XCAPE LIMITED

PROPOSED RESIDENTIAL DEVELOPMENT

FORMER GLAMORGAN HOTEL, PORTHCAWL

TRANSPORT STATEMENT

20-00664/TS/01

FEBRUARY 2020

CORUN
Transport and Highway Engineering

DOCUMENT SIGNATURE AND MODIFICATION SHEET

Project Details

Project Title:	Proposed Residential Development Former Glamorgan Hotel, Porthcawl		
Job reference:	20-00664	**Document No:**	TS/01
Client:	Xcape Limited		
-	**Name**	**Signature**	**Date**
Prepared by	Joseph Cassinelli		February 2020
Checked and Approved for Issue by	Matthew Anderson		February 2020

Modification Details

Rev	Date	Description	Checked By

Issued By:

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CONTENTS Page

FIGURES

APPENDICES

1 INTRODUCTION

1.1 Background

1.1.1 This Transport Statement (TS) has been produced by Corun Associates Ltd (Corun) on behalf of Xcape Limited, the applicant, to examine the highway and transportation issues associated with the proposed construction of 54 residential apartments at the former Glamorgan Hotel, Porthcawl. The existing hotel is not currently in use.

1.1.2 The proposed site plans are contained in **Appendix A.**

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) analysis of personal injury traffic accident data;

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

(iv) the development proposal;

(v) development-generated vehicular traffic; and

(vi) development impact on the surrounding highway network.

2 EXISTING CONDITIONS

2.1 Site Summary

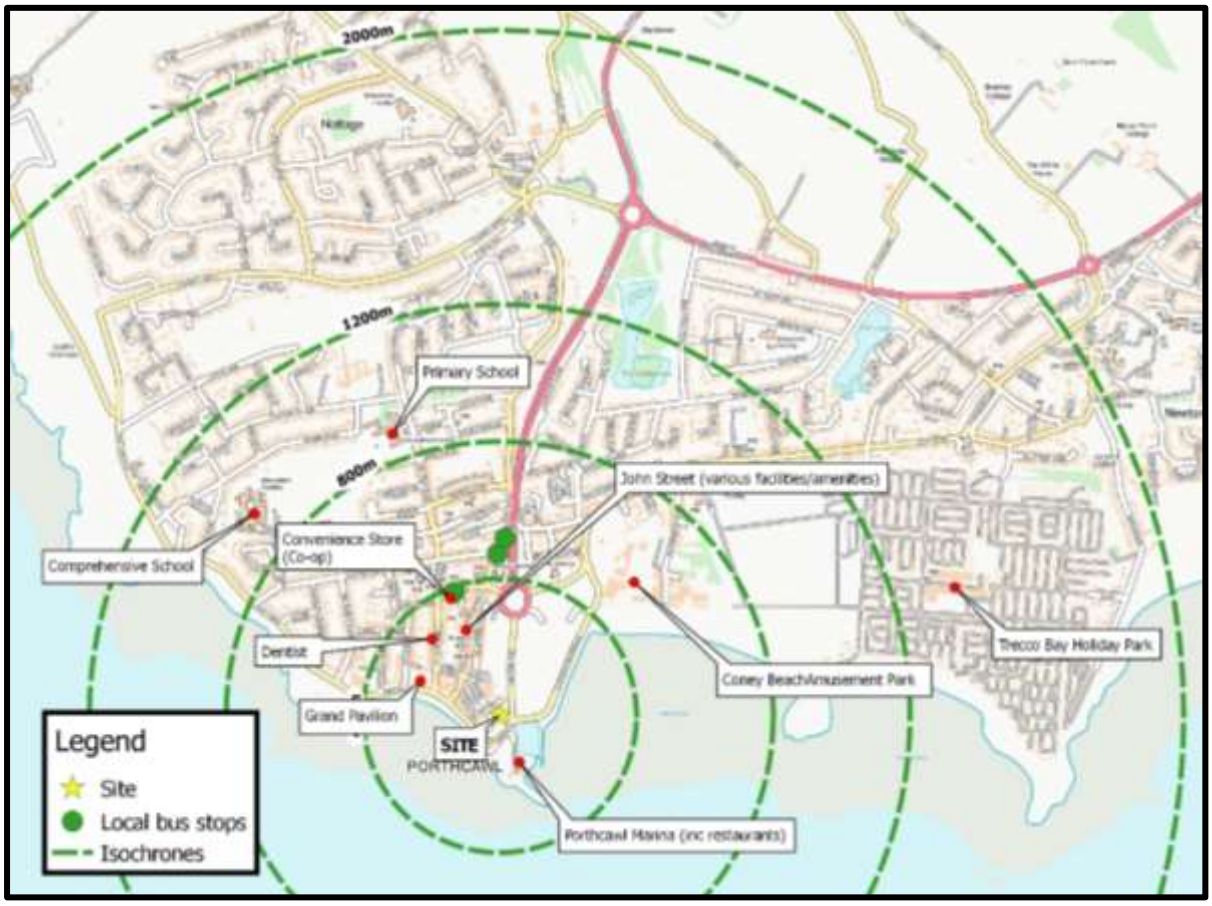
2.1.1 The site is located to the west of The Portway and opposite Porthcawl Marina.

2.1.2 Figure 2.1 below illustrates the site location bound in red.

Figure 2.1: Site Location Plan

2.1.3 Figure 2.2 below illustrates the site in local context with distance isochrones.

Figure 2.2: Site in Local Context with Distance Isochrones



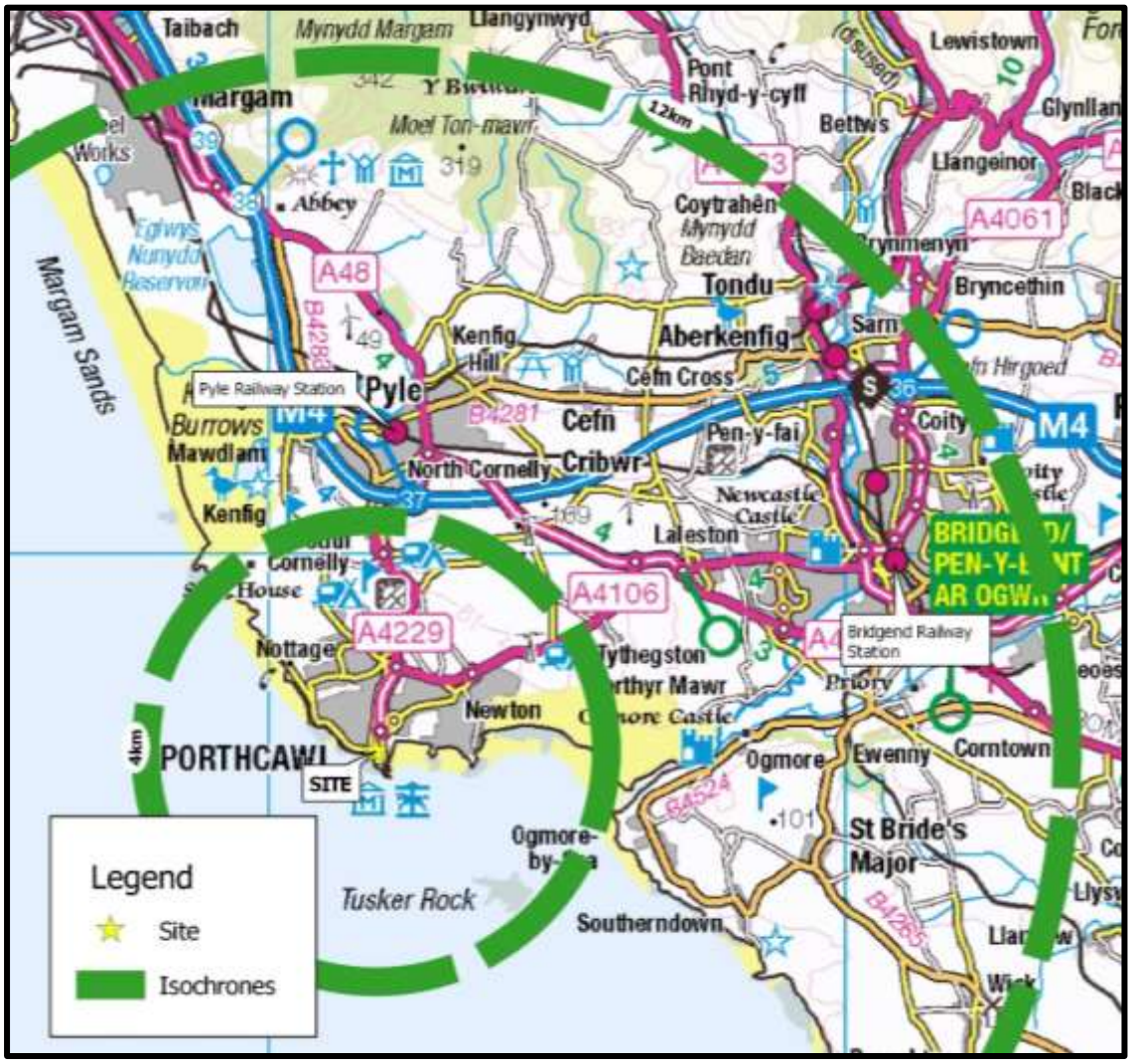
2.2 Local Highway Network

2.2.1 The site is accessed via The Portway. The M4 Junction 37 can be reached via the A4106 and A4229 to the north. To the south, The Portway becomes the Esplanade which overlooks Porthcawl Sea Front and benefits from a range of retail and commercial premises. To the east, Coney Beach is accessible via the Eastern Promenade, as is Trecco Bay via New Road.

2.2.2 The Portway is subject to a 30mph speed limit and street lit.

2.2.3 The site is shown in a local context in **Figure 2.2**. The site is also shown in a wider strategic context in **Figure 2.3**.

Figure 2.3: Site in Strategic Context

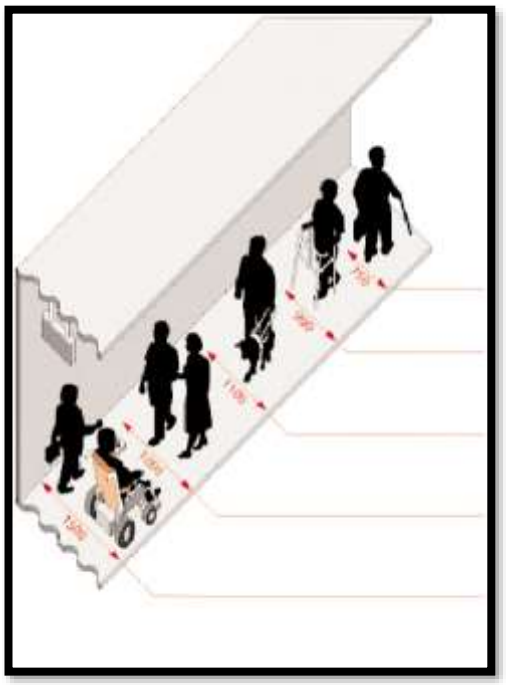


2.3 Pedestrian Facilities

2.3.1 Pedestrian infrastructure in the vicinity of the application site is excellent with footways typically 2.0m wide found on both sides of The Portway and the surrounding areas.

2.3.2 As shown in the extract from DfT's 'Inclusive Mobility' document (2002), the aforementioned widths of 2.0m are more than suitable for a variety of users, including a wheelchair user and an ambulant person side by side.

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



Person with walking stick requires 750mm.

Person with crutches or walking frame requires 900mm.

Blind person with long cane or assistance dog requires1100mm.

A visually impaired person who is being guided requires1200mm.

A wheelchair user and an ambulant person side by side need 1500mm.

2.3.3 Prevailing pedestrian infrastructure is also of a high standard, with a Zebra crossing at the site frontage to the east on The Portway and on the Eastern Promenade which provide safe pedestrian links to the trip attractors at Coney Beach and Trecco Bay.

2.3.4 Additional Zebra crossings are found on the Esplanade, linking areas of interest on both sides of the carriageway.

2.3.5 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.

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

2.3.6 Pedestrian isochrones are shown in **Figure 2.2** with distance isochrones for 400m, 800m, 1200m and 2000m, which equates to 5, 10, 15 and 25-minute walk times based on an average walking speed of 4.8 km/h.

2.3.7 **Figure 2.2** demonstrates that within the above distances, there are numerous trip attractors such as schools, shops, restaurants, banks, a post office, dentists, beaches and leisure facilities. The topography for most routes is also predominantly flat and therefore conducive to walking.

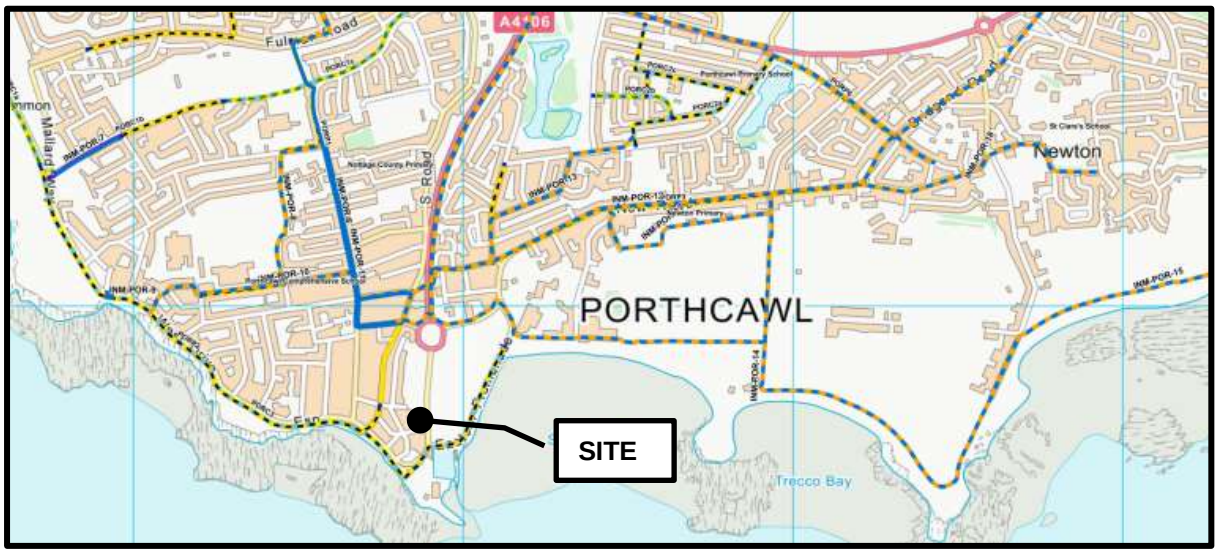
2.3.8 The site is in a highly favourable location to encourage pedestrian travel.

2.4 Cycle Facilities

2.4.1 Cycling in the immediate vicinity of the site is accommodated on-carriageway, with limited traffic-free route options available.

2.4.2 However, as part of the Active Travel Wales (2013) Act, there are several shared cycle paths identified for the local area which would benefit prospective residents as shown in **Figure 2.4**.

Figure 2.4: Porthcawl Integrated Network Map Extract



2.4.3 LTN1/04 identifies that the mean average length for cycling is 4km (2.4 miles), although journeys of up to three times this distance are not uncommon for regular commuters. As such, a 12km (7.4 mile) cycle distance normally applies. The whole of Porthcawl is within 4km of the site and both Pyle and Bridgend town centre are located within 12km of the site and therefore well within acceptable commuting distance by cycle.

2.5 Public Transport Facilities

Bus

2.5.1 Guidance relating to the accessibility of development proposals 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 …".*

2.5.2 A bus stop can be found on Lias Road circa 375m north of the site, as shown in **Figure 2.2**.

2.5.3 Additional bus stops are located on John Street, circa 550m to the north.

2.5.4 From these stops, bus routes X2, 63 and 172 are accessible.

2.5.5 Route X2 operates between Porthcawl and Cardiff via Bridgend and Cowbridge. At peak frequency, there are approximately three services per hour. Route X2 also operates seven days a week.

2.5.6 Route 63 operates between Bridgend and Porthcawl via Aberkenfig, Kenfig Hill, Pyle, North Cornelly, South Cornelly and Nottage. At peak frequency, there are approximately two services per hour. Route 63 operates seven days a week.

2.5.7 Route 172 operates between Porthcawl and Aberdare via Bridgend. At peak frequency, there is one service per hour. Route 172 operates seven days per week.

2.5.8 The approximate journey time from the site to Bridgend bus station is approximately 26 minutes (using the X2 service).

2.5.9 From Bridgend bus station, numerous services are available linking the site with destinations further afield, including Cardiff and Swansea.

2.5.10 The site is therefore concluded to be favourably located to help encourage travel by bus.

Rail

2.5.11 The nearest railway station is found in Pyle, circa 5.5km to the north of the site. Whilst this is well outside acceptable walking distance, it is accessible as part of a multi-modal trip, with a bicycle, taxi or car providing the additional element.

2.5.12 Pyle railway station benefits from 4 cycle parking spaces and 15 car parking spaces and offers regular services to Cardiff and Swansea.

2.5.13 Bridgend railway station is also approximately 9.5km northeast of the site and therefore accessible as part of a multi-modal journey.

2.5.14 Bridgend railway station is a mainline station serving Bridgend. Passenger services are operated by Great Western Railway to and from London Paddington and Swansea, with some services extended to Carmarthen, and by Transport for Wales (TfW) to destinations across Wales.

2.5.15 To the west, (TfW) trains run along the South Wales Main Line and West Wales Line to Swansea and then to Carmarthen, Pembroke Dock, Milford Haven or Fishguard Harbour.

2.5.16 Mainline services to Swansea and London run hourly (with extra services at peak hours), whilst the regional trains to Manchester Piccadilly via Shrewsbury and local trains to Maesteg and over the Vale of Glamorgan Line also run hourly; the Swanline local stopping trains to/from Swansea run every two hours.

2.5.17 Travel by train, to key destinations i.e. Cardiff and Swansea, offers a viable alternative to private car travel, especially for commuting purposes.

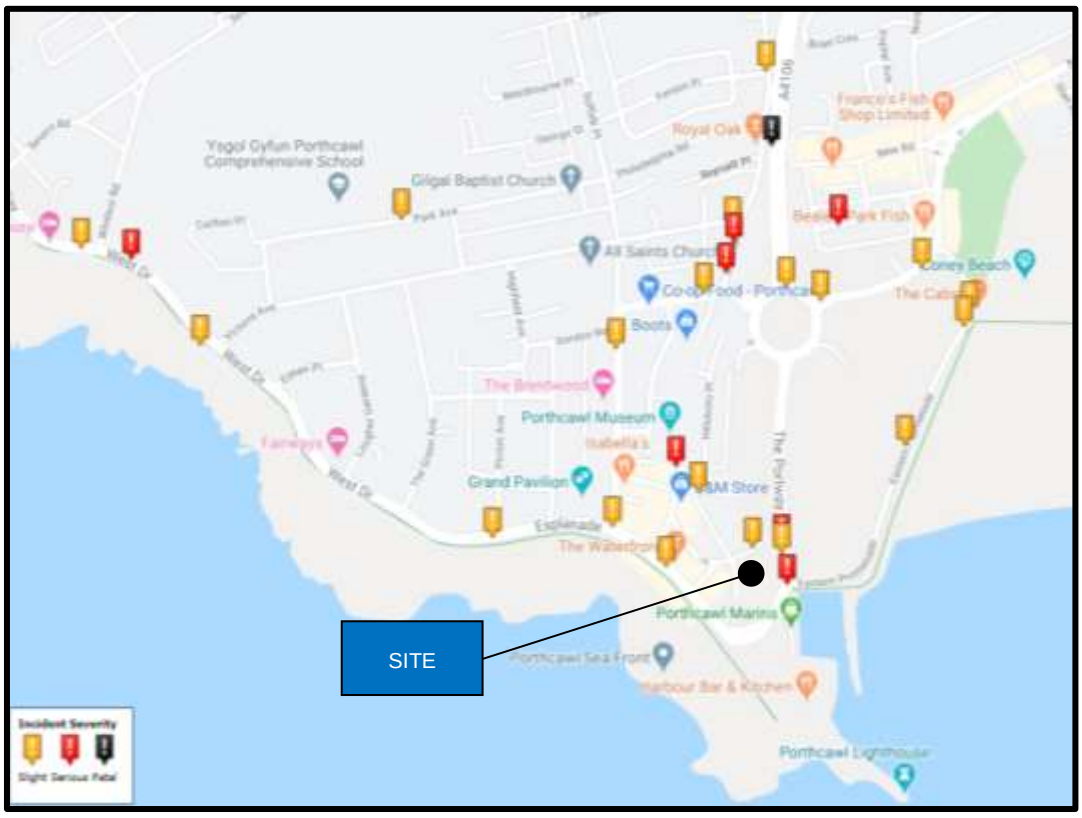
2.6 Local Highway Safety

2.6.1 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.

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

2.6.3 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 2018.

Figure 2.5: PIA Plot Extract



Source: www.crashmap.co.uk - data extracted February 2020

2.6.4 It is evident from **Figure 2.5** that there are no accident blackspots in the immediate vicinity of the site.

2.6.5 However, it is noted that there have been two accidents at the Zebra crossing just north of the proposed site access. Of these, one was of a serious severity and occurred in 2016 resulting in a pedestrian casualty and the other was of a slight severity, resulting in a pedal cycle casualty.

2.6.6 There was also an accident of a serious severity in 2018 at the junction of The Portway and Eastern Promenade. This resulted in a pedal cycle casualty.

2.6.7 Also, worthy of note is a fatal accident which occurred approximately 600 metres north of the site on the A4106 in 2018.

2.6.8 Whilst all accidents are regrettable, the frequency of incidents is insufficient to draw any adverse conclusions as to inherent highway safety issues.

2.6.9 Furthermore, the increase in traffic generated by the proposed development, discussed later on in this report, will be negligible and therefore unlikely to exacerbate the existing safety record to a significant enough level to warrant concern.

3 LOCAL AND NATIONAL PLANNING GUIDANCE

3.1 Overview

3.1.1 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 10, December 2018);
- Technical Advice Note (Wales) (2007) 18 – Transport;
- Bridgend CBC LDP (Adopted September 2013).

3.1.2 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.

3.2 Policy Objective

3.2.1 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.

3.2.2 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.

3.3 Planning Policy Wales (December 2018)

3.3.1 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.'*

3.3.2 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.'*

3.3.3 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.

3.3.4 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'.*

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

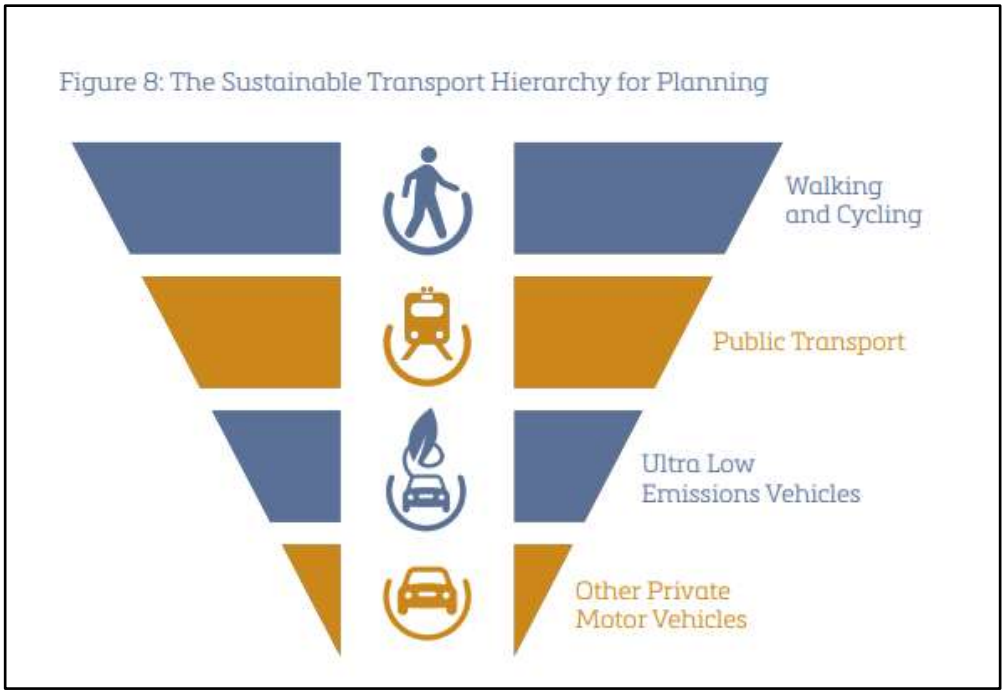
> *'enable sustainable access to housing, employment, shopping, education, health, community, leisure and sports facilities and green infrastructure, maximising opportunities for community development and social welfare;*
>
> *develop sustainable transportation infrastructure to keep Wales moving and 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'.*

3.3.6 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.'*

3.3.7 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.'

3.3.8 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.'

3.3.9 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.'

3.3.10 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.

3.4 Technical Advice Note (TAN18)

3.4.1 Technical Advice Note 18 (TAN 18) promotes the overall integration of transport in the following ways:

- Integration of transport and land use planning;
- Integration between different types of transport; and
- Integration of transport policy with policies for the environment, education, social justice, health, economic development and wealth creation.

3.4.2 The integration of land use planning and the development of transport has a key role to play in the promotion of sustainable development. TAN 18 identifies the following ways in which integration can help achieve sustainable environmental outcomes:

- promoting resource and travel efficient settlement patterns;
- ensuring new development is located where there is, or will be, good access by public transport, walking and cycling thereby minimising the need for travel and fostering social inclusion;
- managing parking provision;
- ensuring that new development and major alterations to existing developments include appropriate provision for pedestrians (including those with special access and mobility requirements), cycling, public transport, and traffic management and parking/servicing;
- encouraging the location of development near other related uses to encourage multi-purpose trips;
- promoting cycling and walking;
- supporting the provision of high quality, inclusive public transport;
- supporting provision of a reliable and efficient freight network;
- promoting the location of warehousing and manufacturing developments to facilitate the use of rail and sea transport for freight;
- encouraging good quality design of streets that provide a safe public realm and a distinct sense of place; and

- ensuring that transport infrastructure or service improvements necessary to serve new development allow existing transport networks to continue to perform their identified functions.

3.5 Bridgend CBC LDP (Adopted September 2013)

3.5.1 The adopted LDP will guide and manage development in the area up to 2021.

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

Strategic Policy SP2: Design and Sustainable Place Making

All development should contribute to creating high quality, attractive, sustainable places which enhance the community in which they are located, whilst having full regard to the natural, historic and built environment by:

1) Complying with all relevant national policy and guidance where appropriate;

2) Having a design of the highest quality possible, whilst respecting and enhancing local character and distinctiveness and landscape character;

3) Being of an appropriate scale, size and prominence;

4) Using land efficiently by:

(i) being of a density which maximises the development potential of the land whilst respecting that of the surrounding development; and

(ii) having a preference for development on previously developed land over greenfield land;

5) Providing for an appropriate mix of land uses;

6) Having good walking, cycling, public transport and road connections within and outside the site to ensure efficient access;

7) Minimising opportunities for crime to be generated or increased;

8) Avoiding or minimising noise, air, soil and water pollution;

9) Incorporating methods to ensure the site is free from contamination (including invasive species);

10)Safeguarding and enhancing biodiversity and green infrastructure;

11) Ensuring equality of access by all;

12) Ensuring that the viability and amenity of neighbouring uses and their users/occupiers will not be adversely affected;

13)Incorporating appropriate arrangements for the disposal of foul sewage, waste and water;

14) Make a positive contribution towards tackling the causes of, and adapting to the impacts of Climate Change; and

15) Appropriately contributing towards local, physical, social and community infrastructure which is affected by the development.

3.6 Active Travel (Wales) Act 2013

3.6.1 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.*

3.7 Conclusion

3.7.1 The site is well located to encourage active modes of travel due to its close proximity to trip attractors within and around Porthcawl.

3.7.2 The site is also accessible by public transport and it is therefore concluded that the site complies with transport planning policy at a local and national level.

4 DEVELOPMENT PROPOSAL

4.1 Proposed Development

4.1.1 The application proposes the demolition of the former Glamorgan Hotel, Porthcawl and construction of 54 residential apartments.

4.1.2 The development schedule is as follows:

- 5 x 3-bed apartments;
- 21 x 2-bed apartments; and
- 28 x 1-bed apartments.

4.1.3 Of the above units, 16 (30%) are to be affordable properties.

4.1.4 The proposed site plans are contained in **Appendix A**.

4.2 Access

4.2.1 The existing vehicular site access will be stopped up and a new priority T-junction constructed approximately 50 metres to the north on The Portway.

4.2.2 The location of the proposed access provides greater than 15m spacing from the Eastern Promenade junction.

4.2.3 Visibility splays of 2.4m x 43m in each direction are achievable, which are appropriate for 85th percentile speeds in line with the posted speed limit of 30mph, as per Manual for Streets guidance.

4.2.4 Pedestrian access will be achievable via both The Portway or The Square.

4.3 Parking

4.3.1 Parking is proposed to be provided in line with BCBC's parking standards. The site is located within Zone 2 of the parking standards, which is reserved for the County's most sustainable location.

4.3.2 The standards require a maximum of 1 resident parking space per bedroom (up to 3 spaces) and 1 visitor space per 5 units. Based on the proposal, a maximum of 85 resident and 11 visitor parking spaces applies.

4.3.3 The above parking ratio is a maximum provision, intended to prevent overprovision which would have the undesirable effect of encouraging excessive car ownership and use, contrary to the aims of local, regional and national transport planning policy. Significant consideration should therefore be given to the fact that the proposed residential apartments will be located in a highly sustainable Zone 2 location. Car ownership levels will inevitably be far lower than that seen for Zone 6 locations, which share the same crude maximum parking requirement.

4.3.4 Local Census data (2011) shows that the site's output area (W00005549) has low car ownership whereby 47.1% of households have no car, 39.4% have one car and 11.6% have two or more vehicles per household. This equates to 109 cars for 155 households; a ratio of 0.7 cars per dwelling.

4.3.5 This car ownership level is considerably lower than Bridgend Local Authority as a whole which has a car ownership ratio of 1.22 per dwelling.

4.3.6 Based on the prevailing car ownership levels, which are reflective of the sustainable location of the site, the proposed 54 apartments would require 38 parking spaces for residents, plus a further 10 spaces for visitors, in line with adopted the parking standards.

4.3.7 The proposed site layout allows for 64 parking spaces which is within the range established by the maximum parking standards and the Census data discussed above and is considered appropriate for the proposed development and sustainable location.

4.3.8 Planning policy makes it clear than unnecessary parking must be avoided. Planning Policy Wales (2018) confirms the widely accepted notion (para 4.1.50) that:

> ***'Car parking provision is a major influence on how people choose to travel'***

4.3.9 Furthermore, in para. 4.1.51 PPW states that:

> ***'Planning authorities must support schemes which keep parking levels down, especially off-street parking'***

4.3.10 Crucially, PPW makes it clear in para. 4.1.53 that:

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

4.3.11 All parking spaces will measure a minimum of 2.6m x 4.8m as per the requirements of the currently adopted parking standards of the Local Highway Authority.

4.3.12 The parking standards require 1 cycle parking space per 5 units; 11 spaces in total. The proposed development includes covered and secure residential cycle stores, with sufficient capacity for up to 22 bicycles. This over-provision will help encourage bicycle ownership and use.

4.4 Servicing

4.4.1 The site layout includes a new refuse collection layby immediately south of the proposed site access on The Portway. This will allow collection vehicles to service the site without impeding northbound traffic on The Portway.

5 SITE TRAFFIC

5.1 Introduction

5.1.1 Estimated site traffic flows have been forecast using the TRICS database. 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.

5.2 Proposed development traffic

5.2.1 In order to extract a representative yet robust sample of survey sites from the TRICS database contained herein as **Appendix B**, the following parameters were applied:

- All sites in Greater London and Ireland were excluded;
- Category '03 – Residential; C – Flats privately owned' selected;
- Population > 250k within 5 miles excluded; and
- Sites limited to 'town centre' and 'edge of town centre' locations.

5.2.2 This section of the report focuses on the trip generation during the traditional AM and PM peak hours only.

5.2.3 Table 5.1 shows the vehicular trip forecast for the proposed 54 residential apartments for a typical weekday.

Table 5.1: Proposed vehicular traffic Weekday (Private Residential Apartments)

Time Period	Trip Rates (per court)			Trips		
	Arr.	**Dep.**	**Total**	**Arr.**	**Dep.**	**Total**
Weekday AM peak (0800-0900)	0.063	0.179	0.242	3	10	13
Weekday PM Peak (1700-1800)	0.181	0.109	0.29	10	6	16
Daily (0700-1900)	1.261	1.31	2.571	68	71	139

5.2.4 **Table 5.1** shows that the proposed development is predicted to generate just 13 and 16 two-way vehicular trips during the typical weekday AM and PM peak hours respectively, and 139 two-way vehicular trips daily (0700-1900).

5.3 Extant Site Traffic

5.3.1 The trip forecasts associated with the extant site use as a hotel, which represents the fall-back position, has not been quantified and would reduce the impact of the development proposal on the highway network.

5.4 Development Traffic Impact

5.4.1 Even without consideration of extant site traffic, there is forecast to be a maximum of just one additional movement every three to four minutes; the impact of the development on the surrounding highway network during the AM and PM time periods will be negligible.

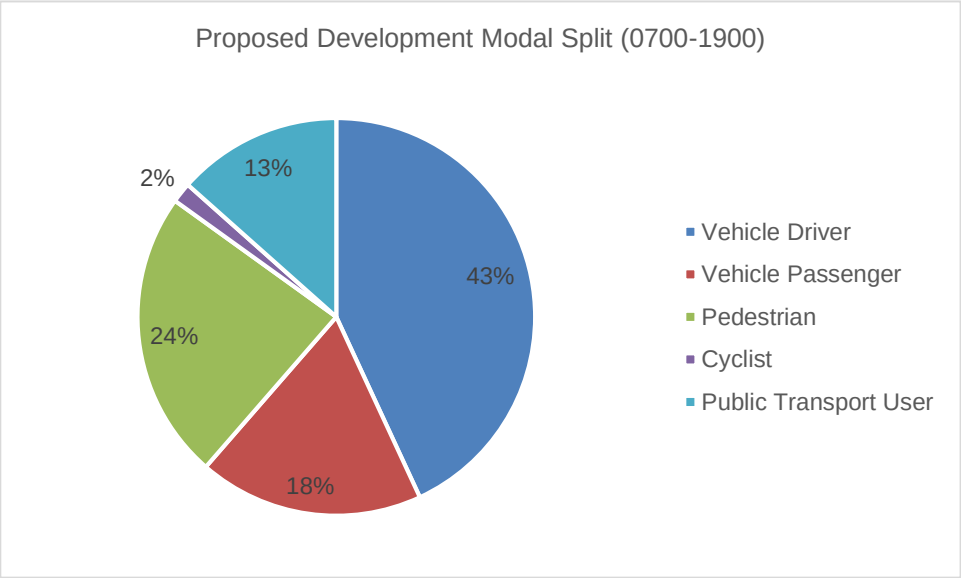
5.4.2 A review of local traffic data, obtained from the Department for Transport, shows that in 2018, the A4106 link to the north of the site, between the roundabout leading to John St and the A4229 roundabout, has an AADT of 10486 motor vehicles.

5.4.3 If the 12-hour development traffic flows are factored up to 24-hour flows by 1.2, and a robust assumption applied that 90% of development traffic will pass through the aforementioned A4106 link, there will be an increase of 150 daily vehicles. This represents an increase of 1.43% which is well within daily variations of +/-10% and is concluded to be negligible.

5.5 Modal Split

5.5.1 The TRICS database has also been interrogated for multi-modal split data, as shown in **Chart 5.1** for a typical weekday.

Chart 5.1: Development modal split – Weekday (TRICS)



5.5.2 Between the hours of 0700-1900, and in keeping with the previously discussed premise that car dependency will be low at the site due to the favourable location to trip attractors, 44% of trips are typically via sustainable modes (i.e. public transport, walking or cycling).

6 SUMMARY AND CONCLUSION

6.1 Summary

6.1.1 This Transport Statement has been produced by Corun Associates Ltd (Corun) on behalf of Xcape Limited, the applicant, to examine the highway and transportation issues associated with the proposed construction of 54 residential apartments at the former Glamorgan Hotel, Porthcawl. The existing hotel is not currently in use.

6.1.2 The development schedule is as follows:

- 5 x 3-bed apartments;
- 21 x 2-bed apartments; and
- 28 x 1-bed apartments.

6.1.3 Of the above units, 16 (30%) are to be affordable properties.

6.1.4 The existing vehicular site access will be stopped up and a new priority T-junction constructed approximately 50 metres to the north on The Portway.

6.1.5 The location of the proposed access offers greater than 15m spacing from the Eastern Promenade junction.

6.1.6 Visibility splays of 2.4m x 43m in each direction are achievable, which are appropriate for 85th percentile speeds in line with the posted speed limit of 30mph, as per Manual for Streets guidance.

6.1.7 Pedestrian access will be achievable via both The Portway or The Square.

6.1.8 Parking is proposed to be provided in line with BCBC's parking standards. The site is located within Zone 2 of the parking standards, which is reserved for the County's most sustainable location.

6.1.9 Even without consideration of extant site traffic, there is forecast to be a maximum of just one additional movement every four minutes; the impact of the development on the surrounding highway network during the AM and PM time periods will be negligible.

6.1.10 The site is well located to encourage sustainable modes of travel due to its central Porthcawl location and therefore proximity to various facilities and amenities. The site also has good access to public transport.

6.1.11 The site is concluded to be compliant with transport planning policy at a local and national level.

6.2 Conclusion

6.2.1 There are no reasons, in highway and transportation terms, why the proposed residential development should not receive consent.

APPENDIX A

Proposed Site Plans

Drawn By: KB Checked By: DB

Rev No	Revision Description	Date	Ch'kd

Project: RESIDENTIAL DEVELOPMENT, GLAMORGAN HOTEL SITE, PORTHCAWL

Dwg Title: PROPOSED SITE PLAN - LOWER GROUND FLOOR

Inspire No.	Originator	Volume	Level	Type	Role	Number	Stage	Revision
184017	IDL	01	ZZ	DR	A	P20003	S3	P01

Scale: NTS @A3 1:200 @A1

Date: 14.01.2020

inspire design

10 Ty Nant Court, Morganstown, Cardiff CF15 8LW. T:- 029 2022 7926

Drawn By: Checked By:

Rev No	Revision Description	Date	Ch'kd

Project: RESIDENTIAL DEVELOPMENT, GLAMORGAN HOTEL SITE, PORTHCAWL

Dwg Title: PROPOSED SITE PLAN - GROUND FLOOR

Inspire No. / Originator / Volume / Level / Type / Role / Number / Stage / Revision: 184017-IDL-01-ZZ-DR-A-P20004-S3-P01

Scale: NTS @A3 1:200 @A1

Date: 14.01.2020

inspire design
10 Ty Nant Court, Morganstown, Cardiff CF15 8LW. T:- 029 2022 7926

APPENDIX B

TRICS Data

Calculation Reference: AUDIT-751101-200224-0208

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST		
	BD	BEDFORDSHIRE	3 days
	EX	ESSEX	2 days
04	EAST ANGLIA		
	NF	NORFOLK	1 days
	SF	SUFFOLK	1 days
09	NORTH		
	CB	CUMBRIA	1 days
10	WALES		
	CO	CONWY	1 days
11	SCOTLAND		
	SA	SOUTH AYRSHIRE	1 days
	SR	STIRLING	2 days

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

Secondary Filtering selection:

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

Parameter: Number of dwellings
Actual Range: 6 to 175 (units:)
Range Selected by User: 6 to 184 (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 13/11/18

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

Selected survey days:

Monday	1 days
Tuesday	6 days
Wednesday	2 days
Thursday	3 days

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

Selected survey types:

Manual count	12 days
Directional ATC Count	0 days

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

Selected Locations:

Town Centre	1
Edge of Town Centre	11

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

Selected Location Sub Categories:

Residential Zone	6
Built-Up Zone	4
No Sub Category	2

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

Secondary Filtering selection:

Use Class:

C3	12 days

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

Population within 1 mile:

10,001 to 15,000	4 days
15,001 to 20,000	2 days
25,001 to 50,000	6 days

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

Population within 5 miles:

50,001 to 75,000	6 days
75,001 to 100,000	3 days
125,001 to 250,000	3 days

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	10 days

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

Travel Plan:

No	12 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	12 days

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

LIST OF SITES relevant to selection parameters

1 BD-03-C-01 BLOCKS OF FLATS BEDFORDSHIRE
WING ROAD
LEIGHTON BUZZARD
LINSLADE
Edge of Town Centre
Residential Zone
Total Number of dwellings: 175
Survey date: TUESDAY *15/05/18* *Survey Type: MANUAL*

2 BD-03-C-02 BLOCKS OF FLATS BEDFORDSHIRE
STANBRIDGE ROAD
LEIGHTON BUZZARD

Edge of Town Centre
Residential Zone
Total Number of dwellings: 62
Survey date: TUESDAY *15/05/18* *Survey Type: MANUAL*

3 BD-03-C-03 BLOCKS OF FLATS BEDFORDSHIRE
COURT DRIVE
DUNSTABLE

Edge of Town Centre
No Sub Category
Total Number of dwellings: 146
Survey date: TUESDAY *15/05/18* *Survey Type: MANUAL*

4 CB-03-C-01 BLOCK OF FLATS CUMBRIA
KING STREET
CARLISLE

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

5 CO-03-C-01 BLOCKS OF FLATS CONWY
MOSTYN BROADWAY
LLANDUDNO

Edge of Town Centre
Built-Up Zone
Total Number of dwellings: 37
Survey date: MONDAY *26/03/18* *Survey Type: MANUAL*

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

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

8 NF-03-C-01 BLOCKS OF FLATS NORFOLK
PAGE STAIR LANE
KING'S LYNN

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

LIST OF SITES relevant to selection parameters (Cont.)

9	SA-03-C-01 RACECOURSE ROAD AYR	BLOCK OF FLATS		SOUTH AYRSHIRE
	Edge of Town Centre Residential Zone Total Number of dwellings:		51	
	Survey date: TUESDAY		*16/09/14*	*Survey Type: MANUAL*
10	SF-03-C-01 STATION HILL BURY ST EDMUNDS	BLOCKS OF FLATS		SUFFOLK
	Edge of Town Centre Built-Up Zone Total Number of dwellings:		85	
	Survey date: THURSDAY		*18/12/14*	*Survey Type: MANUAL*
11	SR-03-C-01 FORTHSIDE WAY STIRLING	FLATS		STIRLING
	Edge of Town Centre No Sub Category Total Number of dwellings:		80	
	Survey date: WEDNESDAY		*18/06/14*	*Survey Type: MANUAL*
12	SR-03-C-02 ROSEBERRY TERRACE STIRLING	FLATS		STIRLING
	Edge of Town Centre Residential Zone Total Number of dwellings:		48	
	Survey date: WEDNESDAY		*18/06/14*	*Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

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

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	73	0.042	12	73	0.147	12	73	0.189
08:00 - 09:00	12	73	0.063	12	73	0.179	12	73	0.242
09:00 - 10:00	12	73	0.069	12	73	0.085	12	73	0.154
10:00 - 11:00	12	73	0.081	12	73	0.099	12	73	0.180
11:00 - 12:00	12	73	0.083	12	73	0.105	12	73	0.188
12:00 - 13:00	12	73	0.128	12	73	0.097	12	73	0.225
13:00 - 14:00	12	73	0.089	12	73	0.111	12	73	0.200
14:00 - 15:00	12	73	0.082	12	73	0.098	12	73	0.180
15:00 - 16:00	12	73	0.105	12	73	0.078	12	73	0.183
16:00 - 17:00	12	73	0.145	12	73	0.088	12	73	0.233
17:00 - 18:00	12	73	0.181	12	73	0.109	12	73	0.290
18:00 - 19:00	12	73	0.193	12	73	0.114	12	73	0.307
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.261			1.310			2.571

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 - 175 (units:)
Survey date date range:	01/01/11 - 13/11/18
Number of weekdays (Monday-Friday):	12
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

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

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	73	0.003	12	73	0.005	12	73	0.008
08:00 - 09:00	12	73	0.003	12	73	0.003	12	73	0.006
09:00 - 10:00	12	73	0.000	12	73	0.001	12	73	0.001
10:00 - 11:00	12	73	0.002	12	73	0.002	12	73	0.004
11:00 - 12:00	12	73	0.009	12	73	0.009	12	73	0.018
12:00 - 13:00	12	73	0.005	12	73	0.005	12	73	0.010
13:00 - 14:00	12	73	0.006	12	73	0.006	12	73	0.012
14:00 - 15:00	12	73	0.001	12	73	0.001	12	73	0.002
15:00 - 16:00	12	73	0.005	12	73	0.005	12	73	0.010
16:00 - 17:00	12	73	0.006	12	73	0.005	12	73	0.011
17:00 - 18:00	12	73	0.007	12	73	0.005	12	73	0.012
18:00 - 19:00	12	73	0.005	12	73	0.006	12	73	0.011
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.052			0.053			0.105

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

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

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

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	73	0.001	12	73	0.008	12	73	0.009
08:00 - 09:00	12	73	0.003	12	73	0.014	12	73	0.017
09:00 - 10:00	12	73	0.002	12	73	0.003	12	73	0.005
10:00 - 11:00	12	73	0.002	12	73	0.008	12	73	0.010
11:00 - 12:00	12	73	0.006	12	73	0.006	12	73	0.012
12:00 - 13:00	12	73	0.002	12	73	0.005	12	73	0.007
13:00 - 14:00	12	73	0.002	12	73	0.001	12	73	0.003
14:00 - 15:00	12	73	0.003	12	73	0.000	12	73	0.003
15:00 - 16:00	12	73	0.007	12	73	0.005	12	73	0.012
16:00 - 17:00	12	73	0.003	12	73	0.001	12	73	0.004
17:00 - 18:00	12	73	0.007	12	73	0.003	12	73	0.010
18:00 - 19:00	12	73	0.005	12	73	0.001	12	73	0.006
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.043			0.055			0.098

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL 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	12	73	0.047	12	73	0.217	12	73	0.264
08:00 - 09:00	12	73	0.078	12	73	0.309	12	73	0.387
09:00 - 10:00	12	73	0.083	12	73	0.113	12	73	0.196
10:00 - 11:00	12	73	0.104	12	73	0.138	12	73	0.242
11:00 - 12:00	12	73	0.105	12	73	0.147	12	73	0.252
12:00 - 13:00	12	73	0.166	12	73	0.146	12	73	0.312
13:00 - 14:00	12	73	0.125	12	73	0.135	12	73	0.260
14:00 - 15:00	12	73	0.103	12	73	0.129	12	73	0.232
15:00 - 16:00	12	73	0.162	12	73	0.110	12	73	0.272
16:00 - 17:00	12	73	0.221	12	73	0.118	12	73	0.339
17:00 - 18:00	12	73	0.279	12	73	0.149	12	73	0.428
18:00 - 19:00	12	73	0.321	12	73	0.158	12	73	0.479
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.794			1.869			3.663

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

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

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

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	73	0.015	12	73	0.054	12	73	0.069
08:00 - 09:00	12	73	0.023	12	73	0.103	12	73	0.126
09:00 - 10:00	12	73	0.047	12	73	0.067	12	73	0.114
10:00 - 11:00	12	73	0.055	12	73	0.050	12	73	0.105
11:00 - 12:00	12	73	0.046	12	73	0.048	12	73	0.094
12:00 - 13:00	12	73	0.058	12	73	0.050	12	73	0.108
13:00 - 14:00	12	73	0.050	12	73	0.058	12	73	0.108
14:00 - 15:00	12	73	0.062	12	73	0.051	12	73	0.113
15:00 - 16:00	12	73	0.077	12	73	0.066	12	73	0.143
16:00 - 17:00	12	73	0.071	12	73	0.063	12	73	0.134
17:00 - 18:00	12	73	0.088	12	73	0.051	12	73	0.139
18:00 - 19:00	12	73	0.079	12	73	0.072	12	73	0.151
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.671			0.733			1.404

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	73	0.001	12	73	0.073	12	73	0.074
08:00 - 09:00	12	73	0.003	12	73	0.121	12	73	0.124
09:00 - 10:00	12	73	0.006	12	73	0.039	12	73	0.045
10:00 - 11:00	12	73	0.019	12	73	0.021	12	73	0.040
11:00 - 12:00	12	73	0.025	12	73	0.016	12	73	0.041
12:00 - 13:00	12	73	0.033	12	73	0.025	12	73	0.058
13:00 - 14:00	12	73	0.017	12	73	0.031	12	73	0.048
14:00 - 15:00	12	73	0.025	12	73	0.015	12	73	0.040
15:00 - 16:00	12	73	0.075	12	73	0.018	12	73	0.093
16:00 - 17:00	12	73	0.051	12	73	0.014	12	73	0.065
17:00 - 18:00	12	73	0.088	12	73	0.013	12	73	0.101
18:00 - 19:00	12	73	0.061	12	73	0.011	12	73	0.072
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.404			0.397			0.801

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	73	0.064	12	73	0.352	12	73	0.416
08:00 - 09:00	12	73	0.107	12	73	0.546	12	73	0.653
09:00 - 10:00	12	73	0.138	12	73	0.223	12	73	0.361
10:00 - 11:00	12	73	0.181	12	73	0.217	12	73	0.398
11:00 - 12:00	12	73	0.182	12	73	0.217	12	73	0.399
12:00 - 13:00	12	73	0.259	12	73	0.226	12	73	0.485
13:00 - 14:00	12	73	0.194	12	73	0.225	12	73	0.419
14:00 - 15:00	12	73	0.193	12	73	0.195	12	73	0.388
15:00 - 16:00	12	73	0.321	12	73	0.199	12	73	0.520
16:00 - 17:00	12	73	0.346	12	73	0.195	12	73	0.541
17:00 - 18:00	12	73	0.462	12	73	0.216	12	73	0.678
18:00 - 19:00	12	73	0.465	12	73	0.242	12	73	0.707
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.912			3.053			5.965

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL MOTOR CYCLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	12	73	0.000	12	73	0.000	12	73	0.000
08:00 - 09:00	12	73	0.000	12	73	0.000	12	73	0.000
09:00 - 10:00	12	73	0.000	12	73	0.001	12	73	0.001
10:00 - 11:00	12	73	0.000	12	73	0.001	12	73	0.001
11:00 - 12:00	12	73	0.000	12	73	0.000	12	73	0.000
12:00 - 13:00	12	73	0.001	12	73	0.001	12	73	0.002
13:00 - 14:00	12	73	0.001	12	73	0.001	12	73	0.002
14:00 - 15:00	12	73	0.000	12	73	0.000	12	73	0.000
15:00 - 16:00	12	73	0.001	12	73	0.000	12	73	0.001
16:00 - 17:00	12	73	0.000	12	73	0.000	12	73	0.000
17:00 - 18:00	12	73	0.001	12	73	0.001	12	73	0.002
18:00 - 19:00	12	73	0.001	12	73	0.001	12	73	0.002
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.005			0.006			0.011

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.*