Apex
TRANSPORT PLANNING

Brookland Road, Risca

Transport Statement

Client: **Caerphilly Homes**

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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 an outline planning application for a proposed residential development on a Council Service Site at Brookland Road, Risca ('the site').

1.1.2 The proposals are for a redevelopment of the site comprising of 23 new residential units, with the outline site layout showing a mix of 14no. one-bedroom apartments, 4no. two-bedroom low cost home ownership properties, 4no. two-bedroom later living properties and 1no. accessible five-bedroom house. The proposed vehicle access will be from Brookland Road from the eastern boundary of the site.

1.1.3 The existing site comprises of the Risca Youth and Community Centre and undeveloped parcels of land. The Risca Youth and Community Centre produces vehicle movements onto the highway network. The vehicles generated by a residential development at the scale proposed, comprising of social/affordable housing, would be unlikely to have a material impact on the operation of the highway during network peak hours. On this basis, a TS is considered an appropriate report to accompany the application.

1.1.4 The TS considers the impacts of the proposals in relation to transport including the site connectivity, parking provision and access arrangements, road safety and vehicle trip generation. It has been produced to inform Caerphilly County Borough Council (CCBC) 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 – 2013), the CCBC Local Development Plan (LDP) and Car Parking Standards Revision 2 Supplementary Planning Guidance (SPG), as well as experience of other similar sites.

1.2.2 This TS has been structured to include the following:

- Consideration of planning context
- A description of the existing conditions including the existing site use, site location, highway network, road safety analysis and existing travel behaviour in the surrounding area
- Review of the connectivity of the site by active travel (walking and cycling) and public transport
- Description of the development proposals, demonstrating safe and appropriate access by all modes, appropriate provision of car and cycle parking and servicing and delivery arrangements (albeit this is an outline application and full details of the internal layout can be agreed at reserved matters stage)
- Forecast vehicle trip generation in the peak hours and consideration of change in vehicle generation from the existing site use
- Consideration of the impact of the proposals on the local highway network

2. PLANNING CONTEXT

2.1 Future Wales: The National Plan 2040

2.1.1 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.

2.1.2 It is a framework which will be built on by Strategic Development Plans at a regional level and Local Development Plans at local authority level. Planning decisions at every level of the planning system in Wales must be taken in accordance with the development plan as a whole.

2.1.3 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"*.

2.1.4 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."*

2.1.5 Policy 11 sets out National Connectivity, this states that *"Our priorities are to encourage longer distance trips to be made by public transport, while also making longer journeys possible by electric vehicles."*

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

2.1.7 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."*

2.1.8 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."*

2.1.9 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."*

2.1.10 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 a key priority is to encourage electric vehicle use, particularly for longer journeys.

2.1.11 The site is situated within an existing residential area with key facilities and services within suitable walking distance. The site will be well integrated with the existing infrastructure and encourages walking and cycling for local journeys. The site is also well situated to benefit from public transport services. In addition, electric vehicle charging will be provided to encourage the use of more sustainable vehicles.

2.1.12 The site location is therefore considered consistent with the policies and aims of Future Wales and further details of the sustainable connectivity are set out within Section 4.

2.2 Planning Policy Wales 12th Edition (PPW12)

2.2.1 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."*

2.2.2 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."*

2.2.3 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."*

2.2.4 The site's location provides opportunities for the site to be accessible by walking, cycling and public transport. The site location enables access to nearby facilities and services within walking and cycling distances including local bus services.

2.2.5 Further details are provided within Section 4 which demonstrate that the site location is fully compliant with PPW12.

2.3 Technical Advice Note 18: Transport (TAN18)

2.3.1 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.

2.3.2 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."*

2.3.3 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."*

2.3.4 As such it is recognised by TAN18 that the sustainable location of a site can assist in facilitating sustainable travel habits. The site is situated in a sustainable location accessible by walking and cycling to community uses, leisure uses, retail, schools and public transport stops, therefore fully in accordance with transport policies in TAN18.

2.4 CCBC - Local Development Plan (LDP)

2.4.1 The existing LDP provides transportation policies in Section A in relation to parking standards. Paragraph 1.42 states that *"In the longer term a significant switch from car to public transport is planned and therefore settlements with good access to existing rail services along the Rhymney Valley*

and Ebbw lines, with regular links to Cardiff, will be favoured, particularly for high-density development."

2.4.2 Policy SP2 and SP3 relate to sustainable development in the Northern and Southern Connection Corridors and state that proposals will promote sustainable development that *"reduces car borne trips by promoting more sustainable modes of travel."*

2.4.3 Policy SP19 relates to improvements to the existing transport infrastructure and the supporting text states that *"Transport infrastructure improvements will aim to encourage greater use of public transport, walking and cycling as alternatives to the car. The strategy must continue to provide an efficient transport system for the existing settlement pattern whilst moving towards a more sustainable, resource-efficient settlement pattern and transport system across the whole County Borough."*

2.4.4 Section 5.4 Transport and Access, which sets out details to "achieving sustainable accessibility" by supporting and developing the transport network to safely accommodate the movement of people, reduce the reliance on the private car and to improve connectively within the County Borough.

2.4.5 The potential scheme is consistent with the CCBC LDP as there are alternative modes of travel available and the site can be accessed safely and appropriately.

3. EXISTING SITUATION

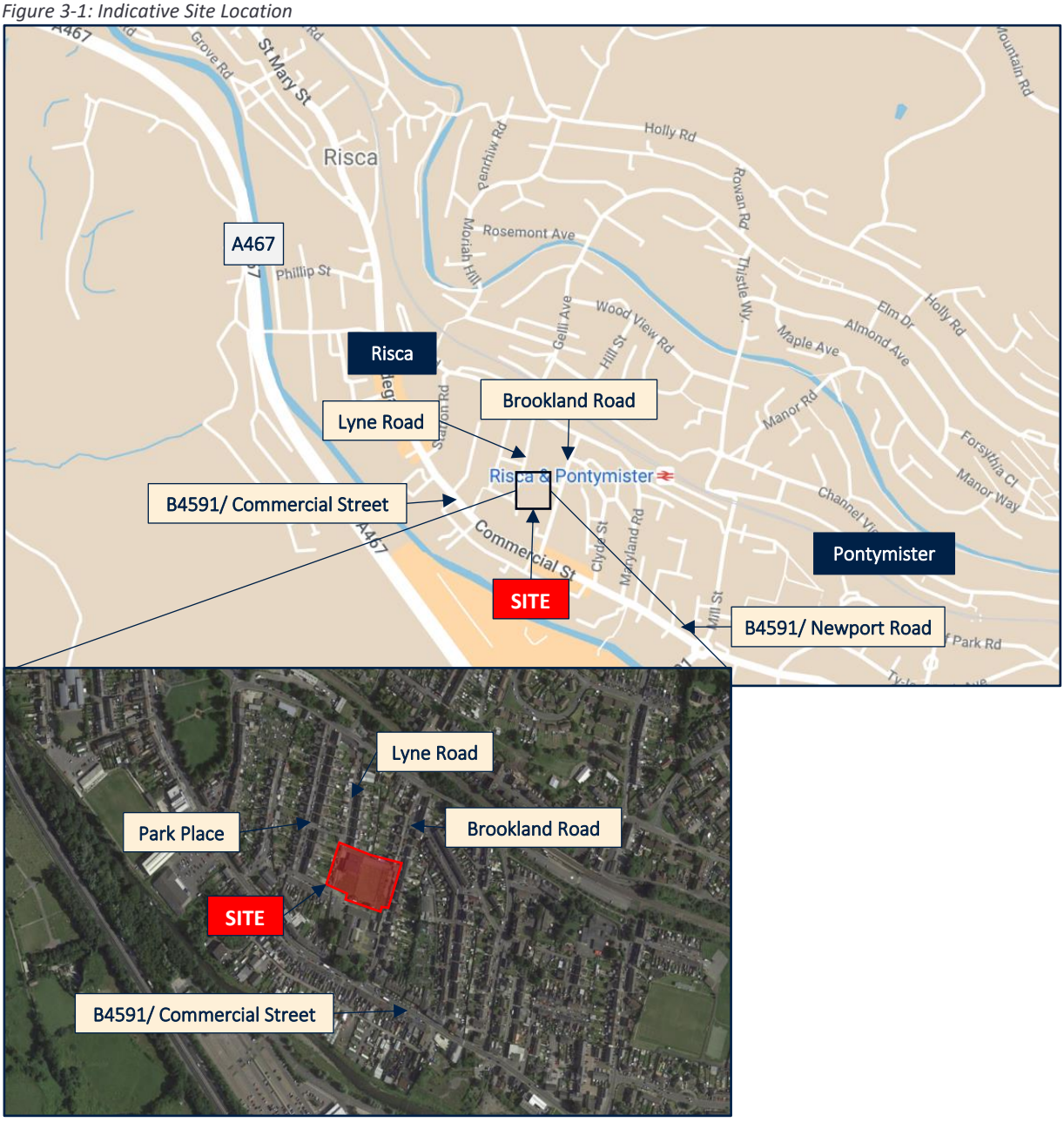
3.1 Site Location, Use and Access

3.1.1 The site is situated within the southern area of Risca and currently comprises of the Risca Youth and Community Centre and playing fields. The site is located c.7.2km (straight line distance) from Newport City Centre.

3.1.2 In its local context the site is c.335m (straight line distance) from the A467 and c.450m from Risca and Pontymister Rail Station. The site is bound by existing residential dwellings to the north, Brookland Road to the east, Risca House (Brooklands Community Resource Centre) to the south and to the west by existing residential dwellings.

3.1.3 The indicative site location of the site in its local context is provided in Figure 3-1.

Figure 3-1: Indicative Site Location



Source: Google Maps

3.2 Local Highway Network

3.2.1 Existing access to the site is via a priority junction / dropped kerb crossover type arrangement onto Brookland Road along the northern boundary. Brookland Road routes in a north to south direction and has an average carriageway width of c.5.5-6.1m. Brookland Road is subject to a 20mph speed limit. Footways and street lighting is present on both sides of the carriageway.

3.2.2 Continuing south on Brookland Road for c.155m it meets the B4591/ Commercial Street at a priority junction. The B4591/ Commercial Street routes in a southwest and northeast direction and is a two-way single carriageway that is approximately 6m in width. B4591/ Commercial Street is subject to a 30mph speed limit. Following B4591/ Commercial Street to the northeast for c. 350m it meets a four-arm roundabout which provides a connection to Mill Street which routes to the north, the B4591/Newport Road which routes to the east and the B4591 which routes to the south.

3.2.3 The B4591 continues south for c.135m which it meets a four arm roundabout which provides a connection to Aldi to the east, the B4591 that routes to the south and the Pontymister Industrial Estate to the west.

3.2.4 Following the B4591 to the south it connects with the A467 which routes in a northwest and southwest alignment. The A467 is a two-way dual carriageway which has an average carriageway width of c.7.7m and is subject to the national speed limit. At the A467 northern extent it provides a connection to the A48 and the M4.

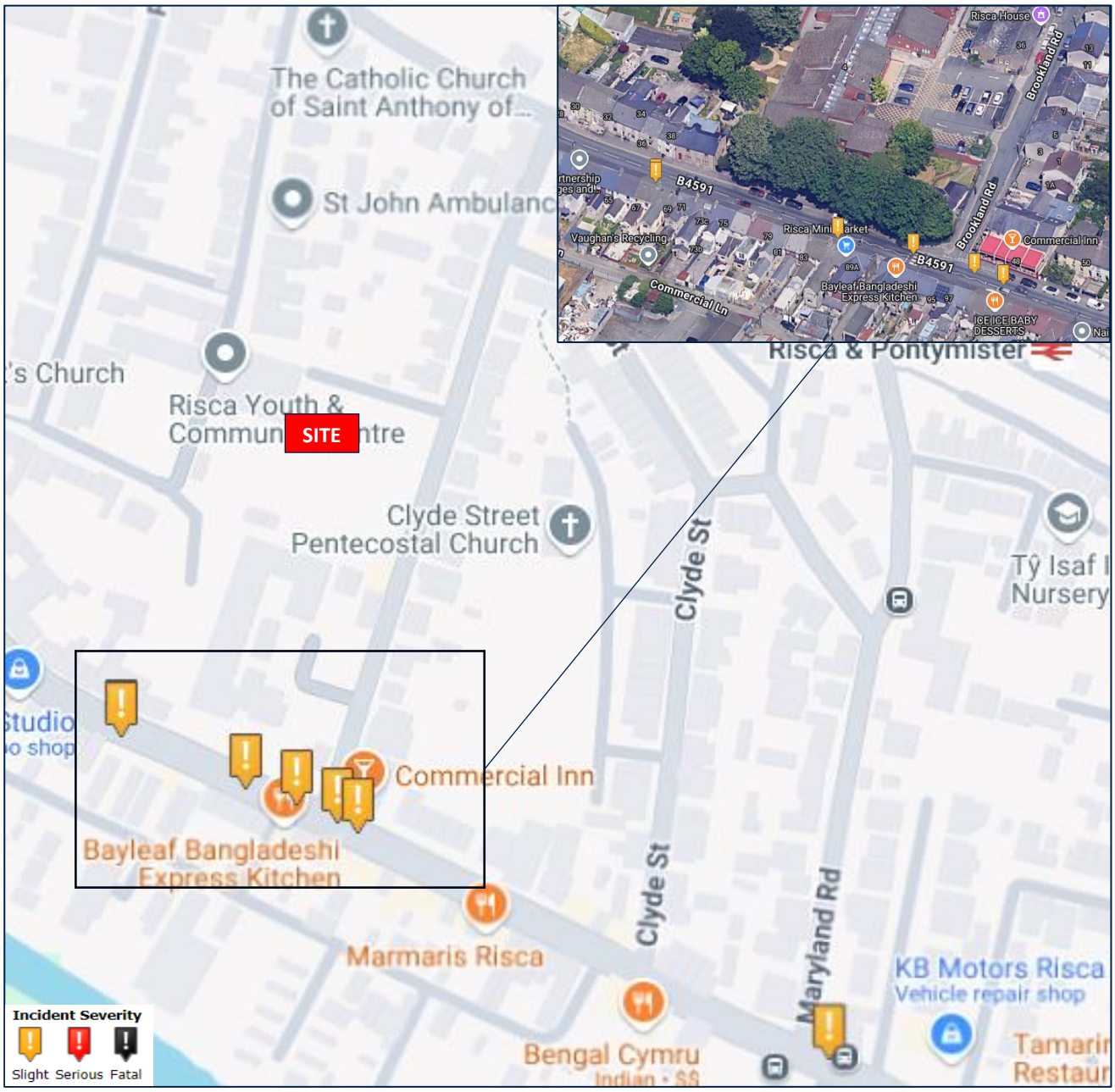
3.3 Road Safety

3.3.1 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.

3.3.2 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).

3.3.3 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 and the route to the nearest shop, with the entire study area and PIA's shown in Figure 3-2.

Figure 3-2: Location of Recorded PIA's within vicinity of the site



Source: CrashMap

3.3.4 Over the seven-year period, a total of seven PIA's occurred within the study area, all of which resulted in slight injuries. There were no serious or fatal incidents recorded during this period.

3.3.5 Three of the PIAs involved pedestrians and none involved cyclists. Two of the pedestrian PIAs occurred at the Brookland Road / B4591 junction. Both involved a vehicle colliding with a pedestrian crossing the carriageway on an unclassified road away from a formal crossing. As such, although shown on the B4591 within Crashmap, these may have occurred on Brookland Road and were indicated to occur further than 50 metres from a crossing. Brookland Road has a dropped kerb crossing with tactile paving, and the B4591 has a zebra crossing immediately adjacent to the junction. As such, the existing arrangements are considered suitable to accommodate the movements appropriately.

3.3.6 There were no PIA's recorded in the vicinity of the site frontage, upon Brookland Road or Lyne Road or on the route to the rail station along Park Place. Therefore, there is no evidence to suggest a safety

issue upon the surrounding highway network or at the existing access locations into the site via these links.

3.3.7 There were no clusters of four or more PIA's occurring in the same location within the study area so there is no evidence of a reoccurring safety issue.

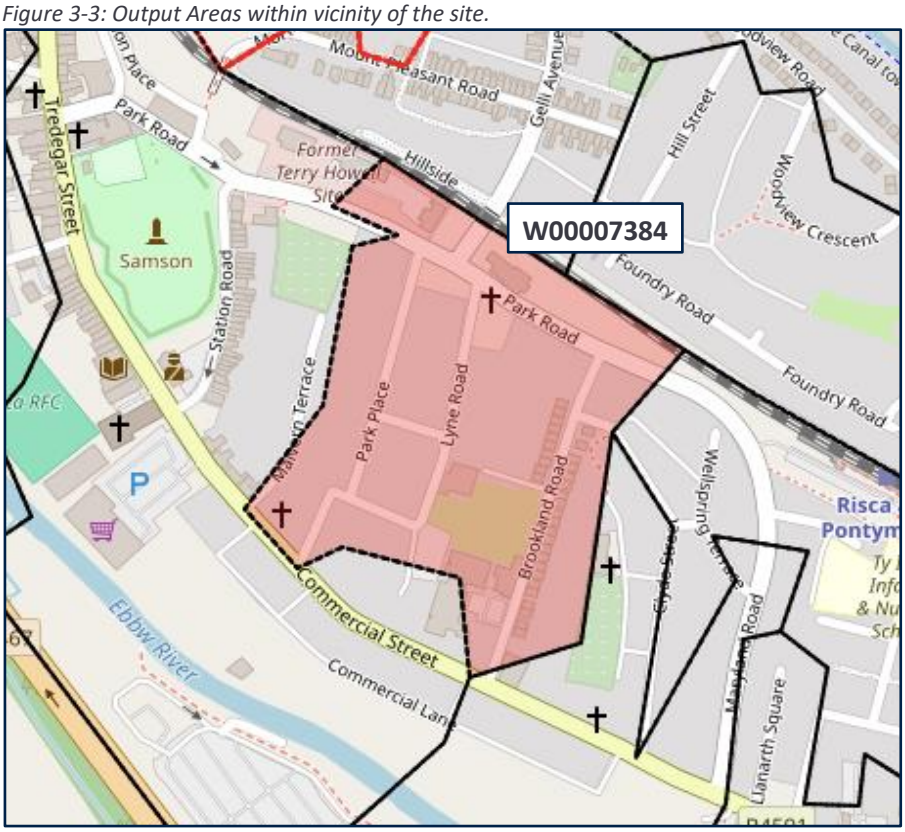
3.3.8 As such, although all incidents are regrettable, the PIAs that occurred do not indicate a specific pattern or issue with the geometry of the highway that would be exacerbated by a potential residential development on the site.

3.4 Existing Travel Behaviour and Car Ownership

Modal Share

3.4.1 Based on the 2011 Census data, the site is located within Output Area W00007384, shown in Figure 3-3.

Figure 3-3: Output Areas within vicinity of the site.



Source: Nomis

3.4.2 Table 3-1 shows how the existing residents of this output area currently travel to work, as well as providing a comparison with the entire of CCBC as obtained from 2011 Census data. The 2011 data is considered more appropriate than the 2021 data, due to the impact of the pandemic and lockdowns on the day of the Census impacting on movements to and from work and increasing home working. As such, the 2011 data is considered more appropriate in relation to travel to work information.

Table 3-1: Journey to Work Mode Split (Census 2011)

Mode	OA W00007384	Caerphilly CBC
Public Transport	11%	8%
Car Driver	72%	74%
Motorcycle	0%	1%
Car Passenger	3%	8%
Bicycle	1%	1%
On Foot	12%	8%
Other	2%	1%
Total	**100%**	**100%**

3.4.3 Table 3-1 shows that 72% of residents commuting to work travel as a car driver, 3% travel as a passenger, 11% travel by public transport, 12% walk, and 1% cycle.

3.4.4 The output area in which the site is situated has higher levels of sustainable travel and active travel then the overall CCBC area. The data demonstrates that residents already utilise sustainable modes of travel to commute to work.

3.4.5 These statistics have been adjusted to exclude working from home. If this was included, c.3% of residents currently in work, do so from home rather than commuting, with c. 3% doing this across CCBC. These levels are likely to have significantly increased since 2011. This demonstrates that there is further potential for car use to be constrained to and from the site.

3.4.6 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 have higher levels of sustainable travel, particularly given the local primary school, retail and leisure opportunities are situated within suitable walking distances via appropriate routes (as shown in Section 4).

3.4.7 On this basis, Table 3-1 demonstrates that there is good potential for sustainable travel, particularly walking and public transport, 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).

Car Ownership

3.4.8 The 2011 Census data has been reviewed for the average car ownership in the output area W00007384 which would reflect the likely ownership of the site. This shows an average of 1.21 cars per household in the output area and that 67% of households owned one car or less. This compares with an average of 1.18 cars per household across CCBC and 68% owning one car or less.

3.4.9 The 2021 Census data has also been reviewed, although the datasets have not been released in as much detail as the 2011 Census as of the date of this report. For example, all households with 3 or more vehicles have been grouped in the same category, whereas this is shown as 4 vehicles or more within the 2011 Census. As such, it is considered appropriate to present both the 2011 and 2021 data within this report by way of comparison. It is noted that the supporting text for the Census states that the data in 2021 is highly comparable with the data from 2011.

3.4.10 However, considering the ownership on this basis, this shows an average of 1.39 cars per household on average in output area W00007384, 18% of households do not own a car, and that 57% of households owned one car or less. This compares with an average of 1.28 cars per household across CCBC and 62% owning one car or less. This is comparable with the 2011 data and therefore considered to be robust.

3.4.11 This considers all household types and tenures, with affordable housing likely to have a significantly lower level of ownership.

3.4.12 Based on this data, it is considered that potential future residents would be likely to own one car or less and sustainable modes would provide realistic and attractive alternatives and these are currently being used by existing residents.

4. CONNECTIVITY BY SUSTAINABLE MODES OF TRAVEL

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. The site benefits from being located in a highly sustainable location in relation to the built-up extent of Risca.

4.2.2 The site is well situated to benefit from existing walking and cycling routes. Suitable footways and crossings are provided throughout the local area, as would be expected within an existing and established residential area and for a site which accommodates an existing residential use. The majority of streets within the vicinity of the site have footways on one or both sides of the carriageway, providing links between the site and the surrounding facilities.

4.2.3 Brookland Road and Park Place and provide good quality pedestrian infrastructure, which includes a network of footways on both sides of the carriageway, street lighting, uncontrolled pedestrian crossing points (including the provision of dropped kerbs and tactile paving) and low speed limits.

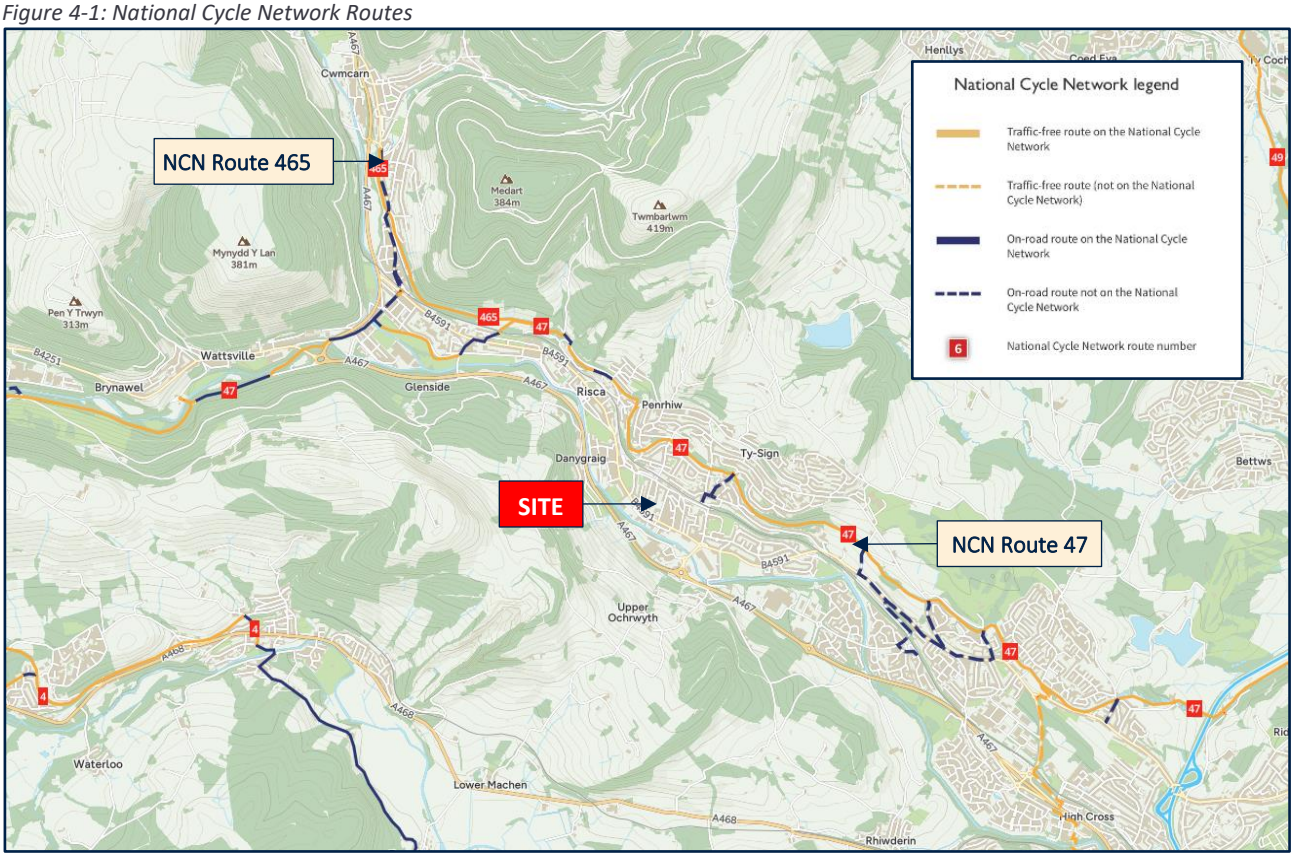
4.2.4 There is a continuous availability of footway between the site and the number of services and facilities situated throughout Risca, in particular at Risca Town Centre, as well as the key route to the Risca and Pontymister Rail Station.

4.2.5 Overall, the surrounding highway network and associated infrastructure is considered to be of good quality. The local area appropriately accommodates existing pedestrian and cycling movements, including for pupils travelling to the nearby school and the infrastructure would encourage potential future residents to walk / cycle to and from the site.

Cycling Infrastructure and Routes

4.2.6 Reference has been made to the Sustrans website and the National Cycle Network (NCN) map. NCN Route 47, which is located approximately 500m to the north of the site, provides a connection north-west towards Treharris via Crosskeys and Ystrad Mynach and to the south-east for Newport. The NCN Route 47 provides a connection onto additional routes, such as NCN Route 465 to the north-west that provides a short route towards Pontywaun and NCN Routes 4, 49 and 88 at Newport. The surrounding NCN routes, obtained from the Sustrans website, are shown in Figure 4-1.

Figure 4-1: National Cycle Network Routes



Source: Sustrans

4.2.7 As demonstrated in Section 3.3, there is no evidence of an existing highway safety issue along the surrounding highway network for pedestrians or cyclists specifically and therefore, this emphasises the low-risk environment for accommodating pedestrian and cycle movements.

4.2.8 The surrounding routes are therefore conducive for walking and some cycling movements, particularly once all INM / active travel routes are delivered (as set out below), therefore walking and cycling would be attractive travel modes for potential future residents.

Active Travel Network Maps

4.2.9 CCBC have updated its Integrated Network Map (INM) which has allowed for the creation of an Active Travel Network Map (ATNM) that shows existing walking and cycling routes and where improvements or new routes are proposed for the next 15 years. This has been approved by Welsh Government.

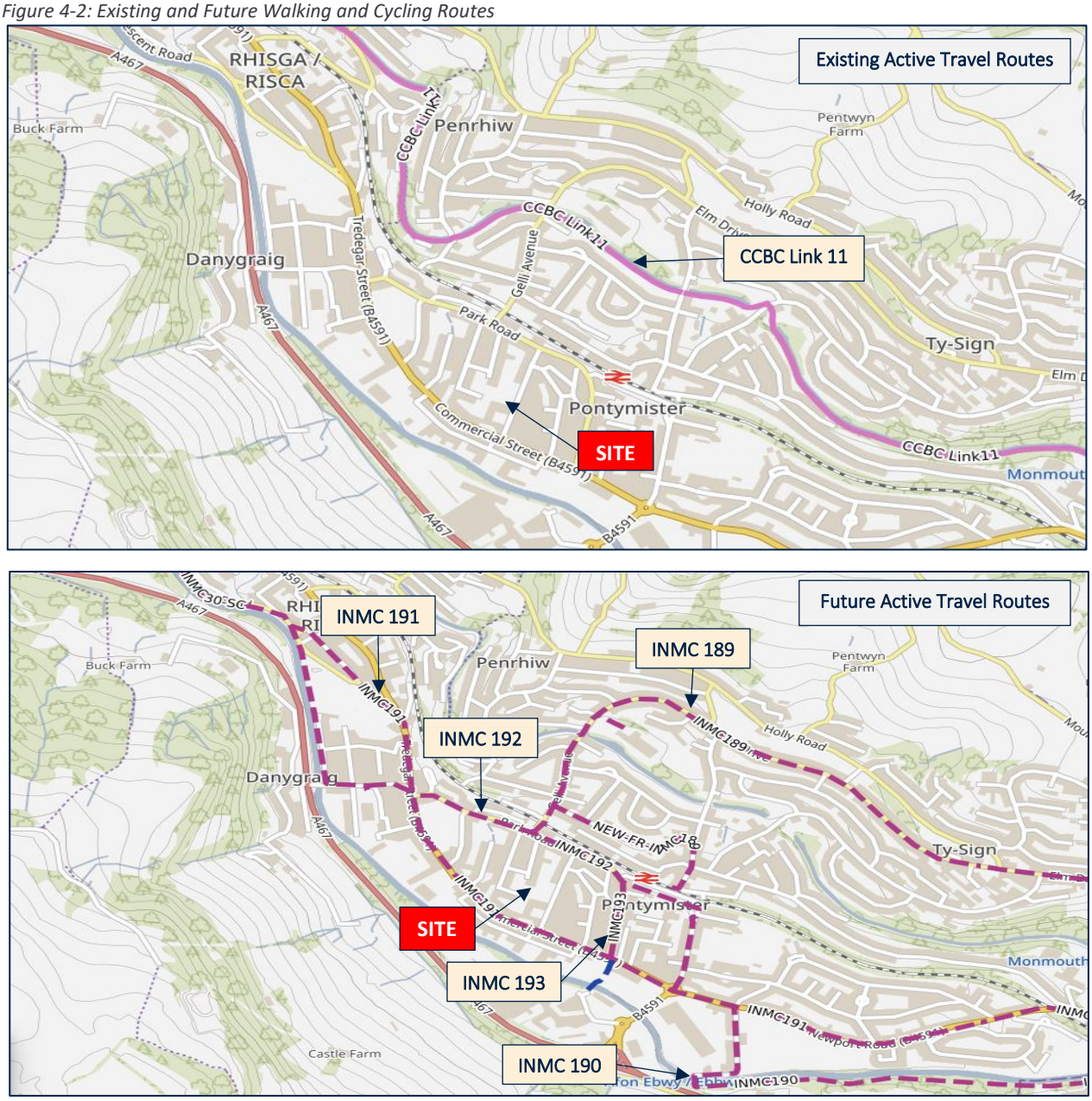
4.2.10 The nearest current walking, cycling route in relation to the site is the existing CCBC Link 11 route, which is a cycle and walking route which forms part of the National Cycle Network (NCN) 47 Route and is described by CCBC as the *"Crosskeys via Risca to Pontymister"* route.

4.2.11 The proposed future walking and cycling routes shows a route running along the B4591 (INMC191), Maryland Road (INMC193), Mill Street and Park Road (INMC192), Gelli Avenue (INMC189) and Fields Road (INMC190).

4.2.12 The INM routes located throughout Risca have been considered appropriate by CCBC for walking and cycling (once all are completed). Therefore, the site is well positioned to benefit from existing and potential future high-quality walking and cycling links such as the INMC 192 and INMC 189 which will be located in close proximity to the site which will provide a connection to further routes, the local centre and to services and facilities.

4.2.13 The delivery of all the potential future links by CCBC will further improve the walking and cycling access to and from the site. The ATNM within the vicinity of the site has been reproduced in Figure 4-2.

Figure 4-2: Existing and Future Walking and Cycling Routes

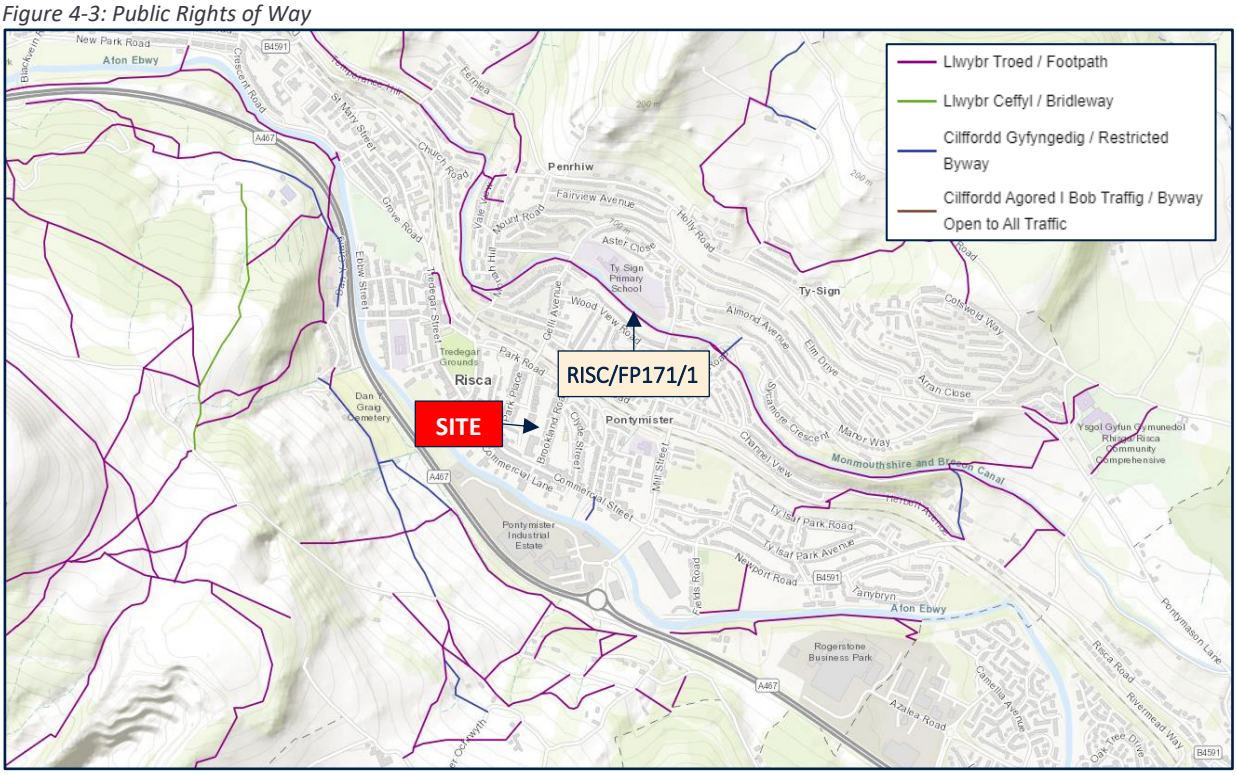


Source: DataMap Wales

4.3 Public Rights of Way

4.3.1 Whilst there are no immediate Public Rights of Way (PRoW) in the vicinity of the site, residents can benefit from the wider PRoW network which provide alternative routes for walking that are predominately traffic-free routes towards services and facilities throughout Risca. The PRoW within the vicinity of the site are shown in Figure 4-3.

Figure 4-3: Public Rights of Way



Source: CCBC PRoW Map

4.4 Distances to Facilities

4.4.1 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 2021: It is stated within paragraph 4.1.5 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).

4.4.2 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'.

4.4.3 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.

4.4.4 To demonstrate the site's connectivity, 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 4-4. These facilities have been summarised based on approximate travel distances from the site access via appropriate routes, not straight-line distances.

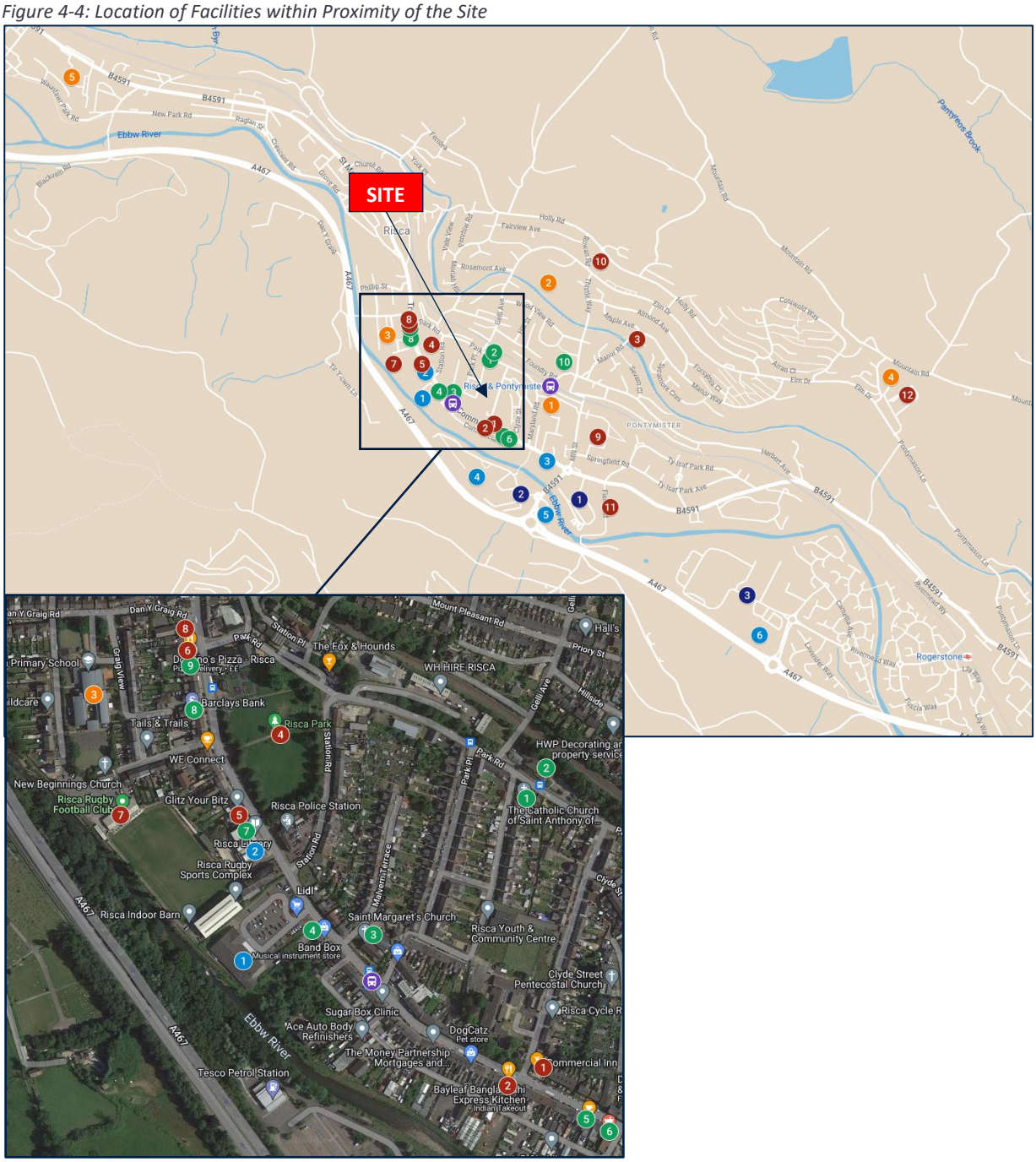
Table 4-1: Proximity of the Site to Local Services and Facilities

Facility / Amenity	Distance from site (metres)	Walking Travel Time (minutes)*	Cycling Travel Time (minutes)*
Community Facilities			
1 The Catholic Church of Saint Anthony	110	1	0
2 Wellspring Medical Centre	120	2	0
3 St Margaret's Church	210	3	1
4 Risca Dental Practise	220	3	1
5 Dorian Robbins Hairdressers	230	3	1
6 Knights Pontymister Pharmacy	260	3	1
7 Risca Library	350	4	1
8 Barclays Bank	450	6	1
9 Risca Post Office	500	6	2
10 Channel View Community Centre	900	11	3
Public Transport			
St Margaret's Church Bus Stops	150	2	1
Risca and Pontymister Railway Station	300	4	1
Retail			
1 Lidl Supermarket	300	4	1
2 One Stop Convenience Store	350	4	1
3 Premier Convenience Store	450	6	1
4 Tesco Supermarket	800	10	3
5 Aldi Supermarket	900	11	3
6 Morrisons Supermarket	2,400	30	8
Education			
1 Ty Isaf Infant & Nursery School	600	8	2
2 Ty-Sign Primary School	650	8	2
3 Risca Primary School	650	8	2
4 Risca Community Comprehensive School	2,500	31	8
5 Coleg Gwent Crosskeys Campus	2,500	31	8
Leisure			
1 The Commercial Inn	160	2	1
2 Bayleaf Bangladeshi Kitchen	160	2	1
3 McDougall's Fish and Chips	190	2	1
4 Risca Park	350	4	1
5 Handi Indian Takeaway	350	4	1
6 Domino's Pizza	550	7	2
7 Risca Rugby Football Club	550	7	2
8 Benitos Italian Restaurant	550	7	2
9 Risca United AFC	850	11	3
10 Ty Sign Skate Park, Playground and Field	950	12	3
11 Pontymister Cricket and Bowling Club	950	12	3
12 Risca Leisure Centre	2,300	29	7

Facility / Amenity	Distance from site (metres)	Walking Travel Time (minutes)*	Cycling Travel Time (minutes)*
Employment			
1 Rowecord Building (Industrial)	650	8	2
2 Pontymister Industrial Estate	650	8	2
3 Azalea Road (Industrial & Retail Units)	2,300	29	7

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

Figure 4-4: Location of Facilities within Proximity of the Site



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

4.4.5 Table 4-1 and Figure 4-4 show that there are a number and range of facilities and services situated within suitable active walking and cycling travel distances, which are within Welsh Government guidance walking and cycling distances.

4.4.6 There are numerous services and facilities located within a Welsh Government 'walkable neighbourhood' 1.6km threshold of the site. These include churches, schools, local bus stops, a railway station, a medical centre, a dental practise, a pharmacy, a hairdresser, Risca Library, Barclays Bank, Risca Post Office, Channel View Community Centre, supermarkets, convenience stores, pubs, restaurants, takeaway establishments, sports facilities and employment opportunities.

4.4.7 A wider number of services and facilities are situated within a 30 minute walking distance from the site, such as Morrisons Supermarket, Risca Community Comprehensive School, Coleg Gwent Crosskeys Campus and Risca Leisure Centre.

4.4.8 The site is situated in a highly sustainable location, as would be expected for a site located within the existing residential area of Risca, within close proximity of the local centre, bus stops, a rail station and schools. This will encourage walking and cycling for numerous trip purposes and reduce the reliance on the private car, consistent with relevant policies and guidance, including sustainable transport policies in Future Wales, PPW12 and TAN18.

4.5 Public Transport

Bus Services

4.5.1 The 'St Margaret's Church' bus stops are located approximately 150m to the south-west of the site. The northbound stop provides a bus flagpole and on-carriageway bus cage markings, whereas the southbound bus stops provides a bus flagpole, a shelter with timetable information, a raised kerb and on-carriageway bus cage markings.

4.5.2 Table 4-2 provides a summary of the services available from these stops.

Table 4-2: Local Bus Timetables

Route No.	Operator	Route	Hours of Operation	Frequency (Mon-Fri)	Frequency (Saturdays)	Frequency (Sundays)
56	Stagecoach South Wales	Newport - Tredegar	07:17 - 23:48	Hourly	Hourly	Every Two Hours
		Tredegar - Newport	06:21 - 22:58	Hourly	Hourly	Every Two Hours
151	Stagecoach South Wales	Newport - Blackwood	06:30 - 23:00	Every 10 Minutes	Every 20 Minutes	Hourly
		Blackwood - Newport	05:51 - 23:16	Every 15 Minutes	Every 20 Minutes	Hourly
R1	Stagecoach South Wales	Newport - Risca	07:59 - 19:06	Hourly	Hourly	Hourly
		Risca - Newport	08:07 - 18:57	Hourly	Hourly	No Services
R2	Stagecoach South Wales	Risca- Rogerstone	09:16 - 16:22	Hourly	Hourly	No Services
		Rogerstone – Risca	08:32- 16:38	Hourly	Hourly	No Services
X15	Stagecoach South Wales	Newport - Brynmawr	06:59 - 23:11	Hourly	Hourly	Hourly
		Brynmawr - Newport	06:31 - 22:27	Hourly	Hourly	Hourly

4.5.3 The bus services are considered a feasible and attractive option for commuting for those working in key destinations such as Newport and Blackwood. The services can also be used to access destinations for employment, leisure, retail and health purposes.

4.5.4 As such, the services offer a realistic and attractive travel option for potential future residents of the site. This will assist in minimising the vehicle trip generation and reduce the need for residents to own or travel by car. It will also attract residents that would prefer to travel by bus.

Rail Services

4.5.1 The nearest railway station is the Risca and Pontymister Railway station, which is located approximately 450m to the east of the site. The station is situated on the Ebbw Valley Railway with services operated by Transport for Wales (TfW).

4.5.2 The station provides four CCTV monitored cycle parking spaces. As such, there is an opportunity to travel via cycle and leave a bike at the station.

4.5.3 The station provides hourly services to Newport, Ebbw Vale and Cardiff. The approximate journey times are approximately 20 minutes to Newport, 35 minutes to Ebbw Vale and 25 minutes to Cardiff. These journey times offer an attractive option for commuting to and from key regional destinations.

4.5.4 A combined walk or cycle then rail journey therefore offers the potential for residents to travel to key destinations from the site. This could replace some car journeys and further reduce the requirement for owning or travelling by car.

4.6 Summary

4.6.1 The site is situated in a highly sustainable location and provides potential future residents with the option access a range of facilities via walking or cycling. This is due to the high-quality walking and cycling routes within proximity to the site as well as the range of leisure facilities, shops, services and education facilities within appropriate distances, which reduces the need to own a car.

4.6.2 Furthermore, the site also has excellent public transport links, with the nearest bus stops and railway station located within a walkable distance from the site via good quality walking routes. These services 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. This will minimise the impact of the development and reduce the demand for parking on or off the site.

4.6.3 In transport and sustainable connectivity terms, the site meets the requirements of the National Sustainable Placemaking Outcomes of PPW12 and the Strategic Placemaking Principles of Future Wales.

5. DEVELOPMENT PROPOSALS

5.1 Overview

5.1.1 The proposals are for a redevelopment of the site to provide 23 affordable units. The outline proposals comprise of the following:

- 14no. Later Living 1-bedroom flat
- 4no. Low-Cost Home Ownership (LCHO) 2-bedroom house
- 4no. Later Living 2-bedroom house
- 1no. 5-bedroom accessible house
- Total: 23 Units

5.1.2 The proposed outline site layout is shown in Appendix A.

5.2 Access and Layout

Vehicle Access

5.2.1 The vehicular access would be obtained from a proposed new junction onto Brookland Road, situated approximately 28m south of the existing access point on the eastern boundary of the site. The existing access will be reinstated as footway as part of the proposals and the new vehicular access will form the single point of vehicular access into the site.

5.2.2 The access road would have a width of 5.5m and a radius of 6.0m on the northern side (with a radius taper of 12.3m) and a radius of 7.0m on the southern side. The carriageway of the access road will reduce to 5.0m within the site. This geometry and width are suitable to accommodate two large cars passing, as well as a refuse vehicle turning in and out from Brookland Road. This is considered appropriate to accommodate a residential development which would mainly generate light vehicle movements.

5.2.3 A general arrangement drawing of the proposed site access has been provided in Appendix B. Swept path analysis at the access for a refuse vehicle and a large car passing has been provided in Appendix C. The general arrangement drawing demonstrates that visibility is achievable at 25m in each direction from a distance of 2.4m back from the carriageway edge, in accordance with the 20mph speed limit and guidance set out in Manual for Streets (MfS) and TAN18. The visibility splays are entirely contained within the highway (as they are on the footway) or within land which forms part of the site boundary and would not be obstructed between a height of 0.6m and 2m.

5.2.4 Vehicular access can therefore be appropriately provided onto the highway network.

Pedestrian and Cycle Access

5.2.5 Footways will be provided at the main site access, which link into the existing provision on Brookland Road. Where footways are not provided within the parking areas of the site, a shared surface is shown on the outline layout.

5.2.6 The site will also provide a connection between Park Place and Brookland Road which will provide an improvement for existing residents connecting between these streets. The site can therefore provide improved permeability for existing residents walking to key facilities along Commercial Street.

5.2.7 The internal footways connecting onto the surrounding highway network will ensure that the site is well integrated with the surrounding residential area.

5.3 Parking

Car Parking Provision

5.3.1 CCBC's Supplementary Planning Guidance (SPG) LDP5 – Car Parking Standards Revision 2, as adopted in January 2017 ('the Parking SPG') provides the applicable standards to apply to the proposed development. The SPG guidance is based on the CSS Wales Parking Standards 2014.

5.3.2 The maximum parking standards for residential houses and apartments are 1 space per bedroom with a maximum of 3 spaces per dwelling. In addition, there is a requirement for 1 visitor space per 5 units.

5.3.3 Applied to the site proposals, this would equate to a maximum of 33 parking spaces for the 23 residential units plus 5 visitor spaces, equating to a total provision of 38 parking spaces.

5.3.4 The outline scheme shows parking within these maximum levels with a total of 24 car parking spaces for residents and 2 spaces for visitors (26 spaces in total). This is in accordance with the maximum standards, which allows for flexibility, as evidenced in more detail as follows.

5.3.5 The Parking SPG states in paragraph 6.1 *"Interpretation and application of the standards will rest with the Local Authority, but flexibility in the standards allows local circumstances to be taken into account."* Factors allowing for this flexibility include the accessibility of the site by public transport, walking and cycling and the availability of parking. The highly sustainable location of the site is set out in full in Section 3 of this TS.

5.3.6 The Parking SPG also allows for reductions to be applied to the maximum provision based on the potential car ownership levels. Note 5 within the residential standards states *"For developments where clear evidence has been supplied that car ownership levels will be lower than normal, a more flexible approach to numbers of parking spaces may be taken."*

5.3.7 As set out in Section 2, in the immediate surrounding area there is a low level of ownership at 1.39 cars per house with 57% of households owning one car or less. The level would likely be lower still for affordable housing tenure. As such, it is considered appropriate to provide parking at a lower level than the maximum level set out in the standards which is in accordance with the flexibility allowed for.

5.3.8 The sustainability and car ownership analysis demonstrate that the provision of parking is fully in accordance with the flexibility in the SPG and would appropriately accommodate the forecast demand.

Reduction based on sustainability criteria

5.3.9 To further consider a reduction in parking provision against the maximum standards, there is a sustainability calculation set out in Schedule 6 of the SPG, which allows a reduction in the number of spaces per dwelling, dependent on the sustainability score against a number of criteria.

5.3.10 The sustainability criteria provide a scoring system to apply a reduction in parking requirements based on a points score. The SPG specifically states that *"Award of these points **will** result in a reduction in parking requirement*."

5.3.11 A sustainability points calculation has therefore been undertaken using the guidance and based on the analysis presented in Section 2 of this report. The resultant calculations and sustainability points score for the site have been summarised in Table 5-1.

Table 5-1: Parking Sustainability Points Calculation

Sustainability Criteria	Maximum Walking Distance	Single Sustainability Points	Notes	Points
Local Facilities				
Local facilities include a food store over 1,000sqm, post office, community medical practice, school, etc. Access to two of these within the same walking distance will score single points, whereas access to more than two of these will double the points score.	200m	3 Points		
	400m	2 Points		
	800m	1 Points	Lidl supermarket, Risca dental practice, Wellspring medical centre, Risca Post Office, Ty Isaf Infant & Nursery School, Ty-Sign Primary School, Risca Primary School	2
Public Transport				
Access to bus stop or railway station.	300m	3 Points	St Margaret's Church bus stops and Risca and Pontymister Railway Station	3
	400m	2 Points		
	800m	1 Points		
Cycle Route				
A cycle route needs to be segregated from vehicular traffic and must provide links to local facilities and employment area.	200m	1 Points		
Frequency of Public Transport				
Bus or rail service within 800m walking distance which operates consistently between 7am and 7pm. Deduct one point for service which does not extend to these times.	10 Minutes	3 Points		
	20 Minutes	2 Points	Bus service 151	2
	30 Minutes	1 Points		
Total Points				**7**

5.3.12 The site location scores 7 sustainability points which equates to an allowable reduction of up to one space per dwelling for a residential use.

5.3.13 As set out in the Active Travel Act Guidance, walkable neighbourhoods are typically characterised by having a range of facilities within a 1.6km walking distance. This is consistent with the site location which is surrounded by a range and number of key facilities. The site is situated within a 'walkable neighbourhood' so should be considered highly sustainable for walking journeys and a one space per dwelling deduction is therefore applicable and suitable for this site.

5.3.14 Applying the reduction of one space per unit would equate to the number of spaces shown within Table 5-2.

Table 5-2: Proposed Car Parking Provision (Reduction from Sustainability Criteria)

No. of Units	No. of Bedrooms	Maximum Provision	No. of Parking Spaces based on reduction
14	1 bed apartment	14 spaces	14 spaces (1 space per unit)
8	2 bed house	16 spaces	8 spaces (1 space per unit)
1	5 bed house	3 spaces	2 spaces (2 spaces per unit)
	Visitor Car Parking Spaces	5 spaces	5 Spaces
	Total Car Parking Spaces	**38 spaces**	**29 Spaces**

5.3.15 As a result of the appropriate reduction of up to one space per residential unit, the adjusted maximum standards applicable for the proposed development would be 24 parking spaces for the 23 residential units and five visitor spaces, equating to a total provision of 29 car parking spaces.

5.3.16 In addition, based on census data, it is considered that potential future residents would be likely to own one car or less per household and sustainable modes would provide realistic and attractive alternatives and these are currently being used by existing residents in the area.

5.3.17 Therefore, the total provision shown on the outline site layout of 26 spaces is considered acceptable when considering the existing car ownership in the area, the wide range of local services and facilities within acceptable walking distance, and that the development comprises of affordable housing.

5.3.18 In paragraph 8.3.13 of MfS it states that *"It is recommended that, in most circumstances, at least some parking demand in residential… areas is met with well-designed on-street parking."* As such, it is considered parking on-street within the development for visitors would be appropriate to accommodate some visitor parking. In addition, visitors can use resident spaces when these are not in use.

5.3.19 Given the sustainable location of the site, it is also well connected for visitors to travel by walking, cycling and public transport.

5.3.20 The provision of parking as shown on the outline site layout is 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."*

5.3.21 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."*

5.3.22 The parking provision shown on the outline site layout, given the sustainable location, is fully in accordance with the aspirations and policies of the Welsh Government for encouraging active travel and public transport use. It is also considered to be in accordance with the likely parking demand on the site and will provide a less car dominated development with more green space, improving the quality of the scheme.

Car Parking Layout

5.3.23 As this is an outline application, the masterplan is illustrative and details such as parking layout can be agreed as part of the reserved matters applications. However, all parking spaces within the site will have dimensions of 2.6m x 4.8m and appropriate space to allow for manoeuvring, with 6m aisle widths.

Cycle Parking

5.3.24 The SPG sets out the cycle parking standards in Appendix D. For residential apartments, there is a requirement for 1 stand per 5 bedrooms. The residential apartments provide a total of 14 bedrooms and this equates to a minimum long stay cycle provision of two stands. These will be provided in a secure and covered cycle parking shelter.

5.3.25 The houses will be provided with cycle parking within the curtilage of each individual dwelling, in line with the guidance.

5.4 Service and Emergency Access

5.4.1 Servicing would mainly relate to refuse collection which would be undertaken internally within the site, as well as from Brookland Road. The site will be designed to accommodate a refuse vehicle, and

swept path analysis of the internal layout will be undertaken at reserved matters stage to demonstrate that appropriate manoeuvring can be achieved and a refuse vehicle can enter and exit in forward gear. Based on the outline site layout, a refuse vehicle can manoeuvre around the site appropriately.

5.4.2 Welsh Government 'The Building Regulations 2010' document states that Storage areas for waste containers and chutes should be sited so that the distance householders are required to carry refuse does not usually exceed 30m (excluding any vertical distance). Containers should be within 25m of the waste collection point specified by the waste collection authority. The arrangements will be in line with Building Regulations (and MfS) and will therefore be considered safe and appropriate.

5.4.3 A fire tender will also be able to get within 45m of all properties and turn within the site, if needed. As such, the layout will be appropriate for access by emergency vehicles.

6. TRIP GENERATION AND IMPACTS

6.1 Introduction

6.1.1 This section considers the likely vehicular impact of the potential development on the surrounding highway network.

6.1.2 The vehicle trip generation has been undertaken 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, location and accessibility. Trip rates have been obtained and applied to forecast trip generation during network peak hours and over a daily period.

6.1.3 The residential dwellings can be built to encourage working from home in accordance with the aspirations of the Welsh Government for 30% of the workforce to work from home, or close to home. This will attract residents who wish to work from home and assist in constraining the level of vehicle generation from the site onto the local network. This could reduce future trip rates accordingly and as such, the obtained rates based on surveys of existing sites are considered robust.

6.1.4 The site currently consists of the Risca Youth and Community Centre and therefore, the site would generate an existing level of trips onto the highway network. However, for robustness, the existing movements have not been considered and all trips are therefore considered as new movements on the highway network.

6.2 Proposed Residential Use Vehicle Trip Generation

6.2.1 The TRICS category '03 - RESIDENTIAL/B - AFFORDABLE/LOCAL AUTHORITY HOUSES' has been selected to derive the most robust and appropriate trip rates for the proposed residential development. The following parameters have been applied to the search criteria to obtain sites of a similar nature:

- Located in England and Wales (excluding London)
- Vehicle Surveys
- Monday to Friday
- Sites with up to 50 dwellings
- Neighbourhood Centre and Suburban Locations
- Residential Zone Location Sub-Category
- From 2010 onwards (excluding sites surveyed during the pandemic)

6.2.2 The application of these parameters resulted in identifying four comparable sites. The resultant vehicle trip rates, and forecast vehicle trip generation based upon 23 units are summarised in Table 6-1. The full TRICS report is included in Appendix D.

Table 6-1: Proposed Residential Use - Vehicle Trip Rates and Generation

Time Period	Trip Rates (per dwelling)			Trip Generation (23 dwellings)		
	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way
AM Peak (08:00-09:00)	0.180	0.281	0.461	4	6	10
PM Peak (17:00-18:00)	0.281	0.281	0.562	6	6	12
12 Hours (07:00-19:00)	2.404	2.394	4.798	55	55	110

6.2.3 Table 6-1 demonstrates that the proposed development is forecast to generate 10 two-way vehicular movements during the AM peak hour and 12 two-way vehicular movement during the PM peak hour. This equates to approximately one vehicle every five minutes during the busiest hour.

6.2.4 Over a 12 hour period, the proposed residential development is forecast to generate approximately 110 two-way vehicle movements.

6.2.5 The level of vehicle generation from the proposals, without considering the extant use, would have a minimal impact on the local highway network and the operation of local junctions. The movements would travel in different directions on the wider network reducing the impacts further. As such, no formal capacity analysis is deemed to be required at the surrounding junctions based on this level of vehicle movements.

6.2.6 In addition, as an appropriate level of car parking is shown on the outline site layout plan, it is also not anticipated that the proposals would have a material impact on parking stress from overspill parking on the surrounding streets.

6.2.7 The level of movements generated by the proposed residential use can be safely and appropriately accommodated on the network.

7. SUMMARY AND CONCLUSIONS

7.1 Summary

7.1.1 This Transport Statement (TS) has been provided in support of an outline planning application for a proposed residential development at the Council Service Site, Brookland Road, Risca.

7.1.2 This report has been prepared to provide the necessary information for the Local Highway and Planning Authorities to consider the merits of the proposals in terms of location, connectivity, highway safety, parking, access and the impact on the local highway network.

7.1.3 The proposals are for a redevelopment of the site comprising of 23 new residential units, comprising of 14no. Later Living 1-bedroom flats, 4no. LCHO 2-bedroom houses, 4no. Later Living 2-bedroom house and 1no. The vehicular access is proposed from a new junction onto Brookland Road, situated approximately 28m south of the existing access on the eastern boundary of the site.

7.1.4 The site is situated in a highly sustainable location. Potential future residents can walk or cycle to a number and range of facilities, services, educational and employment locations within appropriate distances via good quality routes, reducing the need to own a car.

7.1.5 The site also has good public transport links, which provide a suitable, attractive and realistic alternative to travelling by car. This will assist in constraining vehicle generation and reduce the need for residents to own a car. It will also benefit and attract residents that would prefer to travel by public transport.

7.1.6 The outline site layout shows 26 car parking spaces within the site for residents and visitors. The parking provision reflects the low car ownership in the surrounding area and the likely demand for parking for affordable housing, as well as reflecting the sustainable location of the site. The provision is in accordance with the maximum parking standards, with the application of a sustainable location reduction factor of one space per unit.

7.1.7 Obtained road safety data does not indicate an existing safety issue which would be exacerbated by the proposals and there is no evidence of a safety issue at the site access or on key pedestrian routes.

7.1.8 The trip generation analysis shows that the proposed residential use is forecast to generate a maximum of one vehicle on the local highway network every five minutes, on average, during the busiest peak hour. This would not have a material impact on the operation of the highway, particularly considering the existing site use would generate movements on the network.

7.1.9 The level of movements generated by the proposed residential development can be safely and appropriately accommodated on the network and at the proposed site access.

7.2 Conclusions

7.2.1 The site location will encourage and promote sustainable travel behaviour, attract residents who choose not to own a car or have low car ownership and is fully in accordance with transport policies in Future Wales, PPW12, and TAN18.

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 and the access arrangements and pedestrian routes will provide safe and suitable access for the proposed residential use.

7.2.3 The proposals will not have a material impact on the operation of the highway network and no mitigation is required.

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

Appendix A Outline Site Layout

Proposed Site Plan

1 : 200

metres 4 8 12 16 20

Housing Mix			
Plot No.	House Type	Level	GIA
Plot 1	2P1BA (Gn)	00	54m²
Plot 2	2P1BA (Gn)	01	61m²
Plot 3	2P1BA (Gn)	00	53m²
Plot 4	2P1BA (Gn)	01	60m²
Plot 5	2P1BA (Gn)	00	53m²
Plot 6	2P1BA (Gn)	01	61m²
Plot 7	2P1BA (Gn)	00	53m²
Plot 8	2P1BA (Gn)	01	61m²
Plot 9	2P1BA (Gn)	00	53m²
Plot 10	2P1BA (Gn)	01	60m²
Plot 11	2P1BA (Gn)	00	54m²
Plot 12	2P1BA (Gn)	01	61m²
Plot 13	2P1BA (Gn)	00	54m²
Plot 14	2P1BA (Gn)	01	61m²
Plot 15	4P2BH (LL)	00	83m²
Plot 16	4P2BH (LL)	00	83m²
Plot 17	4P2BH (LL)	00	83m²
Plot 18	4P2BH (LL)	00	83m²
Plot 19	4P2BH (LCHO)	00	83m²
Plot 20	6P5BH (Acc)	00	173m²
Plot 21	4P2BH (LCHO)	00	83m²
Plot 22	4P2BH (LCHO)	00	83m²
Plot 23	4P2BH (LCHO)	00	83m²

NOTES

ACCOMODATION SCHEDULE

14No.1B2P walk up apartments (general needs) - Two storey

7no. GF @ 53sqm

7no. FF@ 60.5sqm

1No. 5B6P house (accessible unit)– two storey - (can be turned into 2no 2B4P houses in the future): 173sqm

4No. 2B4P LCHO – two storey: 83sqm

4No. 2B4P Later Living– two storey: 83sqm

Total 23 units (can become 24units on 5B6P conversion in the future)

VEHICLE PARKING - 26 TOTAL BAYS

- **24 No. Resident's bays**
- **2No. Visitor bays**

CYCLE PARKING

2 No. Visitor Cycle hoops

REFUSE STRATEGY (Tracking to be completed)

All refuse stores to be within plots where possible and to be collected from frontage. All plots within acceptable carry distance.

Refuse capacity indicatively allows for:

Houses:

1 x 240 refuse,
1 x 240 recycling
1x caddy

Proposed Sprinkler pump store location TBA with M+E Consultant.

KEY

Application Boundary (Approx 0.49 Ha.)

Existing Building

Revision	Description	Checked	Date	Drawn
C	LAP/SUDs Updated	JJ	06.12.24	EB
B	Updated External Works	JJ	05.12.24	EB
A	Revised Site Plan	JJ	05.08.24	EB

Jon James studio ARCHITECTURE

Client: Caerphilly Council

Job Title: Brookland Rd

Drawing Title: Proposed Site Plan

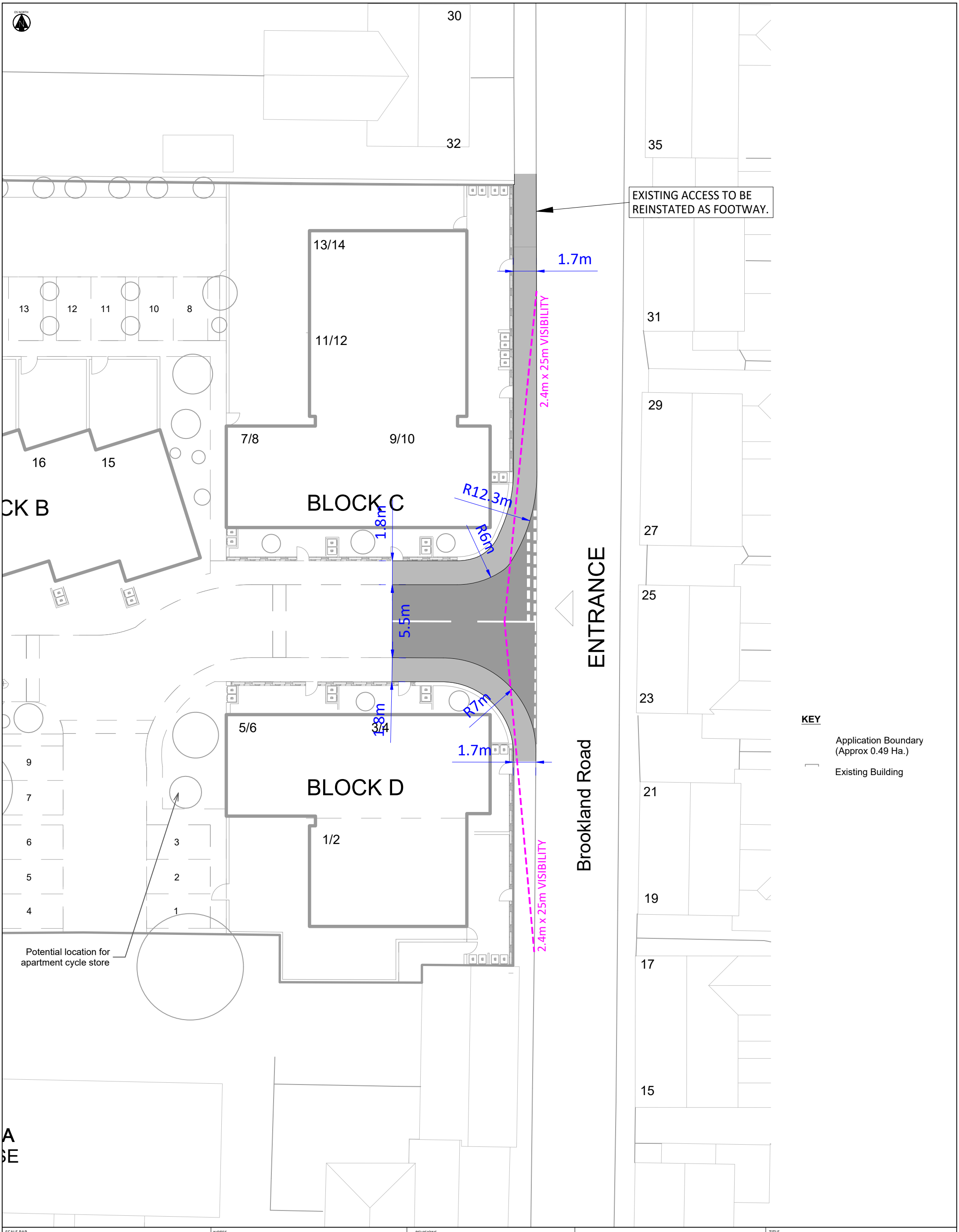
Scale: 1 : 200 @A1

Job No	Project Code	Drawing No
1053	GF05	PL 100

Status: DRAFT

Rev: C

Appendix B General Arrangement of Proposed Site Access



SCALE BAR

0m 5m 10m

SCALE BAR (1:250)

NOTES

1. General arrangement drawing suitable for planning purposes only. This drawing is not suitable for construction.
2. The content of this drawing is subject to detailed design considerations such as ground conditions, utilities, drainage and signage.
3. Drawing is based on OS mapping data. Ordnance Survey, (c) Crown Copyright 2024. All rights reserved. Licence number 100022432
4. Please do not scale from this drawing.

REVISIONS

Rev	Date	Description	By	App
P03	06/12/24	Third Issue	AC	DC
P02	03/12/24	Second Issue	AC	DC
P01	29/11/24	First Issue	AC	DC

Apex TRANSPORT PLANNING

CLOCKWISE
BRUNEL HOUSE
CARDIFF
CF24 0HA
t: 02920 619 361
e: cardiff@apextp.co.uk

RUNWAY EAST
101 VICTORIA STREET
BRISTOL
BS1 6PU
t: 0117 427 0414
e: bristol@apextp.co.uk

CLIENT
CAERPHILLY HOMES

PROJECT
BROOKLAND ROAD, RISCA

TITLE
GENERAL ARRANGEMENT OF PROPOSED SITE ACCESS

PROJECT NO. C22-151

SCALE @ A3 1:250

STATUS DESCRIPTION INFORMATION

STATUS S2

DRAWING NO. C22151-ATP-DR-TP15-001

Appendix C Swept Path Analysis

REFUSE ACCESSING SITE - LEFT IN TURN

REFUSE EGRESSING SITE - RIGHT OUT TURN

REFUSE ACCESSING SITE - RIGHT IN TURN

REFUSE EGRESSING SITE - LEFT OUT TURN

BLOCK C

BLOCK D

ENTRANCE

Brookland Road

EXISTING ON-STREET PARKING

27

25

23

21

19

17

33

31

29

3/4

1/2

13/14

11/12

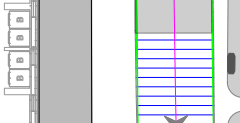
9/10

SCALE BAR

0m 5m 10m

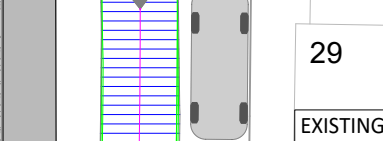
SCALE BAR (1:250)

NOTES



Dennis Eagle OL 27W 2013

	meters
Width	: 2.53
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 22.7



REVISIONS

Rev	Date	Description	By	App
P02	06/12/24	Second Issue	AC	DC
P01	03/12/24	First Issue	AC	DC

Apex TRANSPORT PLANNING

CLOCKWISE
BRUNEL HOUSE
CARDIFF
CF24 0HA
t: 02920 619 361
e: cardiff@apextp.co.uk

RUNWAY EAST
101 VICTORIA STREET
BRISTOL
BS1 6PU
t: 0117 427 0414
e: bristol@apextp.co.uk

CLIENT
CAERPHILLY HOMES

PROJECT
BROOKLAND ROAD, RISCA

TITLE
SWEPT PATH ANALYSIS OF LARGE REFUSE VEHICLE ACCESSING/EGRESSING THE PROPOSED SITE ACCESS

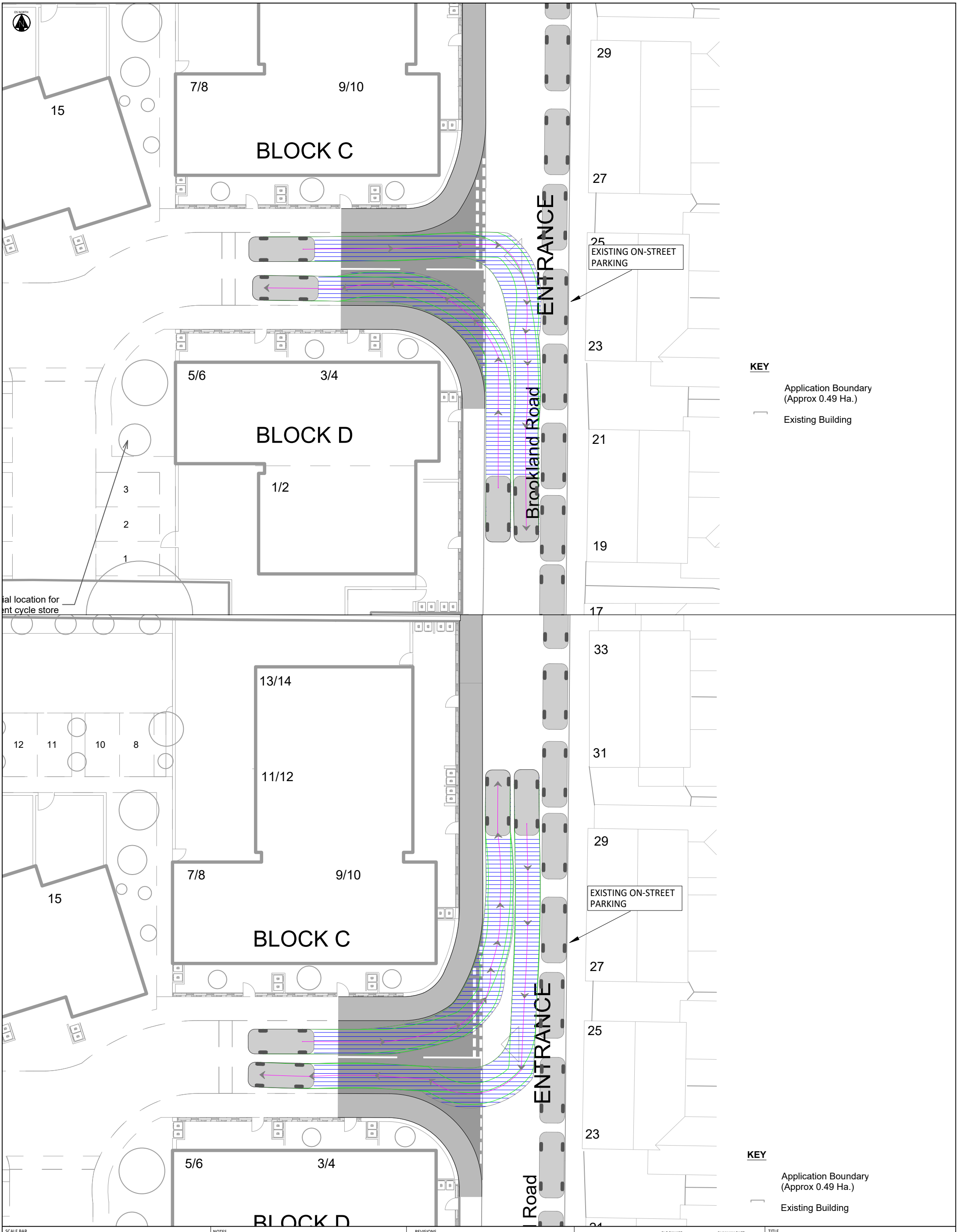
PROJECT NO.
C22-151

SCALE @ A3
1:250

STATUS DESCRIPTION
INFORMATION

STATUS
S2

DRAWING NO.
C22151-ATP-DR-TP15-002

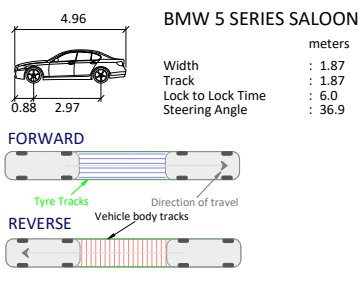


SCALE BAR

0m 5m 10m

SCALE BAR (1:250)

NOTES



BMW 5 SERIES SALOON

	meters
Width	: 1.87
Track	: 1.87
Lock to Lock Time	: 6.0
Steering Angle	: 36.9

REVISIONS

Rev	Date	Description	By	App
P02	06/12/24	Second Issue	AC	DC
P01	03/12/24	First Issue	AC	DC

Apex TRANSPORT PLANNING

CLOCKWISE
BRUNEL HOUSE
CARDIFF
CF24 0HA
t: 02920 619 361
e: cardiff@apextp.co.uk

RUNWAY EAST
101 VICTORIA STREET
BRISTOL
BS1 6PU
t: 0117 427 0414
e: bristol@apextp.co.uk

CLIENT
CAERPHILLY HOMES

PROJECT
BROOKLAND ROAD, RISCA

TITLE
SWEPT PATH ANALYSIS OF LARGE CAR ACCESSING/EGRESSING THE PROPOSED SITE ACCESS

PROJECT NO. C22-151

SCALE @ A3 1:250

STATUS DESCRIPTION INFORMATION

STATUS S2

DRAWING NO. C22151-ATP-DR-TP15-003

Appendix D TRICS Outputs

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

Filtering Summary

Land Use	03/B	RESIDENTIAL/AFFORDABLE/LOCAL AUTHORITY HOUS
Selected Trip Rate Calculation Parameter Range	10-50 DWELLS	
Actual Trip Rate Calculation Parameter Range	14-38 DWELLS	
Date Range	Minimum: 01/01/10	Maximum: 01/11/24
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	Monday	1
	Wednesday	2
	Friday	1
Main Location Types selected	Suburban Area (PPS6 Out of Centre)	3
	Neighbourhood Centre (PPS6 Local Centre)	1
Inclusion of Servicing Vehicles Counts	Servicing vehicles Included	X - Selected
	Servicing vehicles Excluded	5 - Selected
Population within 500m	All Surveys Included	
Population <1 Mile ranges selected	25,001 to 50,000	3
	50,001 to 100,000	1
Population <5 Mile ranges selected	50,001 to 75,000	1
	125,001 to 250,000	1
	250,001 to 500,000	2
Car Ownership <5 Mile ranges selected	0.6 to 1.0	2
	1.1 to 1.5	2
PTAL Rating	No PTAL Present	4

Calculation Reference: AUDIT-502501-241129-1115

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : B - AFFORDABLE/LOCAL AUTHORITY HOUSES
TOTAL VEHICLES

Selected regions and areas:

05	EAST MIDLANDS		
	LR	LEICESTER	1 days
	NN	NORTH NORTHAMPTONSHIRE	1 days
06	WEST MIDLANDS		
	WO	WORCESTERSHIRE	1 days
08	NORTH WEST		
	MS	MERSEYSIDE	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: 14 to 38 (units:)
Range Selected by User: 10 to 50 (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: 01/01/10 to 01/11/24

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:

Monday	1 days
Wednesday	2 days
Friday	1 days

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

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Neighbourhood Centre (PPS6 Local Centre)	1

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	4

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	5 days - Selected

Secondary Filtering selection:

Use Class:

C3	4 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:

25,001 to 50,000	3 days
50,001 to 100,000	1 days

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

Population within 5 miles:

50,001 to 75,000	1 days
125,001 to 250,000	1 days
250,001 to 500,000	2 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	2 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	4 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	4 days

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

LIST OF SITES relevant to selection parameters

Site(1):	LR-03-B-01	Site area:	1.21 hect
Development Name:	SEMI-DETACHED & TERRACED	No of Dwellings:	38
Location:	LEICESTER	Housing density:	38
Postcode:	LE5 4LN	Total Bedrooms:	99
Main Location Type:	Suburban Area (PPS6 Out of Centre)	Survey Date:	22/10/21
Sub-Location Type:	Residential Zone	Survey Day:	Friday
PTAL:	n/a	Parking Spaces:	46
Site(2):	MS-03-B-02	Site area:	0.42 hect
Development Name:	SEMI DETACHED/TERRACED	No of Dwellings:	14
Location:	BOOTLE	Housing density:	36
Postcode:	L30 2PH	Total Bedrooms:	44
Main Location Type:	Suburban Area (PPS6 Out of Centre)	Survey Date:	06/09/23
Sub-Location Type:	Residential Zone	Survey Day:	Wednesday
PTAL:	n/a	Parking Spaces:	14
Site(3):	NN-03-B-01	Site area:	0.80 hect
Development Name:	SEMI-DETACHED HOUSES	No of Dwellings:	21
Location:	CORBY	Housing density:	27
Postcode:	NN17 1EP	Total Bedrooms:	69
Main Location Type:	Suburban Area (PPS6 Out of Centre)	Survey Date:	13/10/21
Sub-Location Type:	Residential Zone	Survey Day:	Wednesday
PTAL:	n/a	Parking Spaces:	41
Site(4):	WO-03-B-02	Site area:	0.35 hect
Development Name:	TERRACED HOUSES	No of Dwellings:	16
Location:	WORCESTER	Housing density:	89
Postcode:	WR3 8AE	Total Bedrooms:	50
Main Location Type:	Neighbourhood Centre (PPS6 Local Centre)	Survey Date:	14/11/16
Sub-Location Type:	Residential Zone	Survey Day:	Monday
PTAL:	n/a	Parking Spaces:	29

TRIP RATE for Land Use 03 - RESIDENTIAL/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
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	4	22	0.000	4	22	0.135	4	22	0.135
08:00 - 09:00	4	22	0.180	4	22	0.281	4	22	0.461
09:00 - 10:00	4	22	0.213	4	22	0.236	4	22	0.449
10:00 - 11:00	4	22	0.191	4	22	0.247	4	22	0.438
11:00 - 12:00	4	22	0.202	4	22	0.135	4	22	0.337
12:00 - 13:00	4	22	0.135	4	22	0.191	4	22	0.326
13:00 - 14:00	4	22	0.191	4	22	0.202	4	22	0.393
14:00 - 15:00	4	22	0.191	4	22	0.225	4	22	0.416
15:00 - 16:00	4	22	0.303	4	22	0.225	4	22	0.528
16:00 - 17:00	4	22	0.292	4	22	0.112	4	22	0.404
17:00 - 18:00	4	22	0.281	4	22	0.281	4	22	0.562
18:00 - 19:00	4	22	0.225	4	22	0.124	4	22	0.349
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.404			2.394			4.798

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:	14 - 38 (units:)
Survey date date range:	01/01/10 - 01/11/24
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
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	4	22	0.000	4	22	0.000	4	22	0.000
08:00 - 09:00	4	22	0.022	4	22	0.022	4	22	0.044
09:00 - 10:00	4	22	0.034	4	22	0.034	4	22	0.068
10:00 - 11:00	4	22	0.022	4	22	0.022	4	22	0.044
11:00 - 12:00	4	22	0.000	4	22	0.000	4	22	0.000
12:00 - 13:00	4	22	0.000	4	22	0.000	4	22	0.000
13:00 - 14:00	4	22	0.011	4	22	0.011	4	22	0.022
14:00 - 15:00	4	22	0.022	4	22	0.022	4	22	0.044
15:00 - 16:00	4	22	0.011	4	22	0.011	4	22	0.022
16:00 - 17:00	4	22	0.000	4	22	0.000	4	22	0.000
17:00 - 18:00	4	22	0.011	4	22	0.011	4	22	0.022
18:00 - 19:00	4	22	0.011	4	22	0.011	4	22	0.022
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.144			0.144			0.288

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/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
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	4	22	0.000	4	22	0.000	4	22	0.000
08:00 - 09:00	4	22	0.000	4	22	0.000	4	22	0.000
09:00 - 10:00	4	22	0.022	4	22	0.000	4	22	0.022
10:00 - 11:00	4	22	0.000	4	22	0.022	4	22	0.022
11:00 - 12:00	4	22	0.011	4	22	0.011	4	22	0.022
12:00 - 13:00	4	22	0.000	4	22	0.000	4	22	0.000
13:00 - 14:00	4	22	0.000	4	22	0.000	4	22	0.000
14:00 - 15:00	4	22	0.000	4	22	0.000	4	22	0.000
15:00 - 16:00	4	22	0.000	4	22	0.000	4	22	0.000
16:00 - 17:00	4	22	0.000	4	22	0.000	4	22	0.000
17:00 - 18:00	4	22	0.000	4	22	0.000	4	22	0.000
18:00 - 19:00	4	22	0.000	4	22	0.000	4	22	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.033			0.033			0.066

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/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
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	4	22	0.000	4	22	0.011	4	22	0.011
08:00 - 09:00	4	22	0.000	4	22	0.045	4	22	0.045
09:00 - 10:00	4	22	0.011	4	22	0.034	4	22	0.045
10:00 - 11:00	4	22	0.000	4	22	0.000	4	22	0.000
11:00 - 12:00	4	22	0.011	4	22	0.022	4	22	0.033
12:00 - 13:00	4	22	0.022	4	22	0.011	4	22	0.033
13:00 - 14:00	4	22	0.000	4	22	0.000	4	22	0.000
14:00 - 15:00	4	22	0.034	4	22	0.011	4	22	0.045
15:00 - 16:00	4	22	0.034	4	22	0.011	4	22	0.045
16:00 - 17:00	4	22	0.067	4	22	0.045	4	22	0.112
17:00 - 18:00	4	22	0.034	4	22	0.022	4	22	0.056
18:00 - 19:00	4	22	0.011	4	22	0.000	4	22	0.011
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.224			0.212			0.436

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/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
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	4	22	0.000	4	22	0.112	4	22	0.112
08:00 - 09:00	4	22	0.124	4	22	0.258	4	22	0.382
09:00 - 10:00	4	22	0.112	4	22	0.191	4	22	0.303
10:00 - 11:00	4	22	0.135	4	22	0.135	4	22	0.270
11:00 - 12:00	4	22	0.180	4	22	0.112	4	22	0.292
12:00 - 13:00	4	22	0.124	4	22	0.169	4	22	0.293
13:00 - 14:00	4	22	0.146	4	22	0.157	4	22	0.303
14:00 - 15:00	4	22	0.169	4	22	0.202	4	22	0.371
15:00 - 16:00	4	22	0.225	4	22	0.157	4	22	0.382
16:00 - 17:00	4	22	0.281	4	22	0.112	4	22	0.393
17:00 - 18:00	4	22	0.270	4	22	0.258	4	22	0.528
18:00 - 19:00	4	22	0.213	4	22	0.112	4	22	0.325
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.979			1.975			3.954

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/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
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	4	22	0.000	4	22	0.011	4	22	0.011
08:00 - 09:00	4	22	0.034	4	22	0.000	4	22	0.034
09:00 - 10:00	4	22	0.045	4	22	0.011	4	22	0.056
10:00 - 11:00	4	22	0.034	4	22	0.067	4	22	0.101
11:00 - 12:00	4	22	0.011	4	22	0.011	4	22	0.022
12:00 - 13:00	4	22	0.011	4	22	0.022	4	22	0.033
13:00 - 14:00	4	22	0.022	4	22	0.022	4	22	0.044
14:00 - 15:00	4	22	0.000	4	22	0.000	4	22	0.000
15:00 - 16:00	4	22	0.067	4	22	0.056	4	22	0.123
16:00 - 17:00	4	22	0.000	4	22	0.000	4	22	0.000
17:00 - 18:00	4	22	0.000	4	22	0.011	4	22	0.011
18:00 - 19:00	4	22	0.000	4	22	0.000	4	22	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.224			0.211			0.435

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/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
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	4	22	0.000	4	22	0.011	4	22	0.011
08:00 - 09:00	4	22	0.000	4	22	0.000	4	22	0.000
09:00 - 10:00	4	22	0.000	4	22	0.000	4	22	0.000
10:00 - 11:00	4	22	0.000	4	22	0.000	4	22	0.000
11:00 - 12:00	4	22	0.000	4	22	0.000	4	22	0.000
12:00 - 13:00	4	22	0.000	4	22	0.000	4	22	0.000
13:00 - 14:00	4	22	0.011	4	22	0.011	4	22	0.022
14:00 - 15:00	4	22	0.000	4	22	0.000	4	22	0.000
15:00 - 16:00	4	22	0.000	4	22	0.000	4	22	0.000
16:00 - 17:00	4	22	0.011	4	22	0.000	4	22	0.011
17:00 - 18:00	4	22	0.000	4	22	0.000	4	22	0.000
18:00 - 19:00	4	22	0.000	4	22	0.000	4	22	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.022			0.022			0.044

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.*