



Dwyer Road
Transport Statement
For Reading Borough Council

Date 25 April 2023

Doc ref 26888-HYD-XX-XX-RP-TP-4001

Document control sheet

Issued by	Hydrock Consultants Limited White Building 1-4 Cumberland Place Southampton Hampshire SO15 2NP United Kingdom T +44 (0)23 82140907 E southampton@hydrock.com hydrock.com	Client	Reading Borough Council
		Project name	Dwyer Road
		Title	Transport Statement
		Doc ref	26888-HYD-XX-XX-RP-TP-4001
		Project number	26888
		Status	S2
		Date	25/04/2023

Document production record		
Issue number	P02	Name
Prepared by	Jack Dalley MPlan MSc	
Checked by	Stephen Moody MSci MSc CMILT MCIHT	
Approved by	Stephen Moody MSci MSc CMILT MCIHT	

Document revision record			
Issue number	Status	Date	Revision details
P01	S2	22/03/23	Draft
P02	S2	14/04/23	Updated with client comments
P03	S2	25/4/23	Final

Hydrock Consultants Limited has prepared this report in accordance with the instructions of the above named client for their sole and specific use. Any third parties who may use the information contained herein do so at their own risk.

Contents

1. Introduction and background..... 1

1.1 Overview..... 1

2. Site Location and Accessibility 1

2.1 Site Location and General Description..... 1

2.2 Local Highway Network..... 2

2.3 Pedestrian and Cycle Accessibility..... 2

2.4 Public Transport Accessibility..... 3

2.5 Local Facilities and Amenities..... 5

2.6 Walking and Cycling Isochrone..... 6

2.7 Highway Safety..... 8

3. Development Proposal 9

3.1 Overview..... 9

3.2 Masterplan..... 9

3.3 Pedestrian and Cycle Access..... 9

3.4 Site vehicle access..... 10

3.5 Car Parking Provision..... 12

3.6 Location of blue badge car parking..... 14

3.7 Cycle parking..... 15

3.8 Deliveries and servicing..... 15

4. Transport Policy and Guidance Context..... 16

4.1 National Policy..... 16

4.2 Local Policy..... 16

5. Trip Generation and Impact Assessment 17

5.1 Introduction..... 17

5.2 Vehicle trip generation..... 17

5.3 Multi-modal trip generation 17

6. Summary and Conclusions 18

6.2 Conclusions 18

Tables

Table 2.1: Distances to selected local amenities..... 5

Table 3.1: Housing mix and car ownership..... 13

Table 5.1: Residential trip generation 17

Table 5.2: Multi-modal residential trip generation 17

Figures

Figure 1.1: Site Location1

Figure 2.1: Site Location in local context.....1

Figure 2.2: Walking and Cycling Isochrones.....2

Figure 2.3: Pedestrian and Cycle Accessibility2

Figure 2.4: Public Transport Accessibility3

Figure 2.5: Public transport isochrone.....4

Figure 2.6: Local Facilities and Amenities.....5

Figure 2.7: 800m walking isochrone6

Figure 2.8: 5km cycling isochrone.....7

Figure 2.9: Locations and severity of accidents8

Figure 2.10: PIA Study Area8

Figure 3.1: Site masterplan9

Figure 3.2: Existing bus shelter on Dwyer Road (site frontage)10

Figure 3.3: Existing bus shelter on Dwyer Road (approximately 150m west of the site)10

Figure 3.5: Extract of junction visibilities are driveway access11

Figure 3.4: Existing bus shelter on Southcote Road (near Frilsham Road junction))11

Figure 3.6: Local Output Areas12

Figure 3.7: Survey undertaken on Wednesday 29th March 2023.....13

Figure 3.8: Survey undertaken on Thursday 30th March 2023.....14

Figure 3.10: Location of wheelchair units and blue badge bays14

Figure 3.9: Survey undertaken on Thursday 30th March 2023.....14

Figure 5.1: MSOA E02003403 for 2011 Census travel to work mode share17

Appendices

Appendix A Site General Arrangement

Appendix B Swept Path Analysis

Appendix C TRICS Outputs

1. Introduction and background

1.1 Overview

- 1.1.1 This Transport Statement has been prepared by Hydrock on behalf of Reading Borough Council in support of a planning application for the proposed redevelopment of a site to provide social houses and flats on land north of Dwyer Road.
- 1.1.2 The site comprises of 0.48 hectares of land approximately 3.6km south west of Reading town centre with access to be taken from Appleford Road to the west of the site.
- 1.1.3 Dwyer Road has been identified as an allocated site for the council. The site is a vacant, council owned site in the west of the town. It is understood that this was previously used as the Alice Burrows Care House, the services were closed in 2007, and the building demolished around 15 years ago.
- 1.1.4 This transport statement has been compiled to reflect guidance set out in the National Planning Policy Framework (NPPF) and accompanying National Planning Policy Guidance (NPPG). It also considers advice set out in various local and national guidance documents including; Transport Evidence in Plan Making (DfT), the Reading Local Plan 2019 and Reading Borough Council Revised Parking Standards and Design SPD (October 2011).
- 1.1.5 This report confirms the location of the site is suitable for development as it benefits from being accessible to a range of services. It considers transport site layout matters including access by a variety of vehicles and provision of car and cycle parking.
- 1.1.6 The trip generation of the existing and proposed uses are summarised and conclusions drawn on the impact on the surrounding local highway network.
- 1.1.7 This report demonstrates that the application is acceptable in terms of transportation, highway safety and access and that it is compliant with relevant national and local planning policies. This includes issues associated with accessibility and connectivity, an assessment of the traffic predicted to be generated and the corresponding traffic impact on the surrounding local highway network.
- 1.1.8 A Travel Plan (TP) has also been prepared as a separate document in conjunction with this report. The TP identifies measures and initiatives to encourage travel to and from the site by sustainable modes of travel.



Figure 1.1: Site Location

2. Site Location and Accessibility

2.1 Site Location and General Description

- 2.1.1 The site occupies 0.49 hectares of land and is located approximately 3.6km south west of Reading town centre and 3.9km east of Theale.
- 2.1.2 The site is bounded by Appleford Road to the west, Burghfield Road to the east, Dwyer Road to the south and residential dwellings to the north. The site's location is shown in Figure 2.1.
- 2.1.3 The site was formerly occupied by an elderly care home. The buildings have been demolished and the site has been vacant for some time.
- 2.1.4 Vehicular access to the site is currently provided from Appleford Road via a simple priority junction.
- 2.1.5 Access to the Strategic Road Network (SRN) is available at the M4 junction 12 some 3.7km west of the site.

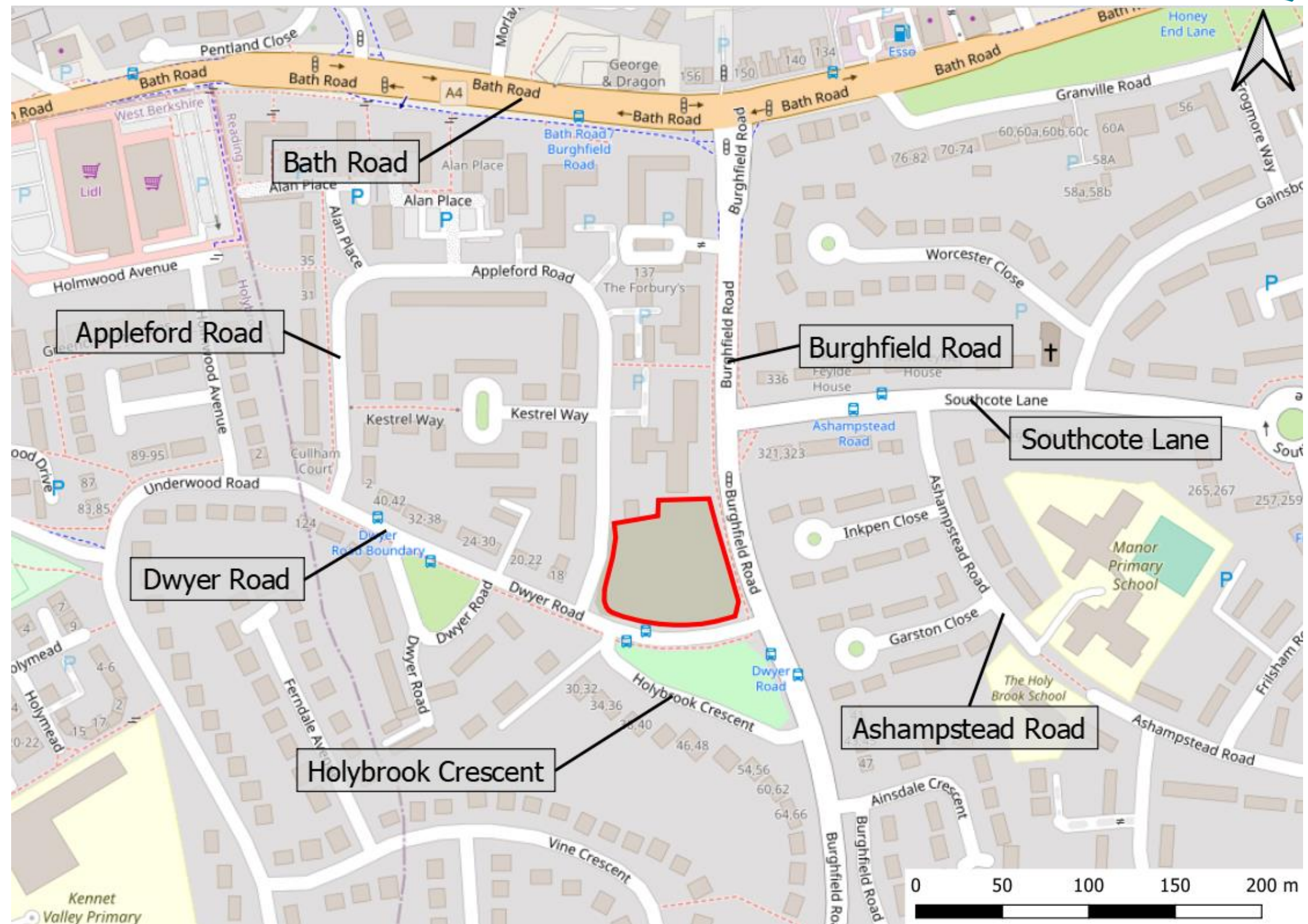


Figure 2.1: Site Location in local context

2.2 Local Highway Network

2.2.1 The roads within the local highway network are shown in Figure 2.3.

2.3 Pedestrian and Cycle Accessibility

2.3.1 The site lies within a suburban environment, surrounded by roads with good pedestrian facilities, street lighting and crossing facilities. Its proximity to residential areas means that walking and cycling would be practical and attractive modes for travel

2.3.2 Cycle access to the site is good, with National Cycle Route 4 running in an east-west orientation approximately 1.3km south of the site. This 698km long route links London to Fishguard. Locally, the route connects the site to Reading town centre in the east and Thatcham and Newbury to the west.

2.3.3 NCN 44 routes along Bath Road in an east-west orientation to the north and provides access to Reading town centre and Wokingham.

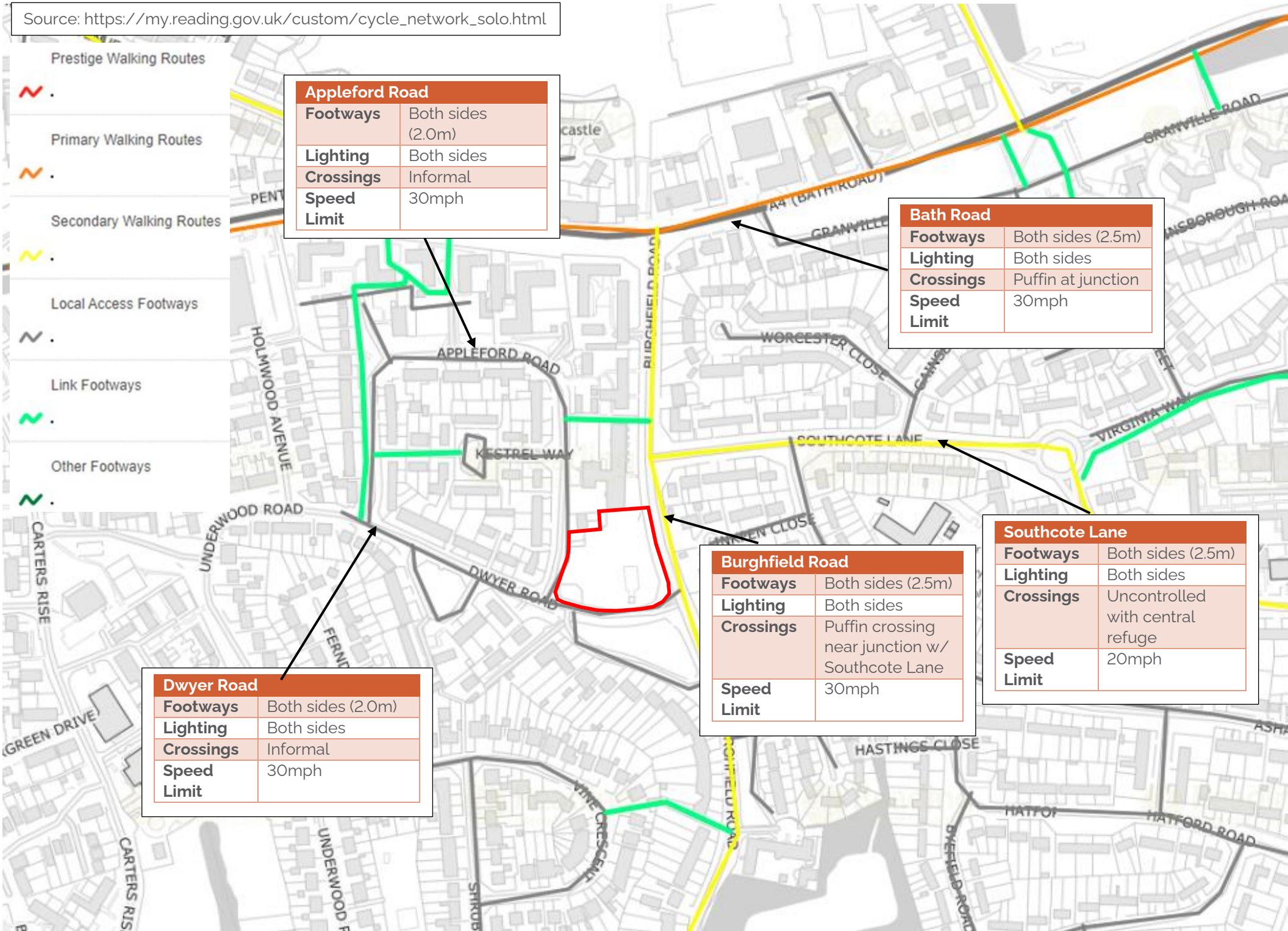


Figure 2.3: Pedestrian and Cycle Accessibility

2.4 Public Transport Accessibility

- 2.4.1 The site benefits from its proximity to a number of local bus services, which are provided within 400m (or a 5-minute walk) of the site.
- 2.4.2 There are bus stops on both sides of Dwyer Road, approximately 90m walk south of the site access. These stops are named Holybrook Crescent and served by the 26 Yellow and the school services 86, 87 and 90.
- 2.4.3 Additional stops are located on Burghfield Road approximately 190m south west of the site. These stops are named Dwyer Road and are served by the 2 lime and 2a lime.
- 2.4.4 Stops are also located on Bath Road, 400m to the north of the site, offering Jetblack 1 services between Reading and Newbury.
- 2.4.5 Reading West station is situated 3.7km walk from the site. This station offers services to a range of local destinations including Newbury and Basingstoke.
- 2.4.6 Reading station is served by the 26 Yellow bus. This station offers frequent services to national destinations including London Paddington, Bristol, Cardiff, Birmingham and Manchester, as well as Central London via the Elizabeth Line.
- 2.4.7 The site is therefore well served by public transport. A public transport isochrone map shows a 30, 45 and 60 minute public transport journey from the site.

Bus route	Destinations	AM peak hour services (number)	PM peak hour services (number)	Saturday typical hourly services (number)	Sunday typical hourly services (number)
26 Yellow	Reading Station - Calcot (IKEA) via Southcote, Ford's Farm, Beansheaf	4	5	4	2
86	School service to/ from Little Heath School				
87	School service to/ from Little Heath School				
90	School service to/ from Theale Green School				
2 lime	Central Reading to Mortimer via Burghfield Common	1	1	1	0
2a lime	Central Reading to Mortimer via Burghfield Common	1	1	1	1



Figure 2.4: Public Transport Accessibility

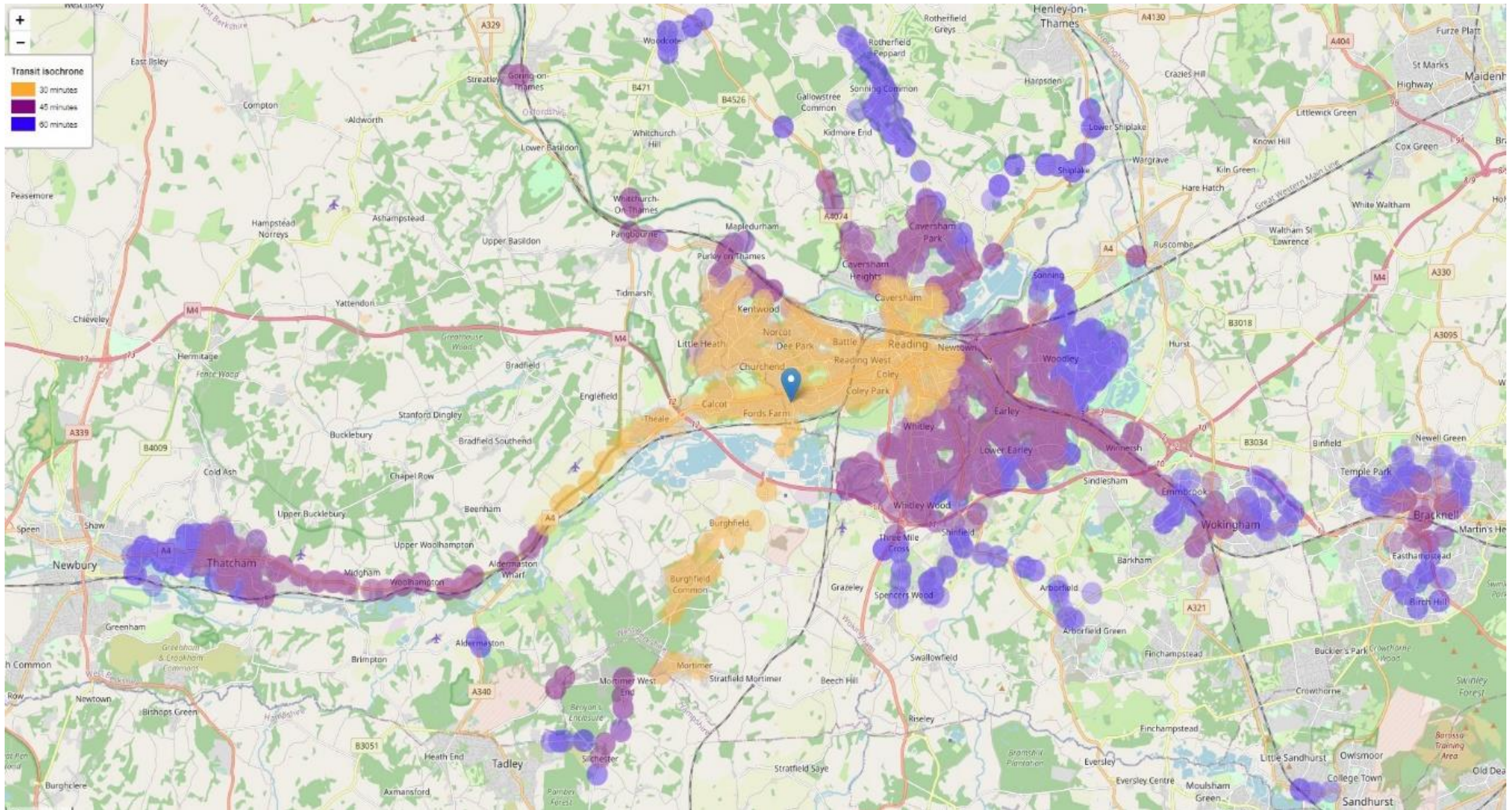


Figure 2.5: Public transport isochrone

2.5 Local Facilities and Amenities

- 2.5.1 Guidance on suitable walking and cycling distances to facilities is set out within TA91/05 'Provision for Non-Motorised Users' (2005) and DfT guidance set out in LTN1/20 'Cycle Infrastructure Design' (2020), which suggest that 3.2km and 8km are acceptable distances for walking and cycling respectively. It's worth noting that whilst TA91/05 is superseded by CD143, CD143 is silent in respect of recommended walking and cycling distances. The guidance contained within TA91/05 remains relevant for this purpose therefore.
- 2.5.2 However, in order to be more robust a review of local facilities and amenities within 2km and 5km only for walking and cycling distance of the site respectively has been undertaken.
- 2.5.3 Local facilities in the vicinity of the site are displayed at Figure 2.6, along with walking and cycling distances from the site. The demonstrate that the site has good accessibility to local facilities.

Table 2.1: Distances to selected local amenities

Amenity	Distance (km)
Tesco Esso Express	0.5
Manor Primary School	0.5
ALDI	0.6
Kennet Valley Caterpillars Pre School	0.6
Southcote Clinic	0.9
Southcote Pharmacy	1
Blessed Hugh Faringdon Catholic School	1.6
Coley Park Post Office	3.1

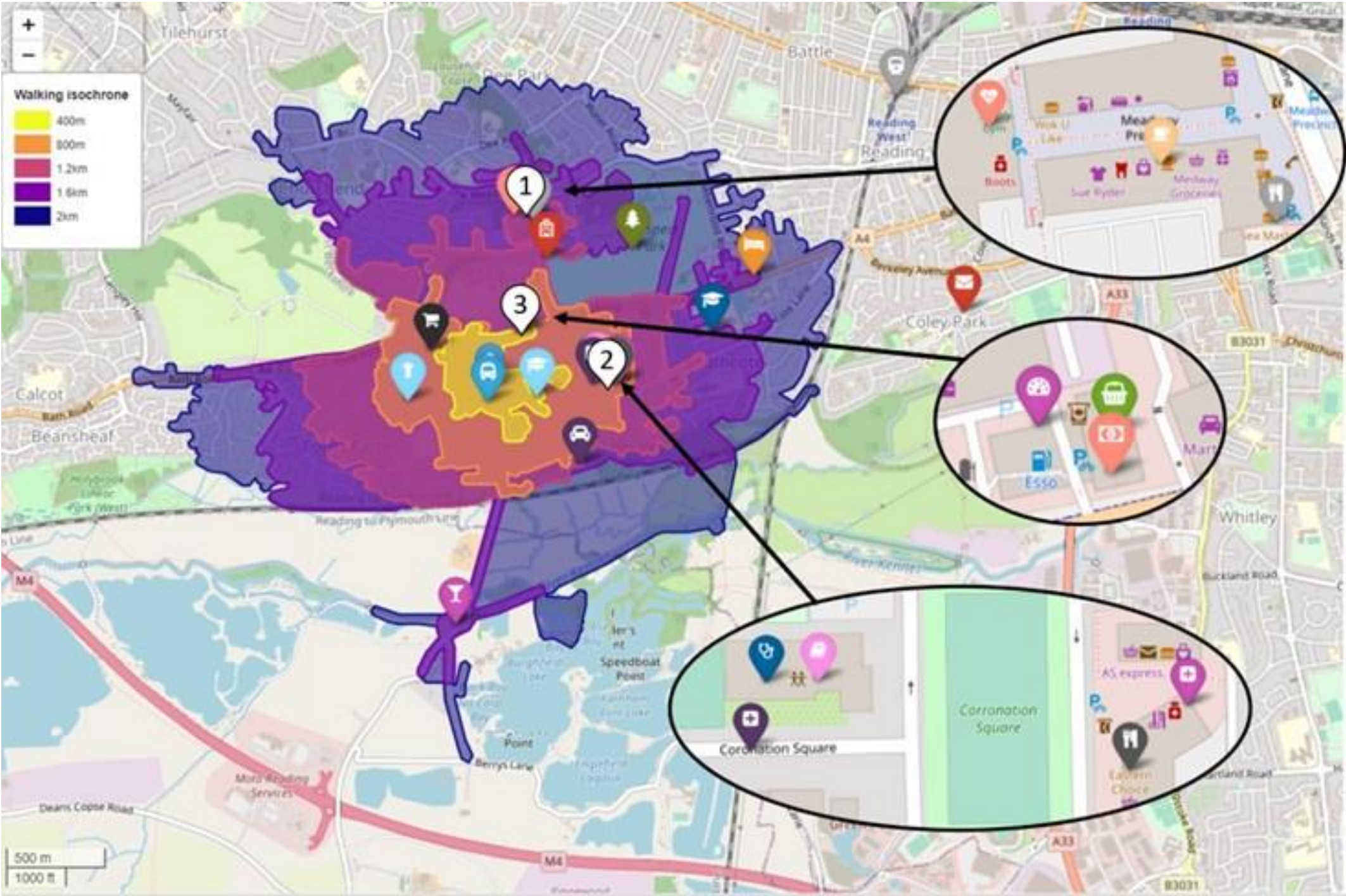


Figure 2.6: Local Facilities and Amenities

2.6 Walking and Cycling Isochrone

- 2.6.1 Figure 2.7 and Figure 2.8 overleaf show the 800m walking isochrone and the 5km cycling isochrone.
- 2.6.2 The figures demonstrate that the site is located in an area where trips to 'daily' amenities such as shops and schools can reasonably be undertaken on foot or by cycling.

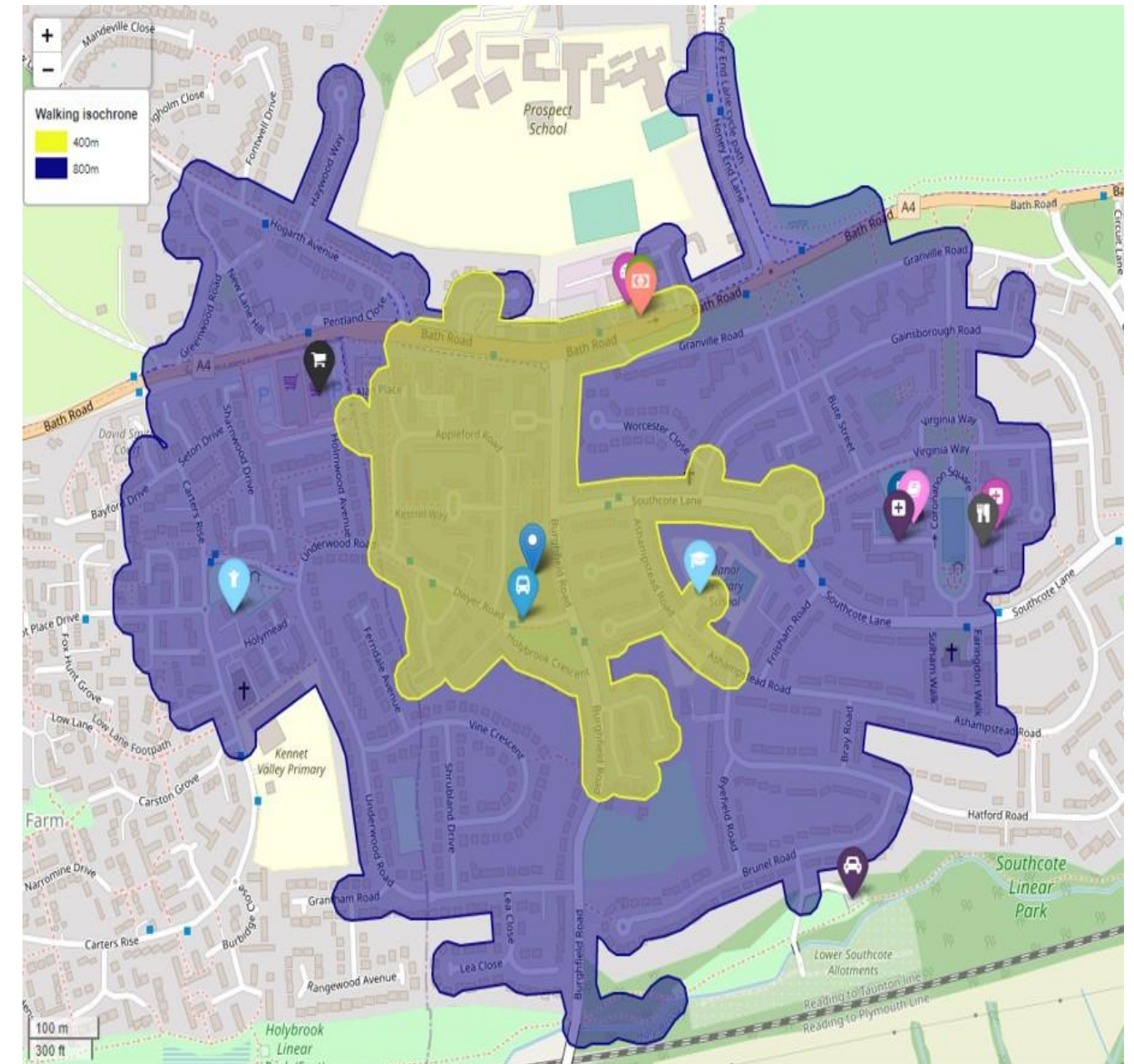


Figure 2.7: 800m walking isochrone

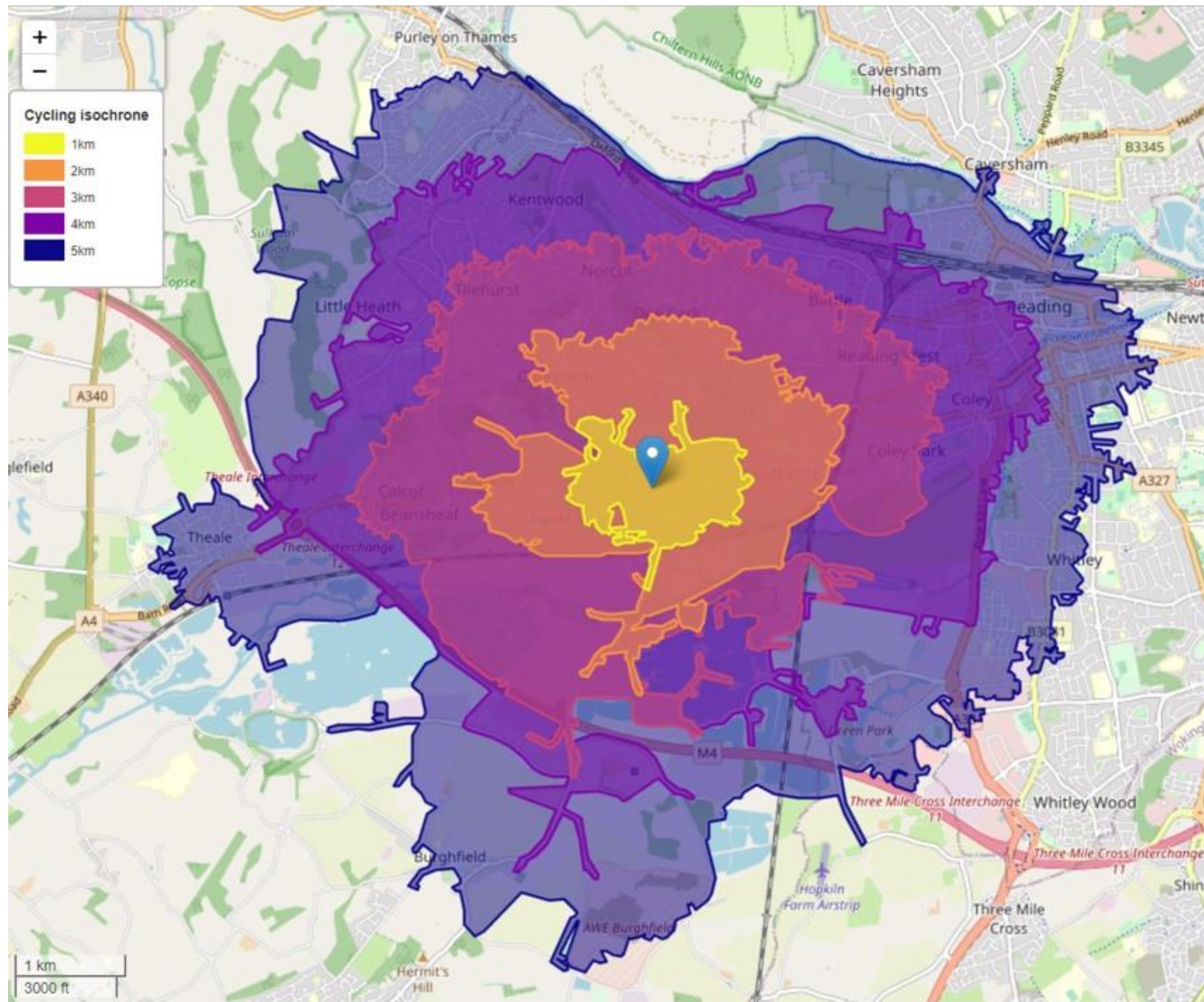


Figure 2.8: 5km cycling isochrone

2.7 Highway Safety

- 2.7.1 The extent of recorded road traffic collisions in the vicinity of the application site has been established from 2017-2021. Information has been obtained covering the latest available five-year period of Personal Injury Accident (PIA) data available.
- 2.7.2 The extents cover the immediate highway network within proximity to the site denoted by the red box highlighted in Figure 2.10.
- 2.7.3 Collisions have been categorised into three types; slight, serious and fatal.
- 2.7.4 Three accidents have been recorded in the highlighted area in the past five years.
- 2.7.5 The first incident was reported in May 2018 and occurred at the junction of Dwyer Road and Burghfield Road. It involved a car turning left and striking a cyclist. A slight injury was incurred by the cyclist.
- 2.7.6 The second incident was reported in November 2018 and occurred near to the junction of Southcote Lane and Burghfield Road. It involved a car striking the rear of a car which was slowing. A slight injury was incurred by each driver.
- 2.7.7 The third incident was reported in June 2021 and occurred near to the junction of Southcote Lane and Burghfield Road. It involved a single pedal cycle. A serious injury was incurred by the cyclist.
- 2.7.8 Having considered the three reported incidents in the vicinity of the site, it appears that there is no pattern nor significant issue with the existing highway layout or geometry which would require mitigation as a result of the proposed development.

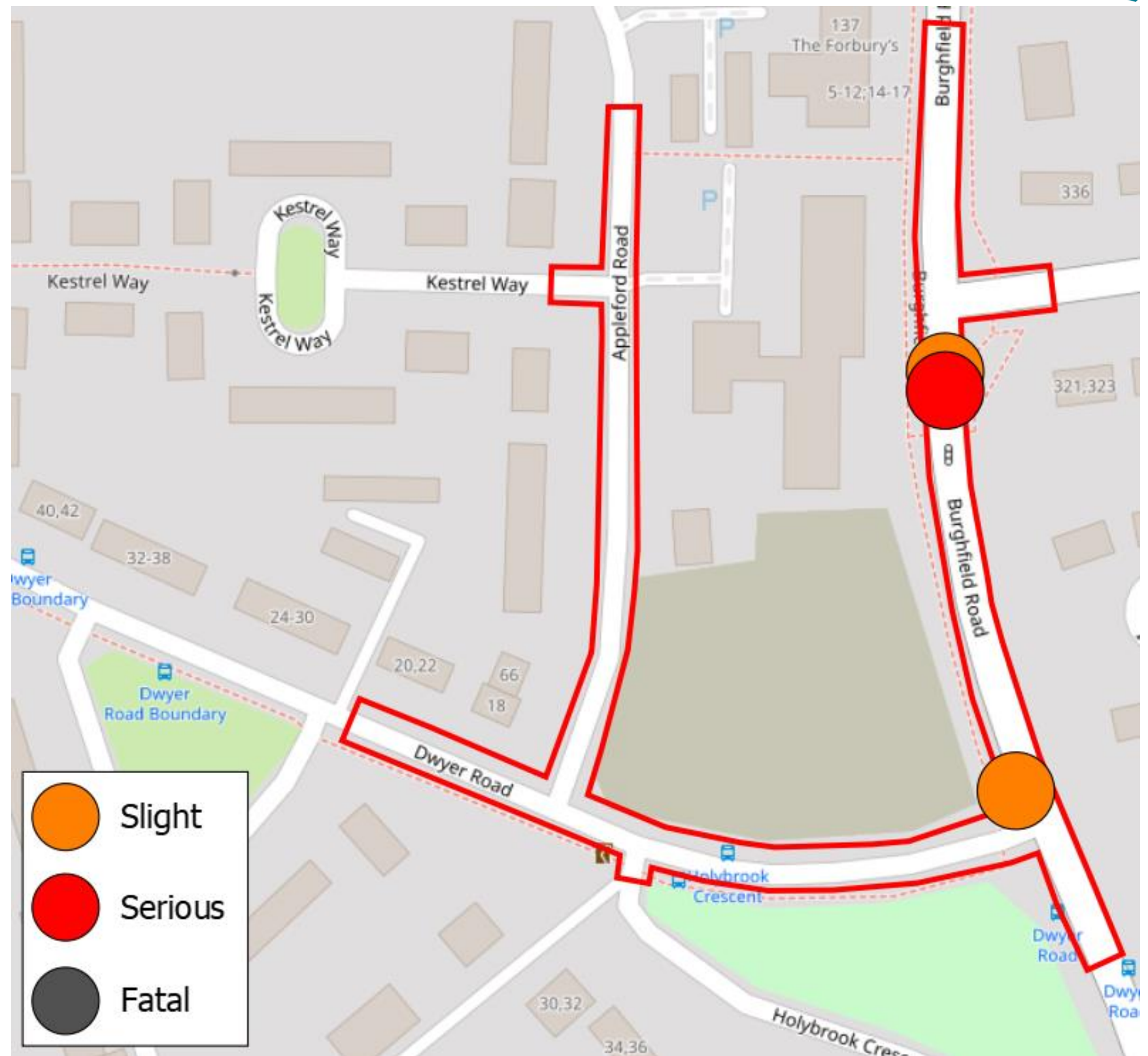


Figure 2.9: Locations and severity of accidents

3. Development Proposal

3.1 Overview

- 3.1.1 This chapter of the transport statement sets out the development proposals and includes discussion of multi-modal access, site layout, car and cycle parking, and deliveries and servicing.

3.2 Masterplan

- 3.2.1 The masterplan for the proposed development is shown in Figure 3.1. This shows that the site will accommodate vehicle access will be 31 dwellings, consisting of 15 x one beds, 9 x three beds, 6 x four-beds and 1 x five-bed houses.
- 3.2.2 The masterplan is split into five homes which front Dwyer Road, and the remaining would be accessed via a mews cul-de-sac. Vehicle access to the mews will be from Appleford Road and pedestrian/ cycle access would be possible from both Appleford Road and Burghfield Road. There is no vehicle access between the mews and Burghfield Road.
- 3.2.3 The masterplan has evolved through an extensive pre-planning process which has required multiple, and often competing (for space) technical requirements, to be carefully considered and a balanced planning position adopted which requires compromises.
- 3.2.4 The mews road will be a cul-de-sac, with a dedicated turning space provided near to the bin store, to the west of the apartments. The road width provided is 6m and this will allow the car parking bays to be accessed, and for delivery vehicles to pass cars when moving in the site.
- 3.2.5 The residents of the homes fronting Dwyer Road would be required to either reverse to/ from their driveway. This is consistent with other properties along Dwyer Road and is therefore considered to be acceptable in this context.
- 3.2.6 The masterplan is discussed further in the subsequent sections of the note.

3.3 Pedestrian and Cycle Access

- 3.3.1 Pedestrian and cycle access to the mews is possible from both Appleford Road and Burghfield Road. The properties fronting Dwyer Road will have direct access.
- 3.3.2 The masterplan for the site provides footways within the site, with those behind the car parking bays having to also incorporate electric vehicle charging infrastructure. The location of the access road to the mews (due to minimisation of the impact on trees), the car parking requirements, and the request from the highways authority for day-to-day deliveries and servicing vehicles to be able to turn in the site has led to compromises needing to be made in the locations of the homes, and the widths available for footways.
- 3.3.3 The internal street is designed to operate as a mews, with slow traffic speeds and low traffic volumes. Whilst ideally, footways and footpaths would have a minimum width of 2m in normal circumstances the physical site constraints for delivering a viable masterplan dictate that the footways that will be provided in the site will be 1.5m wide. Dropped kerbs will be provided and these will be shown on the detailed design drawings and landscaping drawings developed for the scheme.



- 3.3.4 Inclusive Mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure (December 2021) allows for this relaxation to be used and states that

"a minimum width of 1500mm could be regarded as the minimum acceptable under most circumstances."

It also notes that:

"where there is an obstacle, such as lamp columns, sign posts or electric vehicle charging points, the absolute minimum width is 1000mm."

- 3.3.5 Therefore, the footway provision included in the masterplan is appropriate in this context.

3.4 Site vehicle access

The Mews/ Appleford Road

- 3.4.1 Vehicular access to the mews will be taken from a priority junction with Appleford Road to the west of the site. The visibility at this junction is based on the posted speed limit of 30mph, and the 2.4m x 43m splay. A general arrangement plan showing the site access arrangement is shown in Figure 3.1 and also included in Appendix A.

Driveway access to Dwyer Road

- 3.4.2 The properties fronting Dwyer Road will have direct access with driveways/ crossovers being provided. The visibility splays at these are all based on the posted speed limit of 30mph and are shown in Appendix A. Where dropped kerbs are provided, these will be shown on the detailed design drawings and landscaping drawings developed for the scheme.
- 3.4.3 There is a bus shelter within the visibility splays of the driveways to the homes fronting Dwyer Road, but this is not considered to represent an issue given the design of the shelter and the frequency of traffic movements to and from the driveways.
- 3.4.4 Manual for Streets 2 (paragraph 10.7.2) outlines that in general obstacles that are not large enough to fully obscure a whole vehicle or a pedestrian will not have a significant impact on road safety. The shelter is shown in Figure 3.2, and as illustrated is of glass construction which is transparent and therefore would not obscure visibility. The structure of the columns supporting the glass are also noted as being narrower than the base of the lighting columns on Dwyer Road. It is acceptable to located street lighting columns in visibility splays. Pedestrians located in the visibility splay, are not considered when assessing junction or driveway visibility due to their transient nature. Passengers waiting at the stop are not permanent obstructions, and are therefore not a material consideration.
- 3.4.5 This statement in Manual for Streets 2 is confirmed through further consideration of the existing situation. It is noted that this shelter is currently located in the visibility splay for the Appleford Road/ Dwyer Road junction, and there is no history in the collision data (shown in Figure 2.9) of any accidents occurring in this location. Therefore, this confirms that the shelter has not been the cause of any incidents.
- 3.4.6 There are also existing local precedents of bus shelters being located in the visibility splays of driveways. A shelter of a comparable type is located approximately 150m west of the site on Dwyer Road, and presumably would have been installed after the homes and driveways were constructed. This is shown in Figure 3.3 and as illustrated the driveway and bus shelter are

located closer to each other than the layout in the proposed development. Review of CrashMap data (for the latest available five years) shows that there has been no record of any collisions in these areas, and therefore this confirms that the shelter has not been the cause of any incidents.



Figure 3.2: Existing bus shelter on Dwyer Road (site frontage)



Figure 3.3: Existing bus shelter on Dwyer Road (approximately 150m west of the site)

- 3.4.7 The shelter shown in Figure 3.4 is a different configuration, but includes a solid advertising board within the design which would represent more of an obstruction than the design of the shelter next to the proposed development site. It is again noted that there is a driveway next to the bus shelter, and that the shelter was likely to have been installed after the homes and driveways were built. Review of CrashMap data (for the latest available five years) shows that there has been no record of any collisions in these areas, and therefore this confirms that the presence of a shelter has not been the cause of any incidents.



Figure 3.5: Existing bus shelter on Southcote Road (near Frilsham Road junction)

- 3.4.8 The visibility to the east from the easternmost driveway has been considered in further detail due to the location of the access closer to the Dwyer Road/ Burghfield Road junction. The Reading Borough Council Geometric Design Guidance for Residential Accesses on to Classified Roads and Commercial Accesses on to Adopted Roads (January 2011) states that where a residential road joins a main transport corridor no junctions with other roads or accesses to driveways should be provided along the first 20 metres of the residential road. This easternmost driveway is located 22 metres from the junction and therefore accords to the council's guidance.
- 3.4.9 The visibility at the easternmost driveway has been measured to three locations. The first is the position to the front of the where oncoming traffic would be positioned having left Burghfield Road. The visibility splay achieved to this point is 2.4m x 20.9m, which relates to a design speed of between 19mph and 20mph (shown in Figure 3.5).
- 3.4.10 It is considered that the speeds of vehicles at this location would be significantly lower than the posted speed limit due to having to negotiate the geometry of the junction. This would be particularly relevant to vehicles turning right from Burghfield Road as a proportion would be required to give way to traffic travelling northbound along Burghfield Road.

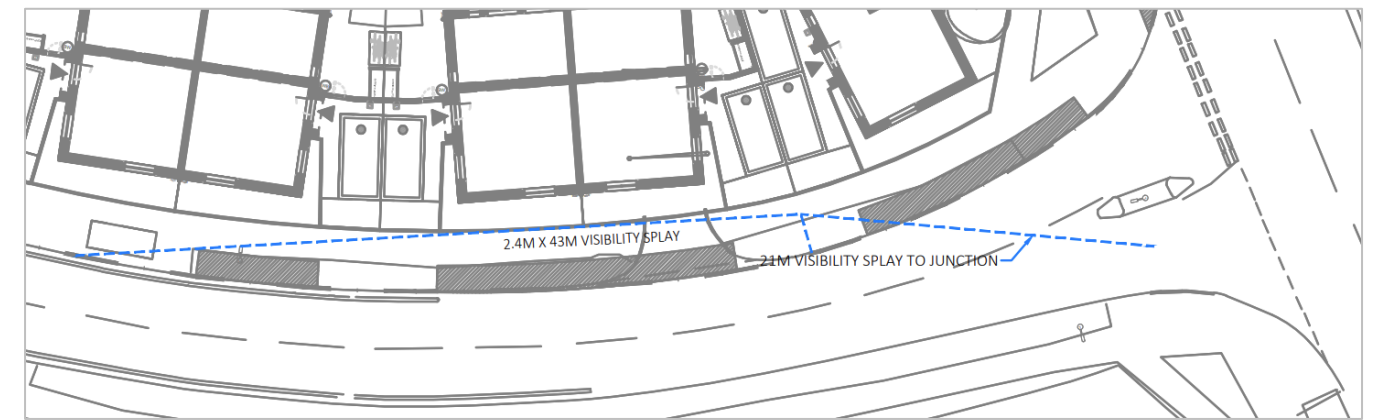


Figure 3.4: Extract of junction visibilities are driveway access

- 3.4.11 Manual for Streets 2 (paragraph 8.3.8) sets out an equation for how vehicle speeds around corners can be determined using 85th percentile traffic speeds and the radii of the curve. The vehicle path for the left turn has a higher radius than the right turn from Burghfield Road and would therefore have a lower impact on slowing traffic entering the junction.
- 3.4.12 It is also noted that there are traffic speed cameras on Burghfield Road in this location which would assist in ensuring speeds on Burghfield Road are around 30mph prior to turning into Dwyer Road. Using 30mph as the 85th percentile speed (50km per hour), and a corner radius of 11.4m for left turn from Burghfield Road allows a percentage speed reduction to be determined using the equation v^2/R (v = speed in 85th percentile speed in km/h, and r = radius).
- 3.4.13 The v^2/R value is calculated as being 219 and then extrapolating the information in Table 8.2 of Manual for Streets 2 gives a 55% percentage reduction that can be applied to the assumed 85th percentile speed of 30mph. Based on this analysis the vehicle speeds entering Dwyer Road from Burghfield Road are calculated as being 16.5mph. Therefore, the visibility of 2.4m x 20.9m, (which relates to a design speed of between 19mph and 20mph) is considered to be in acceptable in this location.
- 3.4.14 In addition, the local road geometry and extent of highway boundary does provide allow for greater visibility, and the visibility to traffic on Burghfield Road and the distances the vehicles would need to travel to the conflict point with vehicles exiting the driveways have been considered. The drawing in Appendix A shows that the following additional visibilities are achieved within the highway boundary. It is noted that the travel distances to the conflict point are also shown in the drawing included in Appendix A, and these are greater than the visibilities that are achieved.
- » 2.4m x 32.4m to southbound traffic on Burghfield Road (equates to 24 to 25mph)
 - » 2.4m x 37.5m to northbound traffic on Burghfield Road (equates to 27 to 28mph)
- 3.4.15 These visibilities exceed the forecast speeds entering Dwyer Road from Burghfield Road, and therefore reconfirm that the visibility that is achievable at the driveway is appropriate in this context.
- 3.4.16 Overall, the visibilities at the site access junctions and driveways are all considered to be appropriate for the proposed development.

3.5 Car Parking Provision

- 3.5.1 The development proposes 27 spaces overall, in the following locations:
- » 21 spaces in the mews
 - » 6 spaces for the homes on Dwyer Road
- 3.5.2 Two of the car parking bays in the mews will be designed to accommodate blue badge bays. These have been designed in accordance with Reading Borough Council requirements (Reading Borough Local Development Framework, Revised Parking Standards and Design (October 2011)) and measure 2.4m x 4.8m plus a 1.2m clear zone to the side and front of the bays.
- 3.5.3 EV charging is provided to each bay, with the exception of the two bays at the five bedroom home, which will have one EV charger. This provision is line with Part S of the Building Regulations.
- 3.5.4 The car parking spaces in the mews are 2.5m x 5m with 6m of road width behind the bays. This is also in accordance with the parking SPD. The design of the parking bays and the hardstanding at the units fronting Dwyer Road has been configured so that only the set out number of cars per home can be accommodated. This will mean that owners will not be tempted to try and squeeze additional vehicles on the driveway, which would potentially result in the extra car overhanging the footway.
- 3.5.5 The number of car parking bays proposed in the development will be below the figures quoted in the parking SPD. The nature of the proposed development, location, and accessibility by public transport means that demand for car ownership is likely to be lower than the SPD requirements. The principle of this has been discussed with Reading Borough Council and evidence from the 2021 Census is included in this report to confirm that the proposed provision is appropriate.

Parking methodology

- 3.5.6 As the Applicant is proposing an affordable housing development it was considered appropriate to focus specifically on Output Areas (OAs) where social housing was reported by the census to at least 50% of the total housing provision. The analysis data includes 44 output areas comprising 5,419 households in Reading.
- 3.5.7 A three-stage methodology was developed to understand parking demand at a regional, household size and locality level. The review of each stage and brief discussion on how this influenced the approach to developing the parking strategy for the site is set out.

Step 1: Regional car ownership average amongst majority affordable housing tenants

- 3.5.8 Most homes in the OAs where more than 50% of householders were affordable had fewer than one car per household. This ratio of 0.91 spaces per dwelling includes a range of housing types and bedroom numbers.
- 3.5.9 Based on this evidence and the proposed tenure, the starting point for the parking strategy should be to provide one or less parking spaces per unit to reflect the average in OAs with a higher portion (+50%) of affordable homes.

Step 2: Car ownership average amongst affordable housing tenants in different sized units

- 3.5.10 It is accepted that car ownership is influenced by household size and therefore an assessment of car ownership based on dwelling size was reviewed. Car ownership per dwelling has been considered in the context of the number of bedrooms in a home.
- 3.5.11 OAs with more than 70% of 1 and 2 bed units (small households) and 3 or 4 bed plus units (family sized units) were analysed. This showed that in OAs where more than 70% of households were small households, the average car ownership was 0.74 per dwelling and for family sized households it is 1 space per dwelling.

Step 3: Average car ownership within each locality

- 3.5.12 Steps 1 and 2, looked at average car ownership across Reading and support the case for car ownership of less than 1 space per dwelling. It is noted that locational specific attributes can impact car ownership, including: access to alternative transport modes and local services and jobs, controlled parking zones, regeneration, and parking capacity available.
- 3.5.13 The site sits within output area E00082943 but the neighbouring areas E00082942 and E00082946 are also relevant to the analysis of car ownership and the parking strategy for the site at Dwyer Road. The zones are shown in Figure 3.6.

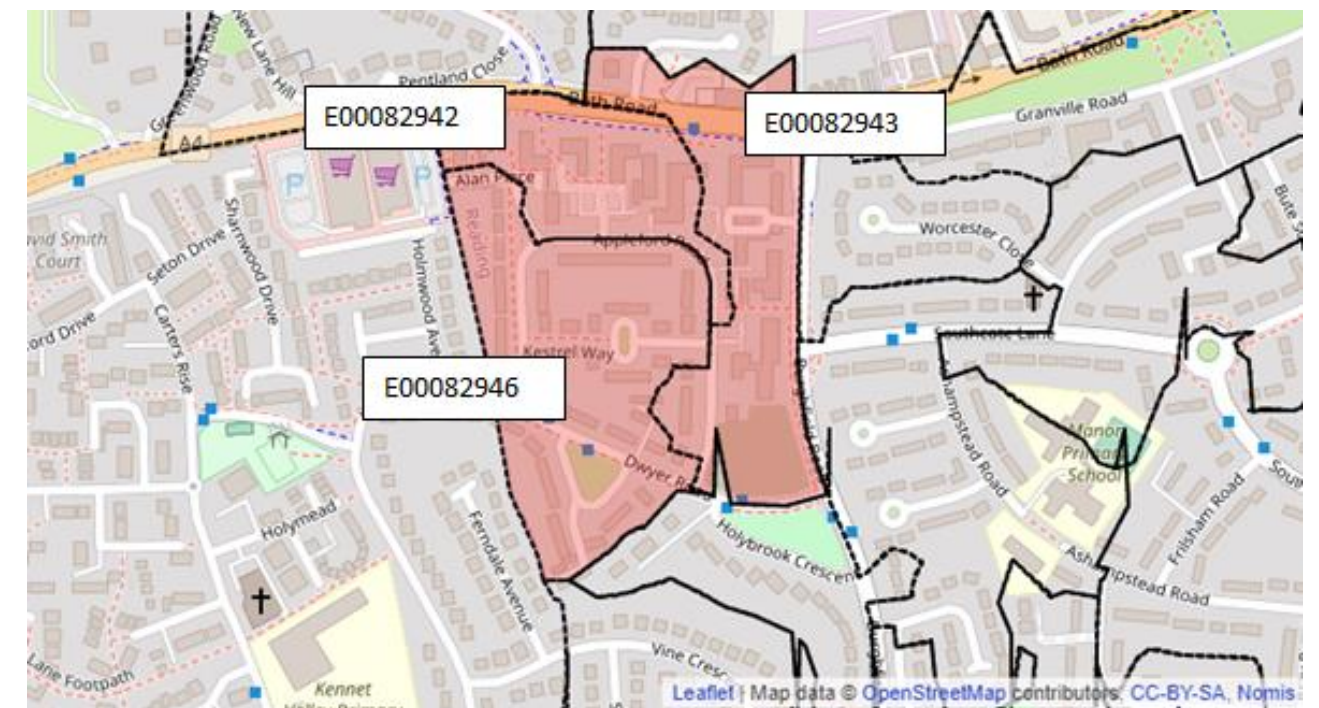


Figure 3.6: Local Output Areas

- 3.5.14 The tenure of the three OAs has been reviewed and these have the following proportions of social housing:
- » E00082942: 92% social housing
 - » E00082943: 46% social housing
 - » E00082946: 44% social housing

- 3.5.15 Whilst some of these zones have a proportion of social housing less than 50%, these proportions are 44% and 46% which is considered to be close enough to be considered relevant for this analysis.
- 3.5.16 The housing mix and car ownership for each of these zones is set out in Table 3.1.
- 3.5.17 This shows that areas E00082942 and E00082943 have a higher proportion of flats. Notably, the site is located in zone E00082943 and this has 84.7% of the homes being 1 and 2 bedroom properties, and 46% of these are social housing. It is considered therefore, that there is a local precedent for car ownership at the proposed smaller households to be in line with the 0.54 spaces per dwelling.
- 3.5.18 E00082942 has 92% social housing and 62.8% 1 and 2 bedroom properties. The car parking ratio for this zone is 0.56 spaces per dwelling. Therefore, a car parking ratio of 0.55 spaces per dwelling for smaller homes is considered to be appropriate.

Table 3.1: Housing mix and car ownership

Output area	1 bed	2 bed	3 bed	4 bed	Car ownership per dwelling
E00082942	37.2%	25.6%	33.3%	3.9%	0.56
E00082943 Dwyer Road (Proposed site)	36.7%	48%	14.3%	1%	0.54
E00082946	31.1%	4.9%	54.9%	9%	0.9

- 3.5.19 The majority of homes in E00082946 is 3 and 4 bed units, with an average car ownership of 0.9 per dwelling, which is in line with the regional average and just below the average for larger family homes in the affordable housing tenure in the Borough. On the basis of this analysis the car parking provision for the use units should be between 0.9 and 1:1 ratio. In summary, parking proposed for the development at Dwyer Road would use the following ratios:

- » Smaller homes (1 and 2 bedrooms): 0.55 spaces per dwelling
- » Family homes (3 and 4 bedrooms): 0.9-1 space per dwelling
- » Family homes (6 bedrooms): 2 spaces per dwelling based on the requirements for the 3+4 bedroom homes

- 3.5.20 Application of the above ratios to the development proposals gives the following car parking demand:

- » 8 spaces for the smaller homes (14 x flats)
- » 11 spaces for the houses in the mews (11 x family homes – 3 and 4 bedrooms)
- » 6 spaces for the homes on Dwyer Road (4 x family homes – 3 and 4 bedrooms and 1 x 6 bedroom home)

- 3.5.21 This gives a residential parking demand of 25 spaces in total. The development proposes 27 spaces overall, which allows for two visitor spaces to be provided within the site. This has been discussed with the highways authority and is understood to be acceptable.

- 3.5.22 The applicant considers this to be the most appropriate approach for a site of this size and use as an older persons downsizer home. It is also proposed that the associated visitor parking is delivered as two spaces accessed via the mews, and one space off site on Appleford Road.

This was discussed with the highways authority and deemed acceptable based on the findings from two on-street car parking surveys which were undertaken at 11pm on Wednesday 29th March 2023 and 9:30am on Thursday 30th March 2023. These are shown in Figures 3.7 to 3.9 and demonstrate that there is spare parking capacity available locally.

- 3.5.23 In addition, output area E00082946 has a housing mix which is considered to be comparable to that of the proposed development and therefore a good guide to the level of parking provision (0.9 spaces per dwelling overall) that would be appropriate to the proposed development as a whole.
- 3.5.24 The site will therefore include provision which equates to 0.87 spaces per dwelling across the site which is broadly comparable to the 0.9 spaces per dwelling average demonstrated by the local data. It is concluded on the basis of the analysis presented that the parking provision shown in the masterplan is appropriate for the proposed development.



Figure 3.7: Survey undertaken on Wednesday 29th March 2023



Figure 3.10: Survey undertaken on Thursday 30th March 2023



Figure 3.8: Survey undertaken on Thursday 30th March 2023

3.6 Location of blue badge car parking

- 3.6.1 The masterplan shows that the two blue badge parking bays would be located at the eastern end of the mews. The locations of the wheelchair accessible units are shown in Figure 3.7, and these are within 50m walk of the blue badge car parking bays.
- 3.6.2 This is in accordance with the guidance in section 3.4 of Inclusive Mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure (December 2021) which sets out a recommendation of a 50m walking distance limit before a resting point is needed.

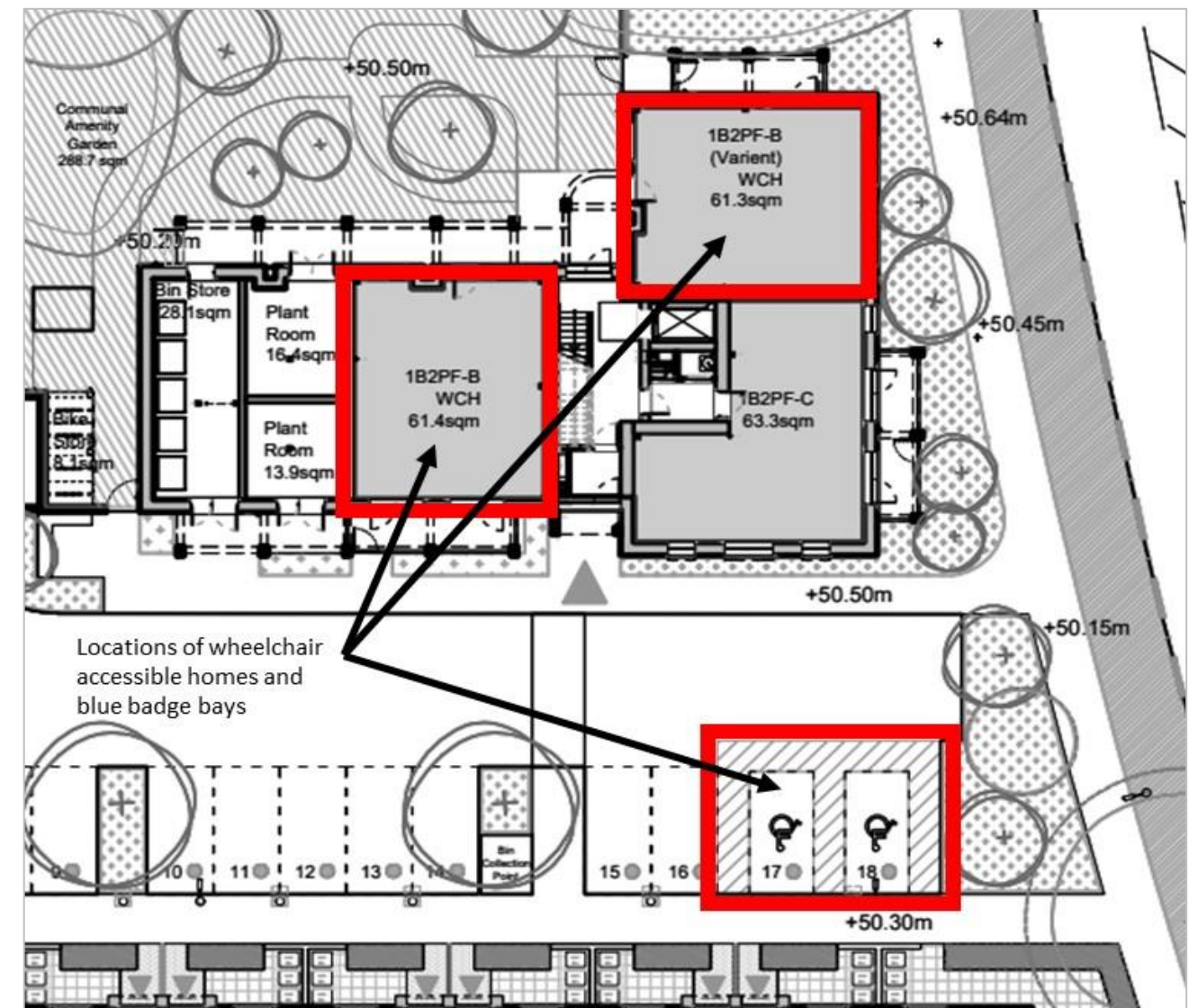


Figure 3.9: Location of wheelchair units and blue badge bays

3.7 Cycle parking

- 3.7.1 A total of 36 cycle parking spaces are to be provided in a bike store to the immediate west of the flats and in secure stores on plot of each dwelling.

3.8 Deliveries and servicing

- 3.8.1 The deliveries and servicing requirements for the site has been considered and the following vehicles have been used in the review:

- » 10m rigid (as proxy for fire tender)
- » Reading borough council refuse vehicle
- » 7.5t box van
- » 4.6t light van

- 3.8.2 The swept path analysis for these is shown in the drawings included in Appendix B. A turning head has been included in the site at the request of the Reading Borough Council Highways and Waste teams. This allows the aforementioned design vehicles to enter and exit the site in forwards gears and allow the access requirements for waste and fire access set out in Manual for Streets to be achieved.

3.8.3

4. Transport Policy and Guidance Context

4.1 National Policy

National Planning Policy Framework (2021) - Section 9 - Promoting Sustainable Transport.

4.1.1 The revised NPPF document states that:

"Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:

a) the potential impacts of development on transport networks can be addressed;

b) opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;

c) opportunities to promote walking, cycling and public transport use are identified and pursued;

d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and

e) patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high-quality places".

4.1.2 Under 'considering development proposals' within the NPPF paragraphs 110 & 111 state:

"In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;

b) safe and suitable access to the site can be achieved for all users; and

c) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.

Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe".

4.1.3 Paragraph 113 concludes that:

"All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed".

4.2 Local Policy

4.2.1 The local transport policy is the draft Reading Transport Strategy 2036, which has been developed as the Local Transport Plan 4.

4.2.2 This document sets out the vision to

"Deliver a sustainable transport system in Reading that creates an attractive, green and vibrant town with neighbourhoods that promote healthy choices and wellbeing."

4.2.3 Policy TRS4 regards development. It states that:

"New developments be will required to demonstrate how they will deliver healthy streets and make a positive contribution to the walking, cycling and public transport network and support sustainable travel, such as initially subsidising bus services, through the development and implementation of travel plans."

4.2.4 Another local document is the Reading Borough Local Plan, which was adopted in November 2019.

4.2.5 It states that

"Proposed development should contribute appropriately to meeting the objectives of the most up-to-date Local Transport Plan or any successor document, including sub-strategies, specific projects identified and the local action plans."

5. Trip Generation and Impact Assessment

5.1 Introduction

- 5.1.1 This section identifies the forecast trip generation of the proposed development site and confirms that the forecast would not have a severe impact on the local highway network.
- 5.1.2 The vehicular traffic generation of the proposed development has been calculated using trip rates derived from the Trip Rate Information Computer System (TRICS® 7.8.2) database.

5.2 Vehicle trip generation

- 5.2.1 The selection criteria used includes:
 - » Land Use Category - Residential (Affordable/Mixed houses and flats)
 - » Region - England and Wales, (Excluding Greater London)
 - » Location - Suburban/Edge of Town/Neighbourhood Centre
- 5.2.2 A summary of the forecast trip generation for the proposed use is shown in Table 5.1 with the full outputs included at Appendix C. Table 5.1 shows that the 31 dwellings are predicted to generate 12 two-way vehicle trips in the AM peak and 11 two-way trips in the PM peak.

Table 5.1: Residential trip generation

	AM (8am to 9am)			PM (5pm to 6pm)		
	Arr	Dep	Tot	Arr	Dep	Tot
Vehicle trip rate (per dwelling)	0.125	0.271	0.396	0.208	0.156	0.364
Vehicle trip generation	4	8	12	6	5	11

5.3 Multi-modal trip generation

- 5.3.1 The multi-modal trip generation has been determined using the vehicle trip generation and the 2011 Census travel to work mode share data for MSOA E02003403. The multi-modal trip generation is shown in Table 5.2 and these would not severely impact the capacity of these modes.

Table 5.2: Multi-modal residential trip generation

Mode	Mode share	AM (8am to 9am)	PM (5pm to 6pm)
Train	5%	1	1
Bus, minibus or coach	15%	3	3
Motorcycle	1%	0	0
Driving a car or van	57%%	12	11
Passenger in a car or van	6%	1	1
Bicycle	4%	1	1
On foot	12%	2	2

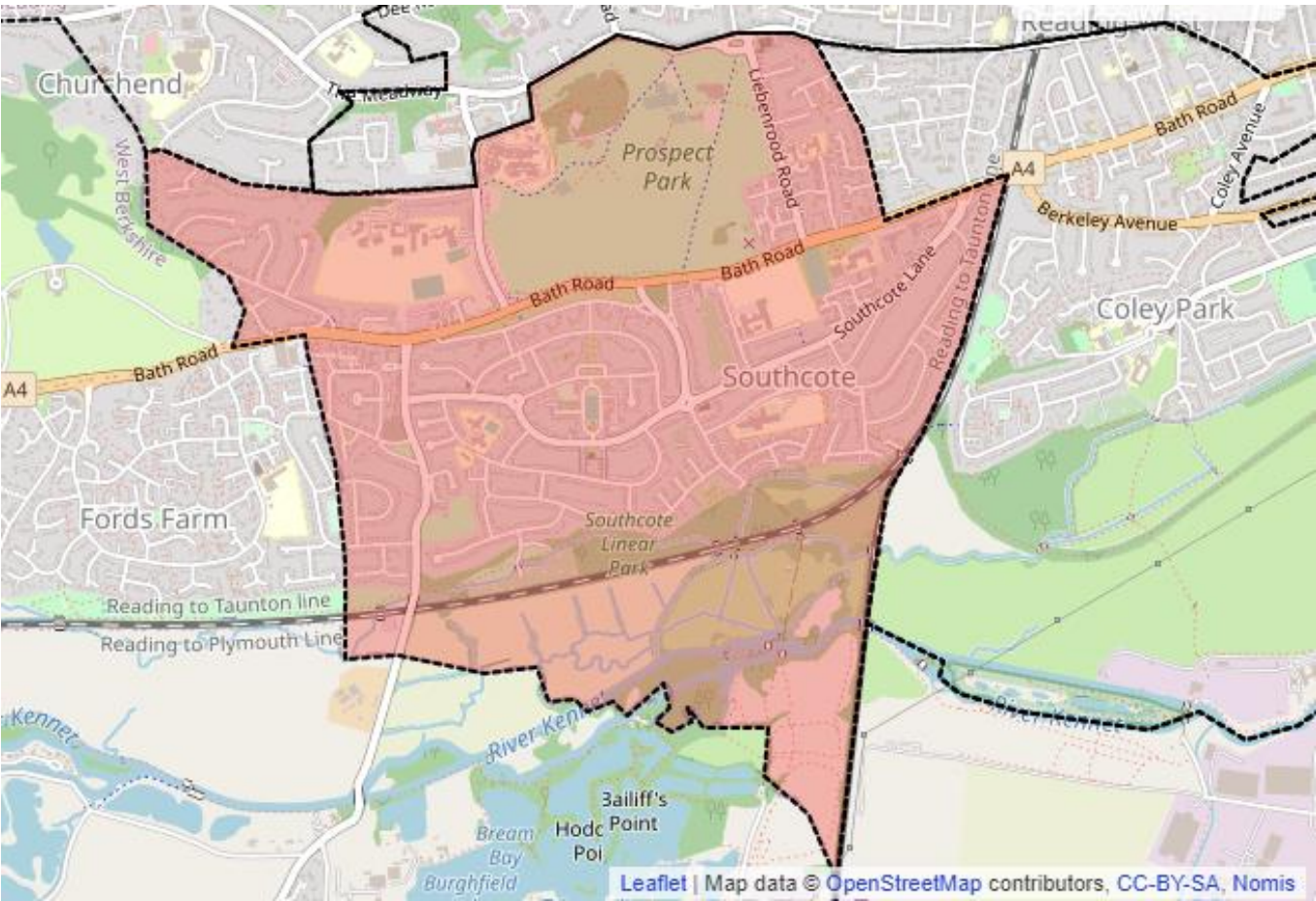


Figure 5.1: MSOA E02003403 for 2011 Census travel to work mode share

6. Summary and Conclusions

6.1.1 This Transport Statement has been prepared by Hydrock on behalf of Reading Borough Council to provide transport planning advice pertaining to a planning application for 31 residential dwellings at Dwyer Road, Reading.

6.2 Conclusions

6.2.1 The conclusions of this report are:

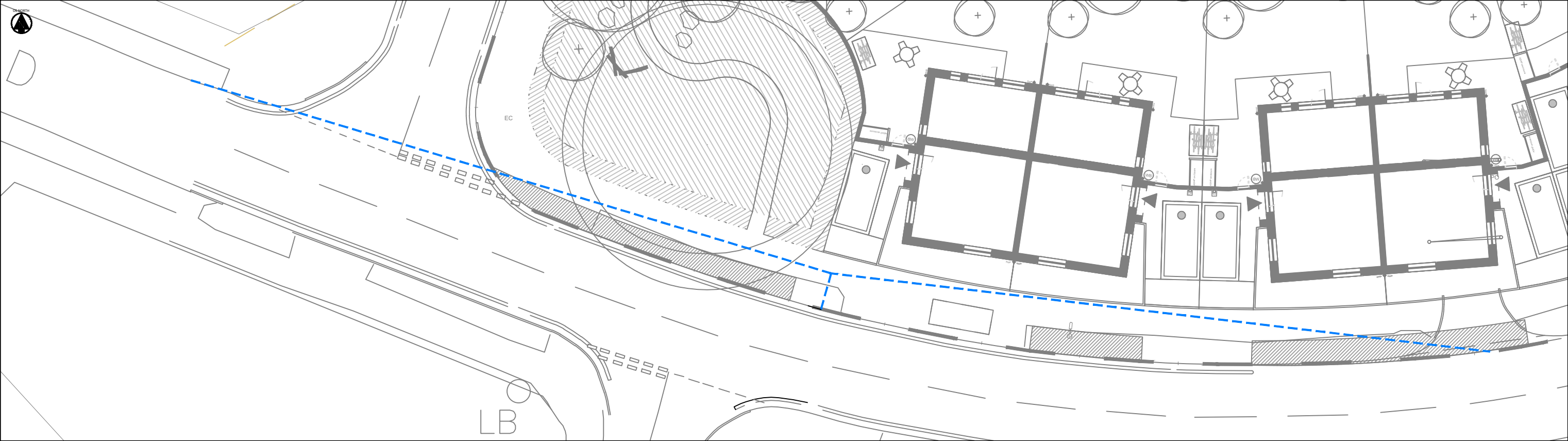
- » The development site is situated in an accessible location, within walking and cycling distance of a wide range of public transport, education, retail and healthcare facilities.
- » The site is connected to an established pedestrian and cycle network, with footways and crossing points provided in the vicinity.
- » The proposed levels of car parking are reasonable considering the scale and location of the development.
- » To promote sustainable modes of travel and the viability of cycling as a travel choice, it is proposed that secure sheds are provided for each dwelling.
- » PIA data has been examined in the vicinity of the application site and it is unlikely that the increase in development traffic would adversely affect the road safety record. It is considered that there are no overriding safety issues in the vicinity of the site that would be exacerbated by the proposals.
- » Vehicular access will be from Appleford Road, with a turning head provided to allow vehicles to enter and exit the site in forward gear.
- » The traffic generation of the proposed development is predicted to be 12 two-way movements in the AM peak, and 11 in the PM peak.
- » The application site accords with relevant local and national transport policies.

6.2.2 It is therefore considered that the proposed development would not have a severe impact upon the operation of the local highway network. Based on the findings within this TS and the demonstrated accessibility of the site, it is considered that in the context of paragraphs 110 & 111 of the NPPF, that there are no transport-related reasons why the development should not be permitted.

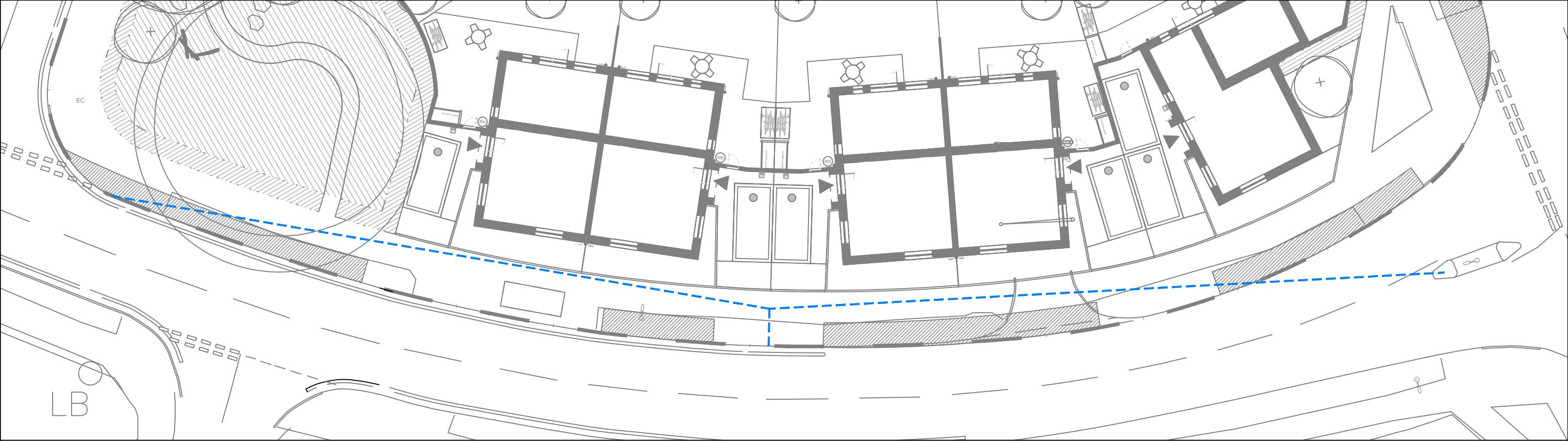
Hydrock Consultants Ltd

Appendix A Site General Arrangement



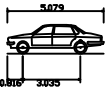


WESTERN DRIVEWAY VISIBILITY SPLAY



CENTRAL DRIVEWAY VISIBILITY SPLAY

VEHICLE MODEL USED FOR SWEEP PATH ANALYSIS



Large Car (2006)
Overall Length 5.072m
Overall Width 1.872m
Overall Body Height 0.910m
Min Body Ground Clearance 0.510m
Max Track Width 1.831m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 5.900m

 VISIBILITY SPLAY (2.4m x 43m)

REVISIONS (CONTINUED)

REVISIONS

P02	UPDATED LAYOUT					
	ISSUED BY	24/04/23	DESIGNED BY	24/04/23	APPROVED BY	23/04/23
FIRST ISSUE						
P01	ISSUED BY	13/04/23	DESIGNED BY	13/04/23	APPROVED BY	13/04/23



MERCHANTS' HOUSE NORTH
WAPPING ROAD
BRISTOL
BS1 4RW
t: (0117) 9459 225
e: bristol@hydrock.com

CLIENT
READING BOROUGH COUNCIL

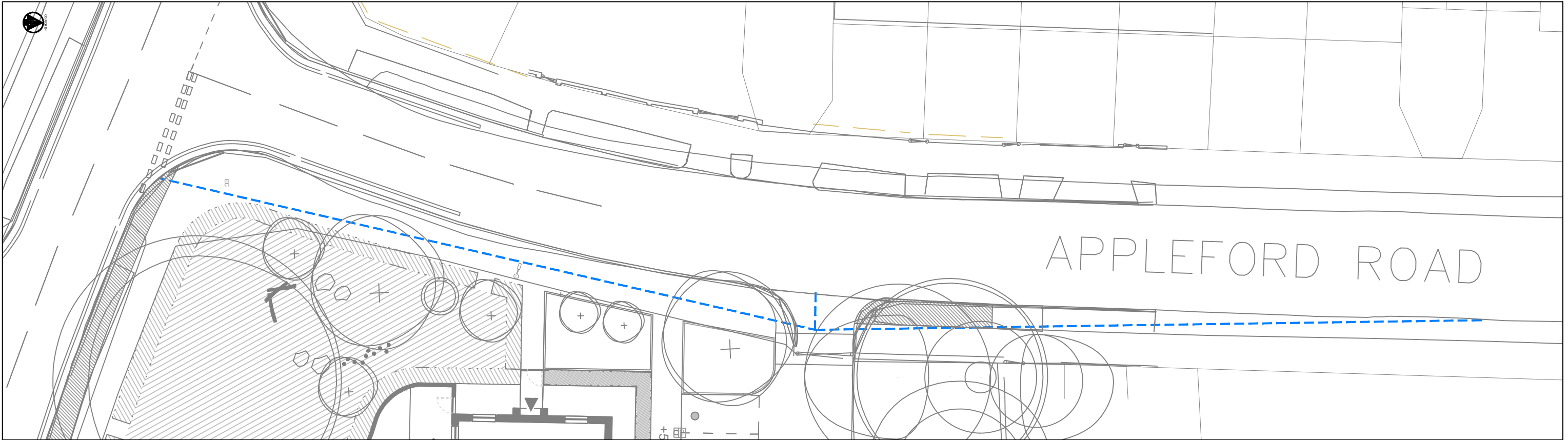
PROJECT
DWYER ROAD, READING

VISIBILITY SPLAYS (DRAWING 1)

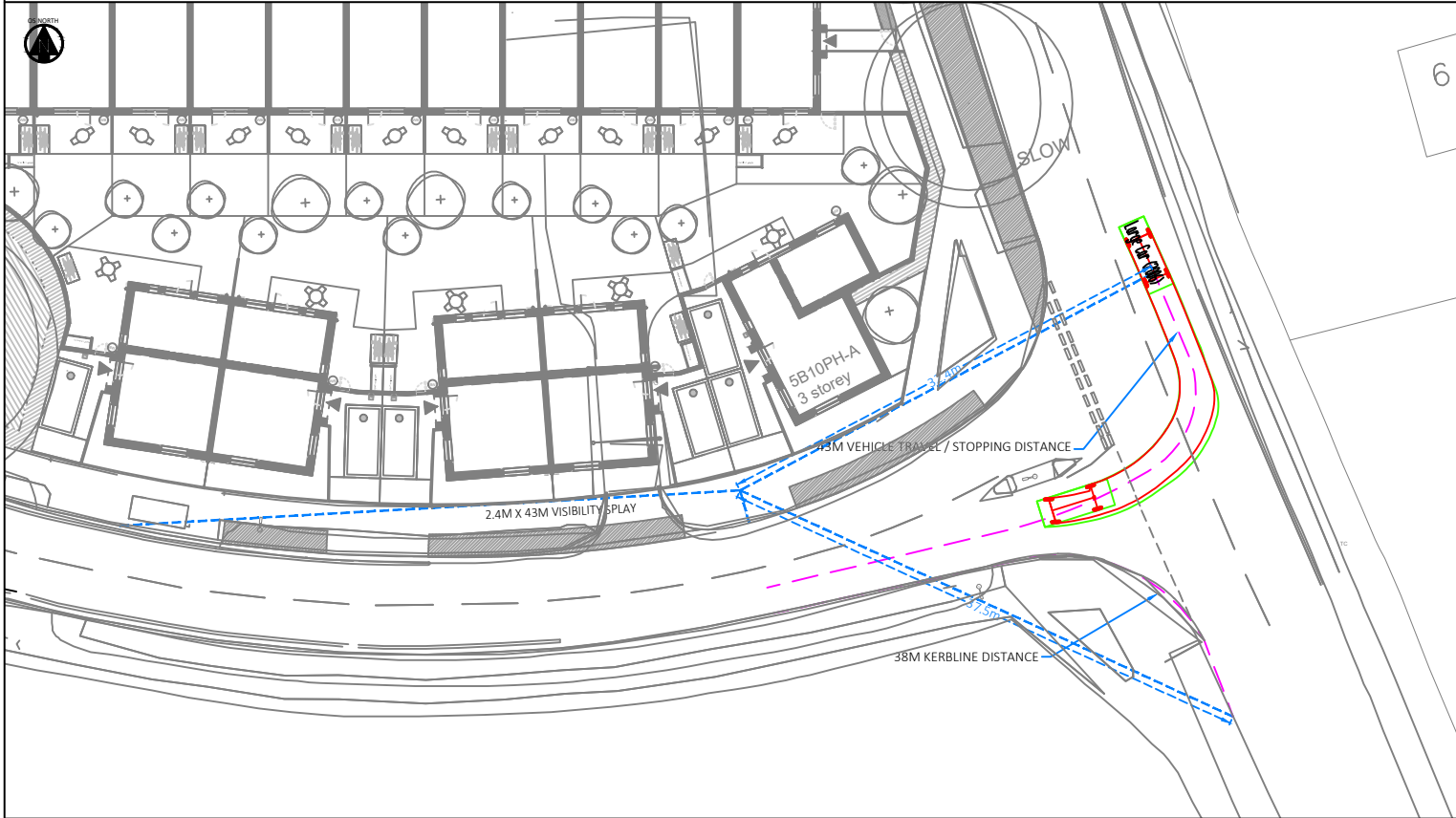
HYDROCK PROJECT NO.
26888

SCALE @ A3
1:250

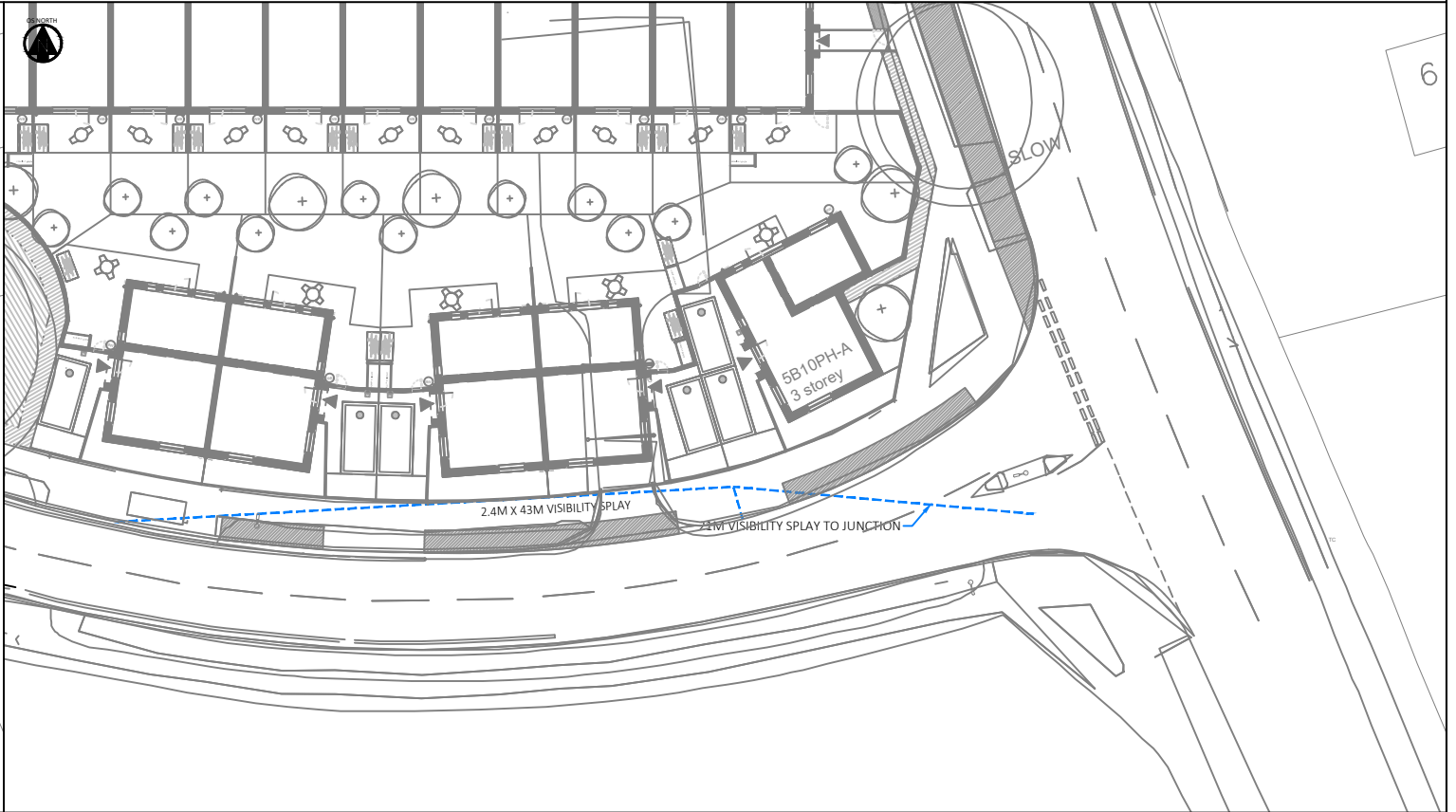
STATUS DESCRIPTION		STATUS S2
INFORMATION		
DRAWING NO. (PROJECT CODE-ORIGINATOR-ZONE-LEVEL-TYPE-ROLE-NUMBER)		REVISION
26888-HYD-XX-XX-DR-TP-0010		P02



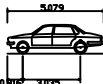
APPLEFORD ROAD VISIBILITY SPLAY (1:250)



VISIBILITY SPLAY - VEHICLE PATHS (1:500)



VISIBILITY SPLAY - TO JUNCTION (1:500)



Large Car (2006)
Overall Length 5.079m
Overall Width 1.872m
Overall Body Height 1.510m
Min Body Ground Clearance 0.350m
Max Track Width 1.831m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 5.900m

— VISIBILITY SPLAY - 2.4m x 43m UNLESS OTHERWISE ANNOTATED

REVISIONS (CONTINUED)

REVISIONS					
NO	DATE	BY	CHKD	APPD	DESCRIPTION
P01	25/04/23	S.ROSE	S.MOODY	S.MOODY	25/04/23



MERCHANTS' HOUSE NORTH
WAPPING ROAD
BRISTOL
BS1 4RW
t: (0117) 9459 225
e: bristol@hydrock.com

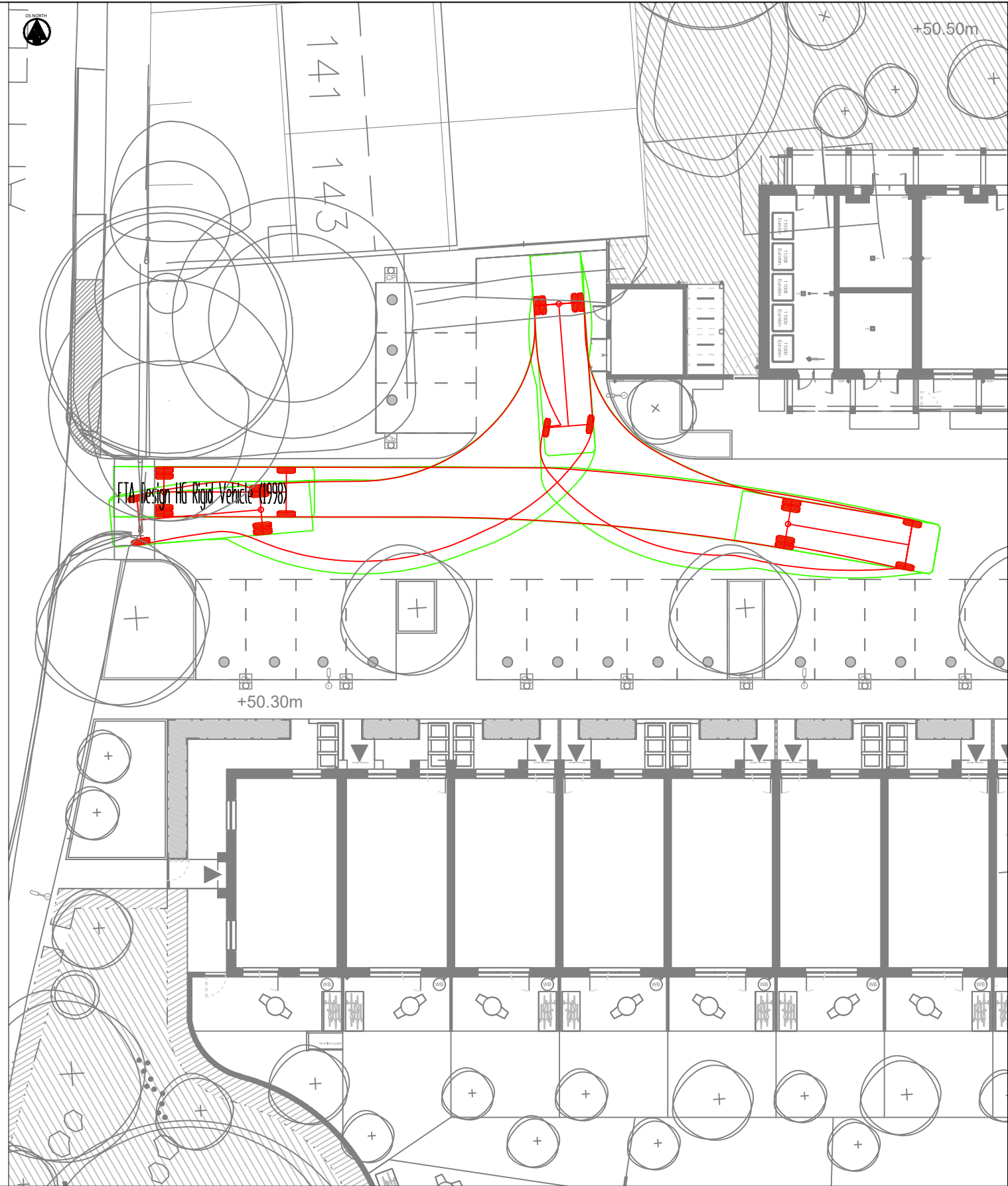
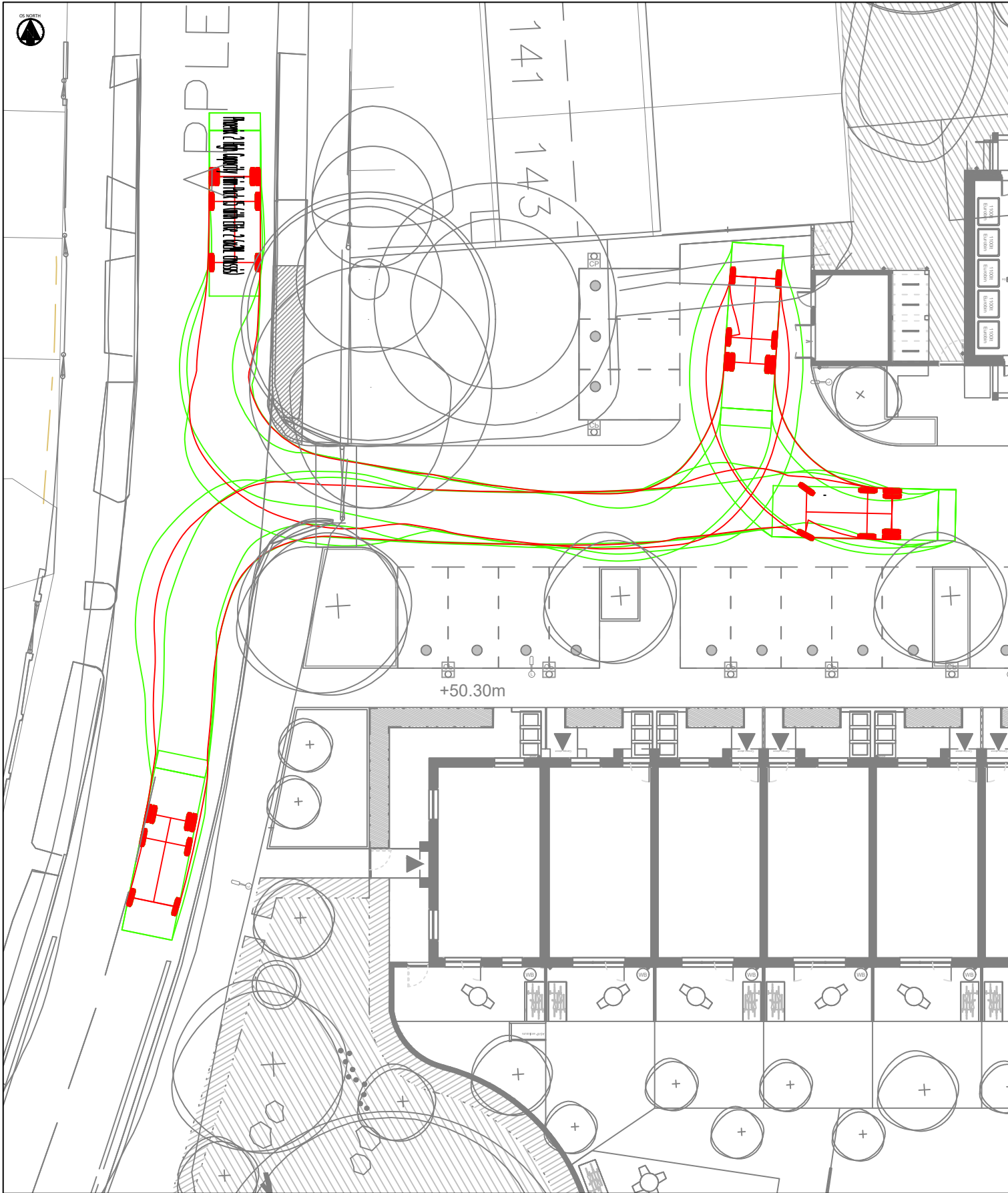
CLIENT
READING BOROUGH COUNCIL

PROJECT
DWYER ROAD, READING

VISIBILITY SPLAYS (DRAWING 2)

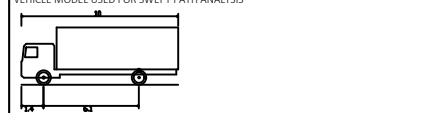
HYDROCK PROJECT NO.		SCALE @ A3
26888		AS SHOWN
STATUS DESCRIPTION		STATUS
INFORMATION		S2
DRAWING NO. (PROJECT CODE-ORIGINATOR-ZONE-LEVEL-TYPE-ROLE-NUMBER)		REVISION
26888-HYD-XX-XX-DR-TP-0012		P01

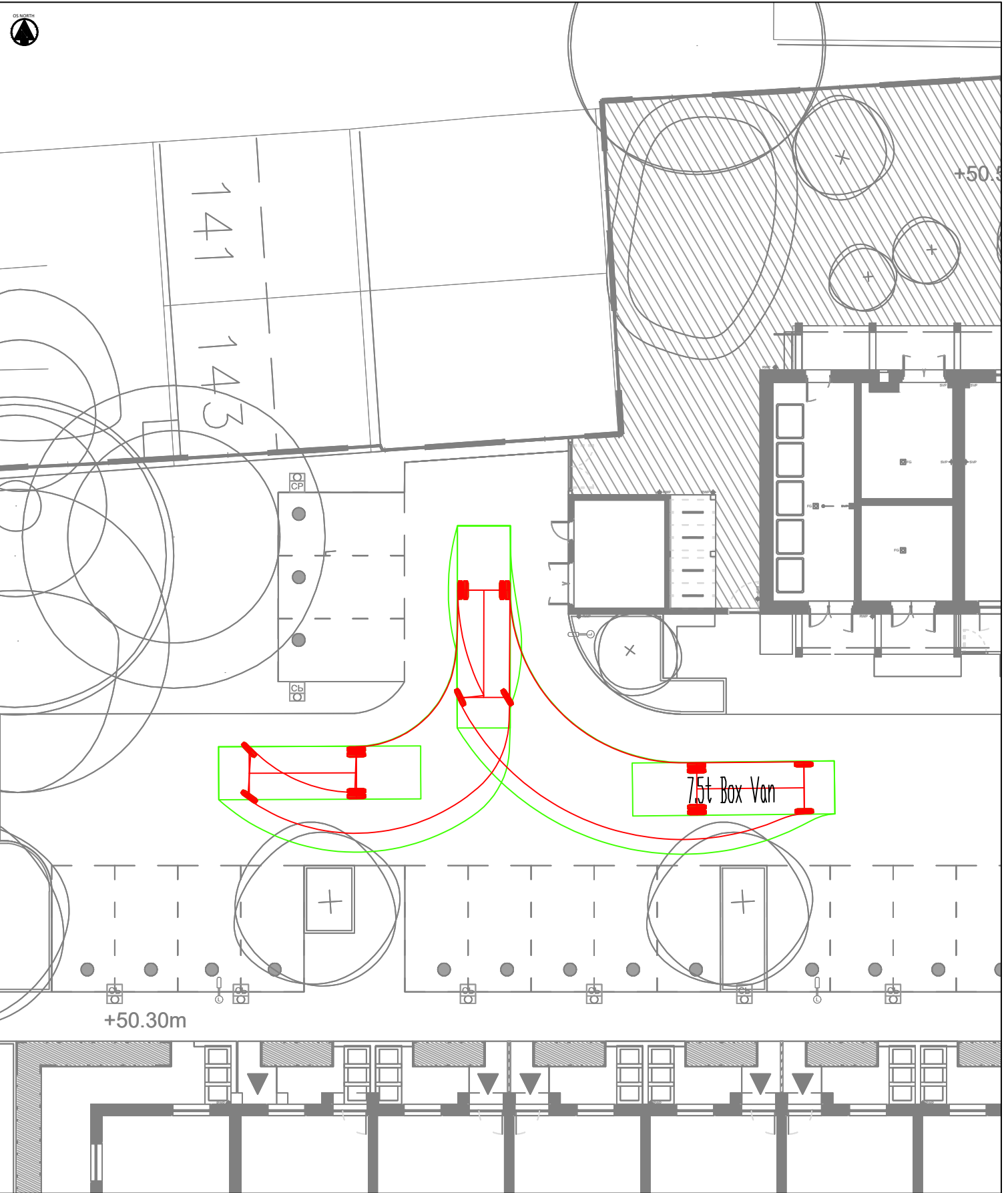
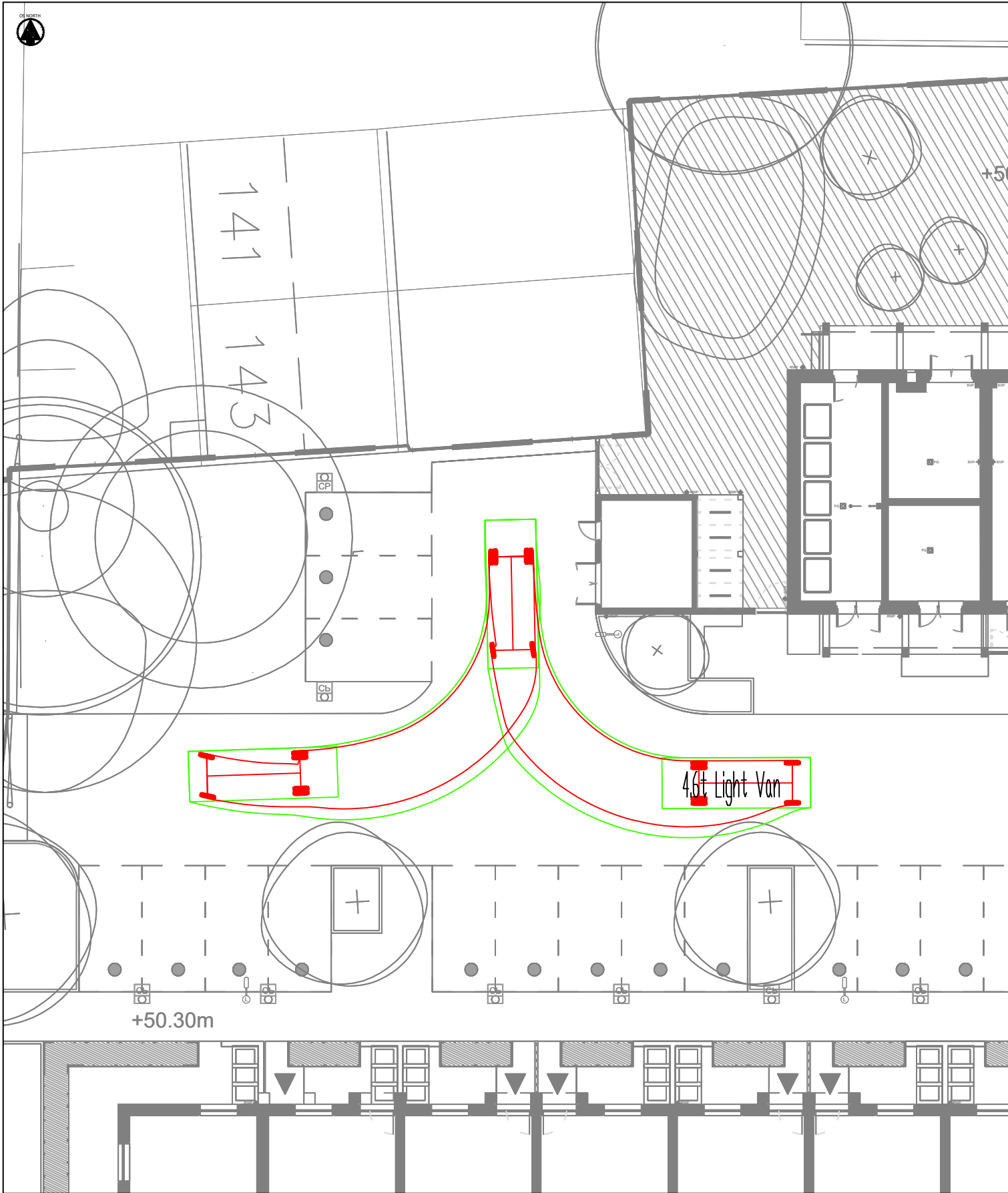
Appendix B Swept Path Analysis

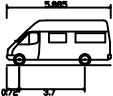
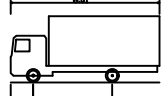


REFUSE VEHICLE TRACKING

FIRE TENDER TRACKING

VEHICLE MODEL USED FOR SWEEP PATH ANALYSIS  Phoenix 2 High Capacity Twin Pack 15 (with Elite 2 6x2ML) <table><tr><td>Overall Length</td><td>9.000m</td></tr><tr><td>Overall Width</td><td>2.500m</td></tr><tr><td>Overall Body Height</td><td>3.642m</td></tr><tr><td>Min Body Ground Clearance</td><td>0.416m</td></tr><tr><td>Track Width</td><td>2.500m</td></tr><tr><td>Lock to lock time</td><td>4.00s</td></tr><tr><td>Kerb to Kerb Turning Radius</td><td>7.800m</td></tr></table>		Overall Length	9.000m	Overall Width	2.500m	Overall Body Height	3.642m	Min Body Ground Clearance	0.416m	Track Width	2.500m	Lock to lock time	4.00s	Kerb to Kerb Turning Radius	7.800m	VEHICLE MODEL USED FOR SWEEP PATH ANALYSIS  ETA Design HG Rigid Vehicle (1998) <table><tr><td>Overall Length</td><td>10.000m</td></tr><tr><td>Overall Width</td><td>2.500m</td></tr><tr><td>Overall Body Height</td><td>3.642m</td></tr><tr><td>Min Body Ground Clearance</td><td>0.416m</td></tr><tr><td>Track Width</td><td>2.500m</td></tr><tr><td>Lock to lock time</td><td>4.00s</td></tr><tr><td>Kerb to Kerb Turning Radius</td><td>11.000m</td></tr></table>		Overall Length	10.000m	Overall Width	2.500m	Overall Body Height	3.642m	Min Body Ground Clearance	0.416m	Track Width	2.500m	Lock to lock time	4.00s	Kerb to Kerb Turning Radius	11.000m	NOTES		REVISIONS (CONTINUED)		REVISIONS		 MERCHANTS' HOUSE NORTH WAPPING ROAD BRISTOL BS1 4RW t: (0117) 9459 225 e: bristol@hydrock.com CLIENT READING BOROUGH COUNCIL PROJECT DWYER ROAD, READING		SWEPT PATH ANALYSIS OF REFUSE VEHICLE AND FIRE TENDER MANOEUVRE	
Overall Length	9.000m																																								
Overall Width	2.500m																																								
Overall Body Height	3.642m																																								
Min Body Ground Clearance	0.416m																																								
Track Width	2.500m																																								
Lock to lock time	4.00s																																								
Kerb to Kerb Turning Radius	7.800m																																								
Overall Length	10.000m																																								
Overall Width	2.500m																																								
Overall Body Height	3.642m																																								
Min Body Ground Clearance	0.416m																																								
Track Width	2.500m																																								
Lock to lock time	4.00s																																								
Kerb to Kerb Turning Radius	11.000m																																								
								HYDROCK PROJECT NO. 26888		SCALE @ A3 1:200																															
								STATUS DESCRIPTION INFORMATION		STATUS S2																															
								DRAWING NO. (PROJECT CODE-ORIGINATOR-ZONE-LEVEL-TYPE-ROLE-NUMBER) 26888-HYD-XX-XX-DR-TP-0008		REVISION P02																															



4.6t LIGHT VAN TRACKING				7.5t BOX VAN TRACKING																			
VEHICLE MODEL USED FOR SWEEP PATH ANALYSIS  4.6t Light Van Overall Length 5.885m Overall Width 2.400m Overall Body Height 2.525m Min Body Ground Clearance 0.725m Track Width 1.765m Lock to lock time 4.00s Kerb to Kerb Turning Radius 6.000m		VEHICLE MODEL USED FOR SWEEP PATH ANALYSIS  7.5t Box Van Overall Length 8.010m Overall Width 2.400m Overall Body Height 3.150m Min Body Ground Clearance 0.351m Track Width 2.064m Lock to lock time 4.00s Kerb to Kerb Turning Radius 7.400m		NOTES (CONTINUED)		REVISIONS (CONTINUED)																	
REVISIONS <table><tr><td>P02</td><td>REVISED SITE LAYOUT</td><td>ISSUED BY: S.ROSE</td><td>25/04/23</td><td>DESIGNED BY: S.MOODY</td><td>25/04/23</td><td>APPROVED BY: S.MOODY</td><td>25/04/23</td></tr><tr><td>P01</td><td>FIRST ISSUE</td><td>ISSUED BY: J.DALLEY</td><td>13/04/23</td><td>DESIGNED BY: S.MOODY</td><td>13/04/23</td><td>APPROVED BY: S.MOODY</td><td>13/04/23</td></tr></table>		P02	REVISED SITE LAYOUT	ISSUED BY: S.ROSE	25/04/23	DESIGNED BY: S.MOODY	25/04/23	APPROVED BY: S.MOODY	25/04/23	P01	FIRST ISSUE	ISSUED BY: J.DALLEY	13/04/23	DESIGNED BY: S.MOODY	13/04/23	APPROVED BY: S.MOODY	13/04/23	CLIENT READING BOROUGH COUNCIL		PROJECT DWYER ROAD, READING		Hydrock MERCHANTS' HOUSE NORTH WAPPING ROAD BRISTOL BS1 4RW t: (0117) 9459 225 e: bristol@hydrock.com	
P02	REVISED SITE LAYOUT	ISSUED BY: S.ROSE	25/04/23	DESIGNED BY: S.MOODY	25/04/23	APPROVED BY: S.MOODY	25/04/23																
P01	FIRST ISSUE	ISSUED BY: J.DALLEY	13/04/23	DESIGNED BY: S.MOODY	13/04/23	APPROVED BY: S.MOODY	13/04/23																
HYDROCK PROJECT NO. 26888		SCALE @ A3 1:200		STATUS DESCRIPTION INFORMATION		STATUS S2																	
DRAWING NO. (PROJECT CODE-ORIGINATOR-ZONE-LEVEL-TYPE-ROLE-NUMBER) 26888-HYD-XX-XX-DR-TP-0009		REVISION P02																					

Appendix C TRICS Outputs

Calculation Reference: AUDIT-540501-221213-1246

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : L - MIXED AFFORD HOUS (FLATS AND HOUSES)
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	1 days
	HC HAMPSHIRE	1 days
10	WALES	
	CF CARDIFF	1 days
	SW SWANSEA	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:	21 to 94 (units:)
Range Selected by User:	19 to 94 (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: 01/01/14 to 14/05/21

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	2 days
Friday	2 days

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

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2
Edge of Town	1
Neighbourhood Centre (PPS6 Local Centre)	1

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

Selected Location Sub Categories:

Residential Zone	1
No Sub Category	3

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

Secondary Filtering selection:

Use Class:

C3 4 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 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:

10,001 to 15,000 1 days

25,001 to 50,000 3 days

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

Population within 5 miles:

100,001 to 125,000 1 days

125,001 to 250,000 1 days

250,001 to 500,000 2 days

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

Car ownership within 5 miles:

0.6 to 1.0 4 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 2 days

No 2 days

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

PTAL Rating:

No PTAL Present 4 days

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

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions
-----------------------	-----	--

LIST OF SITES relevant to selection parameters

1	CF-03-L-02	SEMI DETACHED & FLATS	CARDIFF
	SANQUHAR STREET		
	CARDIFF		
	SPLOTT		
	Neighbourhood Centre (PPS6 Local Centre)		
	No Sub Category		
	Total No of Dwellings:	26	
	Survey date: FRIDAY	14/05/21	Survey Type: MANUAL
2	ES-03-L-03	HOUSES & FLATS	EAST SUSSEX
	HUGHENDEN ROAD		
	HASTINGS		
	ORE VALLEY		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	51	
	Survey date: TUESDAY	26/06/18	Survey Type: MANUAL
3	HC-03-L-03	MIXED FLATS & HOUSES	HAMPSHIRE
	WOODSIDE AVENUE		
	EASTLEIGH		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total No of Dwellings:	94	
	Survey date: TUESDAY	03/03/20	Survey Type: MANUAL
4	SW-03-L-03	TERRACED HOUSES AND FLATS	SWANSEA
	CROWN STREET		
	SWANSEA		
	MORRISTON		
	Edge of Town		
	No Sub Category		
	Total No of Dwellings:	21	
	Survey date: FRIDAY	14/05/21	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/L - MIXED AFFORD HOUS (FLATS AND HOUSES)
MULTI-MODAL TOTAL VEHICLES
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period
 Total People to Total Vehicles ratio (all time periods and directions): 2.17

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	4	48	0.042	4	48	0.224	4	48	0.266
08:00 - 09:00	4	48	0.125	4	48	0.271	4	48	0.396
09:00 - 10:00	4	48	0.172	4	48	0.177	4	48	0.349
10:00 - 11:00	4	48	0.109	4	48	0.146	4	48	0.255
11:00 - 12:00	4	48	0.130	4	48	0.109	4	48	0.239
12:00 - 13:00	4	48	0.104	4	48	0.089	4	48	0.193
13:00 - 14:00	4	48	0.125	4	48	0.115	4	48	0.240
14:00 - 15:00	4	48	0.099	4	48	0.141	4	48	0.240
15:00 - 16:00	4	48	0.193	4	48	0.115	4	48	0.308
16:00 - 17:00	4	48	0.188	4	48	0.130	4	48	0.318
17:00 - 18:00	4	48	0.208	4	48	0.156	4	48	0.364
18:00 - 19:00	4	48	0.260	4	48	0.104	4	48	0.364
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.755			1.777			3.532

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.

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

Parameter summary

Trip rate parameter range selected:	21 - 94 (units:)
Survey date range:	01/01/14 - 14/05/21
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	3
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/L - MIXED AFFORD HOUS (FLATS AND HOUSES)

MULTI-MODAL TAXIS

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	4	48	0.000	4	48	0.000	4	48	0.000
08:00 - 09:00	4	48	0.016	4	48	0.016	4	48	0.032
09:00 - 10:00	4	48	0.005	4	48	0.005	4	48	0.010
10:00 - 11:00	4	48	0.010	4	48	0.010	4	48	0.020
11:00 - 12:00	4	48	0.005	4	48	0.005	4	48	0.010
12:00 - 13:00	4	48	0.000	4	48	0.000	4	48	0.000
13:00 - 14:00	4	48	0.005	4	48	0.005	4	48	0.010
14:00 - 15:00	4	48	0.005	4	48	0.005	4	48	0.010
15:00 - 16:00	4	48	0.000	4	48	0.000	4	48	0.000
16:00 - 17:00	4	48	0.010	4	48	0.010	4	48	0.020
17:00 - 18:00	4	48	0.005	4	48	0.005	4	48	0.010
18:00 - 19:00	4	48	0.000	4	48	0.000	4	48	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.061			0.061			0.122

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/L - MIXED AFFORD HOUS (FLATS AND HOUSES)

MULTI-MODAL OGVS

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	4	48	0.000	4	48	0.000	4	48	0.000
08:00 - 09:00	4	48	0.000	4	48	0.000	4	48	0.000
09:00 - 10:00	4	48	0.005	4	48	0.005	4	48	0.010
10:00 - 11:00	4	48	0.000	4	48	0.000	4	48	0.000
11:00 - 12:00	4	48	0.005	4	48	0.000	4	48	0.005
12:00 - 13:00	4	48	0.000	4	48	0.005	4	48	0.005
13:00 - 14:00	4	48	0.000	4	48	0.000	4	48	0.000
14:00 - 15:00	4	48	0.000	4	48	0.000	4	48	0.000
15:00 - 16:00	4	48	0.000	4	48	0.000	4	48	0.000
16:00 - 17:00	4	48	0.000	4	48	0.000	4	48	0.000
17:00 - 18:00	4	48	0.000	4	48	0.000	4	48	0.000
18:00 - 19:00	4	48	0.000	4	48	0.000	4	48	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.010			0.010			0.020

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/L - MIXED AFFORD HOUS (FLATS AND HOUSES)

MULTI-MODAL PSVS

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	4	48	0.000	4	48	0.000	4	48	0.000
08:00 - 09:00	4	48	0.000	4	48	0.000	4	48	0.000
09:00 - 10:00	4	48	0.005	4	48	0.005	4	48	0.010
10:00 - 11:00	4	48	0.000	4	48	0.000	4	48	0.000
11:00 - 12:00	4	48	0.000	4	48	0.000	4	48	0.000
12:00 - 13:00	4	48	0.000	4	48	0.000	4	48	0.000
13:00 - 14:00	4	48	0.000	4	48	0.000	4	48	0.000
14:00 - 15:00	4	48	0.000	4	48	0.000	4	48	0.000
15:00 - 16:00	4	48	0.000	4	48	0.000	4	48	0.000
16:00 - 17:00	4	48	0.000	4	48	0.000	4	48	0.000
17:00 - 18:00	4	48	0.000	4	48	0.000	4	48	0.000
18:00 - 19:00	4	48	0.000	4	48	0.000	4	48	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.005			0.005			0.010

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/L - MIXED AFFORD HOUS (FLATS AND HOUSES)

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	4	48	0.000	4	48	0.026	4	48	0.026
08:00 - 09:00	4	48	0.016	4	48	0.078	4	48	0.094
09:00 - 10:00	4	48	0.005	4	48	0.026	4	48	0.031
10:00 - 11:00	4	48	0.005	4	48	0.016	4	48	0.021
11:00 - 12:00	4	48	0.016	4	48	0.010	4	48	0.026
12:00 - 13:00	4	48	0.005	4	48	0.000	4	48	0.005
13:00 - 14:00	4	48	0.016	4	48	0.000	4	48	0.016
14:00 - 15:00	4	48	0.005	4	48	0.000	4	48	0.005
15:00 - 16:00	4	48	0.021	4	48	0.005	4	48	0.026
16:00 - 17:00	4	48	0.036	4	48	0.026	4	48	0.062
17:00 - 18:00	4	48	0.026	4	48	0.005	4	48	0.031
18:00 - 19:00	4	48	0.042	4	48	0.005	4	48	0.047
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.193			0.197			0.390

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/L - MIXED AFFORD HOUS (FLATS AND HOUSES)

MULTI-MODAL VEHICLE OCCUPANTS

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	4	48	0.042	4	48	0.281	4	48	0.323
08:00 - 09:00	4	48	0.141	4	48	0.432	4	48	0.573
09:00 - 10:00	4	48	0.203	4	48	0.219	4	48	0.422
10:00 - 11:00	4	48	0.120	4	48	0.167	4	48	0.287
11:00 - 12:00	4	48	0.177	4	48	0.141	4	48	0.318
12:00 - 13:00	4	48	0.135	4	48	0.120	4	48	0.255
13:00 - 14:00	4	48	0.156	4	48	0.172	4	48	0.328
14:00 - 15:00	4	48	0.146	4	48	0.172	4	48	0.318
15:00 - 16:00	4	48	0.286	4	48	0.146	4	48	0.432
16:00 - 17:00	4	48	0.245	4	48	0.172	4	48	0.417
17:00 - 18:00	4	48	0.260	4	48	0.182	4	48	0.442
18:00 - 19:00	4	48	0.354	4	48	0.130	4	48	0.484
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.265			2.334			4.599

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/L - MIXED AFFORD HOUS (FLATS AND HOUSES)

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	4	48	0.042	4	48	0.068	4	48	0.110
08:00 - 09:00	4	48	0.104	4	48	0.219	4	48	0.323
09:00 - 10:00	4	48	0.083	4	48	0.094	4	48	0.177
10:00 - 11:00	4	48	0.057	4	48	0.078	4	48	0.135
11:00 - 12:00	4	48	0.078	4	48	0.057	4	48	0.135
12:00 - 13:00	4	48	0.073	4	48	0.083	4	48	0.156
13:00 - 14:00	4	48	0.073	4	48	0.057	4	48	0.130
14:00 - 15:00	4	48	0.099	4	48	0.094	4	48	0.193
15:00 - 16:00	4	48	0.177	4	48	0.083	4	48	0.260
16:00 - 17:00	4	48	0.109	4	48	0.073	4	48	0.182
17:00 - 18:00	4	48	0.099	4	48	0.073	4	48	0.172
18:00 - 19:00	4	48	0.115	4	48	0.104	4	48	0.219
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.109			1.083			2.192

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/L - MIXED AFFORD HOUS (FLATS AND HOUSES)

MULTI-MODAL BUS/TRAM PASSENGERS

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	4	48	0.000	4	48	0.026	4	48	0.026
08:00 - 09:00	4	48	0.005	4	48	0.036	4	48	0.041
09:00 - 10:00	4	48	0.005	4	48	0.016	4	48	0.021
10:00 - 11:00	4	48	0.005	4	48	0.005	4	48	0.010
11:00 - 12:00	4	48	0.010	4	48	0.010	4	48	0.020
12:00 - 13:00	4	48	0.005	4	48	0.000	4	48	0.005
13:00 - 14:00	4	48	0.021	4	48	0.005	4	48	0.026
14:00 - 15:00	4	48	0.005	4	48	0.005	4	48	0.010
15:00 - 16:00	4	48	0.010	4	48	0.000	4	48	0.010
16:00 - 17:00	4	48	0.016	4	48	0.000	4	48	0.016
17:00 - 18:00	4	48	0.021	4	48	0.000	4	48	0.021
18:00 - 19:00	4	48	0.010	4	48	0.000	4	48	0.010
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.113			0.103			0.216

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/L - MIXED AFFORD HOUS (FLATS AND HOUSES)

MULTI-MODAL TOTAL RAIL PASSENGERS

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	4	48	0.000	4	48	0.052	4	48	0.052
08:00 - 09:00	4	48	0.005	4	48	0.063	4	48	0.067
09:00 - 10:00	4	48	0.000	4	48	0.021	4	48	0.021
10:00 - 11:00	4	48	0.000	4	48	0.000	4	48	0.000
11:00 - 12:00	4	48	0.000	4	48	0.005	4	48	0.005
12:00 - 13:00	4	48	0.005	4	48	0.005	4	48	0.010
13:00 - 14:00	4	48	0.005	4	48	0.005	4	48	0.010
14:00 - 15:00	4	48	0.000	4	48	0.000	4	48	0.000
15:00 - 16:00	4	48	0.005	4	48	0.000	4	48	0.005
16:00 - 17:00	4	48	0.016	4	48	0.000	4	48	0.016
17:00 - 18:00	4	48	0.052	4	48	0.000	4	48	0.052
18:00 - 19:00	4	48	0.026	4	48	0.005	4	48	0.031
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.114			0.155			0.269

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/L - MIXED AFFORD HOUS (FLATS AND HOUSES)

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	4	48	0.000	4	48	0.078	4	48	0.078
08:00 - 09:00	4	48	0.010	4	48	0.099	4	48	0.109
09:00 - 10:00	4	48	0.005	4	48	0.036	4	48	0.041
10:00 - 11:00	4	48	0.005	4	48	0.005	4	48	0.010
11:00 - 12:00	4	48	0.010	4	48	0.016	4	48	0.026
12:00 - 13:00	4	48	0.010	4	48	0.005	4	48	0.015
13:00 - 14:00	4	48	0.026	4	48	0.010	4	48	0.036
14:00 - 15:00	4	48	0.005	4	48	0.005	4	48	0.010
15:00 - 16:00	4	48	0.016	4	48	0.000	4	48	0.016
16:00 - 17:00	4	48	0.031	4	48	0.000	4	48	0.031
17:00 - 18:00	4	48	0.073	4	48	0.000	4	48	0.073
18:00 - 19:00	4	48	0.036	4	48	0.005	4	48	0.041
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.227			0.259			0.486

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/L - MIXED AFFORD HOUS (FLATS AND HOUSES)

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 2.17

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	4	48	0.083	4	48	0.453	4	48	0.536
08:00 - 09:00	4	48	0.271	4	48	0.828	4	48	1.099
09:00 - 10:00	4	48	0.297	4	48	0.375	4	48	0.672
10:00 - 11:00	4	48	0.188	4	48	0.266	4	48	0.454
11:00 - 12:00	4	48	0.281	4	48	0.224	4	48	0.505
12:00 - 13:00	4	48	0.224	4	48	0.208	4	48	0.432
13:00 - 14:00	4	48	0.271	4	48	0.240	4	48	0.511
14:00 - 15:00	4	48	0.255	4	48	0.271	4	48	0.526
15:00 - 16:00	4	48	0.500	4	48	0.234	4	48	0.734
16:00 - 17:00	4	48	0.422	4	48	0.271	4	48	0.693
17:00 - 18:00	4	48	0.458	4	48	0.260	4	48	0.718
18:00 - 19:00	4	48	0.547	4	48	0.245	4	48	0.792
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.797			3.875			7.672

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/L - MIXED AFFORD HOUS (FLATS AND HOUSES)

MULTI-MODAL CARS

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	4	48	0.026	4	48	0.182	4	48	0.208
08:00 - 09:00	4	48	0.094	4	48	0.229	4	48	0.323
09:00 - 10:00	4	48	0.120	4	48	0.135	4	48	0.255
10:00 - 11:00	4	48	0.078	4	48	0.099	4	48	0.177
11:00 - 12:00	4	48	0.089	4	48	0.083	4	48	0.172
12:00 - 13:00	4	48	0.089	4	48	0.057	4	48	0.146
13:00 - 14:00	4	48	0.104	4	48	0.094	4	48	0.198
14:00 - 15:00	4	48	0.078	4	48	0.115	4	48	0.193
15:00 - 16:00	4	48	0.177	4	48	0.109	4	48	0.286
16:00 - 17:00	4	48	0.161	4	48	0.104	4	48	0.265
17:00 - 18:00	4	48	0.167	4	48	0.130	4	48	0.297
18:00 - 19:00	4	48	0.234	4	48	0.099	4	48	0.333
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.417			1.436			2.853

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/L - MIXED AFFORD HOUS (FLATS AND HOUSES)

MULTI-MODAL LGVS

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	4	48	0.016	4	48	0.026	4	48	0.042
08:00 - 09:00	4	48	0.016	4	48	0.016	4	48	0.032
09:00 - 10:00	4	48	0.031	4	48	0.026	4	48	0.057
10:00 - 11:00	4	48	0.016	4	48	0.031	4	48	0.047
11:00 - 12:00	4	48	0.031	4	48	0.021	4	48	0.052
12:00 - 13:00	4	48	0.005	4	48	0.026	4	48	0.031
13:00 - 14:00	4	48	0.016	4	48	0.005	4	48	0.021
14:00 - 15:00	4	48	0.016	4	48	0.021	4	48	0.037
15:00 - 16:00	4	48	0.016	4	48	0.005	4	48	0.021
16:00 - 17:00	4	48	0.010	4	48	0.016	4	48	0.026
17:00 - 18:00	4	48	0.021	4	48	0.010	4	48	0.031
18:00 - 19:00	4	48	0.021	4	48	0.005	4	48	0.026
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.215			0.208			0.423

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/L - MIXED AFFORD HOUS (FLATS AND HOUSES)

MULTI-MODAL MOTOR CYCLES

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	4	48	0.000	4	48	0.016	4	48	0.016
08:00 - 09:00	4	48	0.000	4	48	0.010	4	48	0.010
09:00 - 10:00	4	48	0.005	4	48	0.000	4	48	0.005
10:00 - 11:00	4	48	0.005	4	48	0.005	4	48	0.010
11:00 - 12:00	4	48	0.000	4	48	0.000	4	48	0.000
12:00 - 13:00	4	48	0.010	4	48	0.000	4	48	0.010
13:00 - 14:00	4	48	0.000	4	48	0.010	4	48	0.010
14:00 - 15:00	4	48	0.000	4	48	0.000	4	48	0.000
15:00 - 16:00	4	48	0.000	4	48	0.000	4	48	0.000
16:00 - 17:00	4	48	0.005	4	48	0.000	4	48	0.005
17:00 - 18:00	4	48	0.016	4	48	0.010	4	48	0.026
18:00 - 19:00	4	48	0.005	4	48	0.000	4	48	0.005
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.046			0.051			0.097

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/L - MIXED AFFORD HOUS (FLATS AND HOUSES)

MULTI-MODAL Servicing 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	4	48	0.016	4	48	0.010	4	48	0.026
08:00 - 09:00	4	48	0.016	4	48	0.005	4	48	0.021
09:00 - 10:00	4	48	0.031	4	48	0.026	4	48	0.057
10:00 - 11:00	4	48	0.021	4	48	0.026	4	48	0.047
11:00 - 12:00	4	48	0.026	4	48	0.021	4	48	0.047
12:00 - 13:00	4	48	0.005	4	48	0.021	4	48	0.026
13:00 - 14:00	4	48	0.021	4	48	0.005	4	48	0.026
14:00 - 15:00	4	48	0.021	4	48	0.021	4	48	0.042
15:00 - 16:00	4	48	0.000	4	48	0.005	4	48	0.005
16:00 - 17:00	4	48	0.000	4	48	0.010	4	48	0.010
17:00 - 18:00	4	48	0.016	4	48	0.010	4	48	0.026
18:00 - 19:00	4	48	0.000	4	48	0.005	4	48	0.005
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.173			0.165			0.338

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.