

Rompney Castle,
Rumney, Cardiff



Transport Statement

Studionesh Limited

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2021

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1 Introduction

1.1 Background

1.1.1 Lime Transport has been commissioned by Studionesh Limited to prepare a Transport Statement in support of a planning application to demolish the existing Rompney Castle Public House (pub) and provide a mixed-use residential and commercial development.

1.2 Existing uses

1.2.1 The site is located to the south of Wentloog Road in Rumney, east Cardiff, in a residential area and is currently occupied by Rompney Castle Pub.

1.3 Development proposals

1.3.1 As part of the development, it is proposed to provide:

- 26 residential flats (one and two bedroom);
- 172m² of commercial retail space on the ground floor;
- Car and cycle parking; and,
- Improvements to the public realm and landscaping.

1.4 Site location

1.4.1 The site is well located in a residential area to the south of Wentloog Road. Wentloog Road is a residential distributor road, with essential facilities such as a convenience store, primary school, restaurants, takeaways and café, and a pharmacy.

1.4.2 The site, which is approximately 4.5km to the east of Cardiff City Centre (Queen Street) is shown in **Figure 1.1** below.

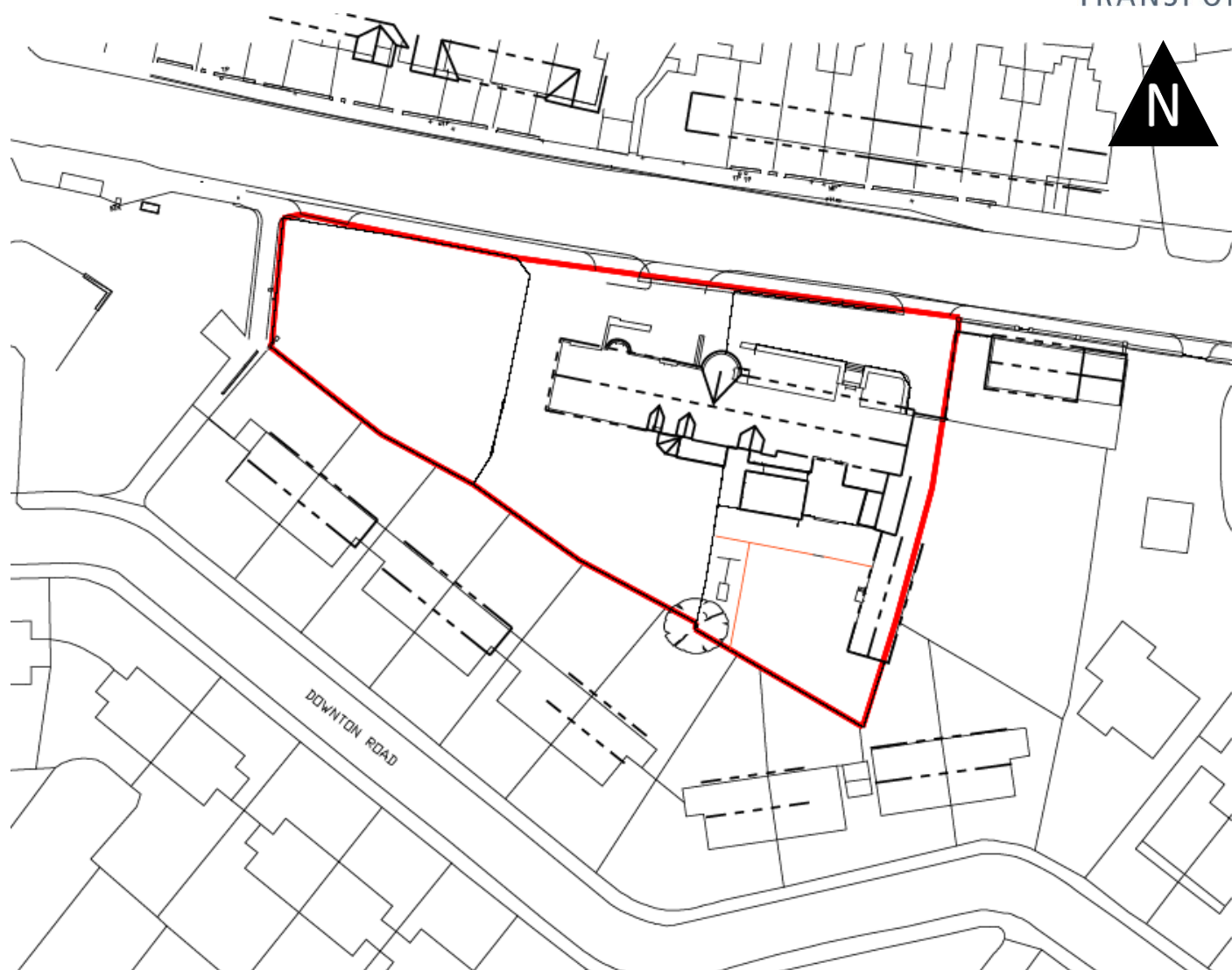


Figure 1.1 Site location

1.5 Why is the development proposed?

1.5.1 This mixed-use development is proposed in response to Cardiff’s Local Plan which states that:

- There is evidenced housing need and a need to develop sustainable neighbourhoods, tackle deprivation and improve the quality of life for all; and,
- Mixed use developments can create vibrant, mixed use communities where people live and shop.

1.5.2 This development will consist of a mix of private and affordable residential dwellings, with commercial (retail) use provided on the ground floor, creating a vibrant community.

1.6 Policy context

- 1.6.1 Policies encourage active travel, which is about ‘living locally’ and giving people the ability to access most of their needs within an easy walk or cycle from their home, with safe access to cycling and local public transport options.
- 1.6.2 This requires facilities to be reached within an easy walk and cycle distance, which then means that key car-free journeys can be made.
- 1.6.3 Locating development near a district centre, reduces traffic and provides safer environments for people and children and also creates social, health and environmental benefits. Facilities available within a 20-minute walk and cycle of the site are shown in **Figure 1.2** below.

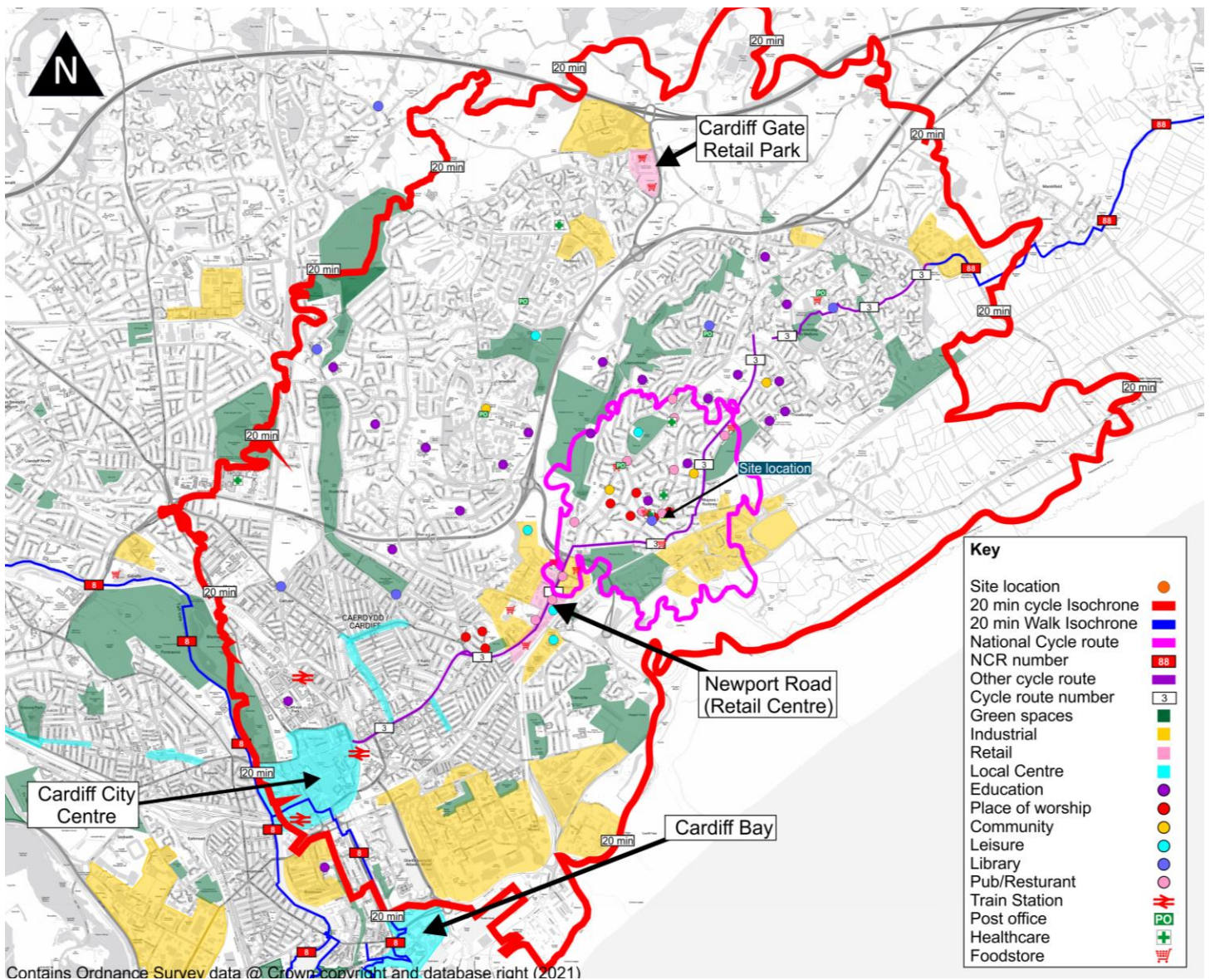


Figure 1.2 20-minute walking and cycle isochrone

1.6.4 It can be seen from the diagram below that there is a wide variety of facilities accessible within a 20-minute walk and cycle isochrone, with majority of facilities in close proximity to the site, being located along Wentloog Road and Newport Road.

1.6.5 The development meets this sustainable living criteria by:

- **Being mixed use** – the proposed development will comprise residential and commercial (retail) uses.
- **Provides green area** around the site to contribute towards the creation of a place.
- **Designed to be safe** – with limited parking in a low speed and low traffic environment. Lighting and public realm areas will be improved to provide natural surveillance;
- **Improves pedestrian and cycle priority environment** – by providing convenient link to Wentloog Road; and,
- **Provides low car parking provision and generous cycle parking** – this will further encourage travel by sustainable modes and reduce the impact of the development in terms of traffic and air quality.

1.7 Pre-application response and discussions

1.7.1 Highways has provided a response as part of the pre-application process for the site. In relation to transport, the following has been raised:

- **Access** – the location of the access is fine, however, it appears to be over engineered. The existing three dropped kerbs should be closed off and full height footway reinstated.
- **Pedestrian accessibility** – given that a retail unit is proposed, it is considered that a pedestrian crossing on Wentloog Road should be provided. This would be delivered in detail via a S278 agreement. The Council is also looking for a pedestrian connection to be provided from the residential dwellings to Brachdy Road. There does not seem to be a proper walkway to the retail unit as it is blocked by parking.
- **Parking** – 13 parking spaces are proposed for the residential element, which is acceptable as it may help discourage car ownership. Based on the floor area, the council would only require a maximum of five spaces for the commercial use.
- **Cycle parking** – cycle parking would need to be provided in accordance with Cardiff Council’s SPG. Cycle parking for commercial space staff would need to be secure and covered and visitor parking for retail use could be provided as Sheffield stands. The minimum horizontal footprint should be 0.5m.
- **Refuse** – whilst the internal road network would not be adopted, it should be demonstrated that the standard 9.2m refuse vehicle currently used by the council (Olympus 6 x 2RS) can be accommodated.
- **Trip generation** – a formal traffic generation assessment is needed based on the scale of the development.

1.8 Purpose of report

1.8.1 The purpose of this report is to demonstrate how the development will support the national and local policies related to transport, consider the travel characteristics of the proposed development and identify any transport impact, as well as setting out design solutions and mitigation measures to address and minimise any impact.

1.9 Structure of the report

1.9.1 Following this introductory section, the report is structured as follows:

- Section 2 describes the travel characteristics of the surrounding area and the existing transport conditions surrounding the site, including accessibility by all modes of transport together with a review of personal injury collision data within the study area.
- Section 3 sets out who the development is for, when they will travel and why; describes the development proposals including access, car and cycle parking provision, deliveries and refuse collection and improvements to the public realm.
- Section 4 predicts the travel demand associated with the existing and proposed development and identifies the design solutions and mitigation measures to address or reduce any impact on the surrounding transport network.
- Section 5 summarises the findings of the report.

2 Existing situation

2.1 Site location

2.1.1 The site is located in a reasonably sustainable location, to the south of Wentloog Road, in a residential area of east Cardiff in Rumney. Wentloog Road is provided with essential facilities including retail, education, food and health. The site is approximately 4.5km to the west of Cardiff City Centre. The site is bounded by:

- Wentloog Road to the north;
- The rear of residential dwellings fronting Downton Road to the south;
- Residential dwelling to the east; and,
- Rumney Gospel Chapel to the west.

2.1.2 The location of the development site together with the local highway network is shown in **Figure 2.1** below.

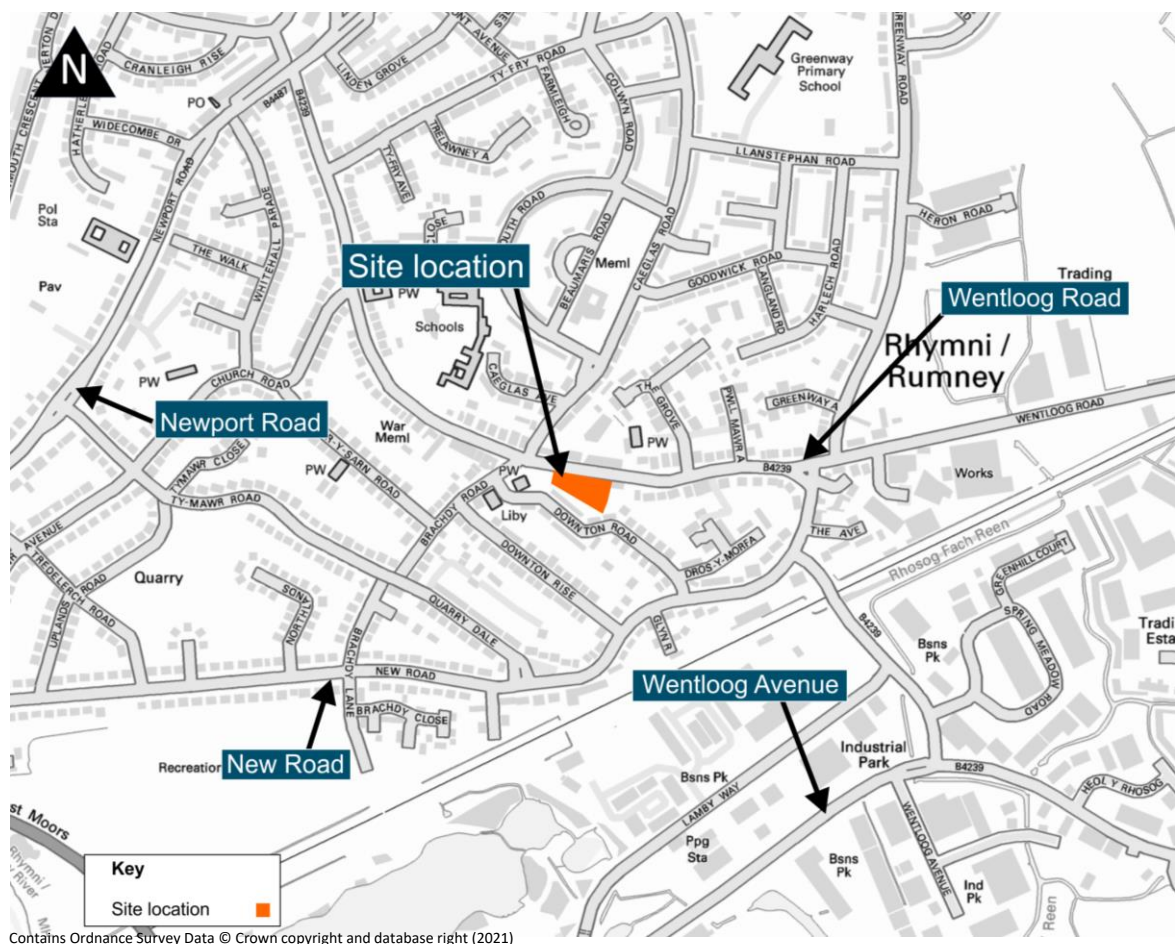


Figure 2.1 Site location and local highway network

2.2 Travel characteristics

2.2.1 The site is located with easy walking distance of a variety of facilities, and is just outside of the central area of Cardiff (based on the Cardiff Council’s Managing Transportation Impacts Supplementary Planning Guidance).

2.2.2 It is anticipated the the development will be used as follows:

- **Residential flats** - new residents, visitors and deliveries; and,
- **Commercial retail unit** – staff, visitors and deliveries.

2.2.3 It is anticipated that the trip profiles and journey purposes of users of each element of the development (based on TRICS trip generation database) will be set out in the following sections.

Residential use

2.2.4 It is anticipated that the trip profiles of residents will fluctuate across the day with weekday peaks as follows:

- Morning (8am to 9am) - departures for employment and education;
- Mid-afternoon (3pm to 4pm) - arrivals for education; and,
- Evening (5pm to 6pm) - arrivals for employment and departures for retail and leisure.

2.2.5 **Figure 2.2** below shows the likely profile for weekday daytime trips based on comparable sites within the TRICS trip generation database.

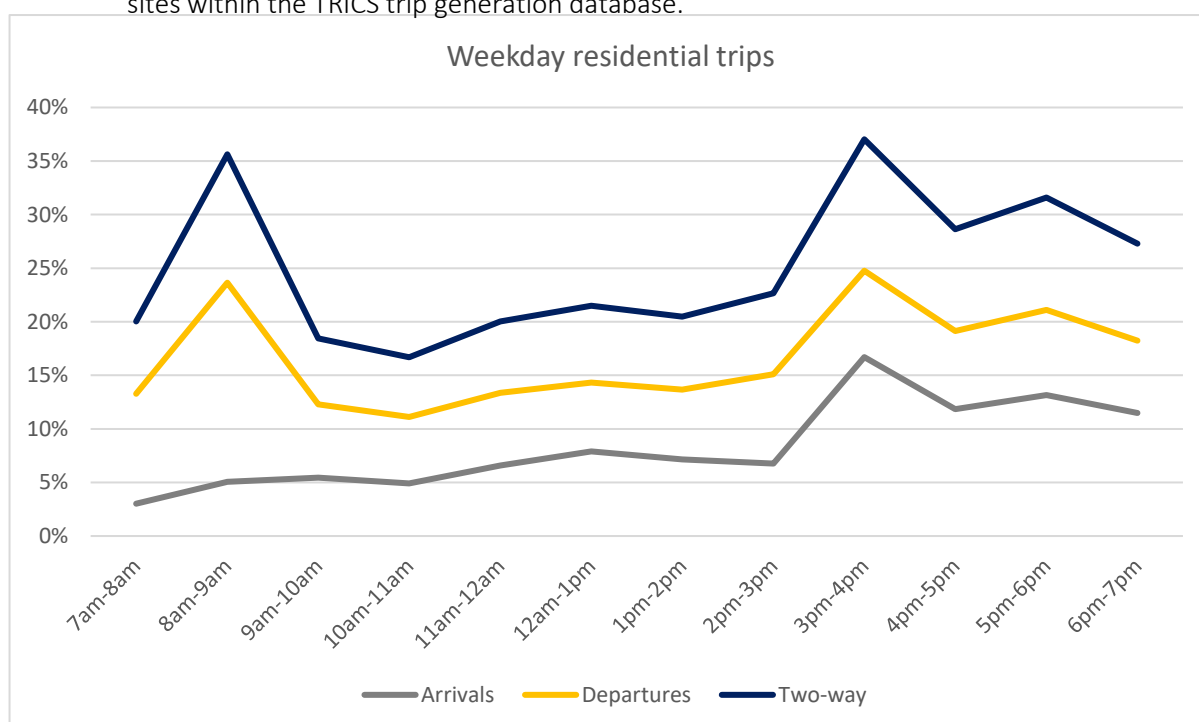


Figure 2.2 Profile of weekday trips for residential use

Commercial retail use

2.2.6 The commercial unit’s opening hours will likely be 8am to 10pm daily, with the trip profile for the commercial retail as follows:

- Morning to early afternoon (7am-9am) – arrivals of staff and arrivals and departures of visitors of the retail unit;
- Afternoon – (3pm-4pm) – arrivals and departures of retail space users after school pick-up time;
- Evening (5pm-10pm) – arrivals and departures of retail unit users and departures of staff.

2.2.7 **Figure 2.3** below shows the likely profile for weekday daytime trips based on comparable sites within the TRICS trip generation database.

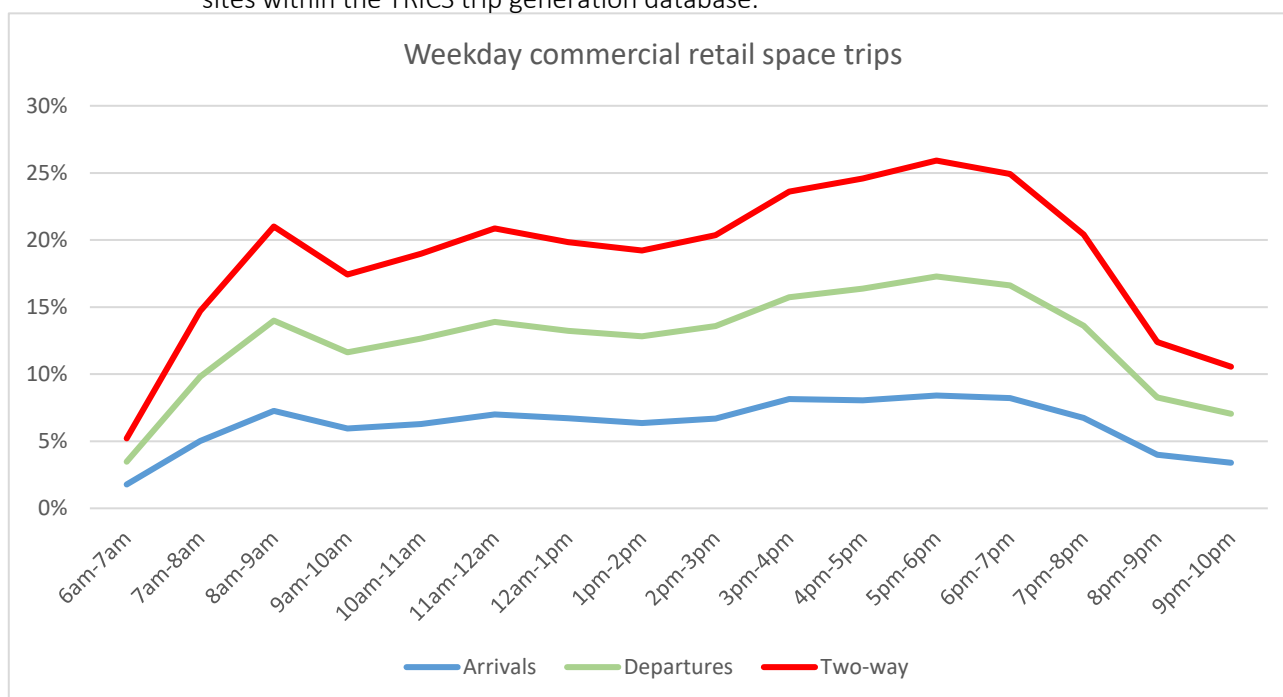


Figure 2.3 Profile of weekday trips for commercial retail space use

Travel to work

2.2.8 Travel to Work data from the 2011 Census has been used to establish the mode of travel to work for existing residents in the area.

2.2.9 Lower super output areas are geographical areas built from contiguous output areas, which are consistent in population size. Between four to six output areas make up Lower Super Output Areas (LSOA), and between four to six LSOA areas make up Middle Super Output Areas (MSOA).

2.2.10 **Table 3.1** below shows the travel to work mode split for the Lower Super Output Area (LSOA 022A), the Middle Super Output Area (MSOA 022) and Cardiff as a whole. This data excludes those that work from home and those not in employment.

Table 3.1 Mode split for journey to work based on 2011 Census data

Mode	Mode share (%)		
	LSOA 022A	MSOA 022	Cardiff
Underground	0	0	0
Train	0	0	3
Bus, minibus or coach	10	12	11
Taxi	0	0	0
Motorcycle, scooter or moped	1	1	0
Car or van (as driver)	72	71	59
Passenger in car or van	8	7	5
Cycle	1	1	4
Walk	8	7	16
Other	1	1	1
Total		100%	

2.2.11 It should be noted that, Census Travel to Work data differs from the trip generation survey data, as the survey data records vehicle journeys for all purposes, not just work related.

2.2.12 It can be seen that a total of 72% of the population within the LSOA travel to work by car, with a further 8% travelling as passenger. It can also be seen that 19% travel to work by sustainable modes, including walking, cycling and public transport.

Car ownership

2.2.13 Car ownership data from the 2011 Census has been used to establish the local car ownership rate. Super output areas are geographical areas built from contiguous output areas, which are consistent in population size. Between four to six output areas make up Lower Super Output Areas (LSOA), and between four to six LSOA areas make up Middle Super Output Areas (MSOA).

2.2.14 In the lower output area, in which the site is located, car ownership is 1.26 cars/vans per household. This is higher than the Cardiff County average at 1.06 cars/vans per household. Car ownership is linked to locational and housing characteristics (tenure, size and type of dwelling) as follows:

- **Tenure** – the development is a mix of private and affordable tenure (20%) however in this area only 10% of dwellings are of affordable tenure;
- **Type** – the development consists entirely of flats, whereas in this area only total 11% of dwellings are flats;
- **Size** – all proposed dwellings are 1- or 2-bedrooms, whereas in the LSOA area 74% of dwellings are large 3+ bedroom dwellings.

2.2.15 Given the above, it is considered that car ownership will be significantly below the average for the surrounding area. The car ownership for flats in the area is 0.67 cars or vans per household, however, this does not take into account flat size or tenure.

2.2.16 Although the car ownership for flats better reflects the likely car ownership than the average for the area, it is considered that the future residents will have lower car ownership, given that limited parking is proposed as part of the development. Combined with the reasonably sustainable location of the site, Cardiff Council’s aspiration to reduce reliance on a private car and generous cycle parking on site, this means that a low-car lifestyle is easily achievable.

2.3 Connectivity

Walking

2.3.1 All of the roads within the vicinity of the site have footways on one or both sides of the carriageway that provide links between the site and the surrounding amenities and facilities.

2.3.2 There is also a pedestrian path provided in the vicinity of the site from Wentloog Road to Downton Road, and another between Wentloog Road and Brachdy Road along the western boundary of the site.

2.3.3 There are informal crossings (with dropped kerbs and tactile paving) provided in the vicinity of the site, providing convenient links to the surrounding area.

2.3.4 The closest formal crossing to the site is a zebra crossing, provided approximately 140m to the west of the site on Wentloog Road. this crossing provides convenient access to Rumney primary school.

2.3.5 Signalised crossing facilities are incorporated on every arm of the junction with Newport Road, approximately 750m to the north-west of the site.

The key desire lines for pedestrians are likely to be to the bus stops on Wentloog Road, facilities along this road and on Newport Road (approximately 750-1.2km to north). Pedestrians wishing to access the northbound bus stop would and facilities along the southern edge of Wentloog Road (including a convenience store, takeaways and a pharmacy) would not need to cross the carriageway. Pedestrians wishing to use the eastbound bus stop and the primary school, would cross the carriageway using the zebra crossing on Wentloog Road (140m to the west). Given this, it is considered that the existing pedestrian facilities are appropriate.

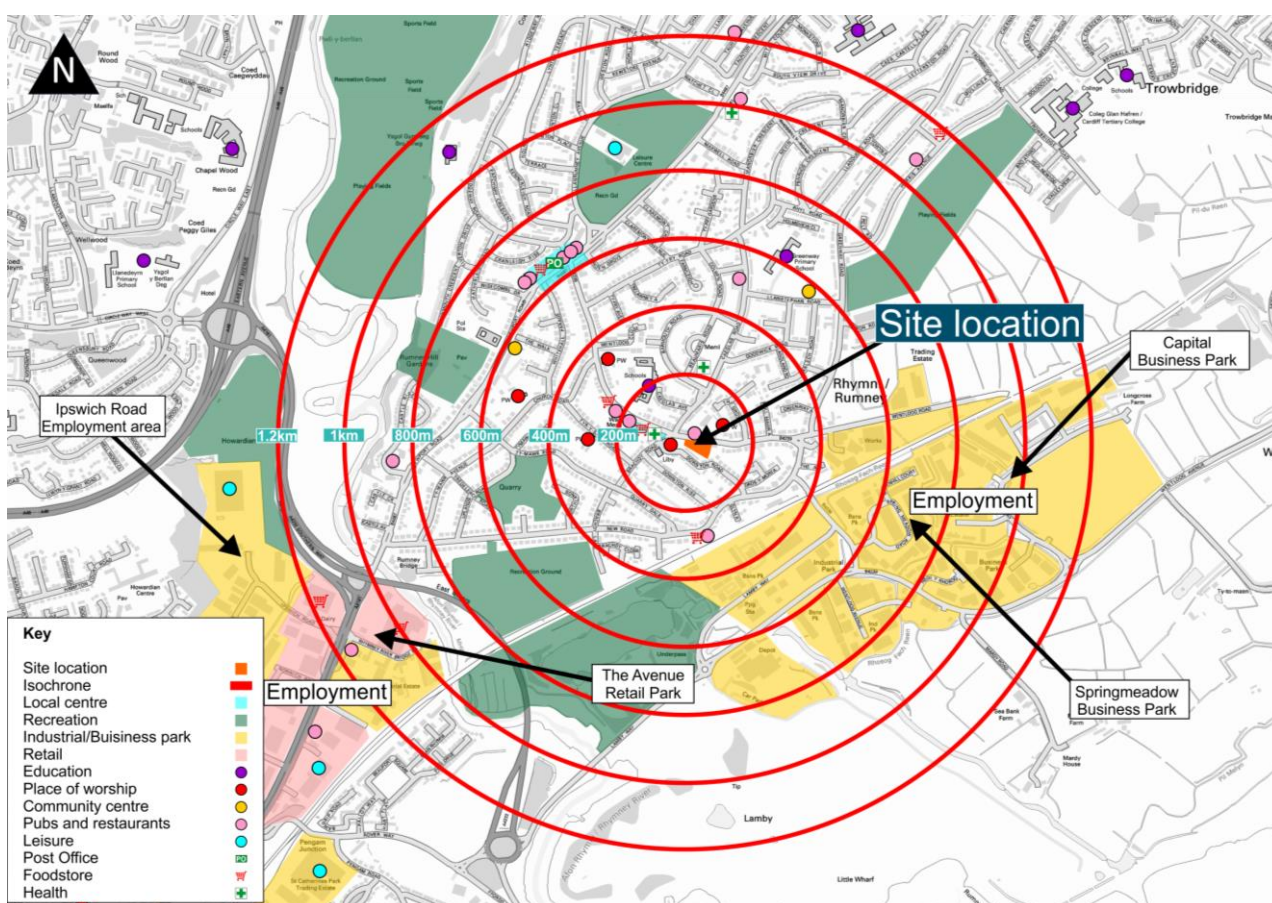
2.3.6 The Chartered Institution of Highways and Transportation (CIHT) ‘Providing for Journeys on Foot’ indicates that the desirable walking distance for commuting and school journeys is 500m, the acceptable walking distance is 1km, and 2km is the preferred maximum.

2.3.7 The CIHT guidelines also indicate that the desirable walking distance for ‘elsewhere’, including local amenities is 400m, the acceptable walking distance is 800m and 1.2km is the preferred maximum.

2.3.8 **Figure 2.4** shows facilities within 1.2km of the site (divided into 200m bands from the centre of the site), together with local amenities within walking distance.

2.3.9 There is a wide variety of local amenities within walking distance of the site, in particular along Wentloog Road and Newport Road (750-1.2km) further to the north. Capital business park is also located within 700m of the site, where a wide variety of employment facilities are located. The facilities within 1.2km of the site include:

- Convenience stores (130m)
- Health facilities including a pharmacy (120m) and a surgery (350m)
- Primary School (330m)
- Food including pubs, restaurants (790m-1.2km), takeaways (170m-1.2km) and cafes (25m-1.2km)
- Hairdresser and barbers (800m)
- Retail stores (780-1.2km)
- Financial services including banks (750m) and Post Office (820m)
- Places of worship (90m)
- Employment facilities (450-1.5km)
- Bus stops (70-850m)
- Walking and cycling infrastructure, including national cycle route 3 (330m) and 30 (700m) and Next bikes (110m-1.1km)



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2.3.10 The site is also located in the vicinity of a number of local retail and employment facilities provided at the Newport Road retail centre, approximately 1.3km further to the south.

Cycling

2.3.11 The nearest local cycle route is route 3 , provided approximately 330m to the east of the site along New Road. This is a local cycle route which provides access to local cycle route 88 further to the north-east in St Mellons and to Newport Road and Cardiff City Centre to the south of the site. The section between New Road/Newport Road junction (to the south) and Broadway/Newport Road junction is provided on a traffic-free route on the eastern side of Newport Road.

2.3.12 A further cycle route (route 30) is provided approximately 700m to the west of the site on Ty-Mawr Road. This is traffic-free route provided along the Rhymney River to St Mellons Road in Pentwyn to the north.

2.3.13 The closest national cycle route to the site is National Cycle Network (NCN) Route 88, which runs between St Mellons to the north-east to Duffryn and Newport further to the north-east. This route is located approximately 4.7km to the north-east of the site. This route is provided along a mixture of on-road and traffic-free routes.

2.3.14 All cycle routes are shown in **Figure 2.5** below.

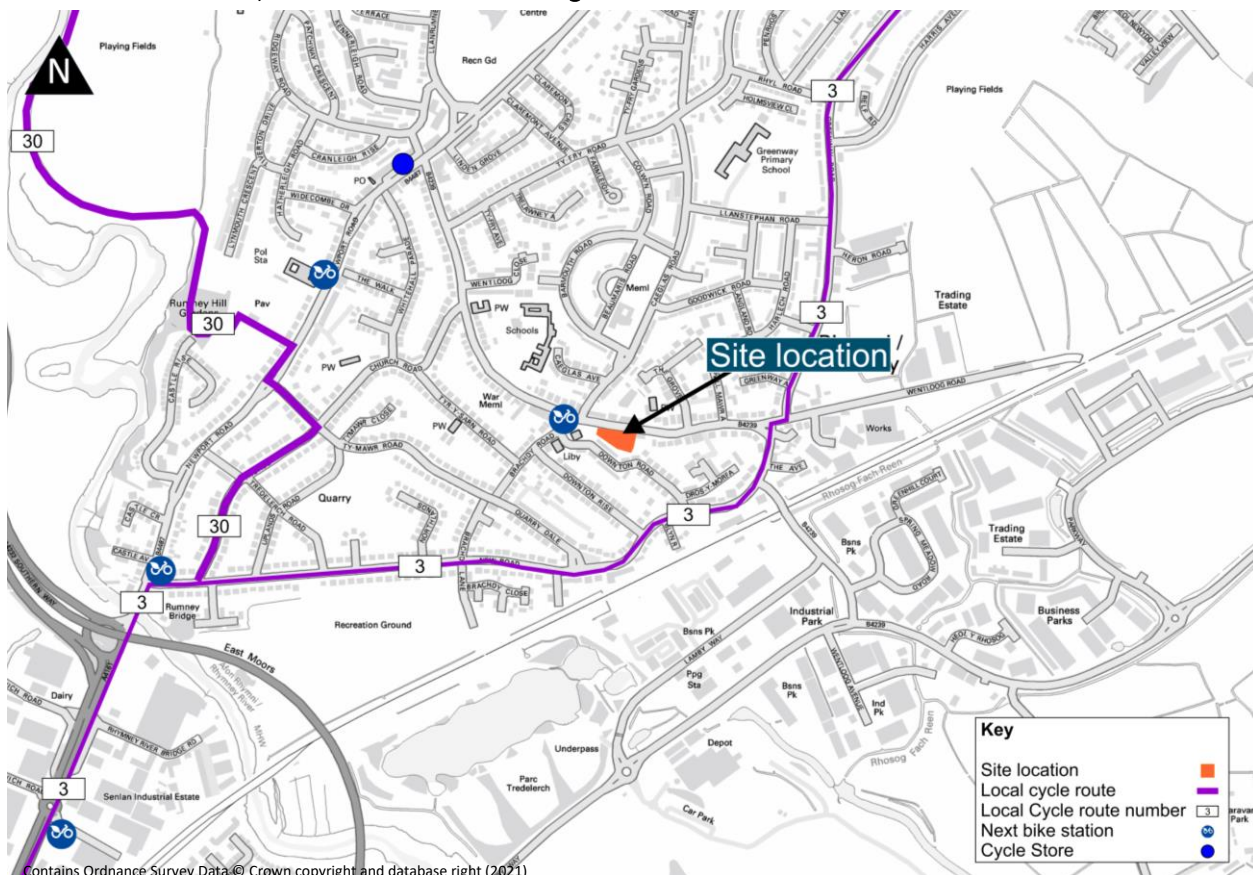


Figure 2.5 Local cycle infrastructure and cycle routes

2.3.15 In addition to the above, there are numerous Next bike docking locations within the vicinity of the site. These bikes are convenient alternatives for those who do not own a bike or only use a bike occasionally. There are several docking stations within close proximity of the site at the following locations:

- Wentloog Road/Brachdy Road junction, approximately 110m to the west of the site – eight racks;
- Newport Road, outside the police station – approximately 820m to the west – nine racks; and,
- New Road, approximately 1.1km to the south-west – 10 racks.

Bus services

2.3.16 The site is very well connected to public transport, providing connections throughout Cardiff and further afield. The nearest bus stops are provided on:

- Wentloog Road – 70m to the west, served by route 45 and 49 (one service on Sunday only);
- New Road – 440m to the south, served by routes 44 and 65A;
- Newport Road – 850m to the north, served by routes 30, 45, 49, 50, 65A and X45.

2.3.17 These routes provide access to connections within Cardiff including Cardiff City Centre, Grangetown, International Sport Village, Llanrumney, St Mellons and Newport.

2.3.18 The location of the closest bus stops, together with bus routes that call at these stops is shown in **Figure 2.6** below, and **Table 2.2** provides a summary of the routes serving the closest bus stops to the site.

Table 2.2 Summary of bus services

Route No.	Route	Walk distance (m)	Weekday Frequency	First/last service (approx.)
Wentloog Road				
45	Cardiff City Centre – St Mellons	110	2 per hour	6am/10pm
New Road				
44	Cardiff City Centre – St Mellons	440	2 per hour	5am/10.30pm
65A	Heath Hospital – St Mellons	440	5 per day	6am/6.45pm
Newport Road				
30	Cardiff – Newport	850	2 per hour	10am/7pm
49	Llanrumney – City Centre	850	3 per hour	6.30am/11.45pm
50	Llanrumney – Cardiff City Centre	850	3 per hour	7.30am/11pm
X45	St Mellons - Sport Village	850	2 per hour	7am/7pm
65	Heath Hospital – St Mellons	850	4 per day	7.45am/5pm

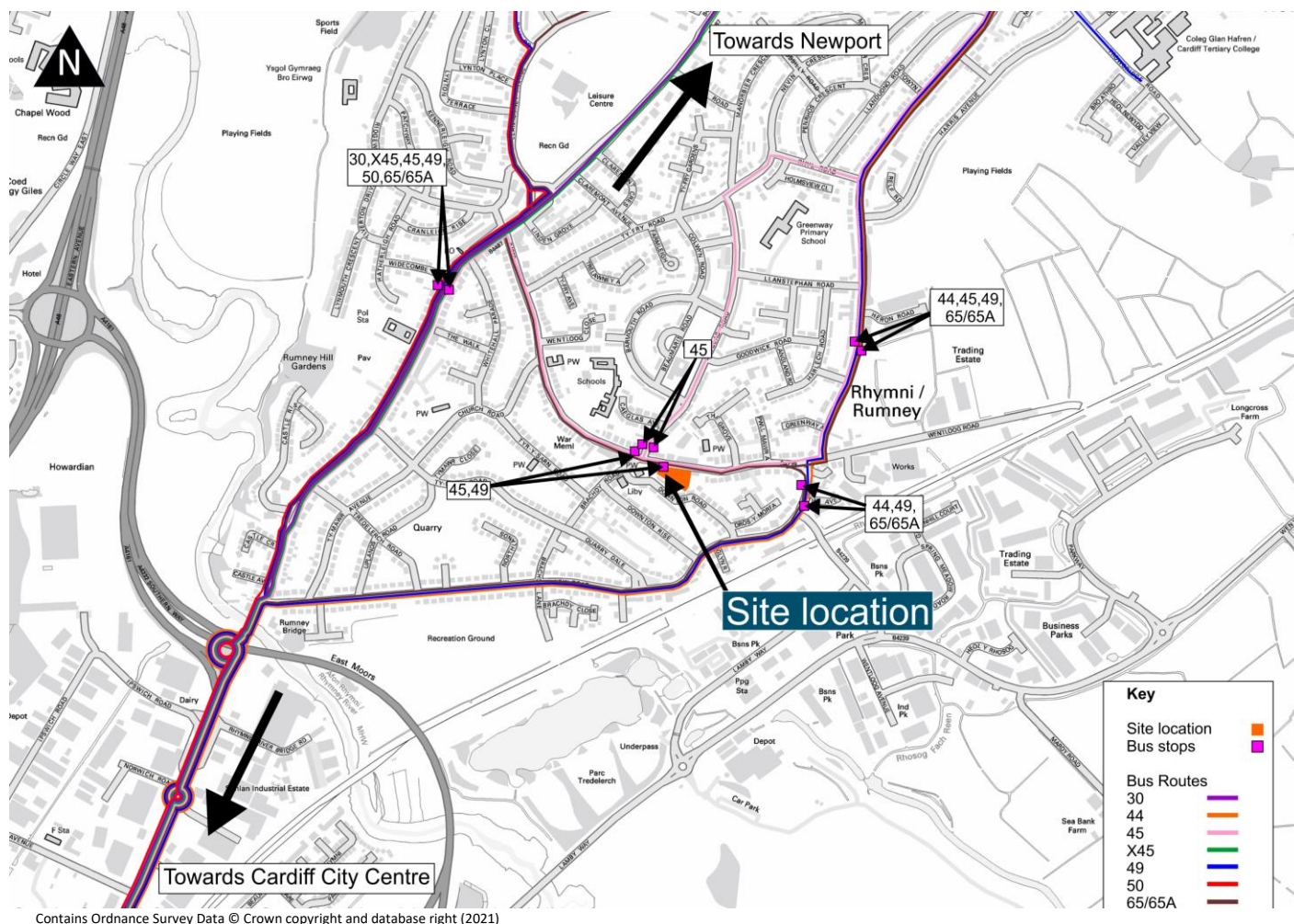


Figure 2.6 Local public transport infrastructure

Rail services

- 2.3.19 The closest railway station is Cardiff Queen Street station, located approximately 4.7km to the south of the site. This station provides local connections to Penarth, Barry Island, Aberdare, Rhymney, Pontypridd, Caerphilly and Merthyr Tydfil. There is no parking provided at this station, however, there are 10 cycle storage spaces provided on the right hand side of the entrance to the station which is overlooked by CCTV.
- 2.3.20 Cardiff Central station is located 6.5km to the east of the site. This is a major station, which locally provides access to Bridgend, Radyr, Coryton, Merthyr Tydfil, Aberdare, Treherbert, Rhymney, Ebbw Vale, Penarth, Maesteg and Milford Haven, and nationally to Nottingham, Birmingham, Manchester, London, Swansea, Portsmouth, Penzance, Bristol and Southampton. There are 90 sheltered cycle stands provided at this station and a station car park with 248 spaces (with six accessible spaces). Step free access is provided to all platforms with ramped access to trains.

2.3.1 In addition, plans were submitted in January 2021 for a new Cardiff Parkway Station to the south of the St Mellons Business Park, as part of a major employment development. The new station will be situated on the Great Western Mainline, and will have a journey time of approximately seven minutes to both Cardiff Central and Newport Rail stations.

2.3.2 The new station, which could be open as early as 2024, will be within approximately 4km (easy cycling distance) of the site.

2.4 Local highway network

2.4.1 A description of the local highway network is outlined in **Table 2.3** below and is shown on Figure 2.1.

Table 2.3 Local highway network

Description	
Wentloog Road	
Description	A single carriageway, local access road. At the northern end, the road can be accessed via a signalised junction with Newport Road. At the southern end the road provides access to Newport Road and Wentloog Buildings industrial estate. Footways are provided on both sides of the carriageway.
Width	Approximately 8.5-9 wide in the vicinity of the site.
Speed limit	30mph
Street lighting	Yes, along the length of the carriageway
Crossing facilities	A mixture of formal and informal crossings. There is a zebra crossing provided to the west of the site. Dropped kerb crossings are provided on approach to residential roads. There are signalised crossings incorporated on every arm of the junction with Newport Road to the north-west.
Bus route	Yes
Character	A residential access with predominantly residential frontages and some commercial and retail frontages at the southern end.
On-street parking	No parking restrictions

2.5 Parking provision in the surrounding area

2.5.1 Within 200m of the site, there are no parking restrictions provided on residential roads, except for double yellow lines on approach to the junctions (e.g. Caeglas Road and Brachdy Road).

2.6 Collision analysis

2.6.1 Collision data has been obtained for the period 2016 to 2020 for the area immediately adjacent to the site. This study area and the location and severity of collisions that occurred within it are shown on **Figure 2.7** below, and the number and severity of casualties sustained is outlined in **Table 2.4** below.

Table 2.4 Number and severity of casualties

	Personal injury			No. of casualties	Vulnerable users			
	Fatal	Serious	Slight		Children	Pedestrians	Motorcycles	Pedal cycles
2016	0	0	1	3	0	0	0	0
2017	0	0	1	1	0	0	0	0
2018	0	0	1	1	0	1	0	0
2019	0	0	2	2	0	0	1	0
2020	0	0	0	0	0	0	0	0
Total	0	0	5	7	0	1	1	0

2.6.2 It can be seen from Table 2.4 and Figure 2.7 below that five collisions occurred within the study area during the period 2016 to 2020, resulting in seven casualties sustaining slight injuries. It can also be seen that two collisions involved vulnerable road users and resulted in the following casualties:

- One pedestrian casualty sustaining a slight injury in 2018;
- One motorcyclist casualty sustaining a slight injury in 2019.

2.6.3 The development is likely to generate a low level of vehicle trips compared to the existing use and it is considered that highway safety will be unaffected by the proposals.

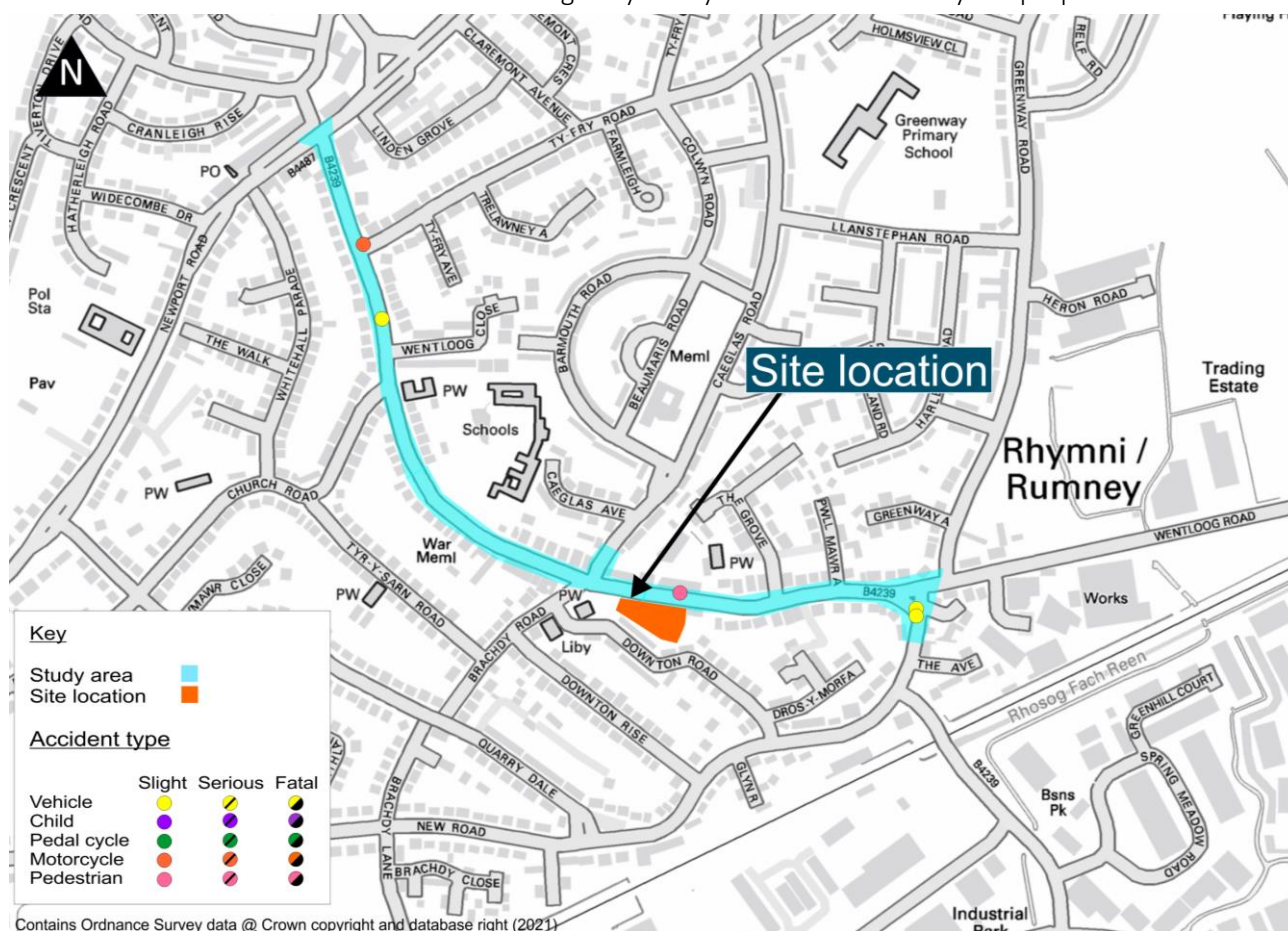


Figure 2.7 Collision data

3 Development proposals

3.1 Introduction

3.1.1 As outlined in Section 1, it is proposed to demolish the existing Rompney Castle pub and provide a mixed use residential and commercial retail development.

3.1.2 The development will comprise a total of 26 residents dwellings and a commercial unit, which will be provided in two buildings (western and eastern):

- The western building will comprise:
 - 10 x 1-bedroom apartments
 - 14 x 2-bedroom apartments
- The eastern building will comprise:
 - Ancillary 172m² of commercial retail unit provided on the ground floor
 - 2 x 2-bedroom apartments provided above the retail unit
- Cycle storage for residents;
- Cycle parking for visitors and staff of the commercial space; and,
- Parking spaces for residents and commercial space users.

3.1.3 This section of the report sets out the development proposals, including access arrangements, deliveries and servicing, as well as car and cycle parking provision.

3.1.4 The development proposals are outlined in **Figure 3.1** below.



Figure 3.1 Development proposals

3.2 Access

Vehicles

3.2.1 The existing access into the pub car park will be closed off and footway reinstated with full height kerb. A new access will be provided onto Wentloog Road. The access road is designed as with a 5m wide carriageway and a 2m footway on the western side of the carriageway and 4m junction radii on both sides. This road will provide access to the parking court and turning area for large vehicles to the south.

Pedestrians and cyclists

- 3.2.2 The development will be easily accessible for pedestrians and cyclists, with pedestrian footway provided on the western side of the main vehicle access to the site. In addition, access to the residential block will be provided at the eastern and western ends of the building with convenient access to Wentloog Road and Brachdy Road to the west. Access to the commercial unit will be provided to the west of the building, and a footpath will be provided from Wentloog Road and the car park.

3.3 Deliveries, refuse and servicing

Deliveries

- 3.3.1 It is anticipated that the residential element of the development could generate up to a maximum of three (delivery and service) vehicle trips per day (6-days/week). It is likely that the commercial element of the scheme could generate a maximum of two deliveries per day (four movements in total) for food supplies. The likely number of delivery and servicing trips is detailed in section 5.
- 3.3.2 It is anticipated that all servicing and deliveries will be undertaken from the parking court area within the site, with vehicles stopping in the turning head area. It is also likely that some delivery vehicles will be able to stop on Wentloog Road and there are no parking restrictions along the length of the carriageway. It is unlikely that delivery vehicles will affect traffic flow along Wentloog Road.
- 3.3.3 It is likely that the maximum size of vehicle that would be reasonably expected to deliver to any residential development is a 10m rigid vehicle. In practice, it is more likely that the maximum size of vehicle will be an 8m rigid vehicle, with transit sized vehicles being much more commonly used.

Refuse

- 3.3.4 Residential and commercial refuse will be stored separately in conveniently located bin stores. Residential bin store will be provided to the south of the turning head and commercial bin store will be provided to the north of the turning head. Residential and commercial refuse will be collected separately.
- 3.3.5 It is anticipated that all refuse generated by the residential element of the development will be collected by the local authority within the site as part of the existing refuse collection. It is understood that occupiers of the commercial retail unit will need to sign up separately for refuse collection and this would be undertaken once a week from the turning head within the site.
- 3.3.6 It is likely that the residential element of the development is likely to generate a maximum of three trips per week on the same day. One refuse collection will be for general waste collections (bi-weekly), one for recycling (weekly) and one for food waste (weekly).
- 3.3.7 A swept-path analysis of a range of vehicles (including a refuse vehicle) is included in **Appendix A**.

Emergency

- 3.3.8 It is anticipated that access for emergency vehicles (fire and ambulance) will be provided from either Wentloog Road or from the parking court area within the site. The buildings are within an acceptable distance for access by emergency vehicles.

3.4 Car and cycle parking

- 3.4.1 Car and cycle provision is outlined in detail in the following section (Section 4).

4 Car parking and cycle parking

4.1.1 It is proposed to provide a total of 19 spaces, of which 16 spaces will be for residents and three spaces will be for commercial space users (including two Blue Badge). Given that the proposed development is mixed-use, the need to travel by car will be further reduced.

4.1.2 Following pre-application advice, the highway authority considered this level of parking provision acceptable. Provision of 16 car parking spaces is equivalent to a car ownership rate of 0.62 cars per dwelling, and it is likely that residents of two-bedroom dwellings will be more likely to own cars.

4.1.3 This section considers a number of factors to demonstrate that a low-car lifestyle is a realistic option in this location for this type of housing, whilst using the land efficiently and providing new homes, including:

- Policy context;
- Sustainability of the site's location; and,
- Car ownership characteristics.

Parking policy context

4.1.4 Parking standards are guidelines that form a consistent basis for discussion between developers applying for permission and the local planning authority. It is recognised that situations arise where local circumstances justify a variation from the standards. It is important to consider local car ownership data, access to local facilities and the availability of alternative means of travel when determining the appropriate level of parking.

4.1.5 The site is based in a reasonably sustainable location with access to local facilities and public transport, which provides access to Cardiff City Centre.

4.1.6 The relevant parking standards for the area as follows:

- **Wales Spatial Plan (2008)** states that 'In the context of responding to and mitigating the effects of climate change, the Wales Spatial Plan supports the development of spatially targeted responses. These include reducing the need to travel by co-locating jobs, housing and services, for instance, and changing behaviour in favour of 'greener' modes of travel, such as car sharing, public transport, walking and cycling.'
- **Planning Policy Wales (February 2021)** states that parking provision is a major influence on how people choose to travel and where and how cars are parked can be major factor in the quality of a place. A design-led approach to the provision of car parking should be taken, which ensures that parking does not dominate the development or become inconvenience to people walking and cycling, whilst ensuring that natural surveillance is provided. Local authorities should jointly establish maximum parking standards and apply parking standards flexibly to allow for the provision of lower levels of parking and the creation of high-quality spaces.

PPW also states that sustainable places encourage walking and cycling and that new developments should integrate sustainable transport hierarchy, reduce the need to travel and prevent car-dependent developments in unsustainable locations. Developments which are designed in a way that prioritises access and movement by active and sustainable transport will be supported. Walking and cycling are good for well-being.

- **Technical Advice Note 18: Transport (March 2018)** - TAN18 states that maximum standards should allow developers the discretion to reduce parking levels and regard should be given to public transport accessibility, opportunities for walking and cycling and availability the general area of safe public on and off-street parking provision.
- **Cardiff Local Development 2006-2026** - Policy T5 states that new development will be required to make satisfactory provision for access, parking and circulation particularly by pedestrians, cyclists, public transport users and disabled people with mobility impairments. Car and coach parking and servicing facilities should be provided in accordance with the guidelines and the council's adopted standards.
- **Managing Transportation Impacts SPG (July 2018)** - The document states that parking can influence travel choices and excessive provision can serve to stimulate demand for car travel and perpetuate reliance on the car. It is, therefore, considered that the application of parking standards is important in managing demand for travel by car and encouraging a shift to sustainable transport modes. Cardiff Council has adopted maximum parking standards. For mixed use developments, the standards relating to each use should be used to calculate the overall total parking level. The document also states that there may be scope for applying standards flexibly in some circumstances where the specific use or nature of development, occupation or management warrant this.

4.1.7 Based on the standards set out in the Managing Transportation Impacts SPG, the site is located outside the Central area of Cardiff where higher parking standards apply. As part of the development, it is proposed to provide 26 residential dwellings (C3 use) and 172m² of commercial space (A1-A3 use). The relevant **maximum** parking standards for each use are as follows:

- Residential dwellings (C3) – 1 per dwelling; and,
- Retail (A1) – 1 space per 60 m².

4.1.8 Based on the above, the maximum car parking provision for residential use is 26 spaces and for the retail unit, it is three spaces.

4.1.9 Regarding blue badge parking provision for C3 use, the standards state that parking should be provided within the parking allocation. For A1 use, it states that 5% of total parking spaces should be for Blue Badge users and a further 5% of spaces should be enlarged. As part of the development, of the total three spaces proposed for the retail unit, two will be for use by blue badge holders.

4.1.10 It is considered that both residential and commercial parking provision is within the maximum standards.

Sustainability of site's location

4.1.11 The site is located in a reasonably sustainable location, with convenient access to essential facilities including education, public transport and cycle infrastructure, foodstore, financial (Post Office and banks), health and food (cafes and takeaways), provided within easy walk distance of the site along. Majority of facilities are provided along Wentloog Road (within 300m) and Newport Road (within 800-1km), with some located on other residential roads in the vicinity of the site. Capital business park is also located within 700m of the site, where a wide variety of employment facilities are located. The site is also located in the vicinity of a number of local retail and employment facilities provided on Newport Road retail centre, approximately 1.3km further to the south.

4.1.12 In addition, the site is located within 330m of a local cycle routes provided along New Road, which provides convenient access to New Road and Newport Road further to the south. There is a next bike station located 110m to the west of the site, providing an opportunity to cycle for those who do not own a bike.

4.1.13 The closest bus stop is provided within 110m of the site and is serviced by route 45, with two services per hour. This bus stop provides access to Cardiff City Centre, within a 20-25minute journey. Additional bus stop is provided 830m to the north-west of the site on Newport Road which is serviced with a wider range and more frequent bus routes.

4.1.14 Census data shows that 72% of the population within the LSOA travel to work by car, with a further 8% travelling as passenger. It can also be seen that 19% travel to work by sustainable modes, including walking, cycling and public transport. It is, however, considered that that given the number of facilities available, there is potential for trips undertaken by sustainable modes to increase.

Car ownership

4.1.15 Car ownership in the surrounding area is 1.26 cars per dwelling. However, in the surrounding area only 10% of dwellings are affordable, 11% are flats and 74% are 3+ bedroom. Therefore, the car ownership is not comparable with the proposed development, which will comprise small (one and two bedroom) flats, which tend to result in lower car ownership. The car ownership for flats in the area is 0.67 cars or vans per household, however, this does not take into account flat size or tenure and as stated above, in this area there is a high proportion of large dwellings.

4.1.16 Although the car ownership for flats better reflects the likely car ownership than the average for the area, it is considered that the future residents will have lower car ownership, given that limited parking is proposed as part of the development. Combined with the reasonably sustainable location of the site, Cardiff Council's aspiration to reduce reliance on a private car and generous cycle parking on site, this means that a low-car lifestyle is easily achievable. The proposed provision of 0.62 cars per dwelling is, therefore, similar to the car ownership for flats in the surrounding area and is considered appropriate.

Summary

4.1.17 It is, therefore, considered that the proposed parking provision of 16 spaces for residents and three spaces for commercial space users is considered appropriate, given that:

- The development will be mixed residential and commercial, which can further reduce the need to travel by car;
- It meets the national and local policy, as well as Cardiff Council's aspiration to reduce reliance on a private car;
- Parking provision for residents is within the **maximum** standards;
- It is reasonably sustainable location of the site (with access to local facilities, public transport and cycle infrastructure);
- Parking provision is appropriate given the car ownership for flats in the surrounding area; and,
- Generous cycle parking will be provided in accordance with the standards.

4.2 Cycle parking

4.2.1 To complement the development and enable a low car lifestyle, generous cycle parking will be provided for residents and visitors of the site.

4.2.2 **Table 4.1** below outlines the required number of cycle parking spaces in accordance with Cardiff Council's adopted parking standards 'Managing Transportation Impacts (Incorporating Parking Standards) Supplementary Planning Guidance, July 2018'. The site falls outside the central area of Cardiff.

Table 4.1 Cycle parking provision

Land use	No. of units/ floor area	Cycle parking standards		Provision
		Parking spaces per bedroom/floor area	No. of spaces required	
Residential uses – C3 use				
1-bedroom	10	1	10	10
2-bedroom	16	1	32	32
Total			42	42
Commercial				
Staff	172m ²	2/100m ²	4	5
Visitors		1/100m ²	2	5

4.2.3 It can be seen from the table above that the level of cycle parking proposed is in accordance of the adopted parking standards.

Residents

4.2.4 It is proposed to provide 42 cycle parking spaces for the residents. 28 cycle parking spaces will be provided in a dedicated and secure cycle store to the south of the site next to the car parking spaces. Another secure cycle store, accommodating a 14 cycle stands, will be provided at the western end of the site.

4.2.5 Both residential cycle stores will be provided in a secure, accessible and convenient location. This generous provision will ensure that the needs of residents are met and will further encourage travel by sustainable modes.

Retail staff and visitors

4.2.6 A total of 10 racks will be provided for retail unit staff and visitors, which is in excess of the minimum cycle parking requirements. These cycle stands will be provided near the entrance to the building and will be overlooked. It is also considered that this over-provision in cycle parking will also be able to accommodate visitors of the residents.

5 Transport characteristics

5.1 Introduction

5.1.1 In order to assess the impact of the proposed development on the existing transport network, it is necessary to estimate the number of person trips generated by the proposed uses on the site.

5.1.2 This section, therefore, outlines the methodology used to predict the person trip generation (by mode) vehicle trip generation, based on a review of the TRICS 7.7.4 trip generation database.

5.1.3 This section of the report summarises the number of trips generated by the existing pub and the proposed development, which includes 26 residential dwellings and ancillary 173m² of commercial retail floor area.

5.2 Trip generation

Existing use

5.2.1 As stated above, the site is currently occupied by Rompney Castle Pub, which will be demolished as part of the development.

5.2.2 The existing floor area of the pub is 327m². To calculate the likely impact of the existing use on the surrounding highway network, trip generation has been undertaken.

5.2.3 Sites have been selected on the basis of the following criteria:

- Land use: hotel, food and drink; pub/restaurant;
- Survey type: multi-modal;
- Survey days: Monday-Friday;
- Number of units: 0-800 m²;
- Location of selected sites: suburban area, edge of town;
- Geographical areas: UK (excluding Greater London, Northern Ireland and Republic of Ireland).

5.2.4 A total of eight sites have been selected and average trip rates were used. The AM, PM and daily number of trips generated is summarised in **Table 5.1** below, and presented in full in **Appendix B**.

Table 5.1 Weekday person trip rates – existing pub

Time period	Arrival trip rate	No. of arrivals	Depart trip rate	No. of departs	Total trip rate	Total no. of trips
Total persons						
8am-9am	0.000	0	0.000	0	0.000	0
5pm-6pm	7.626	25	3.275	11	10.901	36
7am-7pm	62.411	204	63.194	207	125.605	411
Pedestrians						
8am-9am	0.000	0	0.000	0	0.000	0
5pm-6pm	0.608	2	0.421	1	1.029	3
7am-7pm	7.444	24	7.335	24	14.779	48
Cyclists						
8am-9am	0.000	0	0.000	0	0.000	0
5pm-6pm	0.023	0	0.000	0	0.023	0
7am-7pm	0.185	1	0.265	1	0.45	1
Public transport users						
8am-9am	0.000	0	0.000	0	0.000	0
5pm-6pm	0.187	1	0.023	0	0.210	1
7am-7pm	1.124	4	1.314	4	2.438	8
Vehicles						
8am-9am	0.000	0	0.000	0	0.000	0
5pm-6pm	4.304	14	1.965	6	6.269	20
7am-7pm	30.818	101	30.684	100	61.502	201

5.2.5 It can be seen from the table above that the existing pub could generate up to 201 vehicle movements throughout the day, with 0 in the AM peak and 20 in the PM peak.

Proposed use – mixed private/affordable housing

5.2.6 It is considered that the number of trips associated with proposed residential flats will be low, given that these dwellings will be one and two-bedroom flats, which generally have low car ownership levels.

5.2.7 Sites have been selected on the basis of the following criteria:

- Land use: Residential, mixed/private affordable housing;
- Survey type: multi-modal;
- Survey days: Monday-Friday;
- Number of units: 0 – 100;
- Location of selected sites: suburban area, edge of town, neighbourhood centre;

- Geographical areas: UK (excluding Greater London, Northern Ireland and Republic of Ireland).

5.2.8 There is a limited number of flat sites in suburban areas. Therefore, a mixed private/affordable housing category has been selected, given that some housing within the development will be affordable.

5.2.9 A total of 27 sites have been selected and, therefore, 85th percentile trip rates were used. The AM, PM and daily number of trips generated is summarised in **Table 5.1** below, and presented in full in **Appendix C**.

Table 5.2 Weekday person trip rates – 26 residential flats

Time period	Arrival trip rate	No. of arrivals	Depart trip rate	No. of departs	Total trip rate	Total no. of trips
Total persons						
8am-9am	0.593	15	0.778	20	1.371	36
5pm-6pm	0.906	24	0.594	15	1.500	39
7am-7pm	5.875	153	5.656	147	11.531	300
Pedestrians						
8am-9am	0.083	2	0.375	10	0.458	12
5pm-6pm	0.189	5	0.324	8	0.513	13
7am-7pm	1.714	45	1.857	48	3.571	93
Cyclists						
8am-9am	0.010	0	0.030	1	0.040	1
5pm-6pm	0.000	0	0.042	1	0.042	1
7am-7pm	0.096	2	0.173	4	0.269	7
Public transport users						
8am-9am	0.000	0	0.061	2	0.061	2
5pm-6pm	0.053	1	0.035	1	0.088	2
7am-7pm	0.269	7	0.192	5	0.461	12
Vehicles						
8am-9am	0.167	4	0.455	12	0.622	16
5pm-6pm	0.368	10	0.333	9	0.701	18
7am-7pm	2.667	69	2.750	72	5.417	141

5.2.10 It can be seen from the table above that the proposed development could generate a total of 300 total person movements throughout the day. It can also be seen that, given the site's location, driving is likely to be the most popular mode of travel, representing 47% of total movements, followed by walking (representing 31% of trips).

- 5.2.11 It can also be seen that up to 16 vehicle movements in the AM peak, 18 vehicle movements in the PM peak and 141 daily vehicle movements could be generated by the proposed development. It is considered that 141 vehicle movements throughout the day will include any servicing and visitor movements associated with the residential and commercial retail uses.

Commercial retail (173m²)

- 5.2.12 It is proposed to provide 173m² of commercial retail space as part of the development. It is likely that the proposed commercial retail unit will be a convenience store, with majority of movements, therefore, undertaken by walking by the existing residents in the surrounding area and residents of the proposed development. It is, therefore, considered that the proposed commercial retail use will generate a low number of daily vehicle movements.

5.3 Comparison with existing use

- 5.3.1 This section of the report, therefore, considers the potential effects of the residential aspect of the development on the transport network. Compared with the existing pub, the proposed development is likely to generate less vehicle movements throughout the day, resulting in a likely net loss of 60 daily vehicle movements. Due to the opening hours of the pub, no vehicle movements will be generated in the AM peak, whereas the proposed development will generate 16 vehicle movements in the AM peak. In addition, the pub likely to generate 20 vehicle movements in the PM peak, whereas the proposed development is likely to generate 18 vehicle movements. It is, therefore, considered that the impact of the proposed development will be negligible, given that the existing use already generates vehicle movements.

5.4 Deliveries and servicing

Residential

- 5.4.1 The number of vehicles movements predicted in Table 5.1 includes servicing trips. Of these total vehicle movements, it is anticipated that the delivery and servicing vehicle trips for the proposed development will be as set out below.
- 5.4.2 There is a limited number of sites available on TRICS database which detail the likely servicing associated with residential use. Given the increase in home deliveries in recent months, there is also a lack of up-to-date data. Therefore, the likely number of deliveries is based on surveys undertaken at a residential development of more than 300 dwellings (in July 2020) in a town centre location with access to good public transport links. The surveys were undertaken during a period when restrictions in relation to COVID-19 were still in place and when the number of deliveries was likely to be higher than usual. This corresponded with increased proportion of people either working from home or being furloughed, and when the shops and restaurants were not fully open, therefore, resulting in higher number of food and other deliveries.

Table 5.2 Predicted delivery and servicing trips for the development

Time period	Total trip rate	Total no. of movements
LGVs		
8am–9am	0	0
5pm-6pm	0.003	0
7am-7pm	0.0667	2
7am-10pm	0.0737	2
OGVs		
8am–9am	0	0
5pm-6pm	0.003	0
7am-7pm	0.017	0
7am-10pm	0.017	0
Motorbikes		
8am–9am	0	0
5pm-6pm	0	0
7am-7pm	0.007	0
7am-10pm	0.007	0
Cars		
8am–9am	0	0
5pm-6pm	0	0
7am-7pm	0	0
7am-10pm	0.01	0
Total		
8am–9am	0	0
5pm-6pm	0.006	0
7am-7pm	0.0907	2
7am-10pm	0.1077	3

5.4.3 Light goods vehicles (LGVs) are defined as cars and small vans under 3.5T and with 2-axles, and ordinary goods vehicles (OGVs) are defined as over 3.5T with 2-axles or more.

5.4.4 Based on the survey results, it is likely that the development will generate three servicing/delivery vehicle trips per weekday. There are very few trips observed during the AM or PM peak periods, with the busiest hour of the day being between 10am and 11am. The majority of trips occurred between 10am and 2pm

5.4.5 It is anticipated that the maximum size of vehicle that would be reasonably expected to deliver to any residential development will be a 10m rigid vehicle. In practice, it is more likely that the maximum size of vehicle will be an 8m rigid vehicle, with transit sized vehicles being much more commonly used.

Retail unit

5.4.6 In addition to the above, it is likely that the commercial element of the scheme could generate a maximum of two deliveries per day (four movements in total) for food supplies.

5.5 Potential impact

Walking

5.5.1 The development is likely to generate 93 daily pedestrian movements. In addition, a further 12 daily public transport trips are likely to walk to reach public transport. The walking trips will be spread across a number of local roads and it is anticipated that there will be no adverse impact to the pedestrian network.

Cycling

5.5.2 The development is likely to generate seven daily cyclist movements during the day. The cycling trips will be spread across a number of local routes and it is anticipated that there will be no adverse impact to the cycle network. Whilst this is low, there are proposals across Cardiff to encourage active travel and this has the potential to increase.

Public transport

5.5.3 The development is likely to generate 12 public transport trips per day. These are likely to be mainly undertaken by bus, and it is considered that this level of additional passengers will not have a material impact on the public transport network.

Vehicles

5.5.4 It is predicted that the residential aspect of the scheme is likely to generate 141 vehicle movements (including servicing trips) throughout the day, with 16 movements in the AM peak and 18 movements in the PM peak. This also include vehicle movements associated with the commercial retail unit. It is considered that the proposed development will have a minimal impact on the surrounding local roads.

Deliveries, servicing and refuse

5.5.5 It is considered that all deliveries to the proposed development (residential and commercial) will be undertaken within the site or from Wentloog Road.

5.5.6 Servicing and deliveries is outlined in detail in Section 3. It is likely that of the 141 daily vehicle movements, the residential element of the scheme is likely to generate three deliveries per day (six movements). It is likely that the commercial element of the scheme could generate a maximum of two deliveries per day (four movements in total) for food supplies.

5.5.7 Residential and commercial refuse collection will be undertaken within the site. It is likely that there will be a maximum of three refuse collections (food waste, recycling and general waste) per week generated by the residential element of the scheme. It is considered that commercial waste will be collected separately once a week

5.5.8 Based on the volume of trips identified above, it is considered that the proposed development will have a minimal impact on the surrounding transport network, and that the proposed development can be accommodated within the existing highway and public transport networks.

5.6 Design solutions and mitigation measures

5.6.1 This Transport Statement has demonstrated that the development will not have a significant impact on the surrounding streets and the following measures are proposed to reduce any impact further.

5.6.2 A range of measures are embedded within the scheme design including:

- High quality cycle parking provided in secure, easily accessible location for residents of the development and a separate storage will be provided for commercial space users.
- Mixed use development with residential and commercial retail uses.
- Low parking provision (with reduced dominance for cars) for new residents and provision of three spaces for commercial space users, with two Blue Badge spaces;
- Improved permeability around the site with improved pedestrian and cyclist facilities and connections to the surrounding area.
- New landscaping and public realm improvements with enhanced lighting and passive surveillance.

6 Summary and conclusions

6.1.1 This Transport Statement considers the impact of mixed use residential and commercial development at Rompney Castle pub on the surrounding transport network. The site is well-located to access a number of facilities on foot including on Wentloog Road and Newport Road to the north-west. The proposed residential use will give rise to a small number of vehicle movements, with the majority of trips being by public transport or on foot.

6.1.2 It is considered that the public transport network can accommodate the additional trips. **Table 6.1** below sets out the key transport impacts associated with the development.

Table 6.1 Summary of key transport impacts and solutions

	Key transport impacts/issues	Solutions/mechanisms
Site and surroundings	Practicalities of living low-car lifestyle	Inclusion of high-quality cycle parking facilities for residents. Provision of cycle parking for staff and visitors of the commercial retail unit. The site is well located with easy access to a wide range of essential facilities, public transport and cycle infrastructure. Parking provision is based on Census data.
	Low-car development has potential to displace parking to surrounding streets	The site's sustainability and access to a wide variety of facilities and various sustainable transport modes (bus and rail, Next bikes and cycle routes) means that that the travel needs of future residents will be met. Provision of parking on private land, therefore, no impact in parking terms on the surrounding roads.
	Proposed mixed use development will increase traffic on the surrounding highway network	The existing pub generates vehicular traffic daily. Demolition of the pub and change of use class will result in similar vehicular movements during the peak hours, but will result in daily loss of vehicular traffic. Majority of trips to the commercial retail unit are likely to be undertaken by walking by residents in the surrounding area. Therefore, the development is unlikely to have an impact on the surrounding highway network
Cardiff-wide network	Predominant increases in trips are by walking and public transport	Can be accommodated on the transport network. No action required.
	Effect of servicing trips particularly large vehicles	All deliveries can be undertaken from the internal road layout. Therefore, there will be minimal impact on the surrounding highway network. Given the type of development, it is likely that redeliveries to the residential unit will be minimal as most deliveries can be left in the porch of the flat. Commercial retail staff will be able to accept deliveries throughout the day.
During construction	Impact of construction traffic	Implementation of Construction Logistics Plan

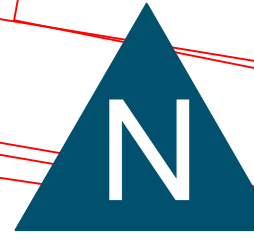
- 6.1.3 This Transport Statement reviews the existing conditions and likely transport impacts associated with the development. It is concluded that the development is compliant with national and local policy . It is considered that it will not have a significant impact on the transport network. Any impact can be further reduced by the design of the scheme, and in particular cycle parking provision and small number of parking spaces for residents and commercial retail users. It is considered that the proposed development can be accommodated safely on the existing highway network.

Appendices



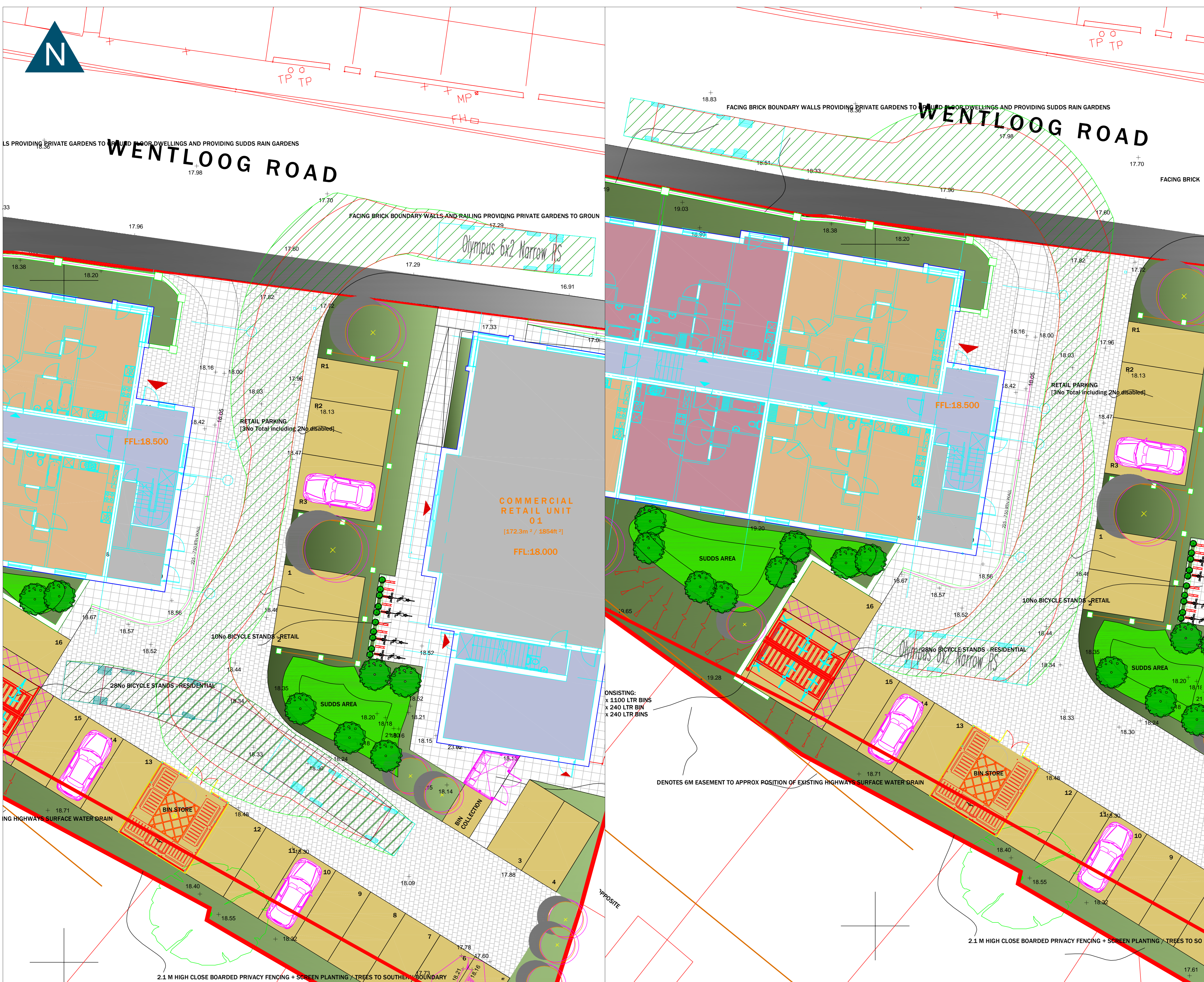
Appendix A





WENTLOOG ROAD

WENTLOOG ROAD



GENERAL NOTES

- This drawing to be read in conjunction with all relevant civil engineering drawings.

LEGEND

Olympus 6x2 Narrow RS
 Overall Length 9.190m
 Overall Width 2.250m
 Overall Body Height 3.707m
 Min Body Ground Clearance 0.260m
 Track Width 2.250m
 Lock to Lock Time 4.00s
 Kerb to Kerb Turning Radius 7.900m

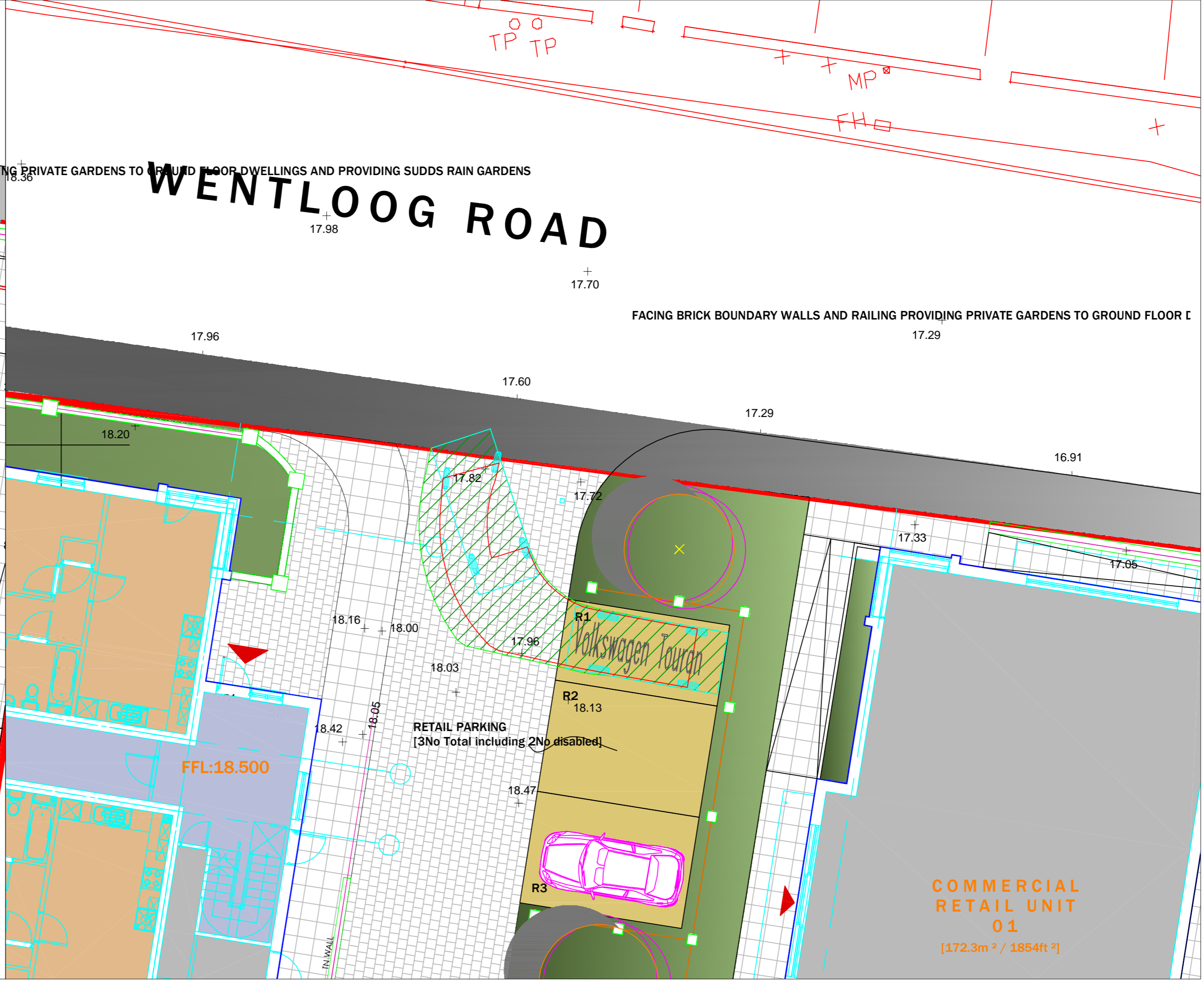
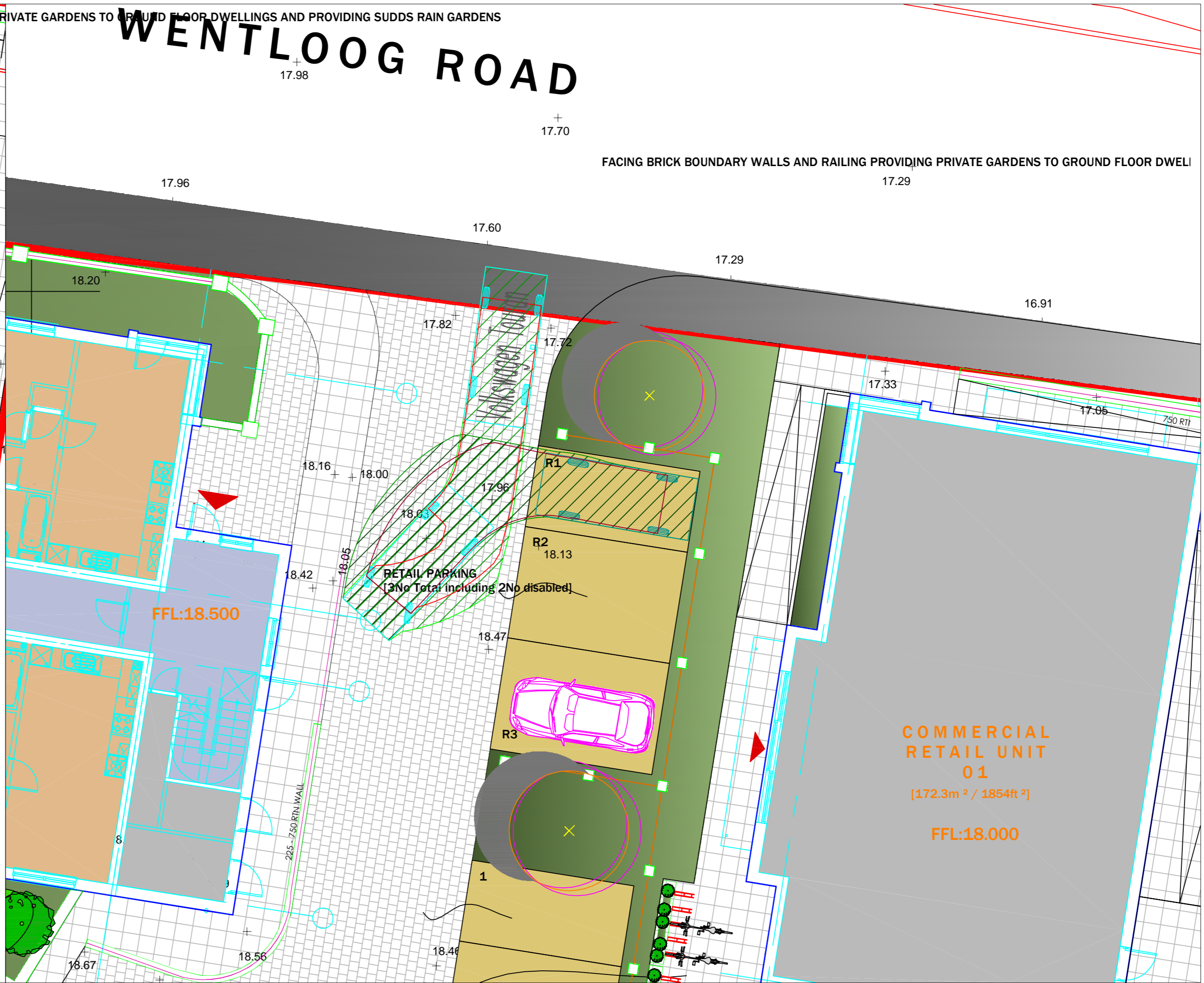
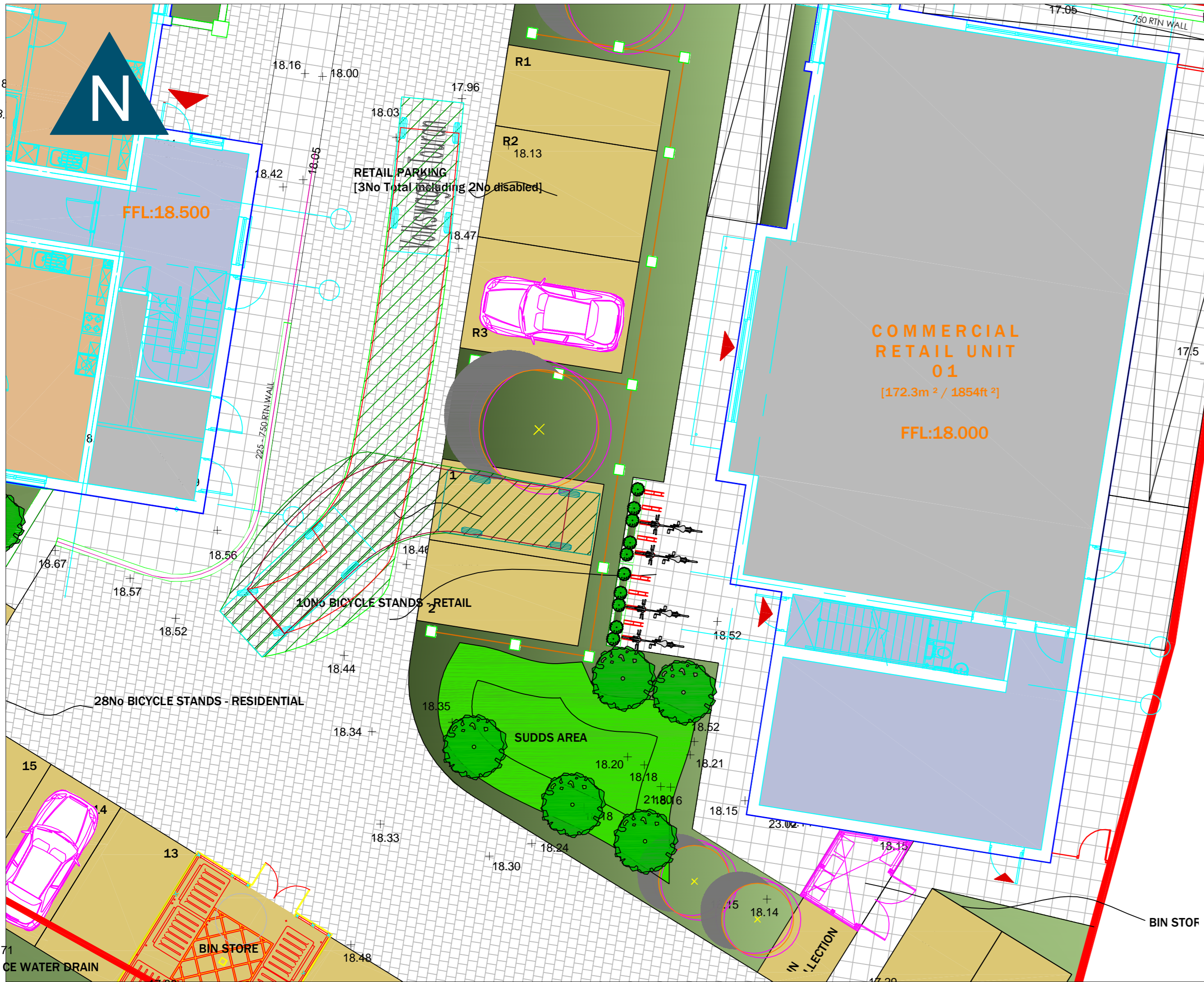
NOT FOR CONSTRUCTION

Rev	Date	Description	Drawn	Check



5A Andrews Buildings
 Penarth, CF64 2AA
 Tel 029 2070 0924
 mail@limetransport.com
 www.limetransport.com

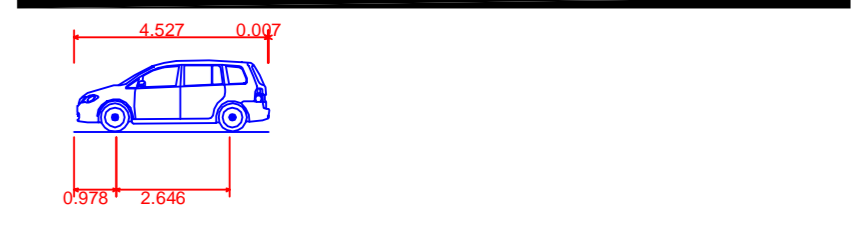
Drawing Status	Date	21/09/2021
PRELIMINARY	Scale	1:100@A1
Project	Drawn	RB
Rompney Castle, Wentloog Road Rumney	Checked	ABR
Title	Project No	21044
Swept path analysis 9.2m Refuse Vehicle	Client Project No	
Drawing No	Revision	
21044.OS.104.01		



GENERAL NOTES

- This drawing to be read in conjunction with all relevant civil engineering drawings.

LEGEND



Volkswagen Touran
 Overall Length 4.534m
 Overall Width 1.829m
 Overall Body Height 1.491m
 Min Body Ground Clearance 0.253m
 Max Track Width 1.734m
 Lock to Lock Time 4.00s
 Kerb to Kerb Turning Radius 5.042m

NOT FOR CONSTRUCTION

Rev	Date	Description	Drawn	Check

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Drawing Status	Date	21/09/2021
PRELIMINARY	Scale	1:100@A1
Project	Drawn	RB
Rompney Castle, Wentlog Road Rumney	Checked	ABR
Title	Project No	21044
Swept path analysis Volkswagen Touran	Client Project No	
Drawing No	Revision	
21044.OS.104.02		

GENERAL NOTES

- This drawing to be read in conjunction with all relevant civil engineering drawings.

LEGEND



Volkswagen Touran
 Overall Length 4.534m
 Overall Width 1.829m
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 Min Body Ground Clearance 0.253m
 Max Track Width 1.734m
 Lock to Lock Time 4.00s
 Kerb to Kerb Turning Radius 5.042m

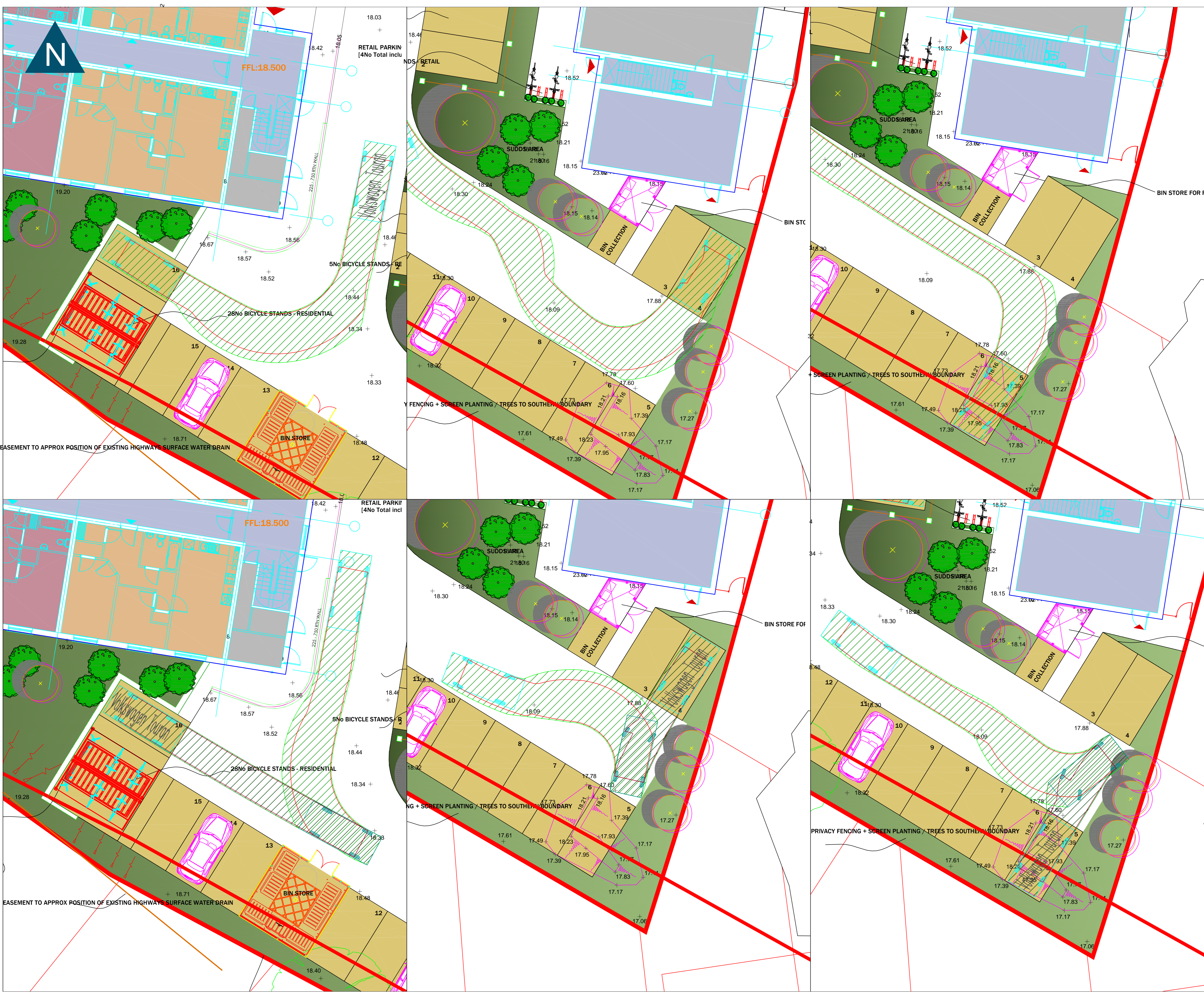
NOT FOR CONSTRUCTION

Rev	Date	Description	Drawn	Check



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Drawing Status	PRELIMINARY	Date	15/09/2021
Project	Rompney Castle, Wentloog Road Rumney	Scale	1:100@A1
Title	Swept path analysis Volkswagen Touran	Drawn	JP
Drawing No	21044.OS.103.03	Checked	HLJ
		Project No	21044
		Client Project No	
		Revision	



THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS. DO NOT SCALE FROM THIS DRAWING.

Appendix B



TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	1 days
	EX ESSEX	1 days
	HC HAMPSHIRE	1 days
05	EAST MIDLANDS	
	LN LINCOLNSHIRE	1 days
	NR NORTHAMPTONSHIRE	1 days
06	WEST MIDLANDS	
	ST STAFFORDSHIRE	1 days
	WM WEST MIDLANDS	1 days
09	NORTH	
	DH DURHAM	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: 200 to 760 (units: sqm)
 Range Selected by User: 0 to 800 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 11/06/19

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

Selected survey days:

Tuesday	3 days
Wednesday	1 days
Friday	4 days

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

Selected survey types:

Manual count	8 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 undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	1
Edge of Town	6
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:

Industrial Zone	1
Commercial Zone	1
Residential Zone	2
Retail Zone	2
Out of Town	1
No Sub Category	1

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

Secondary Filtering selection:

Use Class:

Sui Generis 8 days

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

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	2 days
10,001 to 15,000	2 days
15,001 to 20,000	2 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:

5,001 to 25,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	3 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	1 days
1.1 to 1.5	5 days
1.6 to 2.0	1 days

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

Travel Plan:

No 8 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 8 days

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

LIST OF SITES relevant to selection parameters

1	DH-06-C-02 STADIUM WAY BISHOP AUCKLAND TINDALE Edge of Town Retail Zone Total Gross floor area: <i>Survey date: FRIDAY</i>	PUB/RESTAURANT 450 sqm 31/03/17	DURHAM	<i>Survey Type: MANUAL</i>
2	ES-06-C-02 HOVE STREET BRIGHTON HOVE Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total Gross floor area: <i>Survey date: FRIDAY</i>	PUB/RESTAURANT 460 sqm 22/09/17	EAST SUSSEX	<i>Survey Type: MANUAL</i>
3	EX-06-C-02 LONDON ROAD COLCHESTER STANWAY Edge of Town No Sub Category Total Gross floor area: <i>Survey date: FRIDAY</i>	HARVESTER 450 sqm 08/11/13	ESSEX	<i>Survey Type: MANUAL</i>
4	HC-06-C-04 APOLLO RISE FARNBOROUGH COVE Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: <i>Survey date: TUESDAY</i>	PUB/RESTAURANT 615 sqm 11/06/19	HAMPSHIRE	<i>Survey Type: MANUAL</i>
5	LN-06-C-01 CRUSADER ROAD LINCOLN NEW BOULTHAM Edge of Town Retail Zone Total Gross floor area: <i>Survey date: TUESDAY</i>	FLAMING GRILL 760 sqm 10/10/17	LINCOLNSHIRE	<i>Survey Type: MANUAL</i>
6	NR-06-C-01 BEDFORD ROAD NORTHAMPTON BRACKMILLS Edge of Town Commercial Zone Total Gross floor area: <i>Survey date: FRIDAY</i>	PUB/RESTAURANT 620 sqm 11/11/16	NORTHAMPTONSHIRE	<i>Survey Type: MANUAL</i>
7	ST-06-C-01 STONE ROAD STOKE-ON-TRENT TRENTHAM Edge of Town Residential Zone Total Gross floor area: <i>Survey date: WEDNESDAY</i>	HARVESTER 720 sqm 23/10/13	STAFFORDSHIRE	<i>Survey Type: MANUAL</i>
8	WM-06-C-02 PENNWOOD LANE WOLVERHAMPTON PENN COMMON Edge of Town Out of Town Total Gross floor area: <i>Survey date: TUESDAY</i>	PUB/RESTAURANT 200 sqm 22/11/16	WEST MIDLANDS	<i>Survey Type: MANUAL</i>

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
MULTI-MODAL TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	8	534	0.561	8	534	0.281	8	534	0.842
11:00 - 12:00	8	534	1.637	8	534	0.538	8	534	2.175
12:00 - 13:00	8	534	3.883	8	534	1.474	8	534	5.357
13:00 - 14:00	8	534	2.807	8	534	3.018	8	534	5.825
14:00 - 15:00	8	534	1.333	8	534	3.111	8	534	4.444
15:00 - 16:00	8	534	1.146	8	534	1.427	8	534	2.573
16:00 - 17:00	8	534	2.760	8	534	1.474	8	534	4.234
17:00 - 18:00	8	534	4.304	8	534	1.965	8	534	6.269
18:00 - 19:00	8	534	4.351	8	534	3.345	8	534	7.696
19:00 - 20:00	8	534	3.977	8	534	3.836	8	534	7.813
20:00 - 21:00	8	534	2.199	8	534	3.766	8	534	5.965
21:00 - 22:00	8	534	1.287	8	534	2.596	8	534	3.883
22:00 - 23:00	8	534	0.491	8	534	3.251	8	534	3.742
23:00 - 24:00	7	522	0.082	7	522	0.602	7	522	0.684
Total Rates:			30.818			30.684			61.502

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

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

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Parameter summary

Trip rate parameter range selected: 200 - 760 (units: sqm)
Survey date range: 01/01/13 - 11/06/19
Number of weekdays (Monday-Friday): 8
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 shown. 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
 MULTI-MODAL CYCLISTS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	8	534	0.000	8	534	0.000	8	534	0.000
11:00 - 12:00	8	534	0.000	8	534	0.000	8	534	0.000
12:00 - 13:00	8	534	0.023	8	534	0.000	8	534	0.023
13:00 - 14:00	8	534	0.070	8	534	0.047	8	534	0.117
14:00 - 15:00	8	534	0.000	8	534	0.047	8	534	0.047
15:00 - 16:00	8	534	0.023	8	534	0.000	8	534	0.023
16:00 - 17:00	8	534	0.023	8	534	0.023	8	534	0.046
17:00 - 18:00	8	534	0.023	8	534	0.000	8	534	0.023
18:00 - 19:00	8	534	0.000	8	534	0.023	8	534	0.023
19:00 - 20:00	8	534	0.000	8	534	0.000	8	534	0.000
20:00 - 21:00	8	534	0.000	8	534	0.000	8	534	0.000
21:00 - 22:00	8	534	0.023	8	534	0.023	8	534	0.046
22:00 - 23:00	8	534	0.000	8	534	0.047	8	534	0.047
23:00 - 24:00	7	522	0.000	7	522	0.055	7	522	0.055
Total Rates:			0.185			0.265			0.450

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

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	8	534	0.117	8	534	0.023	8	534	0.140
11:00 - 12:00	8	534	0.468	8	534	0.257	8	534	0.725
12:00 - 13:00	8	534	0.725	8	534	0.211	8	534	0.936
13:00 - 14:00	8	534	1.006	8	534	1.287	8	534	2.293
14:00 - 15:00	8	534	0.398	8	534	0.772	8	534	1.170
15:00 - 16:00	8	534	0.655	8	534	0.585	8	534	1.240
16:00 - 17:00	8	534	0.632	8	534	0.515	8	534	1.147
17:00 - 18:00	8	534	0.608	8	534	0.421	8	534	1.029
18:00 - 19:00	8	534	0.725	8	534	0.515	8	534	1.240
19:00 - 20:00	8	534	1.076	8	534	0.795	8	534	1.871
20:00 - 21:00	8	534	0.444	8	534	0.632	8	534	1.076
21:00 - 22:00	8	534	0.234	8	534	0.515	8	534	0.749
22:00 - 23:00	8	534	0.164	8	534	0.561	8	534	0.725
23:00 - 24:00	7	522	0.192	7	522	0.246	7	522	0.438
Total Rates:			7.444			7.335			14.779

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
MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	8	534	0.047	8	534	0.000	8	534	0.047
11:00 - 12:00	8	534	0.117	8	534	0.023	8	534	0.140
12:00 - 13:00	8	534	0.164	8	534	0.023	8	534	0.187
13:00 - 14:00	8	534	0.070	8	534	0.094	8	534	0.164
14:00 - 15:00	8	534	0.047	8	534	0.094	8	534	0.141
15:00 - 16:00	8	534	0.094	8	534	0.117	8	534	0.211
16:00 - 17:00	8	534	0.094	8	534	0.023	8	534	0.117
17:00 - 18:00	8	534	0.187	8	534	0.023	8	534	0.210
18:00 - 19:00	8	534	0.047	8	534	0.023	8	534	0.070
19:00 - 20:00	8	534	0.070	8	534	0.164	8	534	0.234
20:00 - 21:00	8	534	0.117	8	534	0.164	8	534	0.281
21:00 - 22:00	8	534	0.023	8	534	0.187	8	534	0.210
22:00 - 23:00	8	534	0.047	8	534	0.023	8	534	0.070
23:00 - 24:00	7	522	0.000	7	522	0.356	7	522	0.356
Total Rates:			1.124			1.314			2.438

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

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	8	534	1.006	8	534	0.468	8	534	1.474
11:00 - 12:00	8	534	3.228	8	534	0.865	8	534	4.093
12:00 - 13:00	8	534	7.883	8	534	2.550	8	534	10.433
13:00 - 14:00	8	534	6.012	8	534	6.152	8	534	12.164
14:00 - 15:00	8	534	2.573	8	534	7.439	8	534	10.012
15:00 - 16:00	8	534	2.784	8	534	2.994	8	534	5.778
16:00 - 17:00	8	534	5.123	8	534	2.971	8	534	8.094
17:00 - 18:00	8	534	7.626	8	534	3.275	8	534	10.901
18:00 - 19:00	8	534	9.170	8	534	6.199	8	534	15.369
19:00 - 20:00	8	534	8.234	8	534	8.047	8	534	16.281
20:00 - 21:00	8	534	4.655	8	534	7.813	8	534	12.468
21:00 - 22:00	8	534	2.807	8	534	5.801	8	534	8.608
22:00 - 23:00	8	534	0.982	8	534	7.088	8	534	8.070
23:00 - 24:00	7	522	0.328	7	522	1.532	7	522	1.860
Total Rates:			62.411			63.194			125.605

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



TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : M - MIXED PRIVATE/AFFORDABLE HOUSING
 MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	5 days
	HC HAMPSHIRE	1 days
	OX OXFORDSHIRE	1 days
	WS WEST SUSSEX	9 days
03	SOUTH WEST	
	DC DORSET	1 days
	DV DEVON	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	2 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
08	NORTH WEST	
	GM GREATER MANCHESTER	1 days
	MS MERSEYSIDE	2 days
09	NORTH	
	CB CUMBRIA	1 days
10	WALES	
	CM CARMARTHENSHIRE	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: 9 to 100 (units:)
 Range Selected by User: 0 to 100 (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: 01/01/13 to 19/10/20

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

Selected survey days:

Monday	1 days
Tuesday	5 days
Wednesday	6 days
Thursday	8 days
Friday	7 days

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

Selected survey types:

Manual count	27 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 undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	9
Edge of Town	15
Neighbourhood Centre (PPS6 Local 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.

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

Secondary Filtering selection:

Use Class:

C3 27 days

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

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	9 days
5,001 to 10,000	7 days
10,001 to 15,000	3 days
20,001 to 25,000	2 days
25,001 to 50,000	6 days

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

Population within 5 miles:

5,001 to 25,000	4 days
25,001 to 50,000	7 days
50,001 to 75,000	3 days
75,001 to 100,000	4 days
100,001 to 125,000	3 days
125,001 to 250,000	4 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	5 days
1.1 to 1.5	20 days
1.6 to 2.0	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:

Yes	17 days
No	10 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	27 days
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This data displays the number of selected surveys with PTAL Ratings.

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions
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LIST OF SITES relevant to selection parameters

1	CA-03-M-01 BANNOLD ROAD WATERBEACH	MIXED HOUSES & FLATS	CAMBRI D G E S H I R E
	Edge of Town Residential Zone Total No of Dwellings:	52	
	<i>Survey date: WEDNESDAY</i>	<i>20/06/18</i>	<i>Survey Type: MANUAL</i>
2	CB-03-M-04 STANHOPE ROAD CARLISLE	SEMI-DETACHED & TERRACED	CUMBRIA
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:	20	
	<i>Survey date: FRIDAY</i>	<i>24/06/16</i>	<i>Survey Type: MANUAL</i>
3	CM-03-M-02 COLLEGE ROAD CARMARTHEN	HOUSES & FLATS	CARMARTHENSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:	49	
	<i>Survey date: TUESDAY</i>	<i>14/10/14</i>	<i>Survey Type: MANUAL</i>
4	DC-03-M-02 KINGS ROAD DORCHESTER FORDINGTON	TERRACED & BUNGALOWS	DORSET
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:	37	
	<i>Survey date: FRIDAY</i>	<i>16/09/16</i>	<i>Survey Type: MANUAL</i>
5	DS-03-M-01 COCKAYNE STREET DERBY BOULTON	TERRACED/SEMI DETACHED	DERBYSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:	32	
	<i>Survey date: TUESDAY</i>	<i>21/10/14</i>	<i>Survey Type: MANUAL</i>
6	DV-03-M-02 SAINT PETER' QUAY TOTNES	MIXED HOUSES & FLATS	DEVON
	Edge of Town Residential Zone Total No of Dwellings:	90	
	<i>Survey date: FRIDAY</i>	<i>29/03/19</i>	<i>Survey Type: MANUAL</i>
7	ES-03-M-09 STATION ROAD NORTHIAM	DETACHED/SEMI-DETACHED	EAST SUSSEX
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings:	16	
	<i>Survey date: WEDNESDAY</i>	<i>17/05/17</i>	<i>Survey Type: MANUAL</i>
8	ES-03-M-12 PARK ROAD HAILSHAM	MIXED HOUSES & FLATS	EAST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings:	93	
	<i>Survey date: THURSDAY</i>	<i>21/06/18</i>	<i>Survey Type: MANUAL</i>

LIST OF SITES relevant to selection parameters (Cont.)

9	ES-03-M-13	MIXED HOUSES		EAST SUSSEX
		NORTH COMMON ROAD		
		WIVELSFIELD GREEN		
		Neighbourhood Centre (PPS6 Local Centre)		
		Village		
		Total No of Dwellings:	66	
		Survey date: FRIDAY	22/06/18	Survey Type: MANUAL
10	ES-03-M-15	MIXED HOUSES		EAST SUSSEX
		FIELD END		
		MARESFIELD		
		Edge of Town		
		Residential Zone		
		Total No of Dwellings:	80	
		Survey date: WEDNESDAY	13/03/19	Survey Type: MANUAL
11	ES-03-M-17	MIXED HOUSES & FLATS		EAST SUSSEX
		NEW ROAD		
		HAILSHAM		
		AMBERSTONE		
		Edge of Town		
		Residential Zone		
		Total No of Dwellings:	91	
		Survey date: THURSDAY	07/11/19	Survey Type: MANUAL
12	GM-03-M-01	TERRACED & FLATS		GREATER MANCHESTER
		PARK ROAD		
		ROCHDALE		
		Suburban Area (PPS6 Out of Centre)		
		Residential Zone		
		Total No of Dwellings:	9	
		Survey date: TUESDAY	25/11/14	Survey Type: MANUAL
13	HC-03-M-05	HOUSES & FLATS		HAMPSHIRE
		WIMPSON LANE		
		SOUTHAMPTON		
		MAYBUSH		
		Suburban Area (PPS6 Out of Centre)		
		Residential Zone		
		Total No of Dwellings:	62	
		Survey date: FRIDAY	03/10/14	Survey Type: MANUAL
14	MS-03-M-02	TERRACED		MERSEYSIDE
		LOVEL ROAD		
		LIVERPOOL		
		SPEKE		
		Edge of Town		
		Residential Zone		
		Total No of Dwellings:	27	
		Survey date: FRIDAY	21/06/13	Survey Type: MANUAL
15	MS-03-M-03	SEMI DETACHED/TERRACED		MERSEYSIDE
		LOVEL ROAD		
		LIVERPOOL		
		SPEKE		
		Edge of Town		
		Residential Zone		
		Total No of Dwellings:	24	
		Survey date: FRIDAY	21/06/13	Survey Type: MANUAL
16	NF-03-M-04	MIXED HOUSES & FLATS		NORFOLK
		HUNSTANTON ROAD		
		HUNSTANTON		
		Edge of Town		
		Residential Zone		
		Total No of Dwellings:	70	
		Survey date: THURSDAY	19/09/19	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

17	NF-03-M-39 LONDON ROAD ATTLEBOROUGH	MIXED HOUSES		NORFOLK
	Edge of Town Residential Zone Total No of Dwellings:		61	
	<i>Survey date: WEDNESDAY</i>		<i>14/10/20</i>	<i>Survey Type: MANUAL</i>
18	OX-03-M-01 WENMAN ROAD THAME	MIXED HOUSES		OXFORDSHIRE
	Edge of Town Industrial Zone Total No of Dwellings:		100	
	<i>Survey date: THURSDAY</i>		<i>28/06/18</i>	<i>Survey Type: MANUAL</i>
19	WS-03-M-05 ELLIS ROAD WEST HORSHAM S BROADBRIDGE HEATH	MIXED HOUSING		WEST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings:		92	
	<i>Survey date: THURSDAY</i>		<i>23/10/14</i>	<i>Survey Type: MANUAL</i>
20	WS-03-M-06 SOUTHFIELDS CLOSE CHICHESTER	SEMI DETACHED/DETACHED		WEST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings:		67	
	<i>Survey date: TUESDAY</i>		<i>27/01/15</i>	<i>Survey Type: MANUAL</i>
21	WS-03-M-07 ROSE GREEN ROAD BOGNOR REGIS ALDWICK	HOUSES & FLATS		WEST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings:		90	
	<i>Survey date: WEDNESDAY</i>		<i>05/03/14</i>	<i>Survey Type: MANUAL</i>
22	WS-03-M-13 IRENE AVENUE WORTHING LANCING	TERRACED & FLATS		WEST SUSSEX
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:		23	
	<i>Survey date: TUESDAY</i>		<i>21/06/16</i>	<i>Survey Type: MANUAL</i>
23	WS-03-M-17 STANE STREET CHICHESTER WESTHAMPNETT	MIXED HOUSES & FLATS		WEST SUSSEX
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings:		99	
	<i>Survey date: WEDNESDAY</i>		<i>03/10/18</i>	<i>Survey Type: MANUAL</i>
24	WS-03-M-18 WESTLOATS LANE BOGNOR REGIS NORTH BERTSTED	MIXED HOUSES & FLATS		WEST SUSSEX
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:		86	
	<i>Survey date: THURSDAY</i>		<i>17/10/19</i>	<i>Survey Type: MANUAL</i>

LIST OF SITES relevant to selection parameters (Cont.)

25	WS-03-M-19	MIXED HOUSES & FLATS	WEST SUSSEX
		ADLINGTON GARDENS	
		BOGNOR REGIS	
		Suburban Area (PPS6 Out of Centre)	
		Residential Zone	
		Total No of Dwellings:	32
		Survey date: THURSDAY	17/10/19
			Survey Type: MANUAL
26	WS-03-M-21	MIXED HOUSES	WEST SUSSEX
		CLAPPERS LANE	
		BRACKLESHAM BAY	
		Edge of Town	
		Residential Zone	
		Total No of Dwellings:	57
		Survey date: THURSDAY	14/11/19
			Survey Type: MANUAL
27	WS-03-M-22	MIXED HOUSES & FLATS	WEST SUSSEX
		RUSPER ROAD	
		CRAWLEY	
		IFIELD	
		Edge of Town	
		Residential Zone	
		Total No of Dwellings:	91
		Survey date: MONDAY	19/10/20
			Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING
 MULTI-MODAL TOTAL VEHICLES
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	27	60	0.092	27	60	0.266	27	60	0.358
08:00 - 09:00	27	60	0.122	27	60	0.351	27	60	0.473
09:00 - 10:00	27	60	0.146	27	60	0.177	27	60	0.323
10:00 - 11:00	27	60	0.137	27	60	0.150	27	60	0.287
11:00 - 12:00	27	60	0.157	27	60	0.164	27	60	0.321
12:00 - 13:00	27	60	0.196	27	60	0.166	27	60	0.362
13:00 - 14:00	27	60	0.176	27	60	0.168	27	60	0.344
14:00 - 15:00	27	60	0.158	27	60	0.195	27	60	0.353
15:00 - 16:00	27	60	0.248	27	60	0.178	27	60	0.426
16:00 - 17:00	27	60	0.241	27	60	0.165	27	60	0.406
17:00 - 18:00	27	60	0.312	27	60	0.174	27	60	0.486
18:00 - 19:00	27	60	0.280	27	60	0.166	27	60	0.446
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.265			2.320			4.585

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

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

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Parameter summary

Trip rate parameter range selected: 9 - 100 (units:)
 Survey date range: 01/01/13 - 19/10/20
 Number of weekdays (Monday-Friday): 27
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 7
 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 shown. 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/M - MIXED PRIVATE/AFFORDABLE HOUSING
 MULTI-MODAL CYCLISTS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	27	60	0.003	27	60	0.008	27	60	0.011
08:00 - 09:00	27	60	0.003	27	60	0.014	27	60	0.017
09:00 - 10:00	27	60	0.003	27	60	0.004	27	60	0.007
10:00 - 11:00	27	60	0.004	27	60	0.005	27	60	0.009
11:00 - 12:00	27	60	0.004	27	60	0.004	27	60	0.008
12:00 - 13:00	27	60	0.005	27	60	0.005	27	60	0.010
13:00 - 14:00	27	60	0.006	27	60	0.003	27	60	0.009
14:00 - 15:00	27	60	0.004	27	60	0.006	27	60	0.010
15:00 - 16:00	27	60	0.012	27	60	0.007	27	60	0.019
16:00 - 17:00	27	60	0.008	27	60	0.011	27	60	0.019
17:00 - 18:00	27	60	0.013	27	60	0.007	27	60	0.020
18:00 - 19:00	27	60	0.008	27	60	0.005	27	60	0.013
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.073			0.079			0.152

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/M - MIXED PRIVATE/AFFORDABLE HOUSING

MULTI-MODAL PEDESTRIANS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	27	60	0.024	27	60	0.053	27	60	0.077
08:00 - 09:00	27	60	0.061	27	60	0.210	27	60	0.271
09:00 - 10:00	27	60	0.051	27	60	0.048	27	60	0.099
10:00 - 11:00	27	60	0.034	27	60	0.061	27	60	0.095
11:00 - 12:00	27	60	0.056	27	60	0.057	27	60	0.113
12:00 - 13:00	27	60	0.061	27	60	0.048	27	60	0.109
13:00 - 14:00	27	60	0.051	27	60	0.054	27	60	0.105
14:00 - 15:00	27	60	0.067	27	60	0.093	27	60	0.160
15:00 - 16:00	27	60	0.232	27	60	0.087	27	60	0.319
16:00 - 17:00	27	60	0.113	27	60	0.060	27	60	0.173
17:00 - 18:00	27	60	0.079	27	60	0.071	27	60	0.150
18:00 - 19:00	27	60	0.061	27	60	0.059	27	60	0.120
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.890			0.901			1.791

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/M - MIXED PRIVATE/AFFORDABLE HOUSING
MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	27	60	0.002	27	60	0.038	27	60	0.040
08:00 - 09:00	27	60	0.001	27	60	0.024	27	60	0.025
09:00 - 10:00	27	60	0.006	27	60	0.011	27	60	0.017
10:00 - 11:00	27	60	0.006	27	60	0.010	27	60	0.016
11:00 - 12:00	27	60	0.007	27	60	0.011	27	60	0.018
12:00 - 13:00	27	60	0.005	27	60	0.014	27	60	0.019
13:00 - 14:00	27	60	0.011	27	60	0.009	27	60	0.020
14:00 - 15:00	27	60	0.007	27	60	0.006	27	60	0.013
15:00 - 16:00	27	60	0.025	27	60	0.014	27	60	0.039
16:00 - 17:00	27	60	0.020	27	60	0.010	27	60	0.030
17:00 - 18:00	27	60	0.028	27	60	0.007	27	60	0.035
18:00 - 19:00	27	60	0.020	27	60	0.010	27	60	0.030
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.138			0.164			0.302

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/M - MIXED PRIVATE/AFFORDABLE HOUSING
MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	27	60	0.126	27	60	0.452	27	60	0.578
08:00 - 09:00	27	60	0.211	27	60	0.818	27	60	1.029
09:00 - 10:00	27	60	0.228	27	60	0.300	27	60	0.528
10:00 - 11:00	27	60	0.205	27	60	0.273	27	60	0.478
11:00 - 12:00	27	60	0.275	27	60	0.298	27	60	0.573
12:00 - 13:00	27	60	0.330	27	60	0.283	27	60	0.613
13:00 - 14:00	27	60	0.298	27	60	0.287	27	60	0.585
14:00 - 15:00	27	60	0.282	27	60	0.367	27	60	0.649
15:00 - 16:00	27	60	0.697	27	60	0.355	27	60	1.052
16:00 - 17:00	27	60	0.494	27	60	0.321	27	60	0.815
17:00 - 18:00	27	60	0.549	27	60	0.350	27	60	0.899
18:00 - 19:00	27	60	0.479	27	60	0.298	27	60	0.777
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.174			4.402			8.576

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.