Apex TRANSPORT PLANNING

# New Fleurs Public House

## Transport Statement

Client: **Cardiff Community Housing Association**

25 November 2024
Document Reference: C24171/TS01

This document is formatted for double sided printing.


Registered Office:
30 Summerfield Avenue
Cardiff
CF14 3QA

# QUALITY MANAGEMENT

## REPORT DETAILS

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|---|---|
| Issued by | **Apex Transport Planning Ltd**<br>Clockwise, Brunel House<br>2 Fitzalan Road<br>Cardiff<br>CF24 0HA<br><br>Tel: 02920 619 361<br>info@apextp.co.uk<br>www.apextp.co.uk |
| Client | Cardiff Community Housing Association |
| Project Name | New Fleurs Public House |
| Report Title | Transport Statement |
| Report Ref. | TS01 |
| Project No. | C24171 |
| Date | 25/11/2024 |

## ISSUE HISTORY

| Issue No. | Status | Date | Produced by | Approved by | Revision Details |
|---|---|---|---|---|---|
| 1 | Final | 25/11/2024 | SD | DC | First Issue |
| | | | | | |
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# 1. INTRODUCTION

## 1.1 Background

1.1.1 Apex Transport Planning Ltd has been commissioned to produce a Transport Statement (TS) to support a planning application for the redevelopment of the former New Fleurs public house, Walker Road, Cardiff.

1.1.2 The proposals are to redevelop the site, through demolishing the existing building and constructing a single building accommodating 15no. affordable residential apartments, comprising of one and two-bedroom apartments. The residential units will be constructed in accordance with the Welsh Government Development Quality Requirements (DQR).

1.1.3 This TS provides an assessment of the sustainable connectivity and transport impacts of the proposed redevelopment and sets out details of the proposed parking and access arrangements. It has been produced to inform Cardiff Council (CC) of the highways and transport implications of the proposals.

## 1.2 Scope of Report

1.2.1 The scope of work has considered policies and advice set out in Future Wales, Planning Policy Wales 12 (PPW12), Technical Advice Note 18: Transport (TAN18), the Active Travel Act (Wales – 2021), the CC Local Development Plan (LDP) and Managing Transportation Impacts Supplementary Planning Guidance (SPG), as well as considering experience of other similar sites.

1.2.2 As such, the TS has been structured to include the following:

- A description of the existing conditions including, site location and access, planning context, highway network and parking restrictions, road safety analysis and existing travel behaviour in the surrounding area
- Review of relevant planning policies, in particular in relation to sustainable travel and parking
- Review of the connectivity of the site by sustainable modes
- Description of the development proposals, demonstrating safe and appropriate access by all modes, cycle parking and servicing and delivery arrangements
- Forecast trip generation and comparison with existing site use
- Consideration of the impact of the proposals on the local highway network

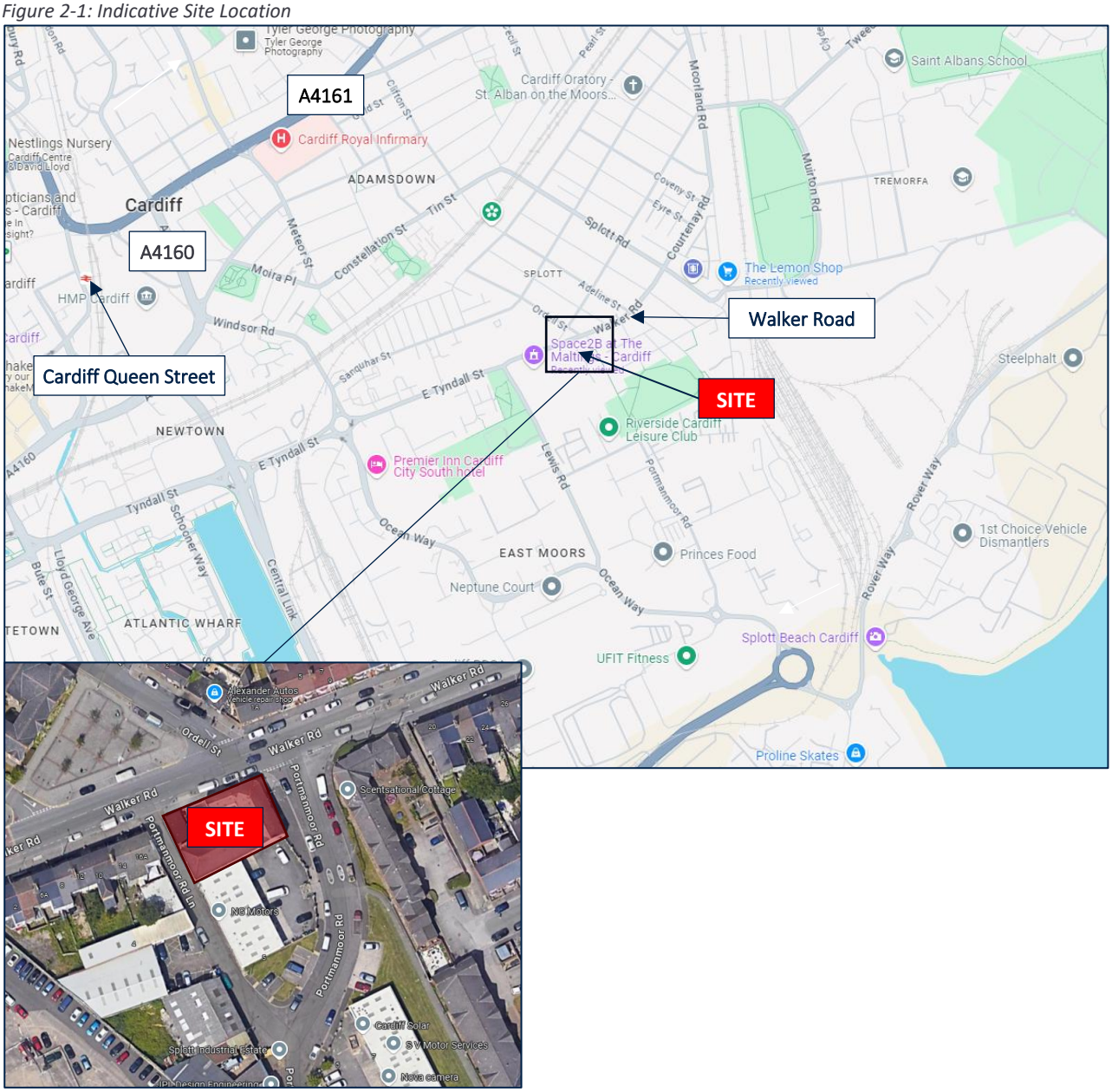
# 2. EXISTING CONDITIONS

## 2.1 Site Location and Use

2.1.1 The site is situated south of Walker Road, with Portmanmoor Road Lane lining its western boundary and Portmanmoor Road lining its eastern boundary. It lies approximately 1.1km to the southeast of Cardiff City Centre and 1.3km southeast of Cardiff Queen Street Rail Station. The existing planning use of the site is the New Fleurs public house, although this is not currently operational, and this consists of one building. Within the immediate surroundings there are a mix of uses with employment to the west, industrial to the south, and residential to the east and north.

2.1.2 Figure 2-1 shows the indicative location of the site.

*Figure 2-1: Indicative Site Location*




*Source: Google Maps*

## 2.2 Local Highway Network

2.2.1 The highway network within the vicinity of the site is of good quality, accommodates high levels of vehicular movements, is well maintained, lit and benefits from active frontages and natural surveillance.

2.2.2 The site fronts onto Walker Road which is a single carriageway road routing broadly in an east – west direction. It has a carriageway width of approximately 8.5m within the vicinity of the site and has street lighting along its length. It has footways on both sides of the carriageway and connects to the northern boundary of the site.

2.2.3 Walker Road is subject to a 20mph speed limit within the vicinity of the site which increases to 30mph where it meets East Tyndall Street to the west. There are intermittent parking bays located on both sides of the carriageway and good availability for on-street parking to occur. There are traffic calming measures along Walker Road including road narrowing's / priority give-way arrangements, road humps, and a raised zebra crossing.

2.2.4 Lining the eastern boundary of the site is Portmanmoor Road which is a single carriageway road subject to a 20mph speed limit. Portmanmoor Road forms a priority junction with Walker Road at its northern extent and provides a connection to Splott Industrial Estate at its southern extent. It measures approximately 9.5m in width and has footways on both sides of the carriageway. It is not subject to yellow line parking restrictions and as such on-street parking occurs, although it is of sufficient width for vehicles to park both sides, whilst enabling two-way movements to continue.

2.2.5 Portmanmoor Road Lane lines the western boundary of the site. Portmanmoor Road Lane routes from Walker Road at its northern extent to Portmanmoor Road at its southern extent. It is a minor road spanning c.70m which serves a car garage and small parking area. It is c. 5.5m in width and some on-street parking occurs on one side of the carriageway. Both Portmanmoor Road and Portmanmoor Road Lane are adopted highway, with a turning area at the south of Portmanmoor Road also forming part of the adopted highway.

2.2.6 At its eastern extent, Waker Road continues as East Tyndall Street, and at its northeastern extent Walker Road forms a junction with Splott Road and Courtenay Road. East Tyndall Street extends west and connects to Windsor Road and Ocean Way at a four armed roundabout. Windsor Road routes north connecting to the A4160 which links to Newport Road (A1461), providing a route into Cardiff City Centre. Ocean Way routes southeast from East Tyndall Street and serves a number of employment and industrial uses.

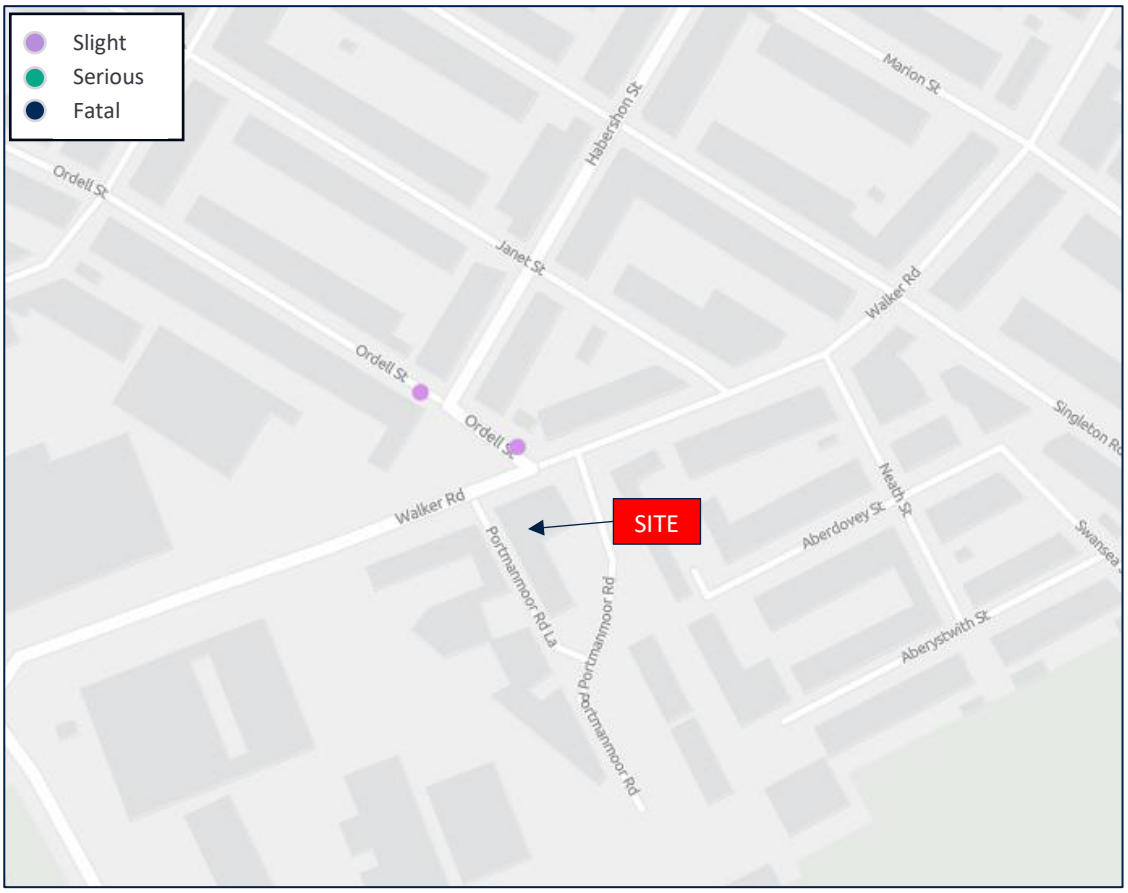
## 2.3 Road Safety

2.3.1 Personal Injury Accident (PIA) data has been reviewed from data published annually by the Department for Transport (DfT). The statistics provide PIA data which has been recorded using the STATS19 accident reporting form. This review covers the three-year period prior to the pandemic between 1st January 2017 and 31st December 2019, data from the two years during the pandemic between 1st January 2020 and 31st December 2021, as well as the most recent publicly available data which covers up to 31 December 2023. The most recent seven years of data has therefore been reviewed, which includes the most recent five full years of data outside of the pandemic.

2.3.2 The data has been reviewed using the Crashmap website, which provides full data until the end of 2022 and then the DfT Mapping Application, which provides data for 2023 (but which only starts in 2019).

2.3.3 The study area considered within the analysis covers the local highway network within the vicinity of the site access. This study area considers along the site boundary and the route to the nearest bus stop (Ruperra Square on Ordell Street) and the route to the nearest shop (Premier on Carlisle Street), with the entire study area and PIA's shown in Figure 2-2.

*Figure 2-2: Location of Recorded PIA's*




*Source: Department of Transport*

2.3.4 Over the study period there were a total of two PIAs, both of which were classified as slight injury incidents. There were no serious or fatal PIAs that occurred within the study area during this period.

2.3.5 There were no PIAs that involved a pedestrian or a cyclist and as such there is no evidence to indicate a specific safety issue with regards to active travel within the area. In particular, there is no evidence of an existing issue at the Portmanmoor Road / Walker Road junction, including for active travel movements.

2.3.6 Both PIAs occurred on Ordell Street, one in April 2023 and one in September 2023. Both of these PIAs involved vehicles.

2.3.7 There were no PIAs adjacent to the site boundary in any direction and there were no clusters of four or more PIAs occurring in the same location and as such there is no evidence to suggest a re-occurring road safety issue within the study area.

2.3.8 As such, although all incidents are regrettable, the PIAs that occurred do not indicate a specific pattern or issue with the geometry of the highway that would be exacerbated by the proposals, particularly when considering that the area already accommodates pedestrian, cycle and vehicular activity.

## 2.4 Public Car Parks

2.4.1 The site benefits from a significant level of unrestricted kerbline within the vicinity which enables on-street parking within close walking distance of the site. The Premier Inn at Ocean Way also has accessible chargeable parking for 24 hours a day. This is within a 750m walk of the site. As such, there are opportunities for visitors to park on-street or within a chargeable car park within the vicinity of the site, where needed.

## 2.5 Existing Travel Behaviour and Car Ownership

*Modal Share*

2.5.1 The site is located within output area W00009434 in Cardiff. Table 2-1 shows how the existing residents of this output area currently travel to work, as well as providing a comparison with the entire of Cardiff Council as obtained from 2011 Census data. Although this data is available from the 2021 census, this is not considered as appropriate due to restrictions in place at that time reducing the level of movements to and from work, particularly by public transport.

*Table 2-1: Journey to Work Mode Split (Census 2011)*

| Mode | OA W00009434 | Cardiff Council |
|---|---|---|
| Public Transport | 16% | 14% |
| Car Driver | 43% | 59% |
| Motorcycle | 0% | 0% |
| Car Passenger | 7% | 5% |
| Bicycle | 6% | 4% |
| On Foot | 28% | 16% |
| Other | 1% | 1% |
| **Total** | **100%** | **100%** |

2.5.2 The census data shows that 43% of residents living in the surrounding area and commuting to work travel as a car driver, with 28% walking, 16% travelling by public transport, 7% as a car passenger and 6% cycling.

2.5.3 This is a higher level of sustainable travel than across the entire of Cardiff which demonstrates the attractiveness of travelling by sustainable modes in this area.

2.5.4 These statistics have been adjusted to exclude working from home. If this was included, c.6% of residents currently in work, do so from home rather than commuting, with c. 8% doing this across Cardiff. These levels are likely to have significantly increased since 2011. This demonstrates that there is further potential for the site to constrain car use.

2.5.5 Travelling to work is only one journey purpose during peak hours from a residential site. A significant proportion of journeys will also be for education, leisure, and retail purposes and these are likely to even more attractive for sustainable travel, given local schools, retail and leisure opportunities are situated within suitable walking distances via appropriate routes (as shown in Section 4).

2.5.6 The 2011 Census data is also 13 years old, and the percentage of journeys made by cycling within Cardiff have increased since this time. Cardiff Council's Transport White Paper (2020) suggests that cycling has increased from 7% of journeys to work in 2010 to 13% in 2020, together with increases in public transport use. The percentage of car journeys has fallen from 57% to 49% over the same 10-year period. As such, the level of cycle journeys is also likely to have increased from the levels shown.

2.5.7 On this basis, Table 2-1 confirms that there is excellent potential for walking, cycling and public transport trips to be made to and from the site and a significant number of these movements already

occur in this area (and without evidence of a specific safety issue). On this basis, this reduces the requirement for owning or travelling by car.

## 2.6 Car Ownership

*Census Analysis - Overall*

2.6.1 The 2021 Census data has been reviewed for the average car ownership in the OA within which the site is situated - W00009434.

2.6.2 This shows an average of 0.44 cars per household across the OA, based on 90 cars across 205 households (2021 census data doesn't provide a total sum of all cars or vans in the area, so based on analysis of household data across the entire of Wales for the 2011 data, it has been assumed that households with 3 or more cars have an average of 3.38 cars). It is also shown that 92% of households owned one car or less.

2.6.3 This compares with an average ownership level across the entire of Cardiff of 1.13 cars per household. As such, this demonstrates that car ownership in this area is low and well below the average levels. This would also indicate a low demand for parking on the surrounding streets from existing residents.

*Census Analysis - Dwelling Type*

2.6.4 As the overall Census data includes all house and tenure types, car ownership levels by dwelling type in the W00009434 output area have been reviewed, as the proposals are for an affordable apartment scheme.

2.6.5 Data has been analysed in Nomis Table *"RM001 - Accommodation type by car or van availability by number of usual residents aged 17 years or over in household".* This data separates car ownership into two categories – firstly houses and secondly flats / maisonettes / apartments.

2.6.6 Within the W00009434 output area there were 73 flats of which 67.9% had no car ownership and 93.7% owned one car or less. The average car ownership for flats was 0.38 per household.

2.6.7 The ownership for flats is approximately 40% of the car ownership for houses across the same output area (houses were c. 0.97 cars per household). This demonstrates that flats in this area have significantly lower car ownership than houses.

*Census Analysis - Tenure Type*

2.6.8 Data has been analysed in Nomis Table "*RM131 - Tenure by car or van availability by number of usual residents aged 17 or over in household".* This data separates car ownership into three categories – Owned / shared ownership, Social rented and Private rented / living rent free.

2.6.9 Within W00009434 there are a total of 17 social rented households, with an average ownership of 0.18 cars per household. This includes 82% of social rented households who do not own a car and all owning one car or less. As such, on average, social rented households in this area have significantly lower car ownership than the average accommodation across the output area.

2.6.10 On this basis, there is clear evidence that both flats and affordable housing have significantly lower than average car ownership in this area, which already has significantly lower ownership than the average across Cardiff, and a development of this nature in this area would have a minimal demand for parking (with potentially in excess of 80% of the units not owning a car).

# 3. PLANNING POLICY

## 3.1 Future Wales: The National Plan 2040

3.1.1 This is the national development framework, setting the direction for development in Wales to 2040. It provides an overarching development plan with a strategy for addressing key national priorities through the planning system. Planning decisions at every level of the planning system in Wales must be taken in accordance with the development plan as a whole.

3.1.2 In relation to transport, it is states on page 51 that *"Growth should be shaped around sustainable forms of transport and places that make us and the environment healthier".* Page 55 continues on to state that *"Development will focus on active travel and public transport, allied with a reduced reliance on private vehicles".*

3.1.3 In the supporting text for Policy 2 - Shaping Urban Growth and Regeneration – Strategic Placemaking, it is stated that *"To enable active and healthy lives, people should be able to easily walk to local facilities and public transport."*

3.1.4 Policy 12 sets out Regional Connectivity. This states that *"in urban areas our priorities are improving and integrating active travel and public transport."*

3.1.5 In relation to Active Travel and developments it is stated that *"Active travel must be an essential and integral component of all new developments, large and small."*

3.1.6 In relation to travelling in Wales, on page 84 it is stated that *"The Welsh Government's aim is to reduce the need to travel, particularly by private vehicles, and support a modal shift to walking, cycling and public transport."*

3.1.7 On page 174, supporting Policy 36, it is stated that *"Welsh Government wishes to see development built in sustainable locations that are supported by the active travel and public transport infrastructure and services needed to enable people to live active and healthy lives."*

3.1.8 In relation to parking, this states on page 86 that *"Planning authorities should promote car-free and low car developments in accessible locations."*

3.1.9 Policy 12 also states that *"Planning authorities must act to reduce levels of car parking in urban areas, including supporting car free developments in accessible locations and developments with car parking spaces that allow them to be converted to other uses over time."*

3.1.10 As such, the key themes are that development should be sited where it can benefit from active travel and public transport connections and reduce the need to travel by car. Facilities should be within easy walking distance and sites with no car parking would be in accordance with the aspirations of Welsh Government.

3.1.11 The site is situated close to the city centre within a short walking distance to public transport links, key facilities, education and employment areas. Existing active travel connections connect to the site which encourages walking and cycling for local journeys. The site is also excellently situated to benefit from public transport services.

3.1.12 The site location is consistent with the policies and aims of Future Wales and is fully in accordance with the Welsh Government aspirations for where development should be focused, particularly car free schemes. Full details of the sustainable connectivity are set out within Section 4.

## 3.2 Planning Policy Wales 12th Edition (PPW12)

3.2.1 PPW12 provides overarching Welsh Government policies with transport policies set out in Section 4.1. This states in paragraph 4.1.10 *"The planning system has a key role to play in reducing the need to travel, particularly by private car, 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*

** make it possible for all short journeys within and beyond the development to be easily made by walking and cycling."*

3.2.2 PPW12 sets out a "*Sustainable Transport Hierarchy for Planning*" in Figure 9. This states in paragraph 4.1.12 "*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."*

3.2.3 It continues to state that "*The sustainable transport hierarchy should be used to reduce the need to travel [and] prevent car-dependent developments in unsustainable locations*."

3.2.4 The site is situated in a location which is highly accessible by walking, cycling and public transport, with active travel links to numerous key facilities and services, which is fully compliant with PPW12, as demonstrated in Section 4 of this TS.

## 3.3 Technical Advice Note 18: Transport (TAN18)

3.3.1 The importance of walking and cycling in contributing towards sustainable travel patterns is detailed in the guidance contained within TAN18: Transport (March 2007). The guidance emphasises not only the role walking and cycling can have as main modes of transport for local journeys but also the considerable contribution they play in forming parts of longer journeys by public transport.

3.3.2 The importance of the location of a site in relation to encouraging sustainable travel is set out within paragraph 3.3 which states *"The location of new residential development has a significant influence on travel patterns as the majority of trips start or finish at home… It should be a key aim of development plans to identify residential sites that are accessible to jobs, shops and services by modes other than the car."*

3.3.3 Paragraph 3.8 continues on to state that *"Locations that are highly accessible by a variety of travel modes offer significant opportunities to make travel patterns more sustainable."*

3.3.4 As such it is recognised by TAN18 that the sustainable location of a site, such as the application site, has a significant influence in engraining sustainable travel habits.

## 3.4 Cardiff Local Development Plan (LDP) (2006-2026)

3.4.1 Section 4 of the LDP relates to Transport. Policy T1 specifically refers to walking and cycling. This states that to enable people to access employment, services and community facilities by walking and cycling, the Council will support developments which incorporate;

- High quality, sustainable design which makes a positive contribution to the distinctiveness of communities and places
- Permeable and legible networks of safe, convenient and attractive walking and cycling routes
- Measures to minimise vehicle speed and give priority to pedestrians and cyclists

- Safe, convenient and attractive walking and cycling connections to existing developments, neighbourhoods, jobs and services
- Infrastructure designed in accordance with standards of good practice including the Council's Cycling Design Guide
- Supporting facilities including, signing, secure cycle parking and, where necessary shower and changing faculties

3.4.2 Policy T6 states that *"Development will not be permitted which would cause unacceptable harm to the safe and efficient operation of the highway, public transport and other movement networks including pedestrian and cycle routes, public rights of way and bridle routes".* This TS demonstrates that the proposals would not have an unacceptable impact in terms of transport.

3.4.3 One of the keys of the LDP is the Transport Strategy which seeks to achieve a 50% modal split of cars for all trips on the network (and 50% other modes). The proposed development is in line with this policy by offering a realistic and attractive choice of sustainable travel modes and through providing no parking provision on the site.

# 4. SUSTAINABLE CONNECTIVITY

## 4.1 Introduction

4.1.1 This section describes the opportunities to make everyday trips by non-car modes. It considers the likelihood of trips being made on foot, by cycle, bus and rail. The site location is demonstrated to be consistent with the aims of TAN18 and in accordance with sustainable transport policies in Future Wales, PPW12 and the LDP.

## 4.2 Walking and Cycling

4.2.1 Walking and cycling (collectively known as active travel) are the most important modes of travel at a local level and offer the greatest potential to replace short car journeys.

*Walking*

4.2.2 The site is situated within close proximity of the city centre in an area which currently accommodates significant levels of pedestrian movements. As such, all surrounding streets have good quality footways and appropriate crossing facilities to accommodate these movements safely between the surrounding retail and leisure facilities, employment areas, educational facilities, visitor attractions, car parks and public transport hubs. This would be expected for an existing and established site situated in an edge of city centre location accessed by routes which already accommodate high levels of walking.

4.2.3 The frontage of the site connects directly to a footway located on the southern side of Walker Road which is c.2.5m in width. This footway also connects to the footways on Portmanmoor Road which lines the eastern boundary of the site. There are dropped kerb crossings on either side of Portmanmoor Road where it meets Walker Road enabling continuous pedestrian connection to the west of the site.

4.2.4 Adjacent to the northern boundary there is a dropped kerb crossing with tactile paving which connects the northern and southern footways on Walker Road. This crossing also enables continuous pedestrian movement from the site access to the closest bus stops on Ordell Street, as well as access to facilities to the north of the site.

4.2.5 To the west of the site, the footways on Walker Road connect to those on East Tyndall Street. East Tyndall Street has footways on one or both sides of the carriageway for its length, and regular pedestrian crossings connecting the northern and southern footways, including raised zebra crossings. From here there are continuous footways from the site to Cardiff City Centre and to Cardiff Bay.

4.2.6 The routes connect the site to the closest bus stops, shops and local schools, which are close by in all directions from the site.

4.2.7 As such, the site is well situated to benefit from high quality pedestrian links and crossings connecting the site to a range of facilities.

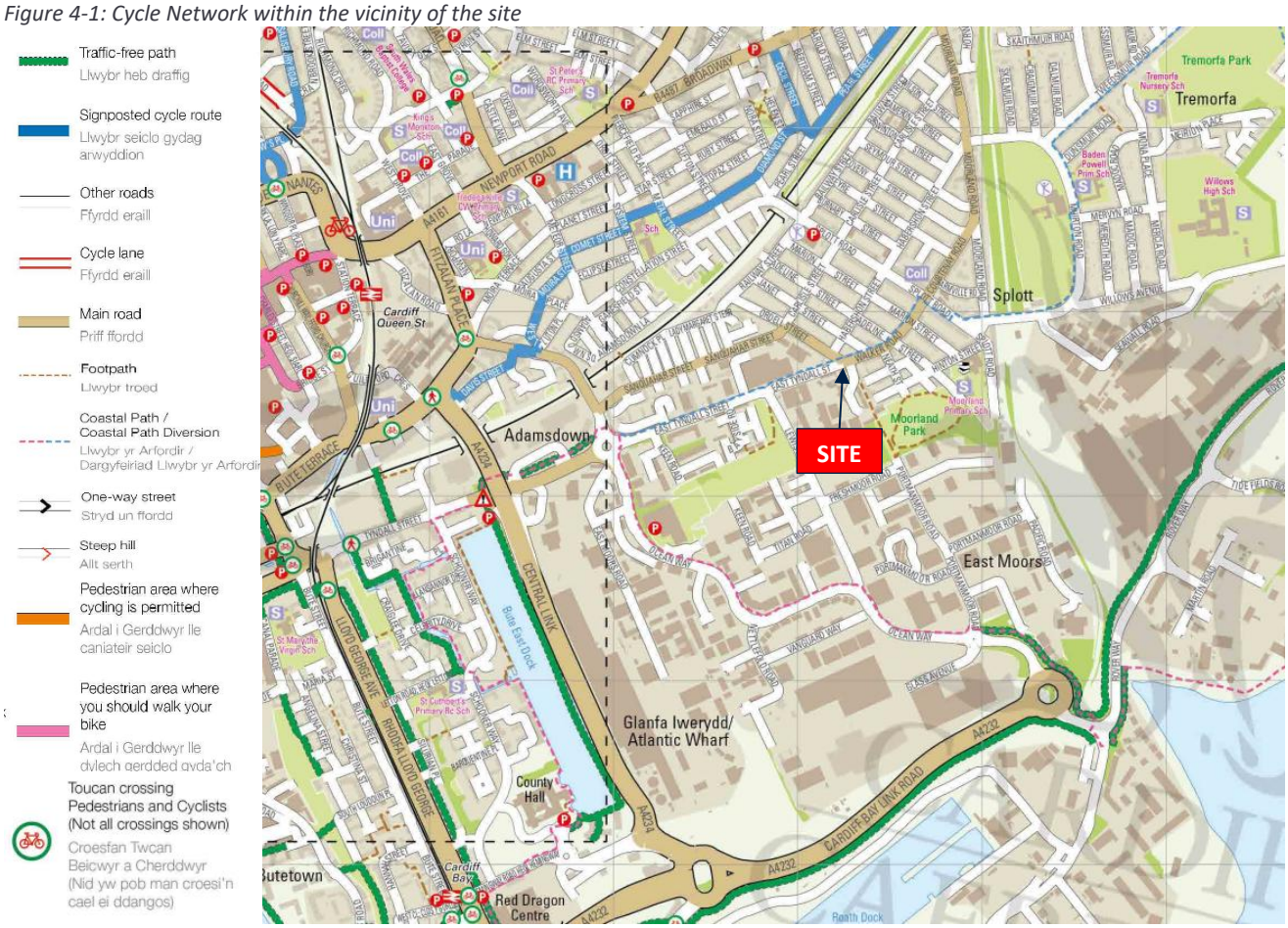
*Cycling*

4.2.8 The site's location benefits from access to a good standard of cycle infrastructure including on and off-carriageway routes. A coastal path diversion route runs along the site frontage on Walker Road which can be accessed directly from the site. To the east, this route runs through Splott and Tremorfa and provides connections from the site to Baden Powell Primary School and Tremorfa Nursery School.

4.2.9 The coastal path diversion route also runs west from the site's northern boundary and connects to the traffic-free cycle route on East Tyndall Street. This traffic-free route runs south between Bute East Dock and Central Link towards Cardiff Bay.

4.2.10 The cycling routes within the vicinity of the site are shown on the Cardiff Cycling and Walking map. An extract of this map showing cycle routes in the vicinity of the site is shown in Figure 4-1. This map is from 2018 and additional cycling infrastructure has been implemented throughout the city since this time, including a number of cycle highway routes.

*Figure 4-1: Cycle Network within the vicinity of the site*




*Source: Cardiff Council*

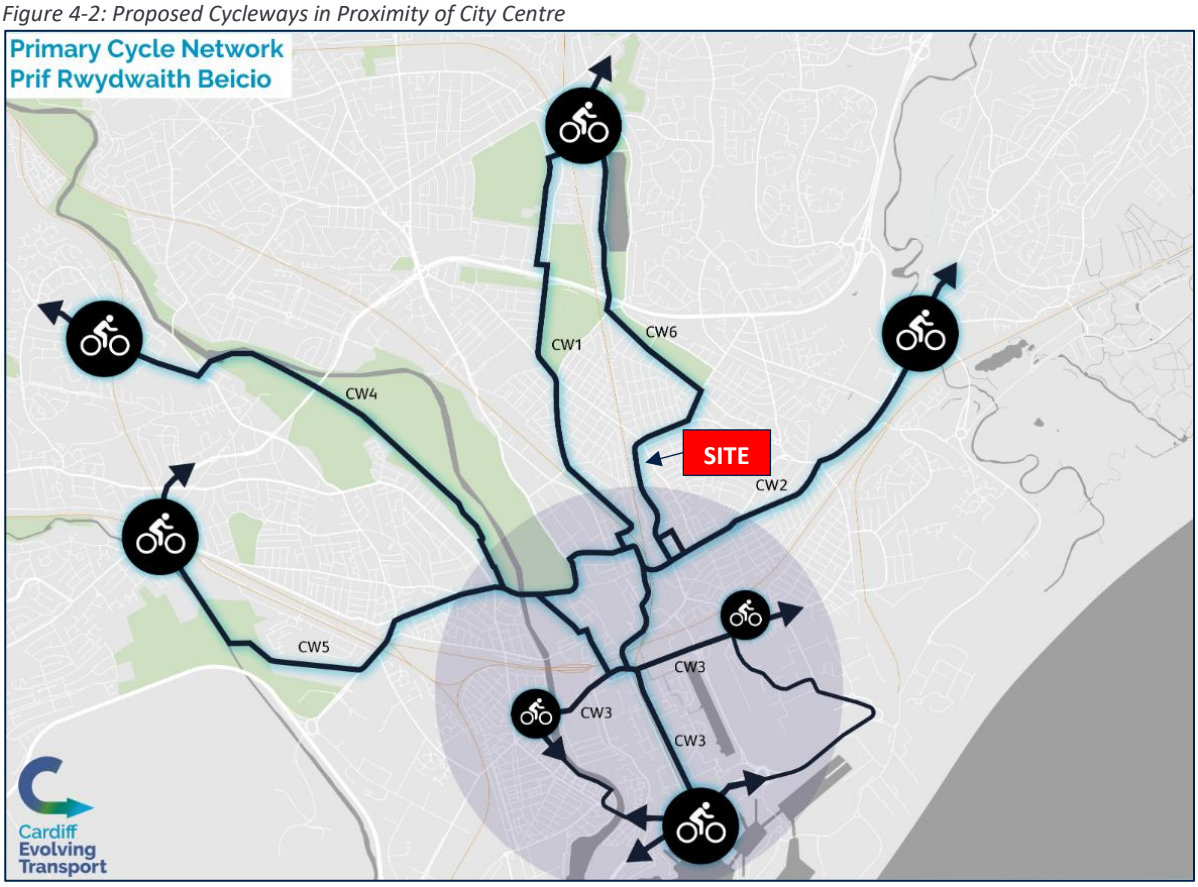
4.2.11 Cardiff Council has an overarching proposal for six permanent cycleways to support and promote cycling. Some of these have been completed already and others will be completed over the coming years. The routes will connect communities to major destinations across the city, including the City Centre and Cardiff Bay. The routes are as follows:

- Cycleway 1: City Centre to Cathays, University Hospital Wales, Heath High Level and Heath Low Level Rail Stations and North East Cardiff Strategic Development Site
- Cycleway 2: City Centre to Adamsdown, Newport Road retail parks, Rumney, Llanrumney and St Mellons Business Park
- Cycleway 3: City Centre to Cardiff Bay
- Cycleway 4: City Centre to Llandaff, Danescourt and North West Strategic Development Site
- Cycleway 5: City Centre to Riverside, Ely and Caerau
- Cycleway 6: Roath Cycleway; City Centre to Plasnewydd, Penylan, Cyncoed and Roath Park.

4.2.12 Cycleway 3 has already been completed, which routes along East Tyndall Street which can be accessed to the west of the site. It also routes along Lloyd George Avenue which connects the City Centre to Cardiff Bay and along Ocean Way linking to employment opportunities within East Moors. From the site, cyclists could access this route via Walker Road within a c.250m cycle. This forms a convenient and good quality route for users of the site.

4.2.13 A plan of the six cycleways is shown on Figure 4-2.

*Figure 4-2: Proposed Cycleways in Proximity of City Centre*




*Source: Cardiff Council website*

4.2.14 As such, the site has excellent connections by cycling to key cycle routes, which will be attractive for residents of and visitors to the site.

## 4.3 Distances to Facilities

4.3.1 There are a number of publications which suggest guidance for appropriate and acceptable walking and cycling distances to facilities. For reference, these have been summarised as follows.

- Welsh Government - Active Travel (Wales) Act Guidance 2021: It is stated within paragraph 9.1.5 that *"Walking is most suitable for journeys of less than two miles whilst cycling is also convenient for longer journeys, typically up to five miles for regular utility journeys".* This equates to distances for walking of up to 3.2km and cycling of up to 8km.
- This also states in paragraph 9.5.3 that *"Walkable neighbourhoods also referred to as 'low-traffic neighbourhoods', or 'active neighbourhoods', (see figure 9.6) are characterised by having a range of facilities within 20 minutes' walking distance which people may access comfortably on foot."* This would equate to c. 1.6km.
- Department for Transport (DfT) – Manual for Streets (2007): MfS states that *'walkable neighbourhoods'* are typically characterised by having a range of facilities within 10 minutes

walking distance (c. 800 metres). MfS also acknowledges that this is not an upper limit and references previous planning policy guidance in that it is generally acknowledged that walking offers the greatest potential to replace short car trips, particularly under 2km.

- CIHT (2015) – Planning for Walking: In relation to shorter trips in particular, (section 2.1) states that across Britain about '*80% of journeys shorter than 1 mile (1.6km) are made wholly on foot*'.
- CIHT - Guidelines for Providing for Journeys on Foot (2000): suggests preferred maximum distances for commuting journeys are up to 2km.
- DfT – LTN1/20 Cycle Infrastructure Design (paragraph 2.2.2) – states that *"Two out of every three personal trips are less than five miles in length, an achievable distance to cycle for most people"* (c.8km).

4.3.2 As such, based on guidance, it is considered that suitable walking distances are up to 3.2km but journeys within 2km have a greater potential to be made on foot. A 2km distance equates to around a 25-minute walk travelling at 3mph (4.8kph). A 3.2km distance equates to around a 40-minute walk. Sites with a range of facilities within 1.6km are considered to be within a 'walkable neighbourhood' and would be highly sustainable locations.

4.3.3 It is considered that journeys of up to 8km are within a suitable cycling distance. A cycling journey of 8km would equate to approximately a 25-minute travel time.

4.3.4 To demonstrate the site's connectivity, key facilities within appropriate distances which are accessed via suitable and established routes have been summarised in Table 4-1. The location of the facilities in the context of the site are shown in Figure 4-3. These facilities have been summarised based on approximate travel distances from the site access via appropriate routes, not straight-line distances.

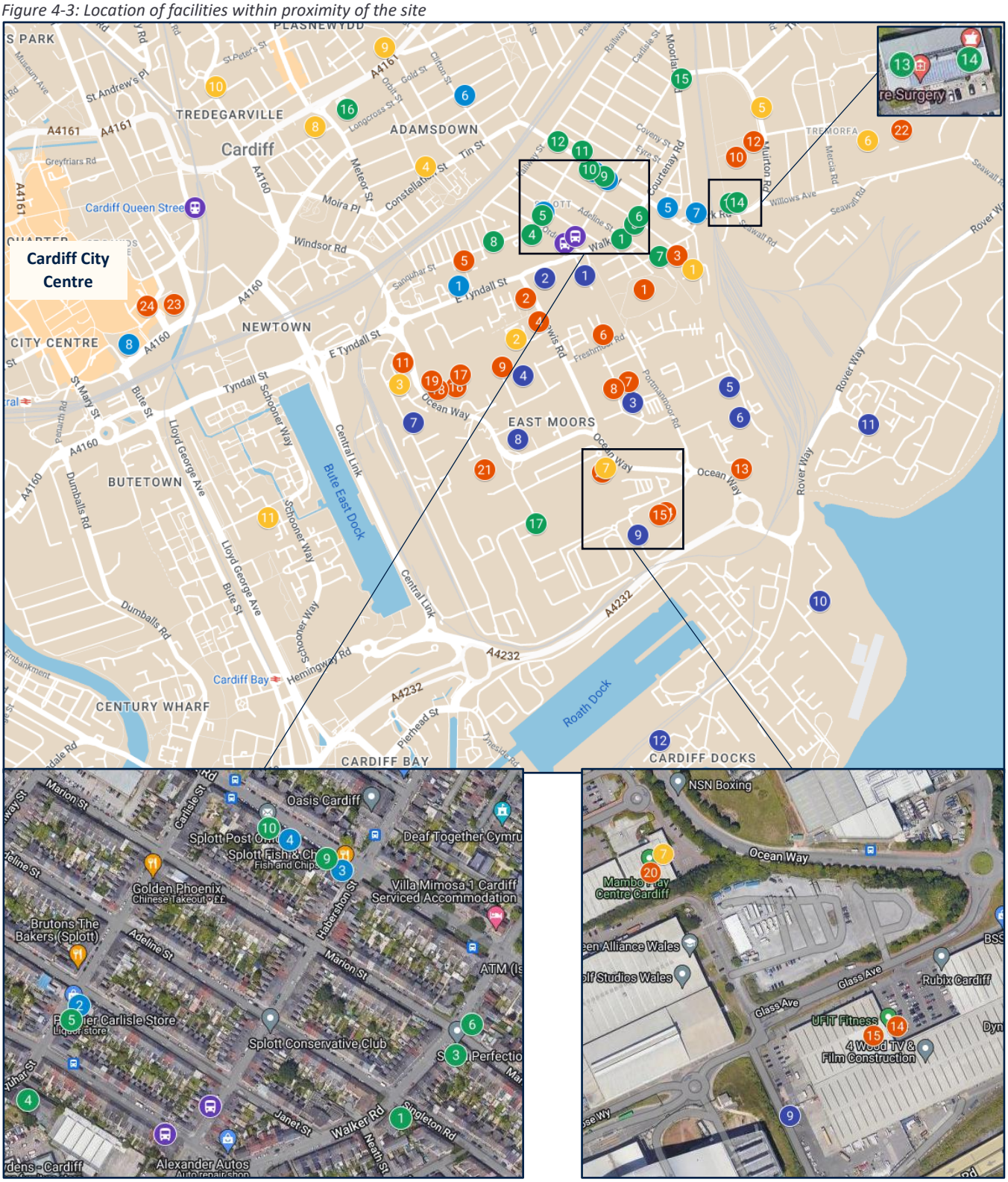
*Table 4-1: Proximity of the site to local facilities and services*

| Facility / Amenity | | Distance from site access (metres) | Walking Travel Time (minutes) * | Cycling Travel Time (minutes) * |
|---|---|---|---|---|
| **Community Facilities** | | | | |
| 1 | JP Barber Company | 140 | 2 | <1 |
| 2 | Smile Aesthetics by Jamie | 160 | 2 | 1 |
| 3 | Salon Perfection | 210 | 3 | 1 |
| 4 | East Moors Youth Centre | 220 | 3 | 1 |
| 5 | InPost Shop | 220 | 3 | 1 |
| 6 | The Hair Studio | 230 | 3 | 1 |
| 7 | Old Library | 310 | 4 | 1 |
| 8 | Cash Point | 350 | 4 | 1 |
| 9 | M W Phillips Pharmacy | 350 | 4 | 1 |
| 10 | Splott Post Office | 400 | 5 | 1 |
| 11 | Saint Saviour's Church (Ministry Area of South Cardiff) | 480 | 6 | 2 |
| 12 | mydentist, Splott Road, Cardiff | 540 | 7 | 2 |
| 13 | Cloughmore Surgery | 650 | 8 | 2 |
| 14 | Knights Tremorfa Pharmacy | 680 | 9 | 2 |
| 15 | The Moorlands Community Centre | 750 | 9 | 2 |
| 16 | Cardiff Royal Infirmary | 1340 | 17 | 4 |
| 17 | Cardiff PDSA Pet Hospital | 1350 | 17 | 4 |
| **Public Transport** | | | | |
| | Ruperra Square | 80 | 1 | <1 |
| | Janet Street | 90 | 1 | <1 |
| | Cardiff Queen Street | 1800 | 23 | 6 |
| **Retail** | | | | |
| 1 | Premier Carlisle Store | 240 | 3 | 1 |
| 2 | Lifestyle Express | 320 | 4 | 1 |
| 3 | Ismail Food Store | 380 | 5 | 1 |
| 4 | Co-op Food - Cardiff - Splott Road | 390 | 5 | 1 |

| Facility / Amenity | | Distance from site access (metres) | Walking Travel Time (minutes) * | Cycling Travel Time (minutes) * |
|---|---|---|---|---|
| 5 | Lidl | 430 | 5 | 1 |
| 6 | The Lemon Shop off licence | 510 | 6 | 2 |
| 7 | Tesco Express | 1050 | 13 | 3 |
| 8 | Cardiff City Centre (John Lewis) | 1870 | 23 | 6 |
| **Education** | | | | |
| 1 | Moorland Primary School | 380 | 5 | 1 |
| 2 | Ysgol Glan Morfa | 530 | 7 | 2 |
| 3 | The Learning Tree Day Nursery | 900 | 11 | 3 |
| 4 | Adamsdown Primary School | 1100 | 14 | 3 |
| 5 | Baden Powell Primary School | 1100 | 14 | 3 |
| 6 | Ysgol Uwchradd yr Helyg / Willows High School | 1230 | 15 | 4 |
| 7 | Ocean Day Nursery | 1250 | 16 | 4 |
| 8 | Tredegarville C.I.W. Primary School | 1320 | 17 | 4 |
| 9 | St Peter's R.C. Primary School | 1350 | 17 | 4 |
| 10 | Kings Monkton School | 1740 | 22 | 5 |
| 11 | St Cuthbert's Roman Catholic Primary School | 1800 | 23 | 6 |
| **Leisure** | | | | |
| 1 | Moorland Park | 270 | 3 | 1 |
| 2 | Maltings Park | 290 | 4 | 1 |
| 3 | Moorland Library Gardens | 370 | 5 | 1 |
| 4 | Maltings skate park | 390 | 5 | 1 |
| 5 | Wilkinson Close Play Area | 500 | 6 | 2 |
| 6 | Riverside Cardiff Leisure Club | 510 | 6 | 2 |
| 7 | Inferno cheer & dance, Cardiff | 710 | 9 | 2 |
| 8 | Welsh Rowing - High Performance Training Facility | 750 | 9 | 2 |
| 9 | The Studio | 840 | 11 | 3 |
| 10 | Splott Park / Playground / Skatepark | 900 | 11 | 3 |
| 11 | Fitter Body Ladies Cardiff Central | 950 | 12 | 3 |
| 12 | Splott Phoenix Bowls Club | 950 | 12 | 3 |
| 13 | PBPerformance gym | 1070 | 13 | 3 |
| 14 | UFIT Fitness | 1090 | 14 | 3 |
| 15 | SYNERGI Weightlifting Club | 1100 | 14 | 3 |
| 16 | Ocean Park Arena. | 1170 | 15 | 4 |
| 17 | Dragons Training Centre | 1200 | 15 | 4 |
| 18 | Cardiff Central Youth Club | 1210 | 15 | 4 |
| 19 | New Wave Wrestling Cardiff | 1240 | 16 | 4 |
| 20 | Mambo Play Centre Cardiff | 1250 | 16 | 4 |
| 21 | Twisters South Wales Trampoline Club | 1290 | 16 | 4 |
| 22 | Bridgend Street Football Club | 1300 | 16 | 4 |
| 23 | Utilita Arena Cardiff | 1830 | 23 | 6 |
| 24 | Cineworld - Cardiff | 1830 | 23 | 6 |
| **Employment** | | | | |
| 1 | Splott Industrial Estate | 100 | 1 | 0 |
| 2 | Space2B at The Maltings - Cardiff | 150 | 2 | 0 |
| 3 | Portmanmoor Road Industrial Estate | 670 | 8 | 2 |
| 4 | Cardiff Bay Business Centre | 720 | 9 | 2 |
| 5 | Pacific Business Park | 900 | 11 | 3 |
| 6 | Compass Business Park | 1050 | 13 | 3 |
| 7 | Timber Yard Industrial Estate | 1080 | 14 | 3 |
| 8 | Regents Trade Park | 1130 | 14 | 4 |
| 9 | Trident Park | 1230 | 15 | 4 |
| 10 | Southpoint Industrial Estate | 1700 | 21 | 5 |
| 11 | Tremorfa Industrial Estate | 1950 | 24 | 6 |
| 12 | Timber Terminal | 2000 | 25 | 6 |

** Based on walking speeds of 80 metres per minute and Cycling Speeds of 320 metres per minute*

*Figure 4-3: Location of facilities within proximity of the site*




*Source: Google Maps*
*Note: Numbers and colours correlate to Table 4-1*

4.3.5 Table 4-1 and Figure 4-3 demonstrate a significant range and number of facilities and services are located within comfortable walking and cycling distances to the site which can be accessed via suitable active travel routes. All facilities are within Welsh Government guidance walking and cycling distances, with numerous facilities within a 'walkable neighbourhood' distance. This demonstrates the highly sustainable location of the site.

4.3.6 Within a 500m walk, residents would be able to access the closest bus stops, Lidl superstore, Co-op food store, a dentist, a pharmacy, cash point, library, place of worship, hairdressers, Barbers, a primary school and recreational uses.

4.3.7 Due to its location close to the city centre, a large number of everyday key facilities and services are located within 800 metres walk therefore the site is in a 'walkable neighbourhood' by both Welsh Government and MfS definitions.

4.3.8 Cardiff City Centre is also located less than a 2km walk from the site, which provides access to numerous services and facilities.

4.3.9 The site is situated in a highly sustainable location, as would be expected for a site in an existing and established urban area on the edge of the city centre. This will encourage walking and cycling and reduce the reliance on the private car, consistent with relevant policies and guidance, including sustainable transport policies in Future Wales, PPW12 and TAN18.

## 4.4 Public Transport

*Bus*

4.4.1 The closest bus stops to the site are located on Ordell Street (80m) and Habershon Street (90m) which can be accessed within a one minute walk from the site. These stops are known as Ruperra Square and Janet Street. Both stops are provided with bus flag, timetable information, and Ruperra Square benefits from raised kerb for accessible boarding.

4.4.2 These stops are served by a combined total of 4 bus routes and provide links to numerous locations including Cardiff City Centre, Heath Hospital, Cardiff Bay, Gabalfa, Canton, Grangetown, Roath and Tremorfa.

4.4.3 A summary of the services from the closest stops to the site are set out in Table 4-2.

*Table 4-2: Local Bus Services*

| Route No. | Stop and operator | Route | Frequency | | | | |
|---|---|---|---|---|---|---|---|
| | | | Mon-Fri Peaks | Mon-Fri Daytime | Mon-Fri Evening | Sat | Sun |
| 1A | **Ruperra Square** Cardiff Bus | Cardiff – Cardiff, via Cardiff Bay | Hourly PM Peaks | 3 services 15:29, 17:24, 18:24 | 17:24 18:24 | No service | No service |
| 1 City Circle | **Ruperra Square** Cardiff Bus | City Circle - (Clockwise) via Cardiff Bay, Canton, Heath Hospital, Albany Road, Tremorfa | Hourly | Hourly 07:10 – 20:02 | Hourly | Hourly 07:12 – 18:47 | No service |
| 2A | **Janet Street** Cardiff Bus | Cardiff – Cardiff, via Cardiff Bay | Hourly AM Peaks | 4 services 05:47, 06:47, 07:47, 08:32 | No service | No service | No service |
| 2 City Circle | **Janet Street** Cardiff Bus | City Circle - (Anticlockwise) via Cardiff Bay, Canton, Heath Hospital, Albany Road, Tremorfa | Hourly | Hourly 06:02 – 19:42 | Hourly | Hourly 07:38 – 17:38 | No service |

4.4.4 From the closest stops to the site, there are a combined 3 services per hour in peak hours, or one service every 20 minutes, on average. As such, this provides a viable and realistic alternative to car for commuting purposes. The services also extend to Saturdays providing 2 services per hour and enabling access to buses six days a week.

4.4.5 Potential future residents of the site can therefore access numerous frequent bus services, linking to a variety of destinations including local and more regional destinations. The bus services from closest to the site provide a feasible and highly attractive option for work related journeys. They can also be used to access destinations for leisure, retail and education purposes.

4.4.6 The site has good accessibility by bus which offers a realistic travel option for potential future residents of the site. This will assist in minimising the vehicle trip generation from the site and reduce the need for residents to own a car. The development would also introduce new passengers to services assisting with the ongoing viability of services.

*Rail*

4.4.7 Cardiff Queen Street Rail Station is situated within a c.1.8km walk of the site (23 minute walk / 6 minute cycle) from where it is possible to access frequent services to numerous destinations, such as Cardiff Bay, Penarth, Merthyr Tydfil, Barry Island, Aberdare, and Bridgend.

4.4.8 Additionally, there are 36 cycle spaces located at Cardiff Queen Street Rail Station which provides the option of a combined cycle then rail journey for future residents.

4.4.9 Cardiff Queen Street Rail Station also provides links to Cardiff Central which offers links to additional locations including Bristol, Swansea, London Paddington, Manchester Piccadilly, Taunton, and Portsmouth Harbour. Rail services from Cardiff Central would be an extremely attractive travel option for residents travelling to and from the site.

4.4.10 As such, it is feasible to use the rail services for all journey purposes. A combined walk/cycle and rail journey has a good potential for replacing car journeys.

## 4.5 Summary

4.5.1 The site is situated in a highly sustainable location. Potential future residents can walk or cycle to a significant number and range of facilities, services and employment within appropriate distances via good quality routes, reducing the need to own a car. In this regard, the site location is consistent with the sustainable transport policies in PPW12 (in particular paras 4.1.10 – 4.1.14) and is situated in a 'walkable neighbourhood' location.

4.5.2 The site also has excellent public transport links, which provide a suitable, attractive and realistic alternative to travelling by car. This will assist in minimising the need for residents to own or travel by car. It will also benefit and attract residents that would prefer to travel by public transport.

4.5.3 Potential future residents would have a realistic choice of modes of travel for all journey purposes. This will minimise the impact of the development and reduce the parking demand on or off the site.

4.5.4 The site location will encourage and promote sustainable travel behaviour, be attractive to residents who do not own a car and is fully in accordance with transport policies in TAN18, PPW12 and Future Wales.

# 5. DEVELOPMENT PROPOSALS

## 5.1 Overview

5.1.1 The proposals are for a residential redevelopment of the site for 15 apartments in a mix of one- and two-bedroom units in a four-storey building. The residential units will be constructed in accordance with the Welsh Government Development Quality Requirements (DQR).

5.1.2 A summary of the building accommodation is set out as follows:

- 8no. one-bedroom apartments
- 7no. two-bedroom apartments

5.1.3 The proposed site layout is shown in Appendix A.

## 5.2 Site Layout and Access

5.2.1 Pedestrian access to the building will be from Portmanmoor Road on the eastern boundary of the site which leads into an entrance corridor. To the north of this corridor is the access to the bike store, to the south of the corridor is the access to the refuse store, and to the west is the door linking to the stair and lift core which accesses all levels of the development. This internal corridor also provides access to the ground floor flats.

5.2.2 The residential flats will be dispersed across the four floors, from the ground floor to the third floor. On the ground floor, 3no. two bedroom flats occupy the north and west sides of the building. Each ground floor flat has an external terrace area that faces Walker Road connecting to the living / kitchen area of the flat. The ground floor is also occupied by a 24 space cycle store and refuse store located on the eastern side of the building. Both of these can be accessed from Portmanmoor Road which will enable on-street refuse collection to occur and allow suitable access for cyclists to reach the cycle store.

5.2.3 Pedestrians can access the site via the footways on the western side of Portmanmoor Road which run along the site's eastern boundary. There is a dropped kerb crossing directly adjacent to the site which will facilitate pedestrian access to the site across Portmanmoor Road. All resident movements can therefore be accommodated from the footways on Portmanmoor Road via traffic free routes.

## 5.3 Parking

*Car Parking*

5.3.1 The development is proposed to be 'car-free' with no on-site car parking provision. This provision reflects the excellent connectivity of the site and encourages travel via sustainable modes. The site is within close proximity to a wide range and high number of amenities and has excellent public transport links so is ideally situated for sustainable travel.

5.3.2 As shown in Section 2, an affordable apartment scheme in this area is likely to have a minimal level of car ownership. For all affordable housing within the output area within which the site is situated, 82% of households do not own a car. If this is applied to this scheme, this would equate to 12 units that do not own a car and just 3 that do own a car. This is a minimal demand for parking which can be comfortably accommodated on-street without a material impact on movements or an unacceptable impact on highway safety.

5.3.3 Future residents would also be in an informed position prior to moving in and would be aware of the car parking provision and sustainable travel options available. The location would attract residents

who choose not to own a car and would prefer to travel by public transport. The highly sustainable location of the site would be helpful and attractive to occupiers who do not own a car or have low car ownership. This could be a significant proportion of occupants, based on ownership data within the local area. This is also consistent with paragraph 8.3.6 of MfS which states *"For residents who choose not to own a car, living in such an area may be an attractive proposition."*

5.3.4 The 'car-free' development is also considered to be in accordance with the Welsh Government overarching planning policy *Future Wales: The National Plan 2040* which states on page 86 that *"Planning authorities should promote car-free and low car developments in accessible locations."* As the site is located near to the city centre with numerous facilities within walking distance, this is regarded as a highly accessible location.

5.3.5 Additionally, on-street parking is also considered appropriate to accommodate parking within the vicinity of the site. On-street parking would provide the most efficient use of the land available, improving the design of the site and increasing amenity space, consistent with aspirations in MfS and Future Wales. In paragraph 8.3.13 of MfS it states *"It is recommended that, in most circumstances, at least some parking demand in residential… areas is met with well-designed on-street parking."*

5.3.6 Paragraph 8.3.15 then continues on to state that: *"In planning for expected levels of car ownership it is not always necessary to provide parking on site [i.e. in off-street parking bays]. In some cases it may be appropriate to cater for… anticipated demand on-street. This could be the case, for example… where a low car-ownership development is proposed."*

5.3.7 MfS also states that on-street parking is the most efficient and flexible use of space, and within paragraph 8.3.2 suggests that residential parking policies should take account of: *"Expected levels of car ownership, the importance of promoting good design and the need to use land efficiently."*

5.3.8 MfS also provides a comparison of the efficiency of different types of parking for new developments. This confirms that on-street parking is the most efficient use of space.

5.3.9 The Department for Communities and Local Government - *Residential Parking Research* (RPR) (2007) also states that on-street parking can make a valuable and flexible contribution to parking demand. On page 9 it is stated: *"On-street parking does make a valuable and flexible contribution to the overall supply of parking and need not be problematic."*

5.3.10 As such, on-street parking, given that the demand would be minimal, would be an efficient use of space, promote good design and would not lead to any safety or manoeuvrability issues. This is fully in accordance with the design principles in MfS.

5.3.11 In addition, the existing planning use of the site would generate on-street parking provision, likely at a higher level than that for the development proposals. Given the wide availability of unrestricted kerbline, parking on-street can be undertaken suitably and safely.

*Cycle Parking*

5.3.12 The Cardiff Council SPG requires a minimum of one cycle parking space per bedroom for residential use which is equivalent to 22 cycle spaces.

5.3.13 Secure cycle racks are provided within a storage area within the building on the ground floor level. The cycle storage area will provide 12 two-tiered cycle racks (24 spaces) which is in excess of the standards. Cycle parking is provided with appropriate dimensions, with the two-tier stands having been designed in accordance with the Bike Storage Company gas assisted two tier cycle rack specifications. There is at least a 2m aisle width in which to manoeuvre bikes in and out of the spaces.

As such, there is appropriate manoeuvring space to get bikes into and out of all cycle parking appropriately.

5.3.14 The level of cycle parking will further encourage travel by this mode and reduce the requirement for travelling by car for residents and visitors and aligns with Cardiff Council's aims to encourage travel by sustainable modes. It also assists in minimising the requirement to own a car.

## 5.4 Servicing and Deliveries

5.4.1 Servicing would mainly relate to refuse collection which would be undertaken on-street as per the existing arrangements for the surrounding units and properties, as well as the existing site use.

5.4.2 MfS states Building Regulations on refuse collection distances in that waste collection vehicles should be able to get within 25 metres of the storage points. The bin store is located on the ground floor within a 25m walk of kerbside and collection can therefore take place from kerbside on Portmanmoor Road. As such, the arrangements are in line with Building Regulations (and MfS) and considered safe and appropriate.

5.4.3 A fire tender will also be able to get within 45 metres of all parts of the building. As such, the layout is appropriate for access by emergency vehicles and in accordance with Building Regulations Approved Document B.

# 6. TRIP GENERATION AND IMPACTS

## 6.1 Introduction

6.1.1 This section sets out the forecast trip generation of the proposed development. The vehicle trip generation has been obtained using the Trip Rate Information Computer System (TRICS). The TRICS database predicts the likely numbers of arrivals and departures by utilising surveys of existing sites. The database has been analysed for sites with similar characteristics in terms of use, scale, parking, location, and accessibility. Trip rates have been obtained and applied to forecast trip generation during the typical network peak hours and over a daily (12 hour) period.

6.1.2 A comparison with the vehicle trip generation for the existing site use has also been undertaken, as this would generate a high level of movements associated with its extant public house use and would also generate on-street parking demand.

## 6.2 Existing Site Use Vehicle Generation

6.2.1 The trip generation has been considered for the existing site use as a public house for comparison with the proposals. For the purposes of this assessment, the existing site has been assumed to have a floorspace of c.450sqm, as this is the approximate footprint of the building at ground floor level (so the upper floor has not been considered for robustness).

6.2.2 The TRICS category '06 - HOTEL, FOOD & DRINK /C - PUB/RESTAURANT' has been selected to derive trip rates for the existing site use. The following parameters have been applied to the search criteria to obtain sites of a similar nature:

- Vehicle Surveys
- Located in England, Scotland and Wales
- Sites up to 750sqm
- Surveys from Monday to Friday
- Town Centre or Edge of Town Centre
- From 2000 onwards (to increase the number of surveys)
- Manual removal of sites with high levels of parking (above 20 spaces)

6.2.3 The application of these parameters resulted in a total of three surveys of similar sites. A summary of the estimated existing vehicle trip rates and trip generation associated with the 450 sqm existing public house use are shown in Table 6-2. The full outputs of the TRICS analysis including the sites used can be found in Appendix B.

*Table 6-1: Existing Public House use – Vehicle Trip Rates and Trip Generation*

| Time Period | Trip Rates (per 100sqm) | | | Trip Generation (450 sqm) | | |
|---|---|---|---|---|---|---|
| | Arrivals | Departures | Two-way | Arrivals | Departures | Two-way |
| AM Peak (07:00-08:00) | 0.000 | 0.000 | 0.000 | 0 | 0 | 0 |
| AM Peak (08:00-09:00) | 0.000 | 0.000 | 0.000 | 0 | 0 | 0 |
| PM Peak (16:00-17:00) | 0.577 | 1.212 | 1.789 | 3 | 5 | 8 |
| PM Peak (17:00-18:00) | 1.039 | 0.635 | 1.674 | 5 | 3 | 8 |
| Daily | 12.349 | 12.407 | 24.756 | 56 | 56 | 112 |

6.2.4 The existing site use is estimated to generate no vehicle movements in the AM peak hours, and 8 two-way vehicle movements during the PM peak hours. It is also estimated to generate 112 two-way vehicle movements over a daily period.

## 6.3 Proposed Vehicle Trip Generation

6.3.1 The TRICS category '03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS' has been selected to derive trip rates for the proposed scheme. The following parameters have been applied to the search criteria to obtain sites of a similar nature:

- 03 – Residential/D – Local Authority Flats
- Vehicle Surveys
- Located in England, Scotland and Wales
- Sites with up to 30 units
- Surveys from Monday to Friday
- Edge of Town Centre or Suburban Area
- From 2010 onwards
- Sites with a parking ratio of up to 0.6 spaces per dwelling

6.3.2 There are a limited number of sites within the TRICS database with no or low levels of parking at a comparable level to that proposed. As such using sites with up to 0.6 spaces per dwelling was the most suitable threshold at which an appropriate number of surveys could be utilised.

6.3.3 The application of these parameters resulted in a total of three surveys of similar sites. A summary of the forecast vehicle trip rates and trip generation associated with the 15 proposed residential flats are shown in Table 6-2. The full outputs of the TRICS analysis including the sites used can be found in Appendix C.

*Table 6-2: Proposed Residential – Vehicle Trip Rates and Trip Generation*

| Time Period | Trip Rates (per unit) | | | Trip Generation (15 units) | | |
|---|---|---|---|---|---|---|
| | Arrivals | Departures | Two-way | Arrivals | Departures | Two-way |
| AM Peak (07:00-08:00) | 0.037 | 0.113 | 0.15 | 1 | 2 | 3 |
| AM Peak (08:00-09:00) | 0.050 | 0.087 | 0.137 | 1 | 1 | 2 |
| PM Peak (16:00-17:00) | 0.237 | 0.113 | 0.350 | 4 | 2 | 6 |
| PM Peak (17:00-18:00) | 0.113 | 0.113 | 0.226 | 2 | 2 | 4 |
| 12 Hours (07:00-19:00) | 1.337 | 1.352 | 2.689 | 20 | 20 | 40 |

6.3.4 The proposed development is forecast to generate approximately 2 to 6 two-way vehicle movements during the network peak hours and 40 two-way vehicle movements over a 12 hour period.

6.3.5 This would equate to a maximum of just one vehicle movement on the network every 10 minutes, on average, during the busiest hour.

6.3.6 It is considered that this trip generation would be an overly robust forecast of vehicle movements given the site does not provide car parking. However, there will be vehicle movements generated on the network for deliveries and servicing, as well as taxis and visitor vehicles. As such, a total of 40 two-way vehicle movements over a 12 hour period is considered a robust basis on which to consider the impacts of the scheme, and this demonstrates that the level of movements would be minimal and would not have a material impact on the operation of the surrounding highway.

## 6.4 Net Change in Vehicle Movements

The net change in vehicle movements between the existing and proposed developments is set out in Table 6-3.

*Table 6-3: Net Change in Vehicle Movements*

| Time Period | Existing | | | Proposed | | | Net Change | | |
|---|---|---|---|---|---|---|---|---|---|
| | Arrive | Depart | Two-way | Arrive | Depart | Two-way | Arrive | Depart | Two-way |
| AM Peak (07:00-08:00) | 0 | 0 | 0 | 1 | 2 | 3 | 1 | 2 | 3 |
| AM Peak (08:00-09:00) | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 1 | 2 |
| PM Peak (16:00-17:00) | 3 | 5 | 8 | 4 | 2 | 6 | 1 | -3 | -2 |
| PM Peak (17:00-18:00) | 5 | 3 | 8 | 2 | 2 | 4 | -3 | -1 | -4 |
| Daily | 56 | 56 | 112 | 20 | 20 | 40 | -36 | -36 | -72 |

6.4.1 As shown, the proposals are forecast to significantly reduce vehicle movements over a daily period, with a slight reduction in PM peak hours and a slight increase in the AM peak hours. As such, the proposals are not considered to have a material impact on the highway network, and would not lead to an increase in parking demand during the majority of the day. Vehicles already park on-street in association with the site, and the minimal demand for on-street parking from the proposals would remain suitably accommodated on-street.

## 6.5 Modal Split

6.5.1 To provide an estimation of the number of trips by each mode of travel during the peak hours and across a 12 hour period, the modal split obtained from the Census journey to work information has been utilised. The resultant forecast modal split and number of trips by each mode of travel (based on applying the vehicle trips from the TRICS analysis to other modes) has been set out in Table 6-4.

*Table 6-4: Forecast Modal Split for proposed development (using Census data)*

| Mode | Census Modal Split % | Number of Two-Way Person Trips | | |
|---|---|---|---|---|
| | | AM Peak (08:00-09:00) | PM Peak (16:00-17:00) | 12 Hours (07:00-19:00) |
| Public Transport | 16% | 1 | 2 | 15 |
| Car Driver | 43% | 2 | 6 | 40 |
| Motorcycle | 0% | 0 | 0 | 0 |
| Car Passenger | 7% | 0 | 1 | 7 |
| Bicycle | 6% | 0 | 1 | 6 |
| On Foot | 28% | 1 | 4 | 26 |
| Other | **1%** | 0 | 0 | 1 |
| **Total** | **100%** | **5** | **14** | **93** |

6.5.2 The proposals would not have a material impact on any mode of travel. The surrounding network is suitable for accommodating up 8 pedestrian movements in the peak hours (walking plus public transport), particularly considering the surrounding footways accommodate high volumes of pedestrian traffic on a daily basis.

6.5.3 The car driver modal split is considered to be higher than what will occur on the site given that there are no on-site parking spaces. As such, it is likely that some of these car driver movements would actually be made by sustainable modes of travel, although some of these vehicles could also park on-street. In particular, the car passenger movements could be higher in relation to taxi movements or other drop-offs / pick-ups.

6.5.4 As shown in Section 2 there is no evidence of an existing safety issue within the vicinity of the site, including at the Portmanmoor Road / Walker Road junction, and for walking movements. As such, the minimal increase in all movements associated with the proposals would not have a material or unacceptable impact on road safety, including on the key routes towards the city centre and public transport stops. The network would remain suitable for accommodating these movements and no mitigation is required to accommodate the proposals.

# 7. SUMMARY AND CONCLUSIONS

## 7.1 Summary

7.1.1 This Transport Statement (TS) has been produced in relation to the redevelopment of the former New Fleurs public house, Walker Road, Cardiff.

7.1.2 The proposals are to redevelop the site, through demolishing the existing building and constructing a single building accommodating 15no. affordable residential apartments, comprising of one and two-bedroom apartments. The residential units will be constructed in accordance with the Welsh Government Development Quality Requirements (DQR).

7.1.3 The site is situated in a highly sustainable location. Potential future residents can walk or cycle to a number and range of facilities, services and employment uses within appropriate distances via good quality routes, reducing the need to own or travel by a car. This includes the site being well located to access key strategic cycle routes.

7.1.4 The site also has good public transport links, which provide a suitable, attractive and realistic alternative to travelling by car. In particular, bus services are situated within a short walk. These will offer a highly attractive travel option for residents. This will further assist in constraining vehicle generation and reduce the need for residents to own or travel by car. It will also benefit and attract residents that would prefer to travel by public transport.

7.1.5 The developed is proposed to be 'car-free' through providing no parking provision, as it is situated within a sustainable location with access to a large number of facilities and public transport options. The parking is in accordance with the Welsh Government aspirations for promoting car-free and low car developments in accessible locations. Census data demonstrates that there is low car ownership in the surrounding area, particularly for affordable housing and flats. There are also opportunities for parking on-street safely and appropriately on the surrounding streets, as occurs with the existing site use, although only a minimal demand for parking is forecast which would not have an unacceptable highway safety impact.

7.1.6 The site is providing 24 secure and covered cycle parking spaces within the cycle store. This provision is in excess of the Cardiff Council standards and will further encourage residents to travel by sustainable modes.

7.1.7 Obtained road safety data does not indicate an existing safety issue which would be exacerbated by the proposals and no evidence of a safety issue adjacent to the site or at the Portmanmoor Road / Walker Road junction.

7.1.8 Trip generation analysis has shown that the proposed residential use would generate minimal vehicle movements within the peak hours and over a 12 hour period. Over a daily period, it is forecast there would be a reduction in vehicle movements compared with the existing site use. As such, the proposals would not have a material impact on the operation of the surrounding network, or on parking on the surrounding streets.

## 7.2 Conclusions

7.2.1 The site location will encourage and promote sustainable travel behaviour, suit residents who do not own a car and is fully in accordance with transport policies in Future Wales, PPW12. TAN18 and the Cardiff Council Managing Transportation Impacts SPG.

7.2.2 Data does not indicate a road safety issue which would be exacerbated by the proposals. The development would not have an unacceptable impact on road safety.

7.2.3 Providing no on-site parking provision is fully in accordance with the objectives for encouraging sustainable travel and reducing car use as set out in PPW12 and Future Wales. The proposals would not have a material impact on parking stress, particularly given the existing site use would generate on-street parking .

7.2.4 The site will likely generate a minimal level of vehicle movements and would not have a material impact on the operation of the highway network.

7.2.5 The analysis presented within this TS should allow the highway authority to provide a positive recommendation on the planning application.

# Appendix A Proposed Site Layout

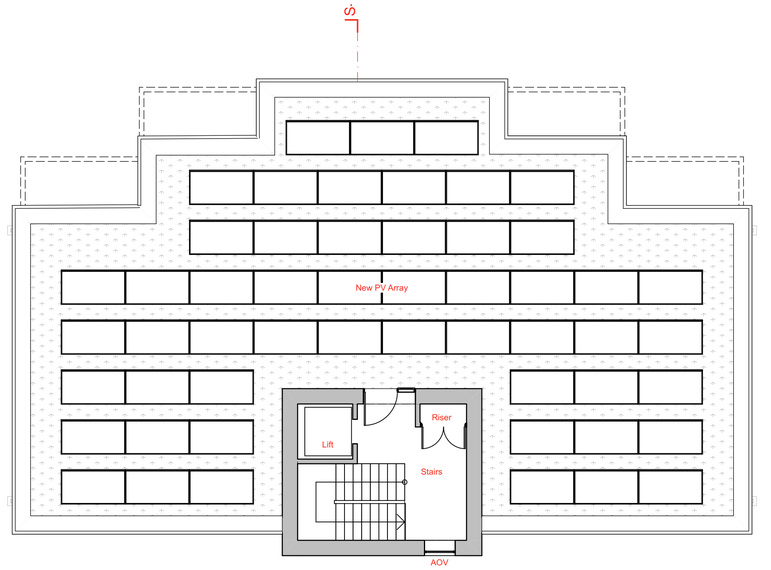
| Rev | Description | Date | By |
|---|---|---|---|
| 02 | New access layout and general amendments | 21/10/2024 | JRM |
| 03 | Amendemnts after meeting 25th October | 28/10/2024 | JRM |
| 04 | Design Amendments 29th October | 11/11/2024 | JRM |
| 05 | General Amendments | 12/11/2024 | JRM |


E-03 Side Elevation 1:200

E-02 Rear Elevation 1:200

E-01 Front Elevation 1:200

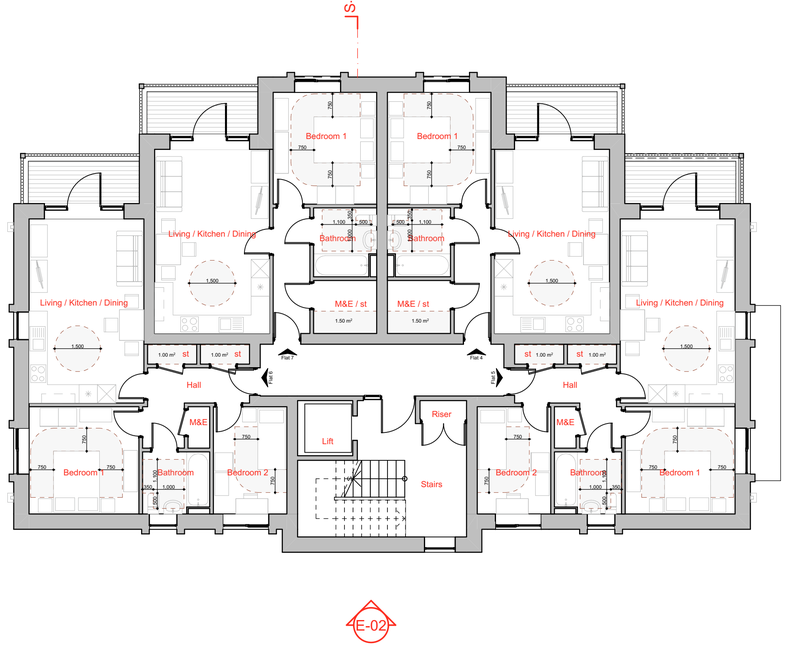
E-04 Side Elevation 1:200




4. RF-Roof 1:100




0. GF-Ground Floor 1:100




1. Typical Floor Plan 1:100

0 1000 2000 3000 4000 5000mm

dennis hellyar **Architects**
t: +44 (0)1446 500720
e: info@dennishellyar-architects.com
w: www.dennishellyar-architects.com



| | |
|---|---|
| Project | The New Fleurs Feasibility Study |
| Address | 2 Portmanmoor Rd, Cardiff CF24 5FX |
| Client | CCHA |
| Drawn | JRM |
| File | 367_CCHA - The New Fleurs.pln |
| Date | 12/11/2024 |
| Status | WORK IN PROGRESS |
| Scale @ A1 | 1:100, 1:200 |
| Revision | **05** |
| Title | Proposed Layout |
| No | 367 - DHA - XX - 01 - DR - A - **0101** |

# Appendix B TRICS Outputs – Existing Public House Use

Apex Transport Planning Ltd 11-13 Penhill Road Cardiff Licence No: 502501

Filtering Summary

| | | |
|---|---|---|
| Land Use | 06/C | HOTEL, FOOD & DRINK/PUB/RESTAURANT |
| Selected Trip Rate Calculation Parameter Range | 112-1000 sqm GFA | |
| Actual Trip Rate Calculation Parameter Range | 461-672 sqm GFA | |
| Date Range | Minimum: 01/01/10 | Maximum: 16/10/23 |
| Parking Spaces Range | Selected: 4 to 20 | Actual: 4 to 150 |
| Days of the week selected | Thursday<br>Friday | 2<br>1 |
| Main Location Types selected | Town Centre | 3 |
| Inclusion of Servicing Vehicles Counts | Servicing vehicles Included<br>Servicing vehicles Excluded | X - Selected<br>3 - Selected |
| Population within 500m | All Surveys Included | |
| Population <1 Mile ranges selected | 10,001 to 15,000<br>25,001 to 50,000 | 2<br>1 |
| Population <5 Mile ranges selected | 25,001 to 50,000<br>125,001 to 250,000 | 2<br>1 |
| Car Ownership <5 Mile ranges selected | 0.6 to 1.0<br>1.1 to 1.5 | 2<br>1 |
| PTAL Rating | No PTAL Present | 3 |

Calculation Reference: AUDIT-502501-241125-1104

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : C - PUB/RESTAURANT
TOTAL VEHICLES

*Selected regions and areas:*

| | | | |
|---|---|---|---|
| 06 | WEST MIDLANDS | | |
| | WM | WEST MIDLANDS | 1 days |
| 08 | NORTH WEST | | |
| | LC | LANCASHIRE | 1 days |
| 11 | SCOTLAND | | |
| | AG | ANGUS | 1 days |

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

Primary Filtering selection:

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

| | |
|---|---|
| Parameter: | Gross floor area |
| Actual Range: | 461 to 672 (units: sqm) |
| Range Selected by User: | 112 to 1000 (units: sqm) |

Parking Spaces Range: Selected: 4 to 20 Actual: 4 to 150

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 16/10/23

*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:*

| | |
|---|---|
| Thursday | 2 days |
| Friday | 1 days |

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

*Selected survey types:*

| | |
|---|---|
| Manual count | 3 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 | 3 |

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

*Selected Location Sub Categories:*

| | |
|---|---|
| Built-Up Zone | 3 |

*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.*

*Inclusion of Servicing Vehicles Counts:*

| | |
|---|---|
| Servicing vehicles Included | X days - Selected |
| Servicing vehicles Excluded | 3 days - Selected |

Secondary Filtering selection:

*Use Class:*

| | |
|---|---|
| Sui Generis | 3 days |

*This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.*

*Population within 500m Range:*
All Surveys Included
*Population within 1 mile:*

| | |
|---|---|
| 10,001 to 15,000 | 2 days |
| 25,001 to 50,000 | 1 days |

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

Secondary Filtering selection (Cont.):

*Population within 5 miles:*

| | |
|---|---|
| 25,001 to 50,000 | 2 days |
| 125,001 to 250,000 | 1 days |

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

*Car ownership within 5 miles:*

| | |
|---|---|
| 0.6 to 1.0 | 2 days |
| 1.1 to 1.5 | 1 days |

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

*Travel Plan:*

| | |
|---|---|
| No | 3 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 | 3 days |

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

*LIST OF SITES relevant to selection parameters*

| | | | | |
|---|---|---|---|---|
| 1 | AG-06-C-01<br>GRAVESEND<br>ARBROATH | PUB/RESTAURANT | | ANGUS |
| | Town Centre<br>Built-Up Zone<br>Total Gross floor area: | | 672 sqm | |
| | *Survey date: FRIDAY* | | *25/05/12* | *Survey Type: MANUAL* |
| 2 | LC-06-C-04<br>ST JAMES STREET<br>BURNLEY | PUB/RESTAURANT | | LANCASHIRE |
| | Town Centre<br>Built-Up Zone<br>Total Gross floor area: | | 600 sqm | |
| | *Survey date: THURSDAY* | | *29/09/16* | *Survey Type: MANUAL* |
| 3 | WM-06-C-03<br>GREYFRIARS LANE<br>COVENTRY | PUB/RESTAURANT | | WEST MIDLANDS |
| | Town Centre<br>Built-Up Zone<br>Total Gross floor area: | | 461 sqm | |
| | *Survey date: THURSDAY* | | *17/10/13* | *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 06 - HOTEL, FOOD & DRINK/C - PUB/RESTAURANT
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | |
|---|---|---|---|---|---|---|---|---|---|
| Time Range | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00 - 01:00 | | | | | | | | | |
| 01:00 - 02:00 | | | | | | | | | |
| 02:00 - 03:00 | | | | | | | | | |
| 03:00 - 04:00 | | | | | | | | | |
| 04:00 - 05:00 | | | | | | | | | |
| 05:00 - 06:00 | | | | | | | | | |
| 06:00 - 07:00 | | | | | | | | | |
| 07:00 - 08:00 | 1 | 600 | 0.000 | 1 | 600 | 0.000 | 1 | 600 | 0.000 |
| 08:00 - 09:00 | 1 | 600 | 0.000 | 1 | 600 | 0.000 | 1 | 600 | 0.000 |
| 09:00 - 10:00 | 1 | 600 | 0.000 | 1 | 600 | 0.000 | 1 | 600 | 0.000 |
| 10:00 - 11:00 | 3 | 578 | 0.173 | 3 | 578 | 0.058 | 3 | 578 | 0.231 |
| 11:00 - 12:00 | 3 | 578 | 0.231 | 3 | 578 | 0.058 | 3 | 578 | 0.289 |
| 12:00 - 13:00 | 3 | 578 | 1.269 | 3 | 578 | 0.404 | 3 | 578 | 1.673 |
| 13:00 - 14:00 | 3 | 578 | 0.808 | 3 | 578 | 1.500 | 3 | 578 | 2.308 |
| 14:00 - 15:00 | 3 | 578 | 1.039 | 3 | 578 | 0.923 | 3 | 578 | 1.962 |
| 15:00 - 16:00 | 3 | 578 | 1.500 | 3 | 578 | 1.500 | 3 | 578 | 3.000 |
| 16:00 - 17:00 | 3 | 578 | 0.577 | 3 | 578 | 1.212 | 3 | 578 | 1.789 |
| 17:00 - 18:00 | 3 | 578 | 1.039 | 3 | 578 | 0.635 | 3 | 578 | 1.674 |
| 18:00 - 19:00 | 3 | 578 | 0.750 | 3 | 578 | 0.923 | 3 | 578 | 1.673 |
| 19:00 - 20:00 | 3 | 578 | 1.327 | 3 | 578 | 1.039 | 3 | 578 | 2.366 |
| 20:00 - 21:00 | 3 | 578 | 1.789 | 3 | 578 | 1.039 | 3 | 578 | 2.828 |
| 21:00 - 22:00 | 3 | 578 | 0.981 | 3 | 578 | 1.500 | 3 | 578 | 2.481 |
| 22:00 - 23:00 | 3 | 578 | 0.808 | 3 | 578 | 1.212 | 3 | 578 | 2.020 |
| 23:00 - 24:00 | 3 | 578 | 0.058 | 3 | 578 | 0.404 | 3 | 578 | 0.462 |
| Total Rates: | | | 12.349 | | | 12.407 | | | 24.756 |

*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: | 461 - 672 (units: sqm) |
| Survey date date range: | 01/01/10 - 16/10/23 |
| Number of weekdays (Monday-Friday): | 3 |
| 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 06 - HOTEL, FOOD & DRINK/C - PUB/RESTAURANT
TAXIS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | |
|---|---|---|---|---|---|---|---|---|---|
| Time Range | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00 - 01:00 | | | | | | | | | |
| 01:00 - 02:00 | | | | | | | | | |
| 02:00 - 03:00 | | | | | | | | | |
| 03:00 - 04:00 | | | | | | | | | |
| 04:00 - 05:00 | | | | | | | | | |
| 05:00 - 06:00 | | | | | | | | | |
| 06:00 - 07:00 | | | | | | | | | |
| 07:00 - 08:00 | 1 | 600 | 0.000 | 1 | 600 | 0.000 | 1 | 600 | 0.000 |
| 08:00 - 09:00 | 1 | 600 | 0.000 | 1 | 600 | 0.000 | 1 | 600 | 0.000 |
| 09:00 - 10:00 | 1 | 600 | 0.000 | 1 | 600 | 0.000 | 1 | 600 | 0.000 |
| 10:00 - 11:00 | 3 | 578 | 0.000 | 3 | 578 | 0.000 | 3 | 578 | 0.000 |
| 11:00 - 12:00 | 3 | 578 | 0.000 | 3 | 578 | 0.000 | 3 | 578 | 0.000 |
| 12:00 - 13:00 | 3 | 578 | 0.173 | 3 | 578 | 0.173 | 3 | 578 | 0.346 |
| 13:00 - 14:00 | 3 | 578 | 0.115 | 3 | 578 | 0.115 | 3 | 578 | 0.230 |
| 14:00 - 15:00 | 3 | 578 | 0.000 | 3 | 578 | 0.000 | 3 | 578 | 0.000 |
| 15:00 - 16:00 | 3 | 578 | 0.000 | 3 | 578 | 0.000 | 3 | 578 | 0.000 |
| 16:00 - 17:00 | 3 | 578 | 0.000 | 3 | 578 | 0.000 | 3 | 578 | 0.000 |
| 17:00 - 18:00 | 3 | 578 | 0.115 | 3 | 578 | 0.000 | 3 | 578 | 0.115 |
| 18:00 - 19:00 | 3 | 578 | 0.000 | 3 | 578 | 0.058 | 3 | 578 | 0.058 |
| 19:00 - 20:00 | 3 | 578 | 0.462 | 3 | 578 | 0.462 | 3 | 578 | 0.924 |
| 20:00 - 21:00 | 3 | 578 | 0.635 | 3 | 578 | 0.346 | 3 | 578 | 0.981 |
| 21:00 - 22:00 | 3 | 578 | 0.289 | 3 | 578 | 0.346 | 3 | 578 | 0.635 |
| 22:00 - 23:00 | 3 | 578 | 0.289 | 3 | 578 | 0.404 | 3 | 578 | 0.693 |
| 23:00 - 24:00 | 3 | 578 | 0.000 | 3 | 578 | 0.000 | 3 | 578 | 0.000 |
| Total Rates: | | | 2.078 | | | 1.904 | | | 3.982 |

*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 06 - HOTEL, FOOD & DRINK/C - PUB/RESTAURANT
PSVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

| | ARRIVALS | | | DEPARTURES | | | TOTALS | | |
|---|---|---|---|---|---|---|---|---|---|
| Time Range | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00 - 01:00 | | | | | | | | | |
| 01:00 - 02:00 | | | | | | | | | |
| 02:00 - 03:00 | | | | | | | | | |
| 03:00 - 04:00 | | | | | | | | | |
| 04:00 - 05:00 | | | | | | | | | |
| 05:00 - 06:00 | | | | | | | | | |
| 06:00 - 07:00 | | | | | | | | | |
| 07:00 - 08:00 | 1 | 600 | 0.000 | 1 | 600 | 0.000 | 1 | 600 | 0.000 |
| 08:00 - 09:00 | 1 | 600 | 0.000 | 1 | 600 | 0.000 | 1 | 600 | 0.000 |
| 09:00 - 10:00 | 1 | 600 | 0.000 | 1 | 600 | 0.000 | 1 | 600 | 0.000 |
| 10:00 - 11:00 | 3 | 578 | 0.000 | 3 | 578 | 0.000 | 3 | 578 | 0.000 |
| 11:00 - 12:00 | 3 | 578 | 0.000 | 3 | 578 | 0.000 | 3 | 578 | 0.000 |
| 12:00 - 13:00 | 3 | 578 | 0.000 | 3 | 578 | 0.000 | 3 | 578 | 0.000 |
| 13:00 - 14:00 | 3 | 578 | 0.000 | 3 | 578 | 0.000 | 3 | 578 | 0.000 |
| 14:00 - 15:00 | 3 | 578 | 0.000 | 3 | 578 | 0.000 | 3 | 578 | 0.000 |
| 15:00 - 16:00 | 3 | 578 | 0.000 | 3 | 578 | 0.000 | 3 | 578 | 0.000 |
| 16:00 - 17:00 | 3 | 578 | 0.000 | 3 | 578 | 0.000 | 3 | 578 | 0.000 |
| 17:00 - 18:00 | 3 | 578 | 0.000 | 3 | 578 | 0.000 | 3 | 578 | 0.000 |
| 18:00 - 19:00 | 3 | 578 | 0.000 | 3 | 578 | 0.000 | 3 | 578 | 0.000 |
| 19:00 - 20:00 | 3 | 578 | 0.000 | 3 | 578 | 0.000 | 3 | 578 | 0.000 |
| 20:00 - 21:00 | 3 | 578 | 0.000 | 3 | 578 | 0.058 | 3 | 578 | 0.058 |
| 21:00 - 22:00 | 3 | 578 | 0.115 | 3 | 578 | 0.000 | 3 | 578 | 0.115 |
| 22:00 - 23:00 | 3 | 578 | 0.000 | 3 | 578 | 0.173 | 3 | 578 | 0.173 |
| 23:00 - 24:00 | 3 | 578 | 0.000 | 3 | 578 | 0.000 | 3 | 578 | 0.000 |
| Total Rates: | | | 0.115 | | | 0.231 | | | 0.346 |

*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.*

# Appendix C TRICS Outputs – Proposed Residential Use

Apex Transport Planning Ltd 11-13 Penhill Road Cardiff Licence No: 502501

Filtering Summary

| | | |
|---|---|---|
| Land Use | 03/D | RESIDENTIAL/AFFORDABLE/LOCAL AUTHORITY FLATS |
| Selected Trip Rate Calculation Parameter Range | 6-467 DWELLS | |
| Actual Trip Rate Calculation Parameter Range | 10-43 DWELLS | |
| Date Range | Minimum: 01/01/16 | Maximum: 05/03/24 |
| Parking Spaces Range | All Surveys Included | |
| Parking Spaces Per Dwelling Range: | All Surveys Included | |
| Bedrooms Per Dwelling Range: | All Surveys Included | |
| Percentage of dwellings privately owned: | All Surveys Included | |
| Days of the week selected | Tuesday | 1 |
| | Wednesday | 1 |
| | Thursday | 1 |
| Main Location Types selected | Edge of Town Centre | 1 |
| | Suburban Area (PPS6 Out of Centre) | 2 |
| Inclusion of Servicing Vehicles Counts | Servicing vehicles Included | 4 - Selected |
| | Servicing vehicles Excluded | 2 - Selected |
| Population within 500m | All Surveys Included | |
| Population <1 Mile ranges selected | 5,001 to 10,000 | 1 |
| | 25,001 to 50,000 | 2 |
| Population <5 Mile ranges selected | 125,001 to 250,000 | 1 |
| | 250,001 to 500,000 | 1 |
| | 500,001 or More | 1 |
| Car Ownership <5 Mile ranges selected | 1.1 to 1.5 | 3 |
| PTAL Rating | No PTAL Present | 3 |

Calculation Reference: AUDIT-502501-241015-1050

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : D - AFFORDABLE/LOCAL AUTHORITY FLATS
TOTAL VEHICLES

*Selected regions and areas:*

| | | | |
|---|---|---|---|
| 03 | SOUTH WEST | | |
| | GS | GLOUCESTERSHIRE | 1 days |
| 07 | YORKSHIRE & NORTH LINCOLNSHIRE | | |
| | LS | LEEDS | 1 days |
| | SE | SHEFFIELD | 1 days |

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

Primary Filtering selection:

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

Parameter: No of Dwellings
Actual Range: 10 to 43 (units: )
Range Selected by User: 6 to 467 (units: )

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/16 to 05/03/24

*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:*

| | |
|---|---|
| Tuesday | 1 days |
| Wednesday | 1 days |
| Thursday | 1 days |

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

*Selected survey types:*

| | |
|---|---|
| Manual count | 3 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:*

| | |
|---|---|
| Edge of Town Centre | 1 |
| Suburban Area (PPS6 Out of Centre) | 2 |

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

*Selected Location Sub Categories:*

| | |
|---|---|
| Residential Zone | 3 |

*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.*

*Inclusion of Servicing Vehicles Counts:*

| | |
|---|---|
| Servicing vehicles Included | 4 days - Selected |
| Servicing vehicles Excluded | 2 days - Selected |

Secondary Filtering selection:

*Use Class:*

| | |
|---|---|
| C3 | 3 days |

*This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.*

*Population within 500m Range:*
All Surveys Included

Secondary Filtering selection (Cont.):

*Population within 1 mile:*

| | |
|---|---|
| 5,001 to 10,000 | 1 days |
| 25,001 to 50,000 | 2 days |

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

*Population within 5 miles:*

| | |
|---|---|
| 125,001 to 250,000 | 1 days |
| 250,001 to 500,000 | 1 days |
| 500,001 or More | 1 days |

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

*Car ownership within 5 miles:*

| | |
|---|---|
| 1.1 to 1.5 | 3 days |

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

*Travel Plan:*

| | |
|---|---|
| No | 3 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 | 3 days |

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

*LIST OF SITES relevant to selection parameters*

| | | | |
|---|---|---|---|
| Site(1): | GS-03-D-02 | Site area: | 0.26 hect |
| Development Name: | BLOCKS OF FLATS | No of Dwellings: | 27 |
| Location: | CHELTENHAM SPA | Housing density: | 104 |
| Postcode: | GL51 7BT | Total Bedrooms: | 41 |
| Main Location Type: | Suburban Area (PPS6 Out of Centre) | Survey Date: | 04/05/23 |
| Sub-Location Type: | Residential Zone | Survey Day: | Thursday |
| PTAL: | n/a | Parking Spaces: | 16 |
| | | | |
| Site(2): | LS-03-D-03 | Site area: | 0.15 hect |
| Development Name: | BLOCK OF FLATS | No of Dwellings: | 43 |
| Location: | LEEDS | Housing density: | 683 |
| Postcode: | LS12 3NX | Total Bedrooms: | 65 |
| Main Location Type: | Edge of Town Centre | Survey Date: | 06/06/23 |
| Sub-Location Type: | Residential Zone | Survey Day: | Tuesday |
| PTAL: | n/a | Parking Spaces: | 10 |
| | | | |
| Site(3): | SE-03-D-01 | Site area: | 0.10 hect |
| Development Name: | BLOCK OF FLATS | No of Dwellings: | 10 |
| Location: | SHEFFIELD | Housing density: | 100 |
| Postcode: | S9 1SF | Total Bedrooms: | 10 |
| Main Location Type: | Suburban Area (PPS6 Out of Centre) | Survey Date: | 21/06/23 |
| Sub-Location Type: | Residential Zone | Survey Day: | Wednesday |
| PTAL: | n/a | Parking Spaces: | 4 |

*MANUALLY DESELECTED SITES*

| Site Ref | Reason for Deselection |
|---|---|
| GS-03-D-01 | Parking |
| HF-03-D-02 | Parking |
| WS-03-D-01 | Parking |

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS
TOTAL 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 | 3 | 27 | 0.037 | 3 | 27 | 0.113 | 3 | 27 | 0.150 |
| 08:00 - 09:00 | 3 | 27 | 0.050 | 3 | 27 | 0.087 | 3 | 27 | 0.137 |
| 09:00 - 10:00 | 3 | 27 | 0.150 | 3 | 27 | 0.138 | 3 | 27 | 0.288 |
| 10:00 - 11:00 | 3 | 27 | 0.100 | 3 | 27 | 0.150 | 3 | 27 | 0.250 |
| 11:00 - 12:00 | 3 | 27 | 0.113 | 3 | 27 | 0.087 | 3 | 27 | 0.200 |
| 12:00 - 13:00 | 3 | 27 | 0.087 | 3 | 27 | 0.113 | 3 | 27 | 0.200 |
| 13:00 - 14:00 | 3 | 27 | 0.150 | 3 | 27 | 0.163 | 3 | 27 | 0.313 |
| 14:00 - 15:00 | 3 | 27 | 0.125 | 3 | 27 | 0.113 | 3 | 27 | 0.238 |
| 15:00 - 16:00 | 3 | 27 | 0.100 | 3 | 27 | 0.087 | 3 | 27 | 0.187 |
| 16:00 - 17:00 | 3 | 27 | 0.237 | 3 | 27 | 0.113 | 3 | 27 | 0.350 |
| 17:00 - 18:00 | 3 | 27 | 0.113 | 3 | 27 | 0.113 | 3 | 27 | 0.226 |
| 18:00 - 19:00 | 3 | 27 | 0.075 | 3 | 27 | 0.075 | 3 | 27 | 0.150 |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 1.337 | | | 1.352 | | | 2.689 |

*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: | 10 - 43 (units: ) |
| Survey date date range: | 01/01/16 - 05/03/24 |
| Number of weekdays (Monday-Friday): | 3 |
| Number of Saturdays: | 0 |
| Number of Sundays: | 0 |
| Surveys automatically removed from selection: | 0 |
| Surveys manually removed from selection: | 3 |

*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/D - AFFORDABLE/LOCAL AUTHORITY FLATS
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 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 08:00 - 09:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 09:00 - 10:00 | 3 | 27 | 0.037 | 3 | 27 | 0.037 | 3 | 27 | 0.074 |
| 10:00 - 11:00 | 3 | 27 | 0.013 | 3 | 27 | 0.013 | 3 | 27 | 0.026 |
| 11:00 - 12:00 | 3 | 27 | 0.025 | 3 | 27 | 0.025 | 3 | 27 | 0.050 |
| 12:00 - 13:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 13:00 - 14:00 | 3 | 27 | 0.013 | 3 | 27 | 0.013 | 3 | 27 | 0.026 |
| 14:00 - 15:00 | 3 | 27 | 0.025 | 3 | 27 | 0.025 | 3 | 27 | 0.050 |
| 15:00 - 16:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 16:00 - 17:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 17:00 - 18:00 | 3 | 27 | 0.013 | 3 | 27 | 0.013 | 3 | 27 | 0.026 |
| 18:00 - 19:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.126 | | | 0.126 | | | 0.252 |

*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/D - AFFORDABLE/LOCAL AUTHORITY FLATS
OGVS
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 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 08:00 - 09:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 09:00 - 10:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 10:00 - 11:00 | 3 | 27 | 0.013 | 3 | 27 | 0.000 | 3 | 27 | 0.013 |
| 11:00 - 12:00 | 3 | 27 | 0.013 | 3 | 27 | 0.025 | 3 | 27 | 0.038 |
| 12:00 - 13:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 13:00 - 14:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 14:00 - 15:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 15:00 - 16:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 16:00 - 17:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 17:00 - 18:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 18:00 - 19:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.026 | | | 0.025 | | | 0.051 |

*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/D - AFFORDABLE/LOCAL AUTHORITY FLATS
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 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 08:00 - 09:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 09:00 - 10:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 10:00 - 11:00 | 3 | 27 | 0.000 | 3 | 27 | 0.013 | 3 | 27 | 0.013 |
| 11:00 - 12:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 12:00 - 13:00 | 3 | 27 | 0.013 | 3 | 27 | 0.013 | 3 | 27 | 0.026 |
| 13:00 - 14:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 14:00 - 15:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 15:00 - 16:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 16:00 - 17:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 17:00 - 18:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 18:00 - 19:00 | 3 | 27 | 0.013 | 3 | 27 | 0.013 | 3 | 27 | 0.026 |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.026 | | | 0.039 | | | 0.065 |

*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/D - AFFORDABLE/LOCAL AUTHORITY FLATS
CARS
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 | 3 | 27 | 0.025 | 3 | 27 | 0.063 | 3 | 27 | 0.087 |
| 08:00 - 09:00 | 3 | 27 | 0.013 | 3 | 27 | 0.063 | 3 | 27 | 0.075 |
| 09:00 - 10:00 | 3 | 27 | 0.075 | 3 | 27 | 0.063 | 3 | 27 | 0.137 |
| 10:00 - 11:00 | 3 | 27 | 0.037 | 3 | 27 | 0.100 | 3 | 27 | 0.137 |
| 11:00 - 12:00 | 3 | 27 | 0.037 | 3 | 27 | 0.013 | 3 | 27 | 0.050 |
| 12:00 - 13:00 | 3 | 27 | 0.063 | 3 | 27 | 0.063 | 3 | 27 | 0.124 |
| 13:00 - 14:00 | 3 | 27 | 0.063 | 3 | 27 | 0.087 | 3 | 27 | 0.149 |
| 14:00 - 15:00 | 3 | 27 | 0.087 | 3 | 27 | 0.063 | 3 | 27 | 0.149 |
| 15:00 - 16:00 | 3 | 27 | 0.087 | 3 | 27 | 0.063 | 3 | 27 | 0.149 |
| 16:00 - 17:00 | 3 | 27 | 0.175 | 3 | 27 | 0.075 | 3 | 27 | 0.250 |
| 17:00 - 18:00 | 3 | 27 | 0.087 | 3 | 27 | 0.087 | 3 | 27 | 0.174 |
| 18:00 - 19:00 | 3 | 27 | 0.063 | 3 | 27 | 0.075 | 3 | 27 | 0.137 |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.809 | | | 0.809 | | | 1.618 |

*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/D - AFFORDABLE/LOCAL AUTHORITY FLATS
LGVS
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 | 3 | 27 | 0.013 | 3 | 27 | 0.050 | 3 | 27 | 0.063 |
| 08:00 - 09:00 | 3 | 27 | 0.037 | 3 | 27 | 0.025 | 3 | 27 | 0.062 |
| 09:00 - 10:00 | 3 | 27 | 0.037 | 3 | 27 | 0.037 | 3 | 27 | 0.074 |
| 10:00 - 11:00 | 3 | 27 | 0.037 | 3 | 27 | 0.037 | 3 | 27 | 0.074 |
| 11:00 - 12:00 | 3 | 27 | 0.037 | 3 | 27 | 0.025 | 3 | 27 | 0.062 |
| 12:00 - 13:00 | 3 | 27 | 0.013 | 3 | 27 | 0.037 | 3 | 27 | 0.050 |
| 13:00 - 14:00 | 3 | 27 | 0.075 | 3 | 27 | 0.050 | 3 | 27 | 0.125 |
| 14:00 - 15:00 | 3 | 27 | 0.000 | 3 | 27 | 0.025 | 3 | 27 | 0.025 |
| 15:00 - 16:00 | 3 | 27 | 0.013 | 3 | 27 | 0.025 | 3 | 27 | 0.038 |
| 16:00 - 17:00 | 3 | 27 | 0.063 | 3 | 27 | 0.037 | 3 | 27 | 0.099 |
| 17:00 - 18:00 | 3 | 27 | 0.013 | 3 | 27 | 0.013 | 3 | 27 | 0.026 |
| 18:00 - 19:00 | 3 | 27 | 0.013 | 3 | 27 | 0.000 | 3 | 27 | 0.013 |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.350 | | | 0.361 | | | 0.711 |

*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/D - AFFORDABLE/LOCAL AUTHORITY FLATS
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 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 08:00 - 09:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 09:00 - 10:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 10:00 - 11:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 11:00 - 12:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 12:00 - 13:00 | 3 | 27 | 0.013 | 3 | 27 | 0.013 | 3 | 27 | 0.026 |
| 13:00 - 14:00 | 3 | 27 | 0.000 | 3 | 27 | 0.013 | 3 | 27 | 0.013 |
| 14:00 - 15:00 | 3 | 27 | 0.013 | 3 | 27 | 0.000 | 3 | 27 | 0.013 |
| 15:00 - 16:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 16:00 - 17:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 17:00 - 18:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 18:00 - 19:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.026 | | | 0.026 | | | 0.052 |

*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/D - AFFORDABLE/LOCAL AUTHORITY FLATS
Servicing 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 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 08:00 - 09:00 | 3 | 27 | 0.025 | 3 | 27 | 0.025 | 3 | 27 | 0.050 |
| 09:00 - 10:00 | 3 | 27 | 0.025 | 3 | 27 | 0.025 | 3 | 27 | 0.050 |
| 10:00 - 11:00 | 3 | 27 | 0.050 | 3 | 27 | 0.037 | 3 | 27 | 0.087 |
| 11:00 - 12:00 | 3 | 27 | 0.037 | 3 | 27 | 0.037 | 3 | 27 | 0.074 |
| 12:00 - 13:00 | 3 | 27 | 0.000 | 3 | 27 | 0.013 | 3 | 27 | 0.013 |
| 13:00 - 14:00 | 3 | 27 | 0.050 | 3 | 27 | 0.037 | 3 | 27 | 0.087 |
| 14:00 - 15:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 15:00 - 16:00 | 3 | 27 | 0.013 | 3 | 27 | 0.025 | 3 | 27 | 0.038 |
| 16:00 - 17:00 | 3 | 27 | 0.013 | 3 | 27 | 0.013 | 3 | 27 | 0.026 |
| 17:00 - 18:00 | 3 | 27 | 0.013 | 3 | 27 | 0.013 | 3 | 27 | 0.026 |
| 18:00 - 19:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.226 | | | 0.225 | | | 0.451 |

*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/D - AFFORDABLE/LOCAL AUTHORITY FLATS
Scooters
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 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 08:00 - 09:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 09:00 - 10:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 10:00 - 11:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 11:00 - 12:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 12:00 - 13:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 13:00 - 14:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 14:00 - 15:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 15:00 - 16:00 | 3 | 27 | 0.000 | 3 | 27 | 0.013 | 3 | 27 | 0.013 |
| 16:00 - 17:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 17:00 - 18:00 | 3 | 27 | 0.013 | 3 | 27 | 0.000 | 3 | 27 | 0.013 |
| 18:00 - 19:00 | 3 | 27 | 0.000 | 3 | 27 | 0.000 | 3 | 27 | 0.000 |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.013 | | | 0.013 | | | 0.026 |

*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.*