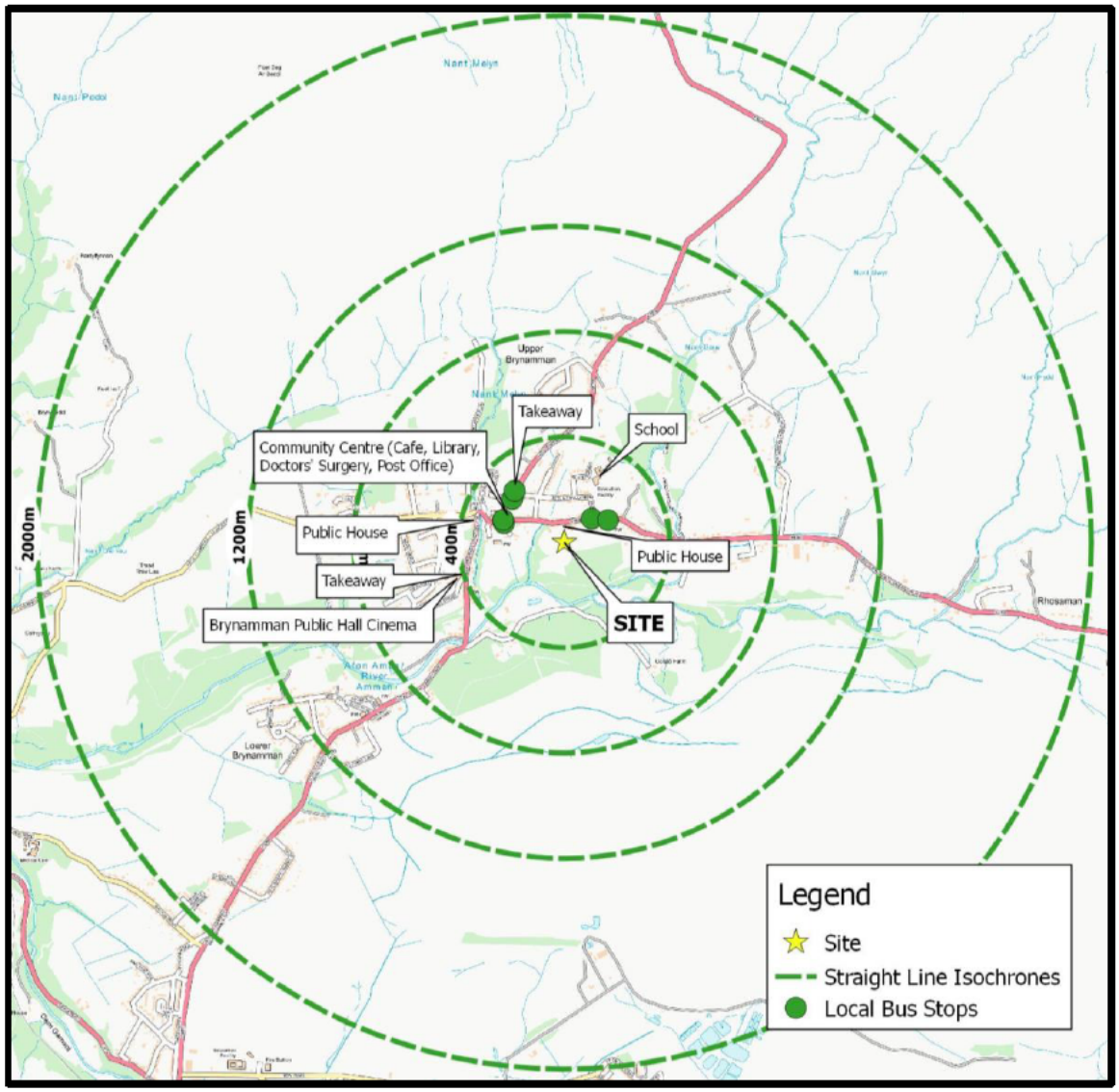
2.1 Site Description

2.1.1 The proposed residential development site is located on land to the south of the A4068 Cwmgarw Road in Brynamman.

2.1.2 The site is currently undeveloped and bounded to the north by a row of residential properties and a public house, to the east by residential properties and to the south and west by greenfield land.

2.1.3 The site is shown in a local context in **Figure 2.1**.

Figure 2.1: Site in Local Context with Distance Isochrones



2.2 Local Highway Network

2.2.1 At the site frontage, the A4068 Cwmgarw Road runs in a general east-west alignment and is subject to a 30mph speed limit.

2.2.2 To the east, the A4068 joins with the A4067 in Ystradgynlais, which links northwards to the Brecon Beacons and the A40.

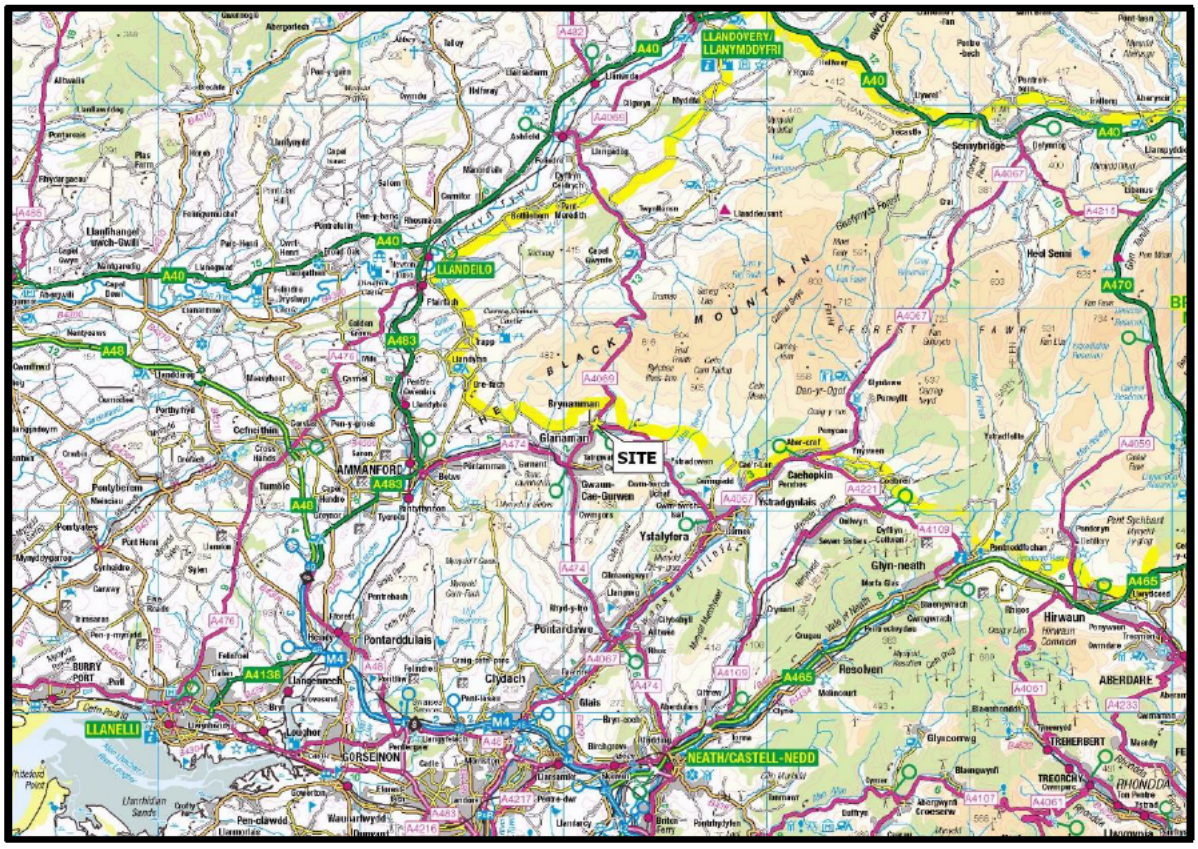
2.2.3 To the south, the A4067 links Ystradgynlais with Pontardawe and the M4 at junction 45.

2.2.4 In Pontardawe, the A4067 also connects with the A474, which links to Neath and the M4 at junction 43 via the A465.

2.2.5 To the west of the site, Ammanford can be reached via the A474. From Ammanford, the M4 and A48 at Pont Abraham can be accessed via the A483.

2.2.6 The site is shown in a wider, strategic context in **Figure 2.2**.

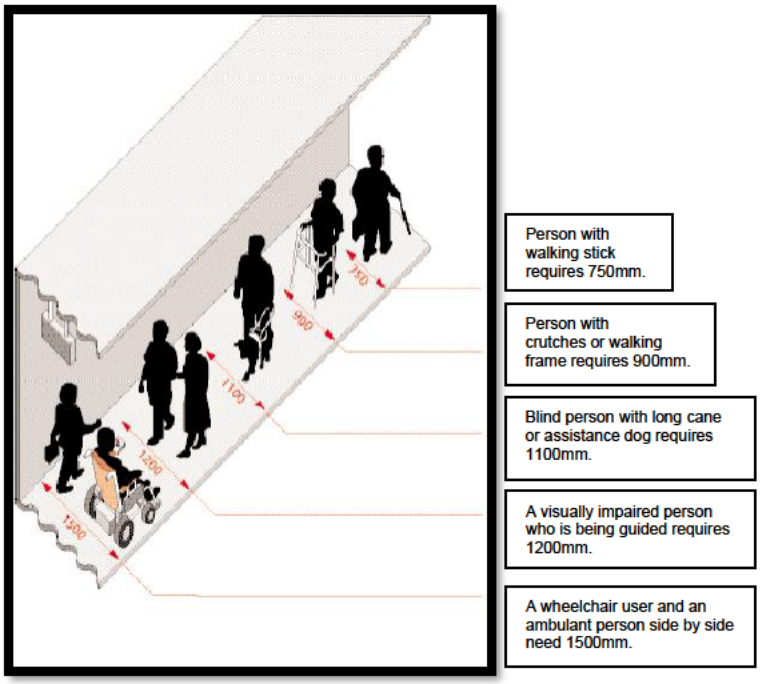
Figure 2.2: Site in Strategic Context



2.3 Pedestrian Facilities

2.3.1 Pedestrian footways are provided on both sides of Cwmgarw Road with a general width of at least 1.5m, albeit with some instance of localised narrowing due to physical constraints or footway parking. As shown in the extract from DfT's 'Inclusive Mobility' document (2002), a width of at least 1.5m is suitable for a wheelchair user and ambulant person side by side with 300mm of additional lateral clearance.

Extract 2.1: Footway widths (DfT 'Inclusive Mobility' 2002)



2.3.2 A key destination for local residents is The Black Mountain Centre, which is a community centre complete with café, post office, library and doctors' surgery. This is just 200m to the west and there are pedestrian links and uncontrolled dropped kerb/tactile paving crossings to enable safe passage.

2.3.3 Pedestrian access to existing bus stops located on Cwmgarw Road to both the east and west of the site is also provided via existing footway links.

2.3.4 The Chartered Institution of Highways and Transportation document 'Providing for Journeys on Foot' provides the following suggested acceptable walking distances, as shown in Table 2.1.

2.3.5 Pedestrian isochrones are shown in Figure 2.1 with distance isochrones for 400m, 800m and 1200m which equates to 5, 10 and 15-minute walk times based on an average walking speed of 4.8 km/h. Figure 2.1 demonstrates that the site lies well within the recommended distances of several trip attractors.

Table 2.1: Acceptable Walking Distances (IHT)

	Town Centres (m)	Commuting/School/ Sightseeing (m)	Elsewhere/Local Services (m)
Desirable	200	500	400
Acceptable	400	1000	800
Preferred Maximum	800	2000	1200

2.4 Cycle Facilities

2.4.1 Cycling in the immediate vicinity of the site is predominantly accommodated via on-carriageway routes.

2.4.2 However, National Cycle Route 437 is accessible within 500m of the site.

2.4.3 **Figure 2.1** also displays a 2km site catchment isochrone, which shows a variety of trip attractors to be within this distance, such as the community centre inclusive of a doctors' surgery, post office, café and library, school, pubs and cinema. A 2km distance can be covered by bicycle in just 10 minutes, based on an average cycling speed of 12km/h.

2.5 Public Transport Facilities

Bus

2.5.1 The proposed development site is well served by public transport with a number of regular scheduled bus services running along Cwmgarw Road.

2.5.2 Guidance related to the accessibility of a development proposal to public transport is provided in the Institution of Highways and Transportation ("IHT") document 'Planning for Public Transport in Development' (March 1999). The IHT guidance recommends that ***'new developments should be located so that public transport trips involve a walking distance of less than 400m from the nearest bus stop…'***.

2.5.3 Bus stops are available well within the recommended maximum walking distance of 400m (<5 minutes' walk) from the application site, as shown in Figure 2.1.

2.5.4 There are bus stops facilitating both directions of travel near the site frontage. The eastbound stop (adjacent New Road) lacks a shelter and seating. However, the westbound stop benefits from both. There are also bus stops at the community centre serving both directions of travel and benefiting from shelters and seating.

2.5.5 There are also stops on Mountain Road. The northbound stop is a basic flagpole arrangement, whereas the southbound stop benefits from a shelter.

2.5.6 From the above stops, bus routes X26, 64, 124, 167 and 905 can be accessed. These services allow travel to Swansea, Upper Brynamman, Tycroes, Neath Abbey, Ammanford, Ystradgynlais, Crynant and Cwmtwrch Isaf.

2.5.7 The journey time to Ammanford and Ystradgynlais during a typical AM peak hour is approximately 27 minutes and 28 minutes respectively. A direct bus to Swansea takes approximately 55 minutes.

2.5.8 In reviewing the public transport provision in the vicinity of the proposed development, it is clear that the site complies with this guidance, with numerous bus services accessible less than 400m from the site.

Rail

2.5.9 Ammanford railway station is located approximately 9.4km to the west of the site. Whilst not convenient for all, it could be used as part of a multi-modal journey along with a car, taxi, bicycle or bus.

3 DEVELOPMENT PROPOSAL

3.1 Proposed Development

3.1.1 The development will take the form of approximately 60 residential units on land south of Cwmgarw Road, Brynamman, Carmarthenshire.

3.1.2 The site is allocated in Carmarthenshire's LDP (reference T3/9/H4) for 65 units.

3.1.3 A site layout is contained herein as **Appendix A**.

3.2 Vehicular Access

3.2.1 Access to the site is secured under planning permission E/17076, which allows for a 5.5 metre internal carriageway, 1.8 metre footways and 6 metre kerb radii at the junction with the A4068 Cwmgarw Road, directly west of the Tregib Arms public house. The proposed access junction and off-site works are contained in **Appendix B**.

3.2.2 The approved access permission requires splays of 2.4m x 90m in both directions. However, Manual for Streets guidance now supersedes this requirement and so under the assumption that 85th percentile traffic speeds are no more than 10% above the posted 30mph speed limit visibility splays of 2.4m x 43m in each direction are required.

3.2.3 The proposed highway works include off-site pedestrian improvements in the way of a new uncontrolled pedestrian crossing positioned outside the Tregib Arms, which includes buildouts on both sides, providing a crossing width for pedestrians of approximately 3.45m.

3.2.4 The proposed works improve on the existing dropped kerb crossing arrangement, which will be removed, and will encourage sustainable trips to and from the site. The improvement works followed detailed discussions with Carmarthenshire Highways.

3.3 Parking Provision

3.3.1 Parking provision for the proposed residential development will be provided in accordance with CSS Wales Parking Standards 2008; the adopted parking standards of Carmarthenshire County Council.

3.3.2 CSS suggests that 1 space/bedroom should be provided up to a maximum of 3 spaces per unit. The site characteristics place it within Zone 4 – Suburban or near Urban.

3.4 Internal Highway Layout

3.4.1 The internal layout has been designed in accordance with Manual for Streets principles.

3.4.2 In addition, the internal layout has been designed to accommodate refuse vehicles, which are able to arrive and depart the site in a forward gear. An appropriate system of street lighting is also proposed.

4 LOCAL AND NATIONAL PLANNING GUIDANCE

4.1 Overview

4.1.1 With regard to the transportation implications of the proposed development, this assessment examines the development proposal in the context of relevant planning policy guidance at national, regional and local level. The following documents have been reviewed:

- Planning Policy Wales (Edition 11, February 2021);
- Technical Advice Note (Wales) (2007) 18 – Transport;
- Carmarthenshire LDP 2006-2021.

4.1.2 Consideration is also given to the following legislation, which has an emphasis on sustainable transport provision:

- Active Travel Wales Act 2013;
- Well-being of Future Generations (Wales) Act 2015.

4.2 Policy Objective

4.2.1 The overarching desire at all tiers of planning policy guidance is to influence a modal shift from single occupancy car travel towards more sustainable modes such as walking, cycling, and public transport.

4.2.2 In order to achieve this, it is recognised that development should be located such that the need to travel is reduced, especially by private car, by locating development where there is good access to high quality public transport, walking and cycling provision.

4.3 Planning Policy Wales (December 2018)

4.3.1 Planning Policy Wales (PPW) identifies five ways of working to enhance proposals and ideas and to maximise their contribution to the well-being goals. It is stated that:

> *'Good design is about avoiding the creation of car-based developments. It contributes to minimising the need to travel and reliance on the car, whilst maximising opportunities for people to make sustainable and healthy travel choices for their daily journeys. Achieving these objectives requires the selection of sites which can be made easily accessible by sustainable modes as well as incorporating appropriate, safe and sustainable links (including active travel networks) within and between developments using legal agreements where appropriate.*
>
> *Existing infrastructure must be utilised and maximised, wherever possible. Where new infrastructure is necessary to mitigate transport impacts of a development and to maximise accessibility by sustainable non-car modes, it should be integrated within the development layout and beyond the boundary, as appropriate. This could include works to connect cycle routes within a site to a wider strategic cycling network or provision of bus priority measures on highway corridors serving a new development.'*

4.3.2 For placemaking in rural areas, PPW states that:

> *'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. Development in these areas should embrace the national sustainable placemaking outcomes and, where possible, offer good active travel connections to the centres of settlements to reduce the need to travel by car for local journeys.'*

4.3.3 Planning Policy Wales confirms that transport plays a key role in promoting a healthier Wales, a more equal Wales, cohesive communities and a globally responsible Wales.

4.3.4 PPW identifies the following active and social trend issues which it aims to address:

> *'assisting in the delivery of cohesive communities which will meet the needs and are accessible to all members of society, including older people;*
>
> *tackling inequalities between communities, delivering services and jobs closer to where people live and acknowledging the importance of inclusive communities and the wider environment for good health and well-being;*
>
> *improve sustainable access to services, cultural opportunities and recreation facilities to support people to adopt healthy, culturally fulfilled lifestyles which will assist in improving health and wellbeing;*
>
> *reducing reliance on travel by private car, and the adverse impacts of motorised transport on the environment and people's health, by prioritising and increasing active travel and public transport; • ensure our transportation infrastructure is adaptable to future advances in innovation such as the mainstreaming of electric vehicles or possible advent of autonomous or driverless vehicles in the next ten to 15 years'.*

4.3.5 PPW identifies the following active and social linkages issues which it aims to address:

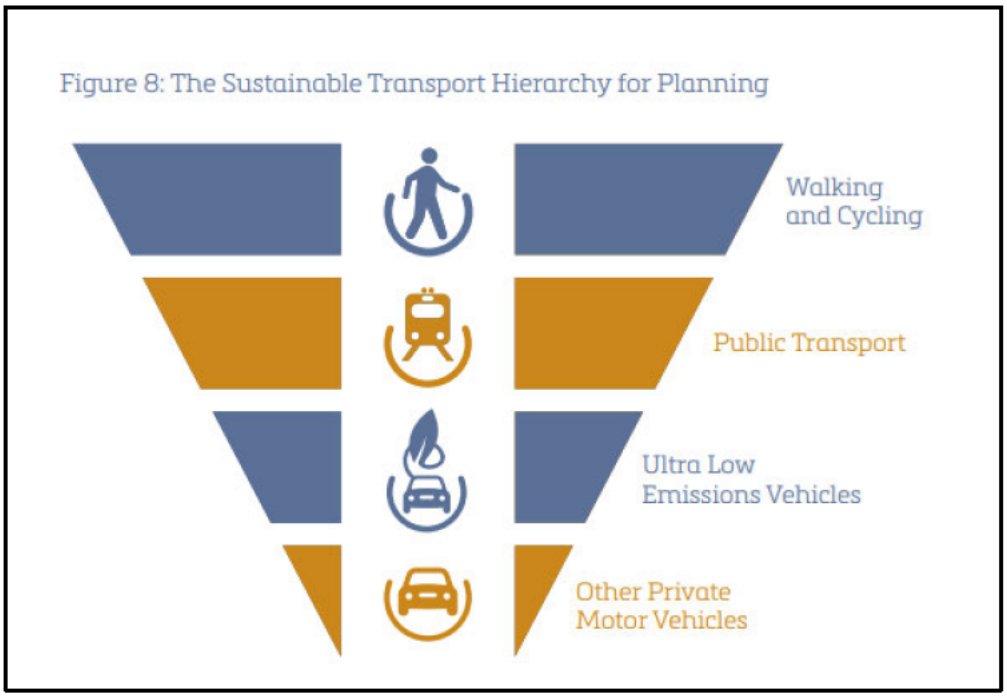
> *'enable sustainable access to housing, employment, shopping, education, health, community, leisure and sports facilities and green infrastructure, maximising opportunities for community development and social welfare;*
>
> *develop sustainable transportation infrastructure to keep Wales moving and connect people with jobs, housing and leisure. Ensure that the chosen locations and resulting design of new developments reduces reliance on the private car for daily travel, supports sustainable modes of travel and assists in improving the environment, public health and community life;*
>
> *require developments to encourage modal shift and be easily accessible by walking, cycling and public transport, by virtue of their location, design and provision of on and off site sustainable transport infrastructure'.*

4.3.6 PPW identifies 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. By influencing the location, scale, density, mix of uses and design of new development, the planning system can improve choice in transport and secure accessibility in a way which supports sustainable development, increases physical activity, improves health and helps to tackle the causes of climate change and airborne pollution by: • Enabling More Sustainable Travel Choices – measures to increase walking, cycling and public transport, reduce dependency on the car for daily travel; • Network Management – measures to make best use of the available capacity, supported by targeted new infrastructure; and • Demand Management – the application of strategies and policies to reduce travel demand, specifically that of single-occupancy private vehicles.'*

4.3.7 Under the sustainable transport category, PPW identifies that:

> *'The Welsh Government is committed to reducing reliance on the private car and supporting a modal shift to walking, cycling and public transport. Delivering this objective will make an important contribution to decarbonisation, improving air quality, increasing physical activity, improving the health of the nation and realising the goals of the Well-being of Future Generations Act.*
>
> *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.*
>
> *Development proposals must seek to maximise accessibility by walking, cycling and public transport, by prioritising the provision of appropriate on-site infrastructure and, where necessary, mitigating transport impacts through the provision of off-site measures, such as the development of active travel routes, bus priority infrastructure and financial support for public transport services.*
>
> *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. The transport hierarchy recognises that Ultra Low Emission Vehicles also have an important role to play in the decarbonisation of transport, particularly in rural areas with limited public transport services.*



The sustainable transport hierarchy should be used to reduce the need to travel, prevent car-dependent developments in unsustainable locations, and support the delivery of schemes located, designed and supported by infrastructure which prioritises access and movement by active and sustainable transport.

The sustainable transport hierarchy must be a key principle in the preparation of development plans, including site allocations, and when considering and determining planning applications.

Different approaches to sustainable transport will be required in different parts of Wales, particularly in rural areas, and new development will need to reflect local circumstances.'

4.3.8 With regards to car parking, PPW confirms the widely accepted notion that:

'Car parking provision is a major influence on how people choose to travel and the pattern of development. Where and how cars are parked can in turn be a major factor in the quality of a place.'

4.3.9 It continues 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. The needs of disabled people must be recognised and adequate parking provided for them.

Planning authorities must require good standards of car parking design, which do not allow vehicles to dominate the street or inconvenience people walking and cycling. Car parking should be overlooked by surrounding properties, to provide natural surveillance.

…. Parking standards should be applied flexibly and allow for the provision of lower levels of parking and the creation of high quality places.'

4.3.10 PPW promotes walking and cycling for shorter trips and that cycling be encouraged for short trips and as a substitute for shorter car journeys, or as part of a longer journey when combined with public transport.

4.4 Technical Advice Note (TAN18)

4.4.1 TAN 18 identifies that Planning Policy Wales and the Wales Transport Strategy both aim to secure the provision of transport infrastructure and services, which improve accessibility, build a stronger economy, improve road safety and foster more sustainable communities.

4.4.2 To achieve this and the core objectives, the following initiatives relevant to the proposed development are:

- Reducing the need to travel
- Promoting walking and cycling
- Managing parking provision
- Encouraging the location of development near other related uses to encourage multi-purpose trips.

4.4.3 TAN 18 describes how to integrate land use and transport planning, and explains how transport impacts should be assessed and mitigated. TAN18 also identifies thresholds at which a Transport Assessment should be produced in support of a planning application.

4.5 Carmarthenshire Local Development Plan 2006-2021

4.5.1 The application site is identified as a housing allocation within the emerging Carmarthenshire Local Development Plan (LDP) (site reference T3/9/H4).

4.5.2 Key strategic objectives of the LDP, which are applicable to the application site from a transport planning perspective, are:

SO2*: To ensure that the principles of spatial sustainability are upheld by:*

(a) enabling development in locations which minimise the need to travel and contribute towards sustainable communities and economies, and

(b) wherever possible encouraging new development on previously developed land which has been suitably remediated.

SO8*: To assist with widening and promoting opportunities to access community, leisure and recreational facilities as well as the countryside.*

SO9*: To ensure that the principles of equal opportunities and social inclusion are upheld by promoting access to a high quality and diverse*

mix of public services, healthcare, shops, leisure facilities and work opportunities.

***SO10**: To contribute to the delivery of an integrated and sustainable transport system that is accessible to all.*
***SO11**: To encourage investment & innovation (both rural and urban) by:*

(a) making an adequate provision of land to meet identified need; and

(b) making provision for the business and employment developmental needs of indigenous /new employers, particularly in terms of hard & soft infrastructural requirements (including telecommunications/ICT); and

(c) making provision for the infrastructural requirements associated with the delivery of new homes particularly in terms of hard & soft infrastructural requirements (including foul and surface water); and

(d) adhering to the principles of sustainable development and social inclusion in terms of the location of new development.

4.5.3 A number of Strategic Policies will help implement the plan's strategy. Those most applicable to the application site are:

SP1 Sustainable Places and Spaces

Proposals for development will be supported where they reflect sustainable development and design principles by:

a) Distributing development to sustainable locations in accordance with the settlement framework, supporting the roles and functions of the identified settlements;

b) Promoting, where appropriate, the efficient use of land including previously developed sites;

c) Integrating with the local community, taking account of character and amenity as well as cultural and linguistic considerations;

d) Respecting, reflecting and, wherever possible, enhancing local character and distinctiveness;

e) Creating safe, attractive and accessible environments which contribute to people's health and wellbeing and adhere to urban design best practice;

f) Promoting active transport infrastructure and safe and convenient sustainable access particularly through walking and cycling;

g) Utilising sustainable construction methods where feasible;

h) Improving social and economic wellbeing.

SP2 Climate Change

Development proposals which respond to, are resilient to, adapt to and mitigate for the causes and impacts of climate change will be supported. In particular proposals will be supported where they:

a) Adhere to the waste hierarchy and in particular the minimisation of waste;

b) Promote the efficient consumption of resources (including water);

c) Reflect sustainable transport principles and minimise the need to travel, particularly by private motor car;

d) Avoid, or where appropriate, minimise the risk of flooding including the incorporation of measures such as SUDS and flood resilient design;

e) Promote the energy hierarchy by reducing energy demand, promoting energy efficiency and increasing the supply of renewable energy;

f) Protect and enhance the area's biodiversity value and where appropriate, seek to integrate nature conservation into new development;

g) Incorporate appropriate climate responsive design solutions including orientation, layout, density and low carbon solutions (including design and construction methods) and utilise sustainable construction methods where feasible.

Proposals for development which are located within areas at risk from flooding will be resisted unless they accord with the provisions of TAN 15.

SP4 Strategic Sites

Provision is made within Growth Area settlements for the following Strategic Sites which, either individually, or in combination, contribute to the implementation of the strategy and consolidate the Plan's sustainable principles.

Site 1 – West Carmarthen

Site 2 – Pibwrlwyd, Carmarthen

Site 3 – South Llanelli Strategic Zone

Site 4 – Dafen, Llanelli

Site 5 – Cross Hands Strategic Zone

Proposals in respect of the strategic sites must have regard to the identified uses (see Appendix 2) and the relevant policies of the plan.

Strategic Policy SP9 Transportation

Provision is made to contribute to the delivery of an efficient, effective, safe and sustainable integrated transport system through:

a) Reducing the need to travel, particularly by private motor car,

b) Addressing social inclusion through increased accessibility to employment, services and facilities;

c) Supporting and where applicable enhancing alternatives to the motor car, such as public transport (including park and ride facilities and

encourage the adoption of travel plans), and active transport through cycling and walking;

d) Re-enforcing the function and role of settlements in accordance with the settlement framework;

e) Promoting the efficient use of the transport network;

f) The use of locational considerations for significant trip generating proposals, with design and access solutions within developments to promote accessibility by non car modes of transport.

Transport routes, improvements and associated infrastructural facilities which deliver the objectives and priorities of the Regional Transport Plan for South West Wales will be supported. Furthermore, maintaining and enhancing good traffic flows and the attractiveness and viability of more sustainable transport modes which support the strategy and its sustainable objectives will also be supported. Development proposals which do not prejudice the efficient implementation of any identified improvement or scheme will be permitted.

The following improvements to the highway infrastructure will be safeguarded and the routes identified on the proposals map:

1) Cross Hands Economic Link Road

2) Carmarthen West Link Road

The following Welsh Assembly Government improvements to the highway infrastructure will be safeguarded:

3) A477 St Clears to Red Roses Improvement – Phase 2

4) A483 Llandeilo and Ffairfach Improvement – Phase 3

Improvements to the highway network will be provided at the following locations (where the land take requirements are not known):

5) Ammanford Distributor Road – Phase 2

6) Carmarthen East Link Road

7) Gwendraeth Valley Link Road

4.5.4 The following 'specific policies', as identified in Chapter 6 of the LDP, are relevant to the proposal in transport planning terms:

Policy GP1 Sustainability and High Quality Design

Development proposals will be permitted where they accord with the following:

a) It conforms with and enhances the character and appearance of the site, building or area in terms of siting, appearance, scale, height, massing, elevation treatment, and detailing;

b) It incorporates existing landscape or other features, takes account of site contours and changes in levels and prominent skylines or ridges;

c) Utilises materials appropriate to the area within which it is located;

d) It would not have a significant impact on the amenity of adjacent land uses, properties, residents or the community;

e) Includes an integrated mixture of uses appropriate to the scale of the development;

f) It retains, and where appropriate incorporates important local features (including buildings, amenity areas, spaces, trees, woodlands and hedgerows) and ensures the use of good quality hard and soft landscaping and embraces opportunities to enhance biodiversity and ecological connectivity;

g) It achieves and creates attractive, safe places and public spaces, which ensures security through the 'designing-out-crime' principles of Secured by Design (including providing natural surveillance, visibility, well lit environments and areas of public movement);

h) An appropriate access exists or can be provided which does not give rise to any parking or highway safety concerns on the site or within the locality;

i) It protects and enhances the landscape, townscape, historic and cultural heritage of the County and there are no adverse effects on the setting or integrity of the historic environment;

j) It has regard to the generation, treatment and disposal of both surface and foul water;

k) It has regard to the generation, treatment and disposal of waste.

l) It has regard for the safe, effective and efficient use of the transportation network;

m) It provides an integrated network which promotes the interests of pedestrians, cyclists and public transport which ensures ease of access for all;

n) It includes, where applicable, provision for the appropriate management and eradication of invasive species.

Proposals will also be considered in light of the policies and provisions of this Plan and National Policy (PPW: Edition 4 and TAN12: Design and Planning Policy Wales 2010).

Policy GP4 Infrastructure and New Development

Proposals for development will be permitted where the infrastructure is adequate to meet the needs of the development. Proposal which require the provision of new or improved infrastructure will be permitted where the required work is funded by, or an appropriate contribution is provided by the developer.

Planning obligations and conditions will be used (where appropriate) to ensure that new or improved facilities are provided to serve the new development.

Policy TR1 Primary and Core Road Networks

Proposals which do not restrict traffic movement and/or compromise the safety of the primary road network and core network will where appropriate be supported.

Policy TR2 Location of Development – Transport Considerations

Proposals which have a potential for significant trip generation will be permitted where:

a) It is located in a manner consistent with the plans strategic objectives, its settlement framework and its policies and proposals;

b) It is accessible to non car modes of transport including public transport, cycling and walking;

c) Provision is made for the non-car modes of transport and for those with mobility difficulties in the design of the proposal and the provision of on site facilities;

d) Green Travel Plans have been considered and where appropriate incorporated.

Policy TR3 Highways in Developments - Design Considerations

The design and layout of all development proposals will, where appropriate, be required to include:

a) 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;

b) Suitable provision for access by public transport;

c) Appropriate parking and where applicable, servicing space in accordance with required standards;

d) Infrastructure and spaces allowing safe and easy access for those with mobility difficulties;

e) 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;

f) Provision for Sustainable Urban Drainage Systems to allow for the disposal of surface water run off from the highway.

Proposals which 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.

Proposals which 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.

Policy TR4 Cycling and Walking

Land required to facilitate the following improvements to the cycle network will be safeguarded. Proposed routes where known are shown on the proposals map. The potential opportunity for horse riding should where appropriate be considered.

a) Towy Valley (between Llandeilo and Carmarthen);

b) Whitland to Llanglydwen;

c) Ammanford to the Amman Valley

Developments should, where appropriate seek to incorporate, or where acceptable, facilitate links to the cycle, rights of way and bridleway network to ensure an integrated sustainable approach in respect of any site.

4.6 Active Travel (Wales) Act 2013

4.6.1 The Active Travel (Wales) Act 2013 aims to:

make active travel the most attractive option for most shorter journeys. Its purpose is to enable more people to undertake active travel, meaning more people can enjoy the benefits of active travel. We want to encourage people to leave their cars behind and use active travel where it is suitable for them to do so.

The Act requires local authorities in Wales to produce active travel maps and deliver year on year improvements in active travel routes and facilities. It requires highways authorities in Wales to make enhancements to routes and facilities for pedestrians and cyclists in all new road schemes and to have regard to the needs of walkers and cyclists in a range of other highway authority functions. It also requires the Welsh Ministers and local authorities to promote active travel journeys in exercising their functions under this Act.

4.7 Conclusion

4.7.1 The site is well located to encourage sustainable modes of travel due to its proximity to the facilities and amenities of Brynamman and is linked by bus to larger nearby settlements and employment centres further afield, namely Swansea, Ammanford and Ystradgynlais.

4.7.2 It is therefore concluded that the site fully complies with transport planning policy, at local and national level.

5 DEVELOPMENT TRAFFIC

5.1 Introduction

5.1.1 Estimated development generated traffic flows have been forecast using the TRICS database (version 7.6.4). TRICS is a nationally accepted database providing information relating to the total number of trips generated by various land uses, based on existing trips observed at similar sites throughout the United Kingdom.

5.1.2 From the TRICS database, a trip rate is derived which provides the number of expected trips per unit of measurement (e.g. unit, bay or area). The TRICS good practice guide promotes an 'inclusive' rather than 'exclusive' approach to site selection.

5.1.3 The category 'houses privately owned has been selected and sites in Greater London have been excluded, due to the significantly different travel patterns and public transport availability it offers compared to large parts of the UK. Also 'town centre', 'edge of town centre' and 'free standing' sites have been omitted along with sites with a population within 5 miles of greater than 100,000.

5.1.4 This section of the report focuses on the trip generation for the traditional weekday AM (0800-0900) and PM (1700-1800) peaks hours. In addition, a 'daily' figure is provided which covers the hours 0700-1900.

5.2 Proposed development traffic

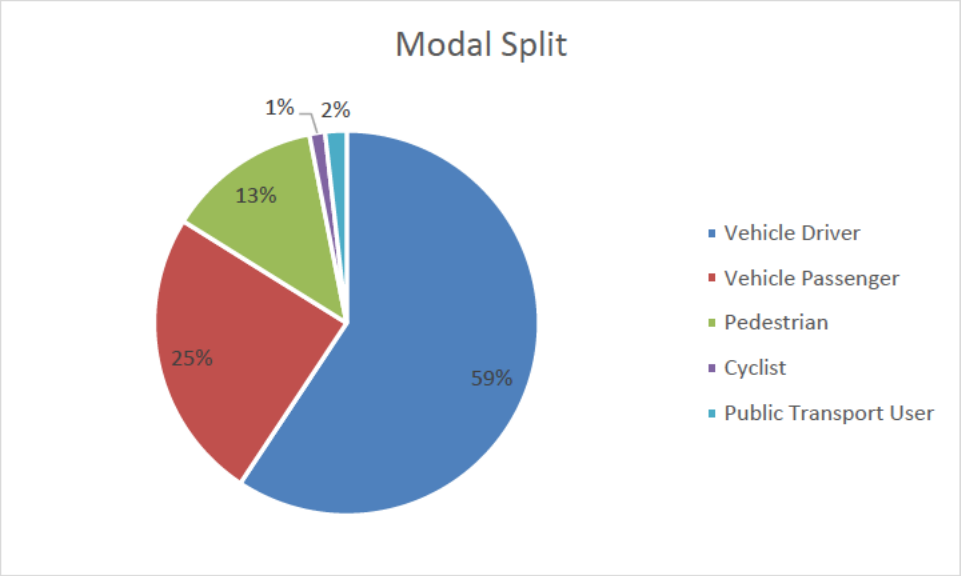
Table 5.1: Proposed residential vehicular traffic (based on 60 dwellings)

Time Period	Trip Rates			Trips		
	Arr.	**Dep.**	**Total**	**Arr.**	**Dep.**	**Total**
Weekday AM peak	0.142	0.411	0.553	9	25	33
Weekday PM peak	0.383	0.19	0.573	23	11	34
0700-1900	2.426	2.485	4.911	146	149	295

5.2.1 Table 5.1 shows that a development of 60 units is likely to generate 295 two-way vehicular trips on a typical weekday. The peak hours of 0800-0900 and 1700-1800 are expected to generate approximately 33 and 34 two-way trips respectively. This represents just over one vehicular movement every 2 minutes, which is clearly a negligible increase.

5.2.2 Chart 5.1 shows the typical modal split for a residential development of this nature, as derived from TRICS.

Chart 5.1: Development modal split – weekday 07:00-19:00 (TRICS)



5.2.3 As anticipated, the primary mode of travel for residential trips such as this is a vehicle driver (59%), followed by vehicle passenger (25%), pedestrian (13%), public transport user (2%) and cyclist (1%).

5.3 Trip Generation Conclusion

5.3.1 The peak vehicular trip generation for the proposed development will result in a negligible impact on the highway network, at just 2 movements per minute.

5.3.2 Full TRICS output data is provided herein as **Appendix C**.

6 DEVELOPMENT TRAFFIC IMPACT

6.1 Introduction

6.1.1 Even though the scale of development falls below the 100-unit limit contained in Annex D of TAN18, an assessment of the likely impact on junctions surrounding the site has been considered from first principles. The highway link capacity of Heol Llwyn Bedw before and after the development has also been considered.

6.2 Base Traffic Levels

6.2.1 Department for Transport data for the A4068 link fronting the site reveals an annual average motor vehicle traffic flow of 2935 vehicles eastbound and 2874 vehicles westbound (two-way flow of 5809 vehicles) for the latest available 2018 estimation.

6.2.2 Peak hour flows are typically 8-12% of the AADT flows. Therefore, assuming 10%, the peak hour two-way flow is 581 vehicles.

6.3 A4068 Cwmgarw Road – Highway Link Capacity

6.3.1 Highway link capacity can vary significantly on a site to site basis and there are many instances throughout the UK where the theoretical capacity of highway links is exceeded without causing any excess queuing or delay.

6.3.2 However, to assess the capacity of Cwmgarw Road reference has been made to *TA 79/99 - Traffic Capacity of Urban Roads*.

6.3.3 The extract below (Table 6.4) is taken from the above document. Whilst the characteristics of Cwmgarw Road, which is a residential street, cannot be duplicated, it is considered to most closely resemble road type UAP3.

6.3.4 Table 6.5 provides the total one-way hourly flows for a UAP3 road with a carriageway width of 6.1m. It is estimated that such a road could accommodate 900 vehicles in one direction, which represents 60% of the total with a 60/40 split. Therefore, the two-way theoretical capacity flow accommodated on such a road would be 1500 vehicles per hour.

Table 6.4 – Types of Urban Roads (TA 79/99)

Feature	ROAD TYPE				
	Urban Motorway	Urban All-purpose			
	UM	UAP1	UAP2	UAP3	UAP4
General Description	Through route with grade separated junctions, hardshoulders or hardstrips, and motorway restrictions.	High standard single/dual carriageway road carrying predominantly through traffic with limited access.	Good standard single/dual carriageway road with frontage access and more than two side roads per km.	Variable standard road carrying mixed traffic with frontage access, side roads, bus stops and at-grade pedestrian crossings.	Busy high street carrying predominantly local traffic with frontage activity including loading and unloading.
Speed Limit	60mph or less	40 to 60 mph for dual, & generally 40mph for single carriageway	Generally 40 mph	30 mph to 40 mph	30mph
Side Roads	None	0 to 2 per km	more than 2 per km	more than 2 per km	more than 2 per km
Access to roadside development	None. Grade separated for major only.	limited access	access to residential properties	frontage access	unlimited access to houses, shops & businesses
Parking and loading	none	restricted	restricted	unrestricted	unrestricted
Pedestrian crossings	grade separated	mostly grade separated	some at-grade	some at-grade	frequent at-grade
Bus stops	none	in lay-bys	at kerbside	at kerbside	at kerbside

Table 6.5 – Capacities of Urban Roads (TA 79/99)

		Two-way Single Carriageway- Busiest direction flow (Assumes a 60/40 directional split)									Dual Carriageway			
		Total number of Lanes									Number of Lanes in each direction			
		2				2-3	3	3-4	4	4+	2		3	4
Carriageway width		6.1m	6.75 m	7.3m	9.0m	10.0 m	12.3 m	13.5 m	14.6 m	18.0 m	6.75 m	7.3m	11.0 m	14.6 m
Road type	**UM**	**Not applicable**										4000	5600	7200
	UAP1	1020	1320	1590	1860	2010	2550	2800	3050	3300	3350	3600	5200	*
	UAP2	1020	1260	1470	1550	1650	1700	1900	2100	2700	2950	3200	4800	*
	UAP3	900	1110	1300	1530	1620	*	*	*	*	2300	2600	3300	*
	UAP4	750	900	1140	1320	1410	*	*	*	*	*	*	*	*

6.3.5 The base flow of 581 vehicles, plus the peak hour development traffic of 33 vehicles equates to 614 vehicles; this is well below the theoretical capacity of the Cwmgarw Road.

7 LOCAL HIGHWAY SAFETY

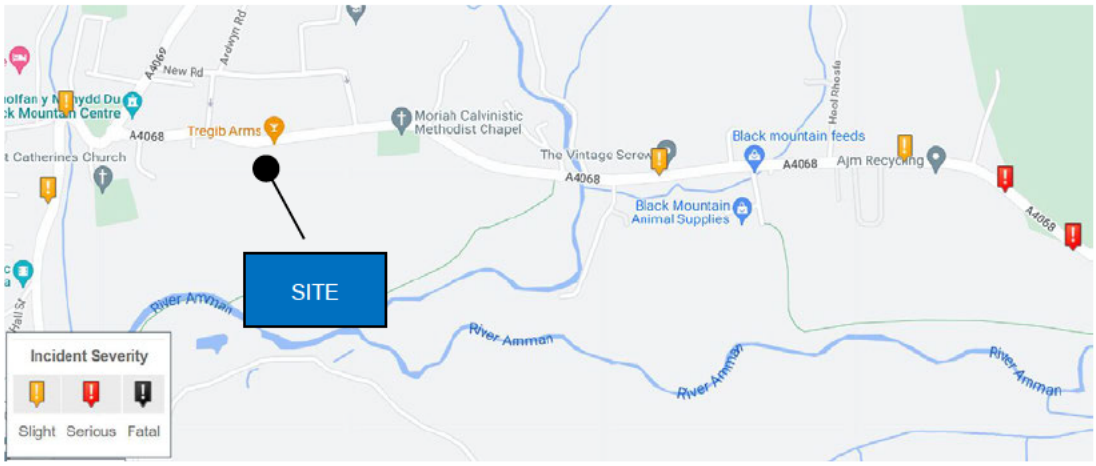
7.1 Personal Injury Accident Summary

7.1.1 A review has been carried out on local highway network safety in order to establish whether there are any current accident clusters or blackspots in the vicinity of the site that may be exacerbated by the development proposal. In this instance, a cluster is identified as a closely defined area of five or more accidents.

7.1.2 The website www.crashmap.co.uk has been interrogated to provide a review of accidents in the surrounding area.

7.1.3 CrashMap uses data collected by the police about road traffic crashes occurring on British roads where someone has been injured. This data is approved by the National Statistics Authority and reported on by the Department for Transport each year. The website uses data obtained directly from official sources and compiled in an easy to use format showing each incident on a map. Incidents are plotted to within 10 metres of their location and the data includes all incidents up to the end of 2021.

Figure 7.1: PIA Plot Extract



Source: www.crashmap.co.uk - data extracted July 2022

7.1.4 It is evident from **Figure 7.1** that there are no accident blackspots near the site access. Furthermore, no accidents have occurred between the site and the community centre/bus stops, which is likely to be the primary pedestrian desire line.

7.1.5 A review of the previous accident investigation exercise undertaken in 2020, also suggests that the accident record has improved slightly over the last two years.

7.2 Development Impact on Highway Safety

7.2.1 The proposed site access junction provides sufficient visibility to ensure highway safety is not adversely affected.

7.2.2 The increase in traffic generated by the proposed development is negligible and therefore unlikely to exacerbate the existing safety record to a significant enough level to warrant concern.

7.3 PIA Conclusion

7.3.1 There are no highway safety reasons why the proposed development should not proceed. The negligible impact generated by the proposed residential development will in no way exacerbate the existing accident record.

8 SUMMARY AND CONCLUSION

8.1 Summary

8.1.1 This Transport Statement (TS) has been produced by Corun Associates Ltd (Corun) on behalf of Mrs Catherine Dydlyke & Mrs Helen Wight, the applicant, to examine the highway and transportation issues associated with a proposed residential development on Land south of Cwmgarw Road, Brynamman, Carmarthenshire.

8.1.2 The site is allocated in Carmarthenshire's LDP (reference T3/9/H4) for 65 units.

8.1.3 The proposed residential development is to comprise of 60 units.

8.1.4 Access to the site is secured under planning permission E/17076 which allows for a 5.5 metre internal carriageway, 1.8 metre footways and 6.0 metre kerb radii at the junction with the A4068 Cwmgarw Road, directly west of the Tregib Arms public house.

8.1.5 On-site parking provision will be provided in accordance with Carmarthenshire's adopted parking standards.

8.1.6 A review of applicable transport policy has been undertaken which demonstrates that the site is well located to encourage sustainable modes of travel.

8.1.7 The trip generation exercise reveals that the vehicular trip generation will be low, at just 24 and 25 two-way movements in the AM and PM peak hours respectively. This results in a negligible vehicle trip generation of just over one two-way movement every 2-3 minutes during each peak hour.

8.1.8 A review of the latest available personal injury accident data demonstrates that there are no existing highway safety issues present. The negligible impact generated by the development will in no way exacerbate the existing accident record.

8.2 Conclusion

8.2.1 This Transport Statement has demonstrated that the development should be considered acceptable in terms of highways and transportation. There are no reasons in highway and transportation terms why the proposed development should not receive planning permission.

APPENDIX A

Indicative Site Layout

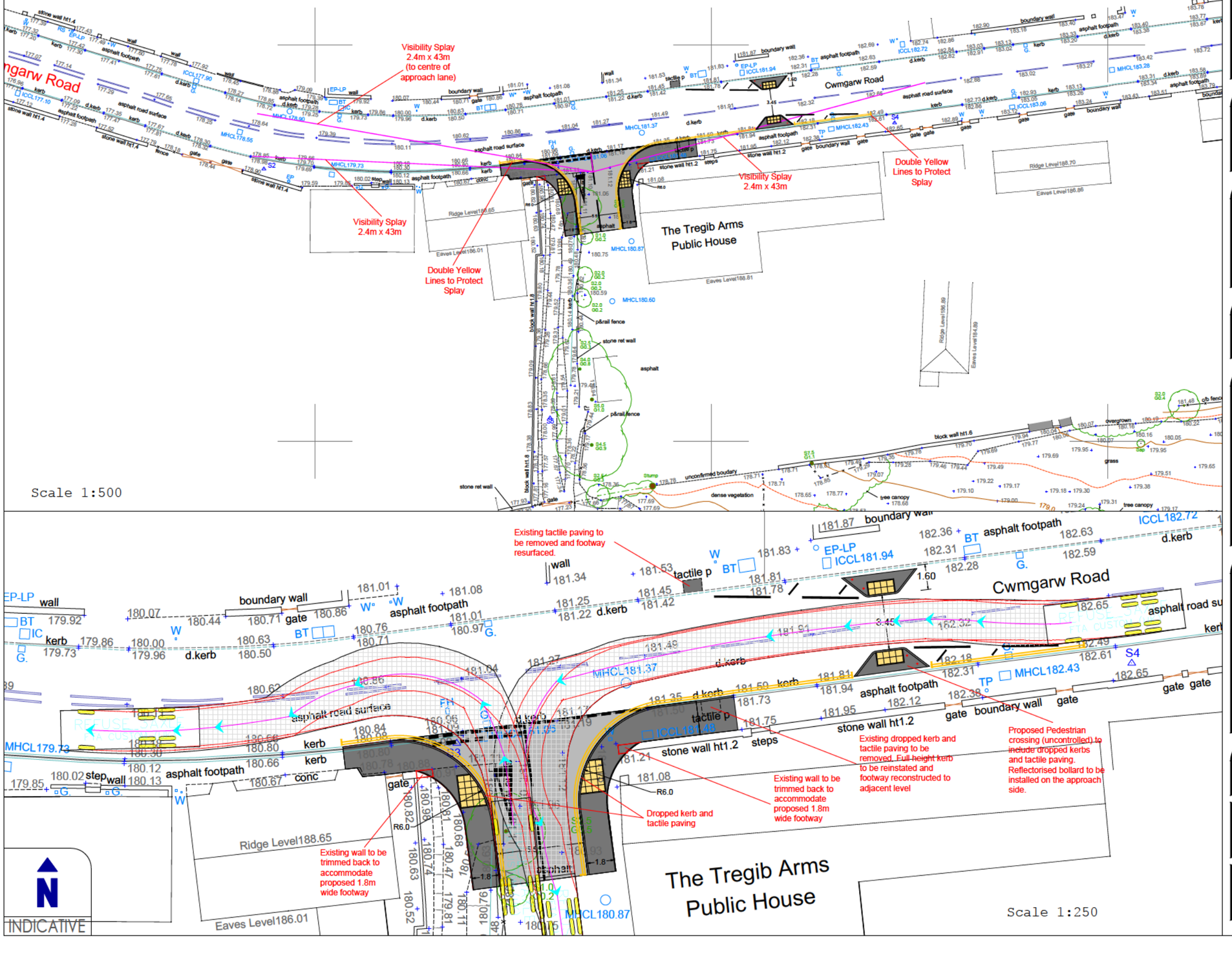
Project Name	**Land at Cwmgarw Road, Brynamman**
Project Ref	OAD_5141
Drawing Ref	1103
Drawing Name	Illustrative Masterplan
Scale	1:1000 @ A3

e : owain@oadstudio.co.uk t : 07811177618

APPENDIX B

Approved Access Design (Permisson E/17076)

A3
ORIGINAL
PLOT SIZE



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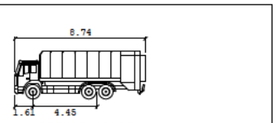

This drawing is based on [Company's Name] Drawing No:

Rev	Date	Details	Drawn by	Checked by
C	JULY'22	PEDESTRIAN CROSSING ADDED	MA	MA
B	FEB'22	DOUBLE YELLOW LINES REDUCED IN LENGTH	MA	MA
A	DEC'20	DOUBLE YELLOWS ADDED - RSA STAGE 1 RESPONSE	MA	MA

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Transport and Highway Engineering
Corun Associates Ltd
Swansea
E swansea@corun.uk.com
W www.corun.uk.com

CLIENT:
MRS DYDLYKE AND MRS WIGHT

PROJECT:
LAND OFF CWMGARW ROAD
BRYNAMMAN

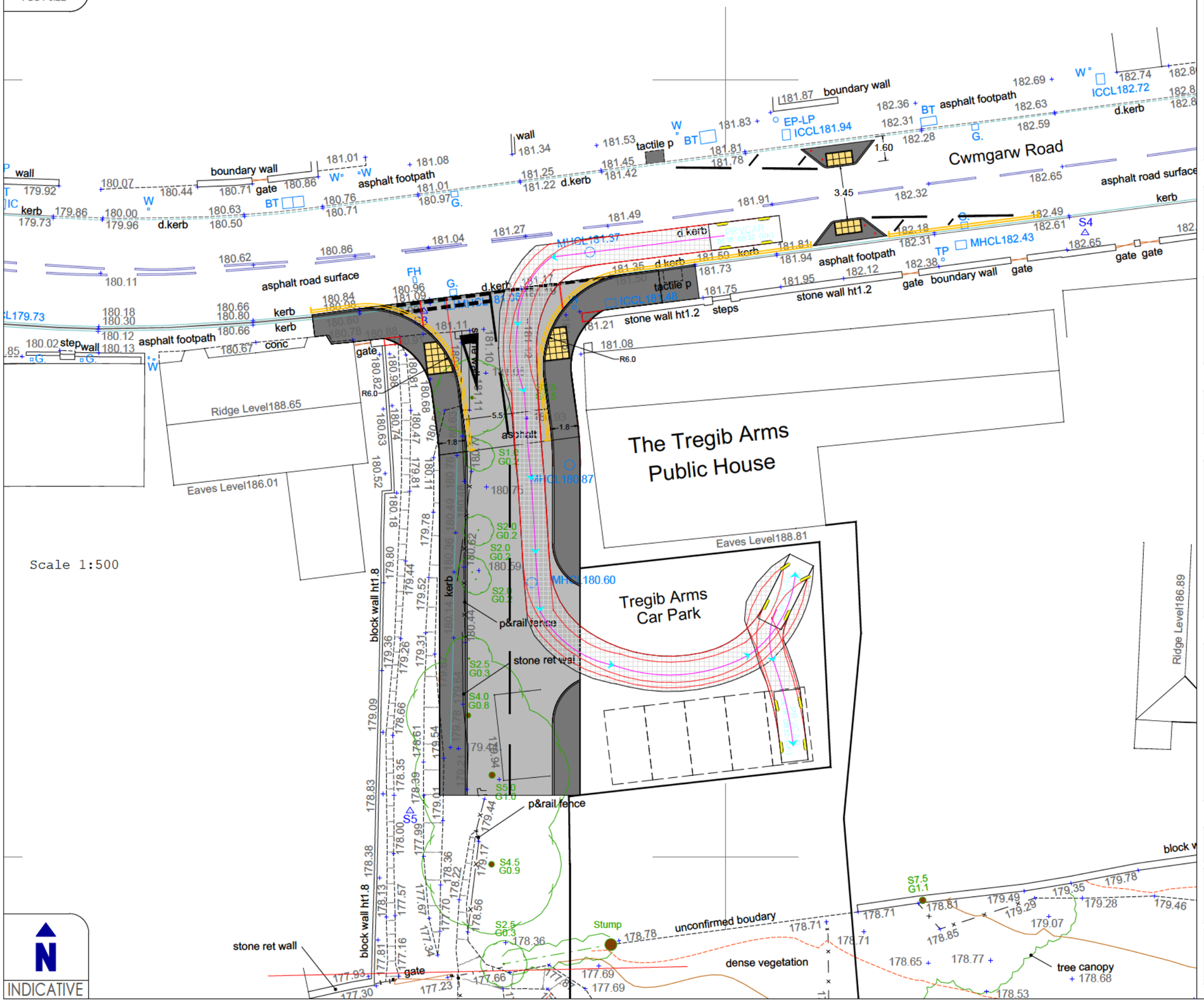
TITLE:
PROPOSED WORKS
PEDESTRIAN CROSSING

STATUS:
PRELIMINARY

SCALE:	DATE:	DRAWN:	CHECKED:
AS SHOWN	11/20	MA	MA

JOB NO:	DRAWING NO:	REVISION:
20-00660	01	C

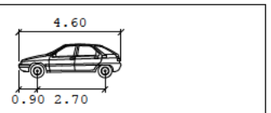
A3
ORIGINAL
PLOT SIZE



Scale 1:500

INDICATIVE

NOTES:



PRVCAR meters

Width	:1.70
Track	:1.70
Lock to Lock Time	:6.0
Steering Angle	:32.6

This drawing is based on [Company's Name] Drawing No:

Rev	Date	Details	Drawn by	Checked by

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CLIENT:
MRS DYDLYKE AND MRS WIGHT

PROJECT:
LAND OFF CWMGARW ROAD
BRYNAMMAN

TITLE:
TREGIB ARMS
PROPOSED PARKING
ARRANGEMENT

STATUS:
PRELIMINARY

SCALE:	DATE:	DRAWN:	CHECKED:
AS SHOWN	07/22	MA	MA

JOB NO:	DRAWING NO:	REVISION:
20-00660	02	

APPENDIX C

TRICS data

Calculation Reference: AUDIT-751101-200109-0118

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST		
	ES	EAST SUSSEX	2 days
	HC	HAMPSHIRE	1 days
	HF	HERTFORDSHIRE	1 days
	KC	KENT	4 days
	WS	WEST SUSSEX	4 days
03	SOUTH WEST		
	DV	DEVON	2 days
	SM	SOMERSET	3 days
04	EAST ANGLIA		
	NF	NORFOLK	5 days
	SF	SUFFOLK	3 days
05	EAST MIDLANDS		
	LE	LEICESTERSHIRE	1 days
	LN	LINCOLNSHIRE	1 days
06	WEST MIDLANDS		
	SH	SHROPSHIRE	2 days
	ST	STAFFORDSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NE	NORTH EAST LINCOLNSHIRE	1 days
	NY	NORTH YORKSHIRE	5 days
08	NORTH WEST		
	CH	CHESHIRE	3 days
09	NORTH		
	DH	DURHAM	2 days
10	WALES		
	PS	POWYS	1 days
11	SCOTLAND		
	AG	ANGUS	1 days
	FA	FALKIRK	1 days
	HI	HIGHLAND	1 days
	PK	PERTH & KINROSS	1 days
12	CONNAUGHT		
	CS	SLIGO	2 days
	LT	LEITRIM	1 days
	MA	MAYO	1 days
	RO	ROSCOMMON	3 days
13	MUNSTER		
	WA	WATERFORD	1 days
14	LEINSTER		
	WC	WICKLOW	1 days
	WX	WEXFORD	1 days
15	GREATER DUBLIN		
	DL	DUBLIN	1 days
16	ULSTER (REPUBLIC OF IRELAND)		
	CV	CAVAN	2 days
	DN	DONEGAL	4 days
17	ULSTER (NORTHERN IRELAND)		
	AN	ANTRIM	3 days
	DO	DOWN	1 days
	TY	TYRONE	1 days

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

Secondary Filtering selection:

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

Parameter:	Number of dwellings
Actual Range:	6 to 918 (units:)
Range Selected by User:	4 to 1817 (units:)

Parking Spaces 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: 01/01/11 to 24/09/19

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	12 days
Tuesday	15 days
Wednesday	16 days
Thursday	16 days
Friday	9 days

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

Selected survey types:

Manual count	68 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	26
Edge of Town	33
Neighbourhood Centre (PPS6 Local Centre)	9

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	1
Residential Zone	51
Village	8
No Sub Category	8

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	68 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	5 days
1,001 to 5,000	19 days
5,001 to 10,000	15 days
10,001 to 15,000	17 days
15,001 to 20,000	8 days
20,001 to 25,000	4 days

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

Secondary Filtering selection (Cont.):

Population within 5 miles:

5,000 or Less	5 days
5,001 to 25,000	19 days
25,001 to 50,000	13 days
50,001 to 75,000	12 days
75,001 to 100,000	19 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	15 days
1.1 to 1.5	47 days
1.6 to 2.0	6 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	11 days
No	57 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	68 days

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

LIST OF SITES relevant to selection parameters

1 AG-03-A-01 BUNGALOWS/DET. ANGUS
KEPTIE ROAD
ARBROATH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 7
Survey date: TUESDAY *22/05/12* *Survey Type: MANUAL*

2 AN-03-A-07 SEMI DETACHED/TERRACED HOUSING ANTRIM
CASTLE WAY
ANTRIM

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 55
Survey date: TUESDAY *20/12/11* *Survey Type: MANUAL*

3 AN-03-A-08 HOUSES & FLATS ANTRIM
BALLINDERRY ROAD
LISBURN

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 204
Survey date: TUESDAY *29/10/13* *Survey Type: MANUAL*

4 AN-03-A-09 DETACHED & SEMI-DETACHED ANTRIM
SLOEFIELD DRIVE
CARRICKFERGUS

Edge of Town
No Sub Category
Total Number of dwellings: 151
Survey date: WEDNESDAY *12/10/16* *Survey Type: MANUAL*

5 CH-03-A-09 TERRACED HOUSES CHESHIRE
GREYSTOKE ROAD
MACCLESFIELD
HURDSFIELD
Edge of Town
Residential Zone
Total Number of dwellings: 24
Survey date: MONDAY *24/11/14* *Survey Type: MANUAL*

6 CH-03-A-10 SEMI-DETACHED & TERRACED CHESHIRE
MEADOW DRIVE
NORTHWICH
BARNTON
Edge of Town
Residential Zone
Total Number of dwellings: 40
Survey date: TUESDAY *04/06/19* *Survey Type: MANUAL*

7 CH-03-A-11 TOWN HOUSES CHESHIRE
LONDON ROAD
NORTHWICH
LEFTWICH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 24
Survey date: THURSDAY *06/06/19* *Survey Type: MANUAL*

8 CS-03-A-03 MIXED HOUSES SLIGO
TOP ROAD
STRANDHILL
STRANDHILL
Neighbourhood Centre (PPS6 Local Centre)
Village
Total Number of dwellings: 30
Survey date: THURSDAY *27/10/16* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 CS-03-A-04 DETACHED & SEMI-DETACHED SLIGO
R292
STRANDHILL

Neighbourhood Centre (PPS6 Local Centre)
Village
Total Number of dwellings: 63
Survey date: THURSDAY *27/10/16* *Survey Type: MANUAL*

10 CV-03-A-02 DETACHED & SEMI DETACHED CAVAN
R212 DUBLIN ROAD
CAVAN
KILLYNEBBER
Edge of Town
No Sub Category
Total Number of dwellings: 80
Survey date: MONDAY *22/05/17* *Survey Type: MANUAL*

11 CV-03-A-03 DETACHED HOUSES CAVAN
R212 DUBLIN ROAD
CAVAN
PULLAMORE NEAR
Edge of Town
No Sub Category
Total Number of dwellings: 37
Survey date: MONDAY *22/05/17* *Survey Type: MANUAL*

12 DH-03-A-01 SEMI DETACHED DURHAM
GREENFIELDS ROAD
BISHOP AUCKLAND

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 50
Survey date: TUESDAY *28/03/17* *Survey Type: MANUAL*

13 DH-03-A-02 MIXED HOUSES DURHAM
LEAZES LANE
BISHOP AUCKLAND
ST HELEN AUCKLAND
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total Number of dwellings: 125
Survey date: MONDAY *27/03/17* *Survey Type: MANUAL*

14 DL-03-A-10 SEMI DETACHED & DETACHED DUBLIN
R124
MALAHIDE
SAINT HELENS
Edge of Town
Residential Zone
Total Number of dwellings: 65
Survey date: WEDNESDAY *20/06/18* *Survey Type: MANUAL*

15 DN-03-A-03 DETACHED/SEMI-DETACHED DONEGAL
THE GRANGE
LETTERKENNY
GLENCAR IRISH
Edge of Town
Residential Zone
Total Number of dwellings: 50
Survey date: MONDAY *01/09/14* *Survey Type: MANUAL*

16 DN-03-A-04 SEMI-DETACHED DONEGAL
GORTLEE ROAD
LETTERKENNY
GORTLEE
Edge of Town
Residential Zone
Total Number of dwellings: 83
Survey date: FRIDAY *26/09/14* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

17 DN-03-A-05 DETACHED/SEMI-DETACHED DONEGAL
GORTLEE ROAD
LETTERKENNY
GORTLEE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 146
Survey date: WEDNESDAY 03/09/14 Survey Type: MANUAL

18 DN-03-A-06 DETACHED HOUSING DONEGAL
GLENFIN ROAD
BALLYBOFEY

Edge of Town
Residential Zone
Total Number of dwellings: 6
Survey date: WEDNESDAY 10/10/18 Survey Type: MANUAL

19 DO-03-A-03 DETACHED/SEMI DETACHED DOWN
OLD MILL HEIGHTS
BELFAST
DUNDONALD
Edge of Town
Residential Zone
Total Number of dwellings: 79
Survey date: WEDNESDAY 23/10/13 Survey Type: MANUAL

20 DV-03-A-02 HOUSES & BUNGALOWS DEVON
MILLHEAD ROAD
HONITON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 116
Survey date: FRIDAY 25/09/15 Survey Type: MANUAL

21 DV-03-A-03 TERRACED & SEMI DETACHED DEVON
LOWER BRAND LANE
HONITON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 70
Survey date: MONDAY 28/09/15 Survey Type: MANUAL

22 ES-03-A-02 PRIVATE HOUSING EAST SUSSEX
SOUTH COAST ROAD
PEACEHAVEN

Edge of Town
Residential Zone
Total Number of dwellings: 37
Survey date: FRIDAY 18/11/11 Survey Type: MANUAL

23 ES-03-A-04 MIXED HOUSES & FLATS EAST SUSSEX
NEW LYDD ROAD
CAMBER

Edge of Town
Residential Zone
Total Number of dwellings: 134
Survey date: FRIDAY 15/07/16 Survey Type: MANUAL

24 FA-03-A-01 SEMI-DETACHED/TERRACED FALKIRK
MANDELA AVENUE
FALKIRK

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 37
Survey date: THURSDAY 30/05/13 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

25 HC-03-A-20 HOUSES & FLATS HAMPSHIRE
CANADA WAY
LIPHOOK

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 62
Survey date: TUESDAY *20/11/18* *Survey Type: MANUAL*

26 HF-03-A-03 MIXED HOUSES HERTFORDSHIRE
HARE STREET ROAD
BUNTINGFORD

Edge of Town
Residential Zone
Total Number of dwellings: 160
Survey date: MONDAY *08/07/19* *Survey Type: MANUAL*

27 HI-03-A-14 SEMI-DETACHED & TERRACED HIGHLAND
KING BRUDE ROAD
INVERNESS
SCORGUIE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 40
Survey date: WEDNESDAY *23/03/16* *Survey Type: MANUAL*

28 KC-03-A-03 MIXED HOUSES & FLATS KENT
HYTHE ROAD
ASHFORD
WILLESBOROUGH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 51
Survey date: THURSDAY *14/07/16* *Survey Type: MANUAL*

29 KC-03-A-06 MIXED HOUSES & FLATS KENT
MARGATE ROAD
HERNE BAY

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 363
Survey date: WEDNESDAY *27/09/17* *Survey Type: MANUAL*

30 KC-03-A-07 MIXED HOUSES KENT
RECULVER ROAD
HERNE BAY

Edge of Town
Residential Zone
Total Number of dwellings: 288
Survey date: WEDNESDAY *27/09/17* *Survey Type: MANUAL*

31 KC-03-A-08 MIXED HOUSES KENT
MAIDSTONE ROAD
CHARING

Neighbourhood Centre (PPS6 Local Centre)
Village
Total Number of dwellings: 159
Survey date: TUESDAY *22/05/18* *Survey Type: MANUAL*

32 LE-03-A-02 DETACHED & OTHERS LEICESTERSHIRE
MELBOURNE ROAD
IBSTOCK

Neighbourhood Centre (PPS6 Local Centre)
Village
Total Number of dwellings: 85
Survey date: THURSDAY *28/06/18* *Survey Type: MANUAL*

33 LN-03-A-03 SEMI DETACHED LINCOLNSHIRE
ROOKERY LANE
LINCOLN
BOULTHAM
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 22
Survey date: TUESDAY *18/09/12* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

34 LT-03-A-01 SEMI-DETACHED & DETACHED LEITRIM
ARD NA SI
CARRICK-ON-SHANNON
ATTIRORY
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 90
Survey date: FRIDAY *24/04/15* *Survey Type: MANUAL*

35 MA-03-A-01 SEMI-DET. & TERRACED MAYO
N26 STATION ROAD
BALLINA

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 74
Survey date: FRIDAY *15/07/11* *Survey Type: MANUAL*

36 NE-03-A-02 SEMI DETACHED & DETACHED NORTH EAST LINCOLNSHIRE
HANOVER WALK
SCUNTHORPE

Edge of Town
No Sub Category
Total Number of dwellings: 432
Survey date: MONDAY *12/05/14* *Survey Type: MANUAL*

37 NF-03-A-01 SEMI DET. & BUNGALOWS NORFOLK
YARMOUTH ROAD
CAISTER-ON-SEA

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 27
Survey date: TUESDAY *16/10/12* *Survey Type: MANUAL*

38 NF-03-A-03 DETACHED HOUSES NORFOLK
HALING WAY
THETFORD

Edge of Town
Residential Zone
Total Number of dwellings: 10
Survey date: WEDNESDAY *16/09/15* *Survey Type: MANUAL*

39 NF-03-A-04 MIXED HOUSES NORFOLK
NORTH WALSHAM ROAD
NORTH WALSHAM

Edge of Town
Residential Zone
Total Number of dwellings: 70
Survey date: WEDNESDAY *18/09/19* *Survey Type: MANUAL*

40 NF-03-A-05 MIXED HOUSES NORFOLK
HEATH DRIVE
HOLT

Edge of Town
Residential Zone
Total Number of dwellings: 40
Survey date: THURSDAY *19/09/19* *Survey Type: MANUAL*

41 NF-03-A-06 MIXED HOUSES NORFOLK
BEAUFORT WAY
GREAT YARMOUTH
BRADWELL
Edge of Town
Residential Zone
Total Number of dwellings: 275
Survey date: MONDAY *23/09/19* *Survey Type: MANUAL*

42 NY-03-A-06 BUNGALOWS & SEMI DET. NORTH YORKSHIRE
HORSEFAIR
BOROUGHBRIDGE

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 115
Survey date: FRIDAY *14/10/11* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

43 NY-03-A-09 MIXED HOUSING NORTH YORKSHIRE
GRAMMAR SCHOOL LANE
NORTHALLERTON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 52
Survey date: MONDAY *16/09/13* *Survey Type: MANUAL*

44 NY-03-A-10 HOUSES AND FLATS NORTH YORKSHIRE
BOROUGHBRIDGE ROAD
RIPON

Edge of Town
No Sub Category
Total Number of dwellings: 71
Survey date: TUESDAY *17/09/13* *Survey Type: MANUAL*

45 NY-03-A-11 PRIVATE HOUSING NORTH YORKSHIRE
HORSEFAIR
BOROUGHBRIDGE

Edge of Town
Residential Zone
Total Number of dwellings: 23
Survey date: WEDNESDAY *18/09/13* *Survey Type: MANUAL*

46 NY-03-A-13 TERRACED HOUSES NORTH YORKSHIRE
CATTERICK ROAD
CATTERICK GARRISON
OLD HOSPITAL COMPOUND
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 10
Survey date: WEDNESDAY *10/05/17* *Survey Type: MANUAL*

47 PK-03-A-01 DETAC. & BUNGALOWS PERTH & KINROSS
TULLYLUMB TERRACE
PERTH
CORNHILL
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 36
Survey date: WEDNESDAY *11/05/11* *Survey Type: MANUAL*

48 PS-03-A-02 DETACHED/SEMI-DETACHED POWYS
GUNROG ROAD
WELSHPOOL

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 28
Survey date: MONDAY *11/05/15* *Survey Type: MANUAL*

49 RO-03-A-02 SEMI DET. & BUNGALOWS ROSCOMMON
SLIGO ROAD
BALLAGHADERREEN

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 31
Survey date: THURSDAY *14/07/11* *Survey Type: MANUAL*

50 RO-03-A-03 DETACHED HOUSES ROSCOMMON
N61
BOYLE
GREATMEADOW
Edge of Town
No Sub Category
Total Number of dwellings: 23
Survey date: THURSDAY *25/09/14* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

51 RO-03-A-04 SEMI DET. & BUNGALOWS ROSCOMMON
EAGLE COURT
ROSCOMMON
ARDNANAGH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 39
Survey date: FRIDAY *26/09/14* *Survey Type: MANUAL*

52 SF-03-A-04 DETACHED & BUNGALOWS SUFFOLK
NORMANSTON DRIVE
LOWESTOFT

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 7
Survey date: TUESDAY *23/10/12* *Survey Type: MANUAL*

53 SF-03-A-05 DETACHED HOUSES SUFFOLK
VALE LANE
BURY ST EDMUNDS

Edge of Town
Residential Zone
Total Number of dwellings: 18
Survey date: WEDNESDAY *09/09/15* *Survey Type: MANUAL*

54 SF-03-A-06 DETACHED & SEMI-DETACHED SUFFOLK
BURY ROAD
KENTFORD

Neighbourhood Centre (PPS6 Local Centre)
Village
Total Number of dwellings: 38
Survey date: FRIDAY *22/09/17* *Survey Type: MANUAL*

55 SH-03-A-05 SEMI-DETACHED/TERRACED SHROPSHIRE
SANDCROFT
TELFORD
SUTTON HILL
Edge of Town
Residential Zone
Total Number of dwellings: 54
Survey date: THURSDAY *24/10/13* *Survey Type: MANUAL*

56 SH-03-A-06 BUNGALOWS SHROPSHIRE
ELLESMERE ROAD
SHREWSBURY

Edge of Town
Residential Zone
Total Number of dwellings: 16
Survey date: THURSDAY *22/05/14* *Survey Type: MANUAL*

57 SM-03-A-01 DETACHED & SEMI SOMERSET
WEMBDON ROAD
BRIDGWATER
NORTHFIELD
Edge of Town
Residential Zone
Total Number of dwellings: 33
Survey date: THURSDAY *24/09/15* *Survey Type: MANUAL*

58 SM-03-A-02 MIXED HOUSES SOMERSET
HYDE LANE
NEAR TAUNTON
CREECH SAINT MICHAEL
Neighbourhood Centre (PPS6 Local Centre)
Village
Total Number of dwellings: 42
Survey date: TUESDAY *25/09/18* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

59 SM-03-A-03 MIXED HOUSES SOMERSET
HYDE LANE
NEAR TAUNTON
CREECH ST MICHAEL
Neighbourhood Centre (PPS6 Local Centre)
Village
Total Number of dwellings: 41
Survey date: TUESDAY *25/09/18* *Survey Type: MANUAL*

60 ST-03-A-07 DETACHED & SEMI-DETACHED STAFFORDSHIRE
BEACONSIDE
STAFFORD
MARSTON GATE
Edge of Town
Residential Zone
Total Number of dwellings: 248
Survey date: WEDNESDAY *22/11/17* *Survey Type: MANUAL*

61 TY-03-A-02 SEMI DETACHED & BUNGALOWS TYRONE
SANDHOLES ROAD
COOKSTOWN
DERRYLORAN
Edge of Town
Industrial Zone
Total Number of dwellings: 101
Survey date: THURSDAY *14/03/19* *Survey Type: MANUAL*

62 WA-03-A-04 DETACHED WATERFORD
MAYPARK LANE
WATERFORD

Edge of Town
Residential Zone
Total Number of dwellings: 280
Survey date: TUESDAY *24/06/14* *Survey Type: MANUAL*

63 WC-03-A-01 DETACHED HOUSES WICKLOW
STATION ROAD
WICKLOW
CORPORATION MURRAGH
Edge of Town
No Sub Category
Total Number of dwellings: 50
Survey date: MONDAY *28/05/18* *Survey Type: MANUAL*

64 WS-03-A-04 MIXED HOUSES WEST SUSSEX
HILLS FARM LANE
HORSHAM
BROADBRIDGE HEATH
Edge of Town
Residential Zone
Total Number of dwellings: 151
Survey date: THURSDAY *11/12/14* *Survey Type: MANUAL*

65 WS-03-A-07 BUNGALOWS WEST SUSSEX
EMMS LANE
NEAR HORSHAM
BROOKS GREEN
Neighbourhood Centre (PPS6 Local Centre)
Village
Total Number of dwellings: 57
Survey date: THURSDAY *19/10/17* *Survey Type: MANUAL*

66 WS-03-A-10 MIXED HOUSES WEST SUSSEX
TODDINGTON LANE
LITTLEHAMPTON
WICK
Edge of Town
Residential Zone
Total Number of dwellings: 79
Survey date: WEDNESDAY *07/11/18* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

67 WS-03-A-11 MIXED HOUSES WEST SUSSEX
ELLIS ROAD
WEST HORSHAM
S BROADBRIDGE HEATH
Edge of Town
Residential Zone
Total Number of dwellings: 918
Survey date: TUESDAY *02/04/19* *Survey Type: MANUAL*

68 WX-03-A-01 SEMI-DETACHED WEXFORD
CLONARD ROAD
WEXFORD

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of dwellings: 34
Survey date: THURSDAY *25/09/14* *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/A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	68	96	0.064	68	96	0.265	68	96	0.329
08:00 - 09:00	68	96	0.142	68	96	0.411	68	96	0.553
09:00 - 10:00	68	96	0.160	68	96	0.191	68	96	0.351
10:00 - 11:00	68	96	0.129	68	96	0.159	68	96	0.288
11:00 - 12:00	68	96	0.132	68	96	0.157	68	96	0.289
12:00 - 13:00	68	96	0.174	68	96	0.164	68	96	0.338
13:00 - 14:00	68	96	0.176	68	96	0.176	68	96	0.352
14:00 - 15:00	68	96	0.191	68	96	0.207	68	96	0.398
15:00 - 16:00	68	96	0.277	68	96	0.183	68	96	0.460
16:00 - 17:00	68	96	0.296	68	96	0.184	68	96	0.480
17:00 - 18:00	68	96	0.383	68	96	0.190	68	96	0.573
18:00 - 19:00	68	96	0.302	68	96	0.198	68	96	0.500
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.426			2.485			4.911

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

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

Parameter summary

Trip rate parameter range selected:	6 - 918 (units:)
Survey date date range:	01/01/11 - 24/09/19
Number of weekdays (Monday-Friday):	68
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	6
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.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL CYCLISTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	68	96	0.003	68	96	0.006	68	96	0.009
08:00 - 09:00	68	96	0.004	68	96	0.013	68	96	0.017
09:00 - 10:00	68	96	0.001	68	96	0.004	68	96	0.005
10:00 - 11:00	68	96	0.002	68	96	0.004	68	96	0.006
11:00 - 12:00	68	96	0.002	68	96	0.002	68	96	0.004
12:00 - 13:00	68	96	0.003	68	96	0.003	68	96	0.006
13:00 - 14:00	68	96	0.003	68	96	0.002	68	96	0.005
14:00 - 15:00	68	96	0.003	68	96	0.002	68	96	0.005
15:00 - 16:00	68	96	0.007	68	96	0.004	68	96	0.011
16:00 - 17:00	68	96	0.009	68	96	0.005	68	96	0.014
17:00 - 18:00	68	96	0.010	68	96	0.007	68	96	0.017
18:00 - 19:00	68	96	0.006	68	96	0.004	68	96	0.010
19:00 - 20:00	1	7	0.000	1	7	0.000	1	7	0.000
20:00 - 21:00	1	7	0.000	1	7	0.000	1	7	0.000
21:00 - 22:00	1	7	0.000	1	7	0.000	1	7	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.053			0.056			0.109

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/A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLE OCCUPANTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	68	96	0.078	68	96	0.370	68	96	0.448
08:00 - 09:00	68	96	0.174	68	96	0.651	68	96	0.825
09:00 - 10:00	68	96	0.196	68	96	0.267	68	96	0.463
10:00 - 11:00	68	96	0.162	68	96	0.222	68	96	0.384
11:00 - 12:00	68	96	0.170	68	96	0.211	68	96	0.381
12:00 - 13:00	68	96	0.226	68	96	0.218	68	96	0.444
13:00 - 14:00	68	96	0.236	68	96	0.233	68	96	0.469
14:00 - 15:00	68	96	0.261	68	96	0.274	68	96	0.535
15:00 - 16:00	68	96	0.448	68	96	0.249	68	96	0.697
16:00 - 17:00	68	96	0.458	68	96	0.262	68	96	0.720
17:00 - 18:00	68	96	0.574	68	96	0.270	68	96	0.844
18:00 - 19:00	68	96	0.447	68	96	0.287	68	96	0.734
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.430			3.514			6.944

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/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PEDESTRIANS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	68	96	0.015	68	96	0.038	68	96	0.053
08:00 - 09:00	68	96	0.035	68	96	0.107	68	96	0.142
09:00 - 10:00	68	96	0.035	68	96	0.045	68	96	0.080
10:00 - 11:00	68	96	0.036	68	96	0.042	68	96	0.078
11:00 - 12:00	68	96	0.031	68	96	0.028	68	96	0.059
12:00 - 13:00	68	96	0.036	68	96	0.029	68	96	0.065
13:00 - 14:00	68	96	0.040	68	96	0.038	68	96	0.078
14:00 - 15:00	68	96	0.042	68	96	0.037	68	96	0.079
15:00 - 16:00	68	96	0.095	68	96	0.052	68	96	0.147
16:00 - 17:00	68	96	0.068	68	96	0.040	68	96	0.108
17:00 - 18:00	68	96	0.058	68	96	0.038	68	96	0.096
18:00 - 19:00	68	96	0.049	68	96	0.044	68	96	0.093
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.540			0.538			1.078

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/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	68	96	0.001	68	96	0.014	68	96	0.015
08:00 - 09:00	68	96	0.001	68	96	0.021	68	96	0.022
09:00 - 10:00	68	96	0.001	68	96	0.008	68	96	0.009
10:00 - 11:00	68	96	0.002	68	96	0.003	68	96	0.005
11:00 - 12:00	68	96	0.003	68	96	0.004	68	96	0.007
12:00 - 13:00	68	96	0.003	68	96	0.004	68	96	0.007
13:00 - 14:00	68	96	0.003	68	96	0.002	68	96	0.005
14:00 - 15:00	68	96	0.006	68	96	0.004	68	96	0.010
15:00 - 16:00	68	96	0.016	68	96	0.006	68	96	0.022
16:00 - 17:00	68	96	0.011	68	96	0.004	68	96	0.015
17:00 - 18:00	68	96	0.011	68	96	0.003	68	96	0.014
18:00 - 19:00	68	96	0.013	68	96	0.004	68	96	0.017
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.071			0.077			0.148

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.*