



City House, Sutton Park Road, Sutton, SM1 2AE

TRANSPORT ASSESSMENT

for Proposed Mixed Use Development
on behalf of Macar Living (City House) Ltd

2022/6805/TA02

February 2024

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1 INTRODUCTION

1.1 Background

- 1.1.1 RGP is instructed by Macar Living (City House) Ltd to provide highway and transport planning advice in relation to a proposed mixed-use development at City House, Sutton Park Road, Sutton. The site lies within the London Borough of Sutton (LBS).
- 1.1.2 The site is located on the eastern side of the one-way section of the A232 gyratory within the town centre of Sutton and currently comprises an office building with a total floor area of approximately 1,117 GIA. Vehicular access to the site is provided from the eastern side of the A232 Sutton Park Road via a shared service road with the adjacent Morrisons Supermarket service area, over which the applicant has suitable rights of access.
- 1.1.3 The site is shown in its local context below.



Figure 1 Local Site Context

1.2 Development Proposals

- 1.2.1 The development proposals comprise the redevelopment of the site in order to re-provide circa 220 sqm of office space at ground floor level and 70 residential flats, including a mix of 1-3 bedroom units, on the upper floors. A copy of the latest proposed site plan is attached hereto at **Appendix A**.
- 1.2.2 The proposed development would be car-free (except for 2 disabled spaces), owing to the site's highly accessible location via public transport (PTAL 6a), its town centre location and reflective of the London Plan (2021) parking standards. Cycle parking would also be provided on the site, in accordance with London Plan 2021 standards and London Cycle Design Standards.

1.2.3 A dedicated delivery bay would be provided on the site, allowing sufficient turning space on the site to accommodate a typical goods online delivery van. It is anticipated that refuse collection would continue to be undertaken from the shared service road, which would be no different from the existing and established arrangement for City House, thereby allowing all delivery and servicing vehicles to enter and egress the site in a forward gear to avoid any impact on Sutton Park Road.

1.2.4 A separate Travel Plan, Delivery & Servicing Management Plan, Waste Management Plan and Demolition/Construction Logistics Plan have also been prepared by RGP as part of the planning application and these reports should therefore be read in conjunction with this Transport Assessment.

1.3 Pre-Application Discussions

1.3.1 This Transport Assessment follows pre-application discussions which have taken place with LB Sutton over the last 12 months or so with regards to the emerging proposals for the site. Following these discussions LBS confirmed that zero parking except for disabled parking at 3% of the overall provision is acceptable for the proposals, amongst other highways related matters which are discussed throughout this report. Ongoing discussions have also taken place with the adjacent Sutton Baptist Church with regard to the emerging proposals at City House and in order to maximise the opportunity for improvements to the Church as a result of the proposed development.

1.4 Scope of this Report

1.4.1 According to TfL's guidance, full Healthy Streets Transport Assessments are required for developments with over 80 residential units and/or where TfL are consulted, which is applicable to the site. This Transport Assessment therefore provides a detailed Healthy Streets assessment and demonstrates the Applicant's desire to promote sustainable travel for future occupiers at the site.

1.4.2 This report has also been prepared in line with national (NPPF), regional (London Plan) and local (LBS Local Plan) planning policy guidance.

1.4.3 Following this introduction, the remainder of this report will comprise:

- (i) Section 2: Transport Planning for People/Policy Review;
- (ii) Section 3: Site and Surroundings;
- (iii) Section 4: Active Travel Zone;
- (iv) Section 5: Proposed Development;
- (v) Section 6: Existing Trip Generation;
- (vi) Section 7: Proposed Trip Generation;
- (vii) Section 8: Traffic Impact Assessment;
- (viii) Section 9: Construction;
- (ix) Section 10: Summary and Conclusions.

2 TRANSPORT PLANNING FOR PEOPLE/POLICY REVIEW

2.1 Preface

2.1.1 The Healthy Streets approach is about putting people first. The proposed development shall be a pleasant and convenient place for people of all abilities to walk, cycle and use public transport, including people who already live in the area.

2.2 Who will use the development and why?

2.2.1 The proposed development comprises 70 residential flats and circa 220 sqm of office space. The primary reasons for travel to and from the development associated with the residential land use would be related to commuting (to and from work) and travelling to and from local facilities for shopping, leisure and education purposes. The office use would primarily relate to staff trips travelling to and from the site for work.

2.2.2 The development proposals are for the site to operate as 'car-free' with no standard car parking provision provided, except for two disabled parking bays. Justification for the proposed provision is discussed in detail later in this report with reference to the London Plan 2021 parking standards and the accessibility credentials of the site. This approach also supports the Mayor's Transport Strategy to encourage more sustainable travel in the Capital whilst still providing a minimal level of parking to support future residential needs.

2.3 Transport Classification of Londoners

2.3.1 The Transport Classification of Londoners information collated by TfL indicates a range of 10 differing categories of Londoners based on the travel choices that they make and the motivations that they have for making those decisions.

2.3.2 Based on the information in the Transport Classification of Londoners (TCoL) February 2017 report, the application site is anticipated to be inhabited predominantly by the 'Urban Mobility' category which is categorised by very low car usage and a high use of active and sustainable modes of transport, owing its sustainable location (PTAL 6).

2.3.3 Sections 3 and 4 of this report analyse in detail the accessibility credentials of the site and confirm that public transport is of a very good standard in the vicinity of the site and would be suitable to cater for the daily needs of all future residents and staff.

2.4 Policy Review

2.4.1 This section of the report provides a review of transport planning policy information in relation to the site and in the context of the development proposals.

The National Planning Policy Framework (December 2023)

- 2.4.2 The latest National Planning Policy Framework (NPPF) came into effect in July 2021. The NPPF broadly covers all aspects of planning policy and the extracts below detail those relevant to this site and transport.
- 2.4.3 Paragraph 114 outlines the basic transport requirements for developments to provide, and states that *“In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:*
- (i) Appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
 - (ii) Safe and suitable access to the site can be achieved for all users;*
 - (iii) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and*
 - (iv) 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.”*
- 2.4.4 Paragraph 117 states 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.”*
- 2.4.5 The development complies with the above in that a Transport Assessment and Travel Plan have been provided which fully assesses the impact of the proposed development.
- 2.4.6 Of further note, paragraph 115 of the NPPF states that *“development should only be prevented or refused on highway grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.”*
- 2.4.7 The findings of this report demonstrate that the proposals would not generate a ‘severe’ impact against the given criteria.

National Planning Practice Guidance

- 2.4.8 The National Planning Practice Guidance (NPPG) provides additional information to support the NPPF. In relation to Travel Plans, Transport Assessments and Transport Statements it states:
- “They support national planning policy which sets out that planning should actively manage patterns of growth in order to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable.”*
- 2.4.9 The production of this report provides an assessment of the proposed development in the context of its location and proposed use.

London Plan (2021)

- 2.4.10 The London Plan was adopted in 2021 and therefore provides the most up to date regional planning policies in relation to the development proposals.
- 2.4.11 The latest version of the London Plan (2021) seeks to further reduce levels of residential parking for all developments, noting that all residential developments in a PTAL 4-6 should be car-free, therefore supporting a car-free residential development at this site. The commercial parking standards also support a car-free scheme and are detailed later in this report.

Healthy Streets for London (February 2017)

- 2.4.12 The *Healthy Streets for London* document was published by TfL in 2017 and details its new approach to transport and land use planning, with a system of policies and strategies that prioritise walking, cycling and the use of public transport. The Healthy Streets approach provides the framework for putting human health and experience at the heart of planning the city and uses ten evidence-based indicators, as follows:
- (i) Pedestrians from all walks of life - London's streets should be welcoming places for everyone to walk, spend time in and engage in community life.
 - (ii) People choose to walk, cycle and use public transport - Walking and cycling are the healthiest and most sustainable ways to travel. This will only happen if we reduce the volume and dominance of motor traffic and improve the experience of being on our streets.
 - (iii) Clean air - Improving air quality delivers benefits for everyone and reduces unfair health inequalities.
 - (iv) People feel safe - The whole community should feel comfortable and safe on our streets at all times.
 - (v) Not too noisy - Reducing the noise impacts of motor traffic will directly benefit health.
 - (vi) Easy to cross - Making streets easier to cross is important to encourage more walking and to connect communities. People prefer direct routes and being able to cross streets at their convenience. Physical barriers and fast moving or heavy traffic can make streets difficult to cross.
 - (vii) Places to stop and rest - A lack of resting places can limit mobility for certain groups of people.
 - (viii) Shade and shelter - Providing shade and shelter from high winds, heavy rain and direct sun enables everybody to use our streets, whatever the weather.
 - (ix) People feel relaxed - A wider range of people will choose to walk or cycle if our streets are not dominated by motorised traffic, and if pavements and cycle paths are not overcrowded, dirty, cluttered or in disrepair.
 - (x) Things to see and do - People are more likely to use our streets when their journey is interesting and stimulating, with attractive views, buildings, planting and street art and where other people are using the street. They will be less dependent on cars if the shops and services they need are within a short distance.

- 2.4.13 Page 22 of the *Healthy Streets for London* document explains that car ownership is the greatest factor that influences how often Londoners walk and cycle. The document establishes that car ownership has a bigger impact than gender, income, employment, ethnicity and disability, in all parts of the Capital. The proposed development is located in the centre of Sutton and would support the healthy streets approach since most trips made by Londoners can be undertaken on foot, or by bicycle amongst residents and staff.
- 2.4.14 The Healthy Streets approach seeks to find design solutions to minimise road danger, delivering streets where everyone feels safe walking, cycling and using public transport. Road danger disproportionately affects the number of people travelling on foot, by cycle or by motorcycle. Adopting a Vision Zero approach (working towards the elimination of road traffic deaths by reducing the dominance of motor vehicles on our streets) will serve to put the needs of vulnerable road users first.
- 2.4.15 This TA has been written in line with the Healthy Streets Guidance produced by TfL including assessing the existing and proposed transport environment for pedestrians and cyclists using the Healthy Streets Check for Designers Tool. This Tool has shown that the Healthy Streets Indicators Scores for the proposed development improve compared to the scores for the existing site.

Mayor's Transport Strategy (March 2018)

- 2.4.16 Alongside the London Plan, the Mayor's Transport Strategy provides a blueprint for better connectivity throughout London. Using the Healthy Streets approach, the Transport Strategy encourages a new type of thinking to be put into practice in order to reduce car dependency, promote an active lifestyle and more sustainable travel. It requires an understanding of how Londoners interact with their city with particular attention to the streets where daily life plays out.

Transport for London, Vision Zero Action Plan (July 2018)

- 2.4.17 The Mayor of London's aim is for all deaths and serious injuries from road collisions to be eliminated from London's streets by 2041. This Vision Zero approach is based on the fundamental conviction that loss of life and serious injuries are neither acceptable nor inevitable. The Vision Zero ambition is inextricably linked to the Healthy Streets approach, which puts human health and experience at the heart of city planning.
- 2.4.18 People face an even greater challenge to their health and wellbeing than that posed by traffic collisions. A lack of physical activity is now one of the biggest threats to our health, increasing the risk of developing a range of chronic diseases including diabetes, dementia, depression, heart disease and cancer. The Healthy Streets approach, alongside Vision Zero, seeks to tackle inactive lifestyles and encourage journeys to be made on foot or by cycle, in an environment that is conducive to these modes of travel.
- 2.4.19 The Action Plan goes on to detail strategies that target reducing the likelihood and severity of collisions, by lowering vehicle speeds and focusing action on the most dangerous locations, particularly junctions. In addition, the Action Plan employs a framework of interventions around five pillars of action, namely:

- (i) Safe speeds;

- (ii) Safe streets;
- (iii) Safe vehicles;
- (iv) Safe behaviours; and
- (v) Post-collision response.

2.4.20 It is acknowledged that those involved with designing, building, operating, managing and using our streets have a responsibility to reduce danger from road traffic. Within this TA the primary focus relates to safe speeds and safe streets on the highways that surround the site. Safe vehicles and safe behaviours are considered within the associated 'Travel Plan', 'Delivery and Servicing Management Plan', 'Waste Management Plan' and 'Construction Logistics Plan' documents, which have been submitted as part of the planning application as standalone documents but support the information presented within this TA.

2.4.21 The development plans incorporate reasonable measures within the design to reduce risk to people, particularly those on foot to prioritise pedestrians over vehicles and carefully designed surfaces and areas would ensure pedestrians and cyclists feel safe when travelling within the site. In doing so it is intended that the development will support TfL's Vision Zero Action Plan.

2.5 London Borough of Sutton Local Plan (2018)

2.5.1 The London Borough of Suttons Local Plan identifies needs and opportunities in the borough and guides decisions on future development proposals through until 2031. With particular relevance to our site and transport are the following policies:

Policy 4: Tramlink and Major Transport Proposals

2.5.2 The Council will work with Transport for London (TfL) and other stakeholders to deliver the following strategic improvements to the transport network and where necessary safeguard land to ensure the scheme(s) can be implemented:

"The construction of an extension of the existing Tramlink network to Sutton Town Centre and Belmont (the London Cancer Hub, Site Allocation LCH1). The council has identified a number of alternative alignments between the borough boundary with LB Merton and Sutton Town Centre which it will safeguard as shown on the Policies Map and in Maps 11.1 to 11.3 of the Plan. The council will work with TfL to identify a suitable route for a further tram extension from Sutton Town Centre to Belmont as shown on the Policies Map and Map 11.4."

"The enhancement of rail service frequencies and associated infrastructure improvements across the suburban rail network to provide a more metro style service (similar to the London Overground) and improve orbital rail connections between other South London centres."

"The construction of Crossrail 2 and any associated transport improvements that improve linkages to Sutton Town Centre and the London Cancer Hub."

The implementation of proposals such as the extension to the Tramlink, if they were to come forward, would be of significant benefit to the application site and Sutton town centre although the proposals are not reliant on such works coming forward and it is not clear whether these work would come forward.

Policy 35: Transport Proposals

- 2.5.3 Policy 35 outlines a number of policies which LBS has identified for highway improvements during the lifetime of this Plan. For Sutton town centre there are proposals to transform the existing gyratory system to make the roads less traffic dominated and more pedestrian and cycle friendly, including measures to encourage shared space, reassignment of priorities and landscape improvements.
- 2.5.4 RGP is unaware of the status of any of the above works or whether there is funding in place for these works to come forward in the future.

Policy 37: Parking

- 2.5.5 Policy 37 relates to car parking and is consistent with the London Plan standards in that it supports car-free proposals for sites in PTALs 5 or 6 as well as providing appropriate provision for disabled users and servicing needs.

3 SITE AND SURROUNDINGS

3.1 Site Location

3.1.1 The site is bound by the A232 Sutton Park Road which loops around the eastern and northern boundary of the site, Sutton Baptist Church on its eastern side and the shared service road with Morrisons to the south of the site. The site location is illustrated in **Figure 2**.

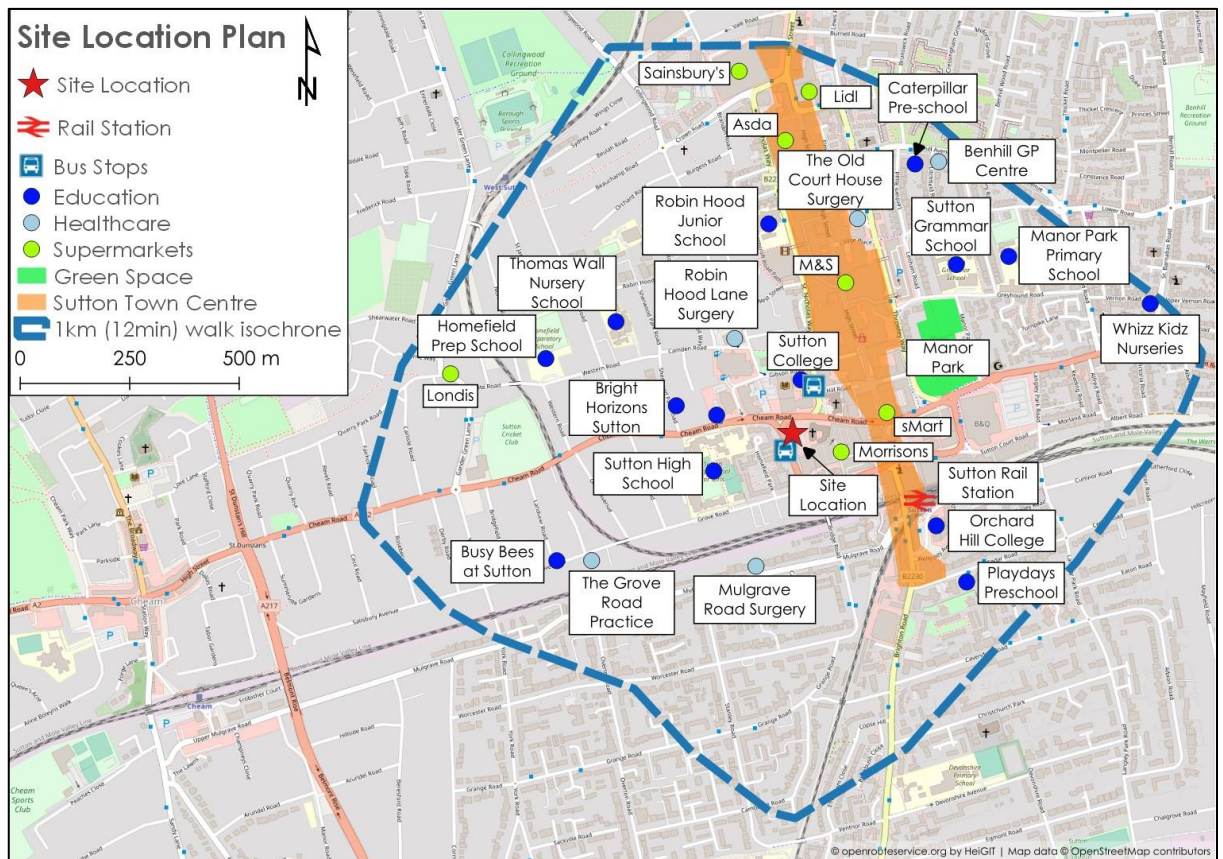


Figure 2 Site Location

3.1.2 Vehicular access to the site is provided from the eastern side of the A232 Sutton Park Road. The service road serves two loading bays associated with the Morrisons supermarket as well as a gated entrance to City House. The applicant has suitable rights of access over the access road.

3.1.3 There are also two additional points of pedestrian access from the site's northern boundary with the A232, providing a good level of permeability across the site.

3.1.4 The A232 Sutton Park Road forms part of Transport for London's Red Route Network (TLRN) with double red line markings located along both sides of the carriageway which prohibit stopping at any time.

3.1.5 The A232 Sutton Park Road provides a one-way route which operates in a clockwise direction through the town centre of Sutton. At the north-western corner of the site, the A232 gyratory meets via a signalised junction, facilitating access west towards the A217 and Cheam.

3.2 Access

3.2.1 Vehicular access to the site is provided from the eastern side of the A232 Sutton Park Road via a service road shared with the adjacent Morrisons, over which the applicant has suitable rights of access. Entry and egress from the site is provided via right turn only manoeuvres onto the A232. **Photographs 1 & 2** shows the existing site access.



Photograph's 1 and 2 **Site Access Arrangements**

3.3 Accessibility Credentials

3.3.1 In order to establish the potential for future end users (i.e. residents, staff and visitors) of the proposed development to travel by sustainable travel modes, in accordance with relevant national (The National Planning Policy Framework), regional (The London Plan) and local (LBS Local Plan) transport planning policy objectives, a review of the existing transport infrastructure and services within the vicinity of the site is provided within this section of the report.

3.3.2 Considering the site's highly accessible location, it is likely that public transport and 'active' modes of travel such as walking and cycling would form the principal mode of travel by all users to reach the site and to complete local trips during the day.

3.3.3 In order to gain an understanding of how journeys would be made to and from the proposed development by sustainable means of travel, a review of the existing provision of transport infrastructure and services has been undertaken.

Walking and Cycling

- 3.3.4 It is commonly accepted that walking and cycling can replace motorised transport for journeys of up to 2km and 5km respectively which are considered the preferred maximum distances as outlined in *Guidelines for Providing Journeys on Foot* (2000).
- 3.3.5 Walking and cycling play a vital role in healthy and active lifestyles and if convenient and safe links are available there is significant opportunity to reduce the need for local car trips, thus reducing the traffic volumes on the surrounding highway network. Over short distances, especially in urban areas such as Sutton, cycling is often quicker and cheaper than using a car and more flexible than public transport.
- 3.3.6 Figure 2 shows that the site is located in a highly accessible area with access to a multitude of amenities all within a 12-minute one way walking trip from the site, some amenities include but are not limited to: Sutton High Street, Sutton Rail Station, Manor Park and Robin Hood Lane Surgery.
- 3.3.7 The site benefits from an excellent standard of pedestrian infrastructure in the vicinity of the site which continue in the local area including to but not limited to the town centre of Sutton. The existing footways are wide (at least 2.0m) and appear well lit, as illustrated in Photographs 3 and 4.



Photograph's 3 and 4 **Footway Provision**

- 3.3.8 The existing access with the A232 – Sutton Park Road benefits from dropped kerbs and tactile paving on both sides of the junction to enhance pedestrian safety, as illustrated in **Photographs 3 and 4.**

3.3.9 There are a number of designated crossing points throughout the local area including at the north-western corner of the site and to the south-west of the site. Both feature wide pedestrian crossings with associated pedestrian infrastructure, as illustrated in **Photographs 5 and 6**.



Photographs 5 and 6 Local Crossing Points

3.3.10 The local highway network is considered conducive to on-road cycling, particularly for commuting journeys. **Figure 3** below shows the extent of cycle routes across the wider area of Sutton, full details of which are shown at **Appendix C**. As shown, there are no dedicated cycle lanes on the A232 gyratory, however the gyratory is one-way for vehicle traffic and provides connections to numerous dedicated cycle routes / lanes in the town centre. The Healthy Streets Check for Designers outlined later in this report also identifies many of the local roads as being safe and appropriate for on-road cycling owing to current traffic flows.



Figure 3 Sutton Cycle Guide

Bus

- 3.3.11 The nearest bus stop to the site is located on Sutton Park Road (Stop T) directly opposite the serving bus routes 151, 213, 413, 613 and 627, which provide a combined frequency of approximately 15 services per hour to a number of destinations such as Kingston, Worcester Park and Morden, for example. The bus stop is accessible via the pedestrian crossing located on Sutton Park Road.
- 3.3.12 Furthermore, additional bus services can be accessed from the Sutton Civic Centre (Stop V) bus stop located just to the north of the site on St Nicholas Way. This stop is served by bus routes 80, 151, 164, 213, 280, 407, 413, 420, 470, 613, N44, S1, S3 and S4.
- 3.3.13 A detailed summary of the bus services that can be accessed from these stops, is illustrated below in **Figure 4**.

Route Summary	Typical Frequency	Hours of operation
80: Downview and Highdown Prisons –Sutton Civic Centre –Reynolds Close	Mon-Fri: Every 6-10 mins Sat: Every 7-10 mins Sun: Every 14-15 mins	Mon-Fri: 04:55-01:05 Sat: 04:56-01:05 Sun: 06:41-01:05
151: Worcester Park Station - Shotfield	Mon-Fri: Every 8-12 mins Sat: Every 9-13 mins Sun: Every 19-22 mins	Mon-Fri: 05:46-00:38 Sat: 05:45-00:40 Sun: 06:25-00:38
164: Sutton Station – Francis Grove	Mon-Sat: every 9-11 mins Sun: Every 15 mins	Mon-Sun: 04:41-01:07
213: Fairfield Bus Station - Sutton Bus Garage	Mon-Fri: every 7-12 mins Sat: Every 8-12 mins Sun: Every 11-13 mins	Mon-Sun: 24 hrs service
280: Belmont Station/Brighton Road – Blackshaw Road	Mon-Fri: Every 8-12 mins Sat: Every 9-12 mins Sun: Every 10-12 mins	Mon-Fri: 05:11-00:27 Sat and Sun: 05:10-00:27
407: Caterham Valley Station –Sutton/Marshall's Road	Mon-Fri: Every 9-12 mins Sat: every 11-14 mins Sun: every 20 mins	Mon-Fri: 05:56-01:28 Sat: 05:47-01:28 Sun: 07:52-01:28
413: Sutton Bus Garage – Morden Tube Station	Mon-Sat: Every 15 mins Sun: Every 30 mins	Mon-Fri: 05:21-01:00 Sat: 05:21-01:01 Sun: 06:56-01:00
420: Crawley Bus Station - Sutton Bus Garage	Mon-Fri: hourly Sat: Hourly Sun: Every 2 hrs	Mon-Fri: 06:45-19:40 Sat: 07:25-19:03 Sun: 09:34-17:33
470: Epsom Clock Tower – Colliers Wood Tube Station	Mon-Sat: Every 30 mins	Mon-Sat: 06:44-20:54
N44: Sutton Station/The Quadrant– Aldwych/Drury Lane	Mon-Fri morning: roughly every 30 mins Sat and Sun morning: every 30 mins	Mon-Fri morning: 00:37-04:38 Sat and Sun morning: 00:38-04:38
S1: Banstead/M&S –Victoria Road/Lavender Fields	Mon-Sat: Every 15 mins Sun: Every 20 mins	Mon-Fri: 05:39-00:02 Sat: 05:38-00:03 Sun: 06:59-00:03
S3: Belmont Station – Malden Manor Station	Mon-Sat: every 20 mins	Mon-Fri: 06:17-21:36 Sat: 06:26-21:36
S4: Wilson's School – St Helier Station	Mon-Fri: Roughly every 30 mins Sat: Every 30 mins	Mon-Fri: 06:41-00:37 Sat: 06:37-00:37

Figure 4 Sutton Civic Centre Bus Stop Services

3.3.14 As summarised, a high frequency of services to an extensive range of destinations is available from within close proximity of the site, including a 24-hour services. These bus stops would provide convenient services for residents, staff and visitors travelling to and from the site to a range of destinations throughout Sutton and across south London.

Sutton Train Station

- 3.3.15 Sutton Rail Station is located approximately 370 metres (a circa 5 minute walk) to the south-east of the site and is directly accessible on-foot via the existing footways. Sutton Station is served by both Southern and Thameslink and a range of destinations can be reached from here including London Victoria, London Bridge, Clapham Junction, Dorking, Epsom and locations further afield such as St Albans City.
- 3.3.16 **Figure 5** summarises the rail services from Sutton, full details of which can be found at: www.nationalrail.co.uk.

Destination	Typical Frequency	Typical duration
London Victoria	4 trains per hour	48 mins
London Bridge	2 trains per hour	32 minutes
St Albans City	4 trains per hour	1 hour 21-33 minutes
Epsom	2 trains per hour	10 minutes
Epsom Downs	2 trains per hour	10 minutes
Dorking	2 trains per hour	27 minutes

Figure 5 Local Rail Services

- 3.3.17 As demonstrated, frequent and desirable rail services are available within short walking distance of the site where a number of destinations across London and the south-east can be accessed directly, including larger interchanges such as London Victoria which facilitate access to a number of destinations across the UK.

3.4 PTAL Assessment

- 3.4.1 To assess the Public Transport Accessibility Level (PTAL) available at the development site, RGP has considered the assessment undertaken by Web-CAT which is a web-based Connectivity Assessment Toolkit. The results of the PTAL assessment for the site, based on TfL's online tool, are attached hereto at **Appendix B** which suggests that the site has an Accessibility Index of 33.53, which corresponds to a PTAL rating of 6a.
- 3.4.2 This reflects sites with excellent accessibility to the public transport network which would be suitable to accommodate ones daily travel needs.

3.5 Car Club Schemes

- 3.5.1 Car clubs allow users to become members with a company offering a scheme that provides access to cars and vans in local communities. Car club vehicles can be found in designated parking bays in many towns and cities across the UK and offer a potential travel option that residents may choose for some trips when the use of the car is essential, reducing the need to own a private car.
- 3.5.2 As shown in **Figure 6**, 3 car club vehicles are located within a 2 kilometre radius of the site operated by Zipcar which could be conveniently utilised by any residents when needed.

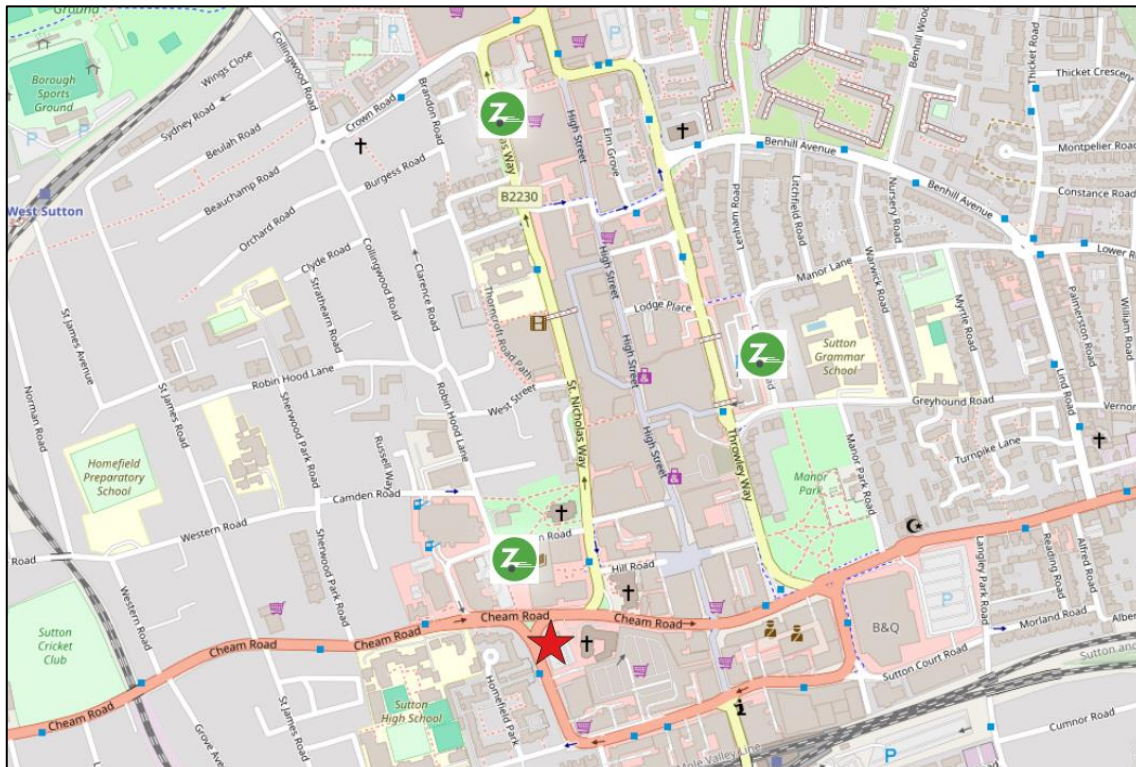


Figure 6 Zipcar Locations

3.6 Summary

3.6.1 RGP considers that the accessibility credentials of the proposed site are of an excellent standard, as highlighted by the site's access to frequent and convenient public transport services locally and the proximity of Sutton town centre via active modes, providing residents and staff with numerous opportunities to travel by sustainable modes and reducing the need to travel away from the site by car.

4 ACTIVE TRAVEL ZONE ASSESSMENT

4.1 Preface

4.1.1 The purpose of an Active Travel Zone (ATZ) assessment is to establish what transport connections and local amenities would be accessible to future residents and staff to establish whether these facilities would be sufficient for people to access the site by means other than by private car.

4.2 Study Area

4.2.1 An Active Travel Zone Assessment has been carried out with the accompanying ATZ Maps 1-3 attached at **Appendix D** of this Transport Assessment which have been summarised below.

ATZ Map 1

4.2.2 Using WebCAT cycle journey information, ATZ Map 1 indicates the destinations which can be reached within a 20-minute cycle journey from the site.

4.2.3 There are a number of rail and London underground stations which are also included within the 20minute cycle cordon, whilst a number of bus stops and retail centres are also accessible from the site.

ATZ Map 2

4.2.4 ATZ Map 2 indicates a re-mapped area which has identified 5 key destinations as follows:

- (i) Collingwood Road Recreation Ground;
- (ii) Sutton High School;
- (iii) Sutton Civic Centre Bus Stop;
- (iv) Sutton Town Centre / High Street; and
- (v) Sutton Rail Station.

4.2.5 The TfL guidance with regard to an ATZ assessment identifies the need to include between 3-6 key destinations which have been considered as outlined above. These destinations have the potential to provide key routes to / from the site.

4.2.6 The route used to Sutton High School and the bus stops on Sutton Park Road for example is the same for pedestrians and therefore this route, amongst other routes / facilities have been assessed as one key destination to avoid repetition.

4.2.7 Accidents classified as Serious/Fatal have also been included on Map 2, which do not indicate any clusters of accidents on the local highway network in the immediate vicinity of the site (i.e. 1 fatal and/or 2 serious accidents of a similar nature and in the vicinity of one another). A detailed accident review has been undertaken in Section 4.4 below.

ATZ Map 3

4.2.8 Each of the healthy neighbourhood characteristics have been outlined on Map 3 and have been discussed in more detail below.

Public Transport Density

4.2.9 As identified in Section 3 above, there are extensive bus services accessible from within short walking distance of the site, including separate bus stops on Sutton Park Road and the Civic Centre bus stops. These buses provide a combined frequency of approximately 60 buses per hour to a number of destinations across Sutton and south London.

4.2.10 These include frequent night bus services which are not included within the PTAL evaluation but would offer transport services during the night-time for residents and staff.

4.2.11 The site also lies within short walking distance of Sutton station which is directly accessible to/from the site on-foot via the excellent footway provision.

Green Space

4.2.12 As shown on ATZ Map 3, the site lies within proximity of various areas of green space which are directly accessible on-foot. This includes Sutton Cricket Ground, Collingwood Road Recreational Ground, Manor Park and The Warren, for example.

Street Density

4.2.13 The site lies within a densely populated area within the centre of Sutton where all major amenities can be accessed safely and conveniently via the existing network of pedestrian and cycle infrastructure.

4.3 ATZ Neighbourhood Photography

4.3.1 A summary report for the Point of View (POV) Photographs relating to the routes to the 5 key destinations identified above is attached hereto at **Appendix E**. A review of the key routes has been undertaken based on site visits undertaken by RGP during the daytime.

4.3.2 The POV photograph assessment attached hereto at **Appendix E** demonstrates that these routes are all accessible via the network of pedestrian footways which continue throughout the local area. There are also generally very good quality crossing facilities provided to enable pedestrians to access a broad range of facilities, services and amenities within the town centre of Sutton.

4.3.3 In line with the requirements of TfL, the summary report also identifies the worst part of each route and identifies possible opportunities for improvement. However, overall the current facilities are shown to be of a good quality and suitable to serve the proposed development. Therefore, it is not considered necessary to implement any improvements at this time in order to mitigate the development proposals.

4.4 Accident Analysis within the ATZ

4.4.1 Accident data for the most recent 5 year period up to 2023 has been reviewed using data obtained from TfL's London Collision Map and Crash Map in order to identify any pattern or cluster of accidents on the local highway network in the vicinity of the site.

4.4.2 The area of study within the ATZ comprises the local highway network in the immediate vicinity of the site, including the A232 gyratory. Given that the proposals would operate as a car-free development (except for only two disabled bays) it is reasonable to consider the immediate area only. In addition, all vehicles would be required to access the site via the A232 to the south and egress to the north only, owing to the one-way restrictions around the gyratory.

4.4.3 It is notable that an accident cluster or accident pattern is defined by TfL as comprising 1 fatality and/or 2 serious accidents of a similar nature in the same location, which would warrant further consideration according to TfL.

4.4.4 As shown on ATZ Map 02 attached at **Appendix D**, a total of 5 serious accidents have taken place on the A232 gyratory over a five year period (i.e. 1.0 accidents per year on average), which is not material. The accident review confirms that three accidents took place in close proximity to one another which have been reviewed in further detail below to understand whether they took place in the same location, whilst all other serious accidents took place at different locations on the gyratory which do not constitute an accident pattern or accident cluster, as defined by TfL.

4.4.5 One serious accident took place at the junction of the A232 with High Street in July 2019 and involved a collision between a bus going ahead and a pedestrian who was crossing at the junction at the recognised pedestrian crossing facility. The accident is therefore attributed to driver error with the driver evidently failing to stop safely at the signals. A second serious accident took place in December 2020 in a similar location and involved a collision between a car who was in the act of changing lanes (going ahead) and a pedestrian who was crossing at the pedestrian crossing facility. It is not clear who attempted to contravene the traffic signals however this accident can be attributed to pedestrian or driver error.

- 4.4.6 Whilst both of these accidents took place in a similar location (i.e. going ahead on the A232 at the signals with High Street), these accidents took place in different years across the five year study period and took place at different times of the year which does not constitute an accident pattern. It is also notable that these accidents took place in 2019 and 2020 respectively, with no accidents of this nature taking place at the junction since that time i.e. none within the last 3 years.
- 4.4.7 The other serious accident in this locality took place on the left hand bend at the corner of the junction of Sutton Court Road and High Street and therefore took place in a different location to the two accidents outlined above. The vehicle was proceeding towards the bend and collided with an elderly pedestrian crossing the carriageway. This accident can be attributed to pedestrian or driver error as it appears the pedestrian attempted to cross without looking properly or the driver contravened the traffic signal.
- 4.4.8 The junction of the A232 with High Street links the town centre / Sutton High Street with Sutton rail station and therefore provides a busy through route for pedestrian traffic. Each serious accident also comprises varying elements of driver or pedestrian error causation factors and do not present any underlying road safety issues. The RGP accident rate calculation assessment, attached hereto at **Appendix F** (using formulas and algorithms taken from 'DMRB, Volume 13, Section 1, Part 2, Chapter 5 Table 5/1: Junction Accident Parameters - 1997 Base') demonstrates that for a junction with an AADT of 15,568 (based on DfT 2021 traffic count reference: 75329), one would expect an annual average of 1.19 accidents per year at the signalised junction of the A232 with High Street and as such the recorded annual average accident rate over the five years (0.60 per year) is well below that average.
- 4.4.9 Of the other serious accidents on the A232, one serious accident took place in close proximity to the junction of the A232 with Grove Road when a driver hit the kerb. No other casualties were involved. It is not clear whether the driver was driving with excessive speed before turning into Grove Road, however the accident is attributed to driver error and no other accidents of this nature have taken place in this location over the last five year period.
- 4.4.10 The remaining serious accident took place on Cheam Road and involved a collision between a car and pedestrian who attempted to cross the carriageway away from a recognised crossing point. Of note, there is a signalised pedestrian crossing point approximately 20 metres from where the incident appears to have taken place and therefore this accident is attributed to pedestrian error.
- 4.4.11 Overall, whilst all accidents are indeed regrettable, there are evidently no accident patterns or clusters which present any underlying issues with the design or layout of the local highway network. Furthermore, the rate of accidents locally would not be exacerbated by the proposals given that the development would operate as a car-free scheme, except for disabled parking.

4.5 TfL Healthy Streets Check for Designers

- 4.5.1 The TfL Healthy Streets approach holds the aspiration for London's streets to "be welcoming places for everyone to walk, spend time and engage in community life" and "make streets easier to cross". The importance of the Healthy Streets approach is fully recognised within the London Plan (adopted 2021) and the 10 TfL Healthy Streets Indicators are illustrated in **Figure 7** below.



Figure 7 10 TfL Healthy Streets Indicators

4.5.2 **Appendix G** provides a critique of the walking routes in the immediate vicinity of the site on the A232, undertaken with reference to the 10 TfL Healthy Streets indicators. The results of the Healthy Streets Check for Designers are presented in **Figure 10**, full details of which is attached at **Appendix G**.

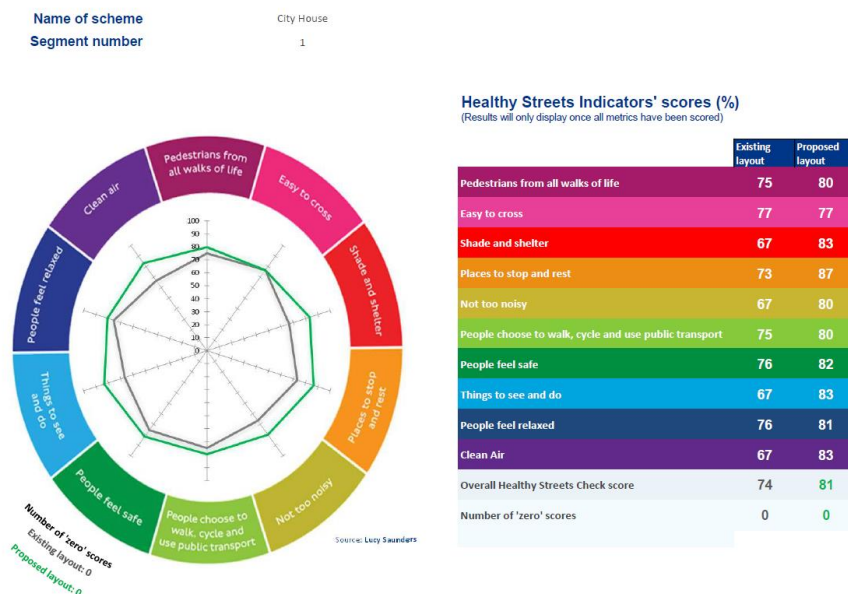


Figure 8 Healthy Streets Check for Designers Scores for the A232

4.5.3 The results of the Healthy Streets Check for Designers demonstrate that the A232 exhibits the features required as part of the Healthy Streets toolkit.

5 PROPOSED DEVELOPMENT

5.1 Access

5.1.1 Vehicular access to the site would be retained from the shared service road in a similar manner to the existing site. The site would also retain a good level of permeability with pedestrian and cycle access also retained to the north of the application site to/from Cheam Road and Sutton Park Road. Further details regarding the proposed access arrangements via car and non-car modes is outlined in this section of the report.

5.2 Car Parking

5.2.1 Residential car parking standards in relation to the site are detailed at Table 10.3 of the London Plan (2021) which indicates that all sites in a PTAL 6 should be car-free, which is applicable to the site.

5.2.2 The residential proposals would therefore lend itself to a car-free development, particularly when one considers the town centre location of the site and the wide range of public transport, amenities and services available, as outlined in Sections 3 and 4 above, which cater for the detail travel needs of residents. It is also important to recognise that the pedestrian infrastructure is of a high standard in the vicinity of the site, making conditions for travel by active modes particularly good, as highlighted by the POV Photography assessment and Healthy Streets assessment. Therefore, no car parking provision would be provided on the site, except for disabled parking, in accordance with the above guidance.

5.2.3 Parking standards pertaining to the proposed office space are detailed at Policy T6.2 of the London Plan. Policy T6.2(B) states that:

"In well-connected parts of outer London, including town centres, in close proximity to stations and in Opportunity Areas, office developments are encouraged to be car-free".

5.2.4 The proposed commercial space would therefore also support a car-free development, in line with the above parking policy.

5.3 Disabled Access

5.3.1 With regard to residential disabled parking, the London Plan 2021 requires dedicated blue badge holder parking to be provided from the outset at 3% of the total number of dwellings as a minimum. Based on the number of units proposed (70 units), the site would generate a requirement for 2 disabled parking bays. The proposed scheme would provide two disabled car parking spaces on-site, as shown on the proposed site plan at **Appendix A**.

5.3.2 Both spaces would be capable of accommodating electric vehicle charging provision, in accordance with Policy T6.1 of the London Plan which states that *"at least 20 per cent of spaces should have active charging facilities, with passive provision for all remaining spaces"*.

- 5.3.3 The London Plan identifies the need to provide a further 7% of spaces for blue badge holders in the future, should demand require, i.e. 10% in total, however the site footprint is quite constrained and subsequently it is not possible to provide additional disabled parking provision on-site without fundamentally altering the design of the scheme. The site also lies adjacent to a TfL red route where there would be limited scope to provide any additional parking on-street, for example.
- 5.3.4 However, it is important to recognise that the site lies within the town centre of Sutton where there are a number of publicly available car parks which benefit from step-free access and which could be conveniently utilised by any blue badge holders. This includes the Gibson Road multi-storey which operates 24/7 and benefits from 9 disabled spaces, whilst the Morrisons car park also benefits from a disabled parking allocation, both of which lie within 200 metres of the site and would be suitable to accommodate any additional disabled parking needs.
- 5.3.5 There are dedicated parking bays located within the lay-by on the A232 Grove Road (on the southern section of the gyratory) within 150 metres of the site. Blue badge holders can park in any of these bays as follows as long as a valid blue badge is displayed, in accordance with TfL's Blue Badge Holder Red Route Guidance:
- (i) x2 Short stay bays: Mon-Sat 7am-7pm without time limit (and anytime overnight);
 - (ii) x1 Disabled bay: Mon-Sat 7am-7pm without time limit (and anytime overnight);
 - (iii) Loading bay: Mon-Sat 7am-7pm up to 3 hours (and anytime overnight).
- 5.3.6 The site is also highly accessible by public transport and it is important to consider whether the existing public transport network is suitable to enable residents or staff to travel to/from the site without the need for a car. All TfL London bus routes are step-free and have been designed to cater for all users, as follows:
- (i) All London bus routes operate low floor vehicles;
 - (ii) All London buses have the ability to be lowered level with the kerb;
 - (iii) All London buses have at least one wheelchair space on board;
 - (iv) All bus routes contain access ramps to enable customers to enter or egress the bus safely to/from the street.
- 5.3.7 This provision outlined above along with the convenient location of the bus stops (i.e. within 150 metres of the site) and high frequency of bus services (i.e. 60 per hour combined) would enable disabled staff or residents to access the site safely by bus without the need to travel by car.
- 5.3.8 In addition, Sutton Rail Station (and most other mainline rail stations in the area) benefit from step-free access between the platform and street and lie within walking distance of the application site.
- 5.3.9 On the basis of the above analysis, the site is ideally located to ensure that any disabled users of the site are able to reach the site by public transport without the need for a car, however suitable car parking for disabled users has been identified within the immediate area.

5.3.10 RGP has also undertaken a review of other planning applications in the local area to understand other approved or pending levels of residential car parking in similar high PTAL locations. It is notable that planning application: DM2020/01573 at Throwley Way was approved in 2021 with zero car parking including zero on-site disabled parking. That scheme also identified that there is suitable disabled parking on-street in the local area which was considered acceptable to LBS and TfL.

5.4 Cycle Parking and Access

5.4.1 The cycle parking standards outlined within the London Plan 2021 provide the relevant cycle parking standards for the site and have been considered for the proposals.

London Plan Cycle Parking Standards		
Use Class	Cycle Parking Standards	
	Long Stay	Short Stay
Office	<ul style="list-style-type: none"> 1 space per 75 sqm 	<ul style="list-style-type: none"> 1 space per 500 sqm
C3 Residential	<ul style="list-style-type: none"> 1 space per studio or 1 person 1 bed unit 1.5 spaces per 2-person 1 bed unit 2 spaces per all other units 	<ul style="list-style-type: none"> 5 to 40 dwellings: 2 spaces Thereafter: 1 space per 40 dwellings

Figure 9 London Plan Residential Cycle Standards

5.4.2 Based on the mix of residential units currently proposed, a total of 138 cycle parking spaces would be required to comply with the London Plan 2021 standards (135 long stay and 3 short stay).

5.4.3 With regard to the commercial space (220 sqm of office space), approximately 5 cycle parking spaces would be required to comply with the London Plan 2021 standards (4 long stay and 1 short stay).

5.4.4 The long stay cycle parking for the different uses would be standalone, providing cycle parking above the minimum required by the London Plan. The proposed cycle parking form and mix would seek to comply with the best practice guidance applied by London Cycle Design Standards (LCDS). Cycle storage would comprise a mix of two-tier cycle racks (up to 80%) and Sheffield stands (20%), with at least 5% of spaces suitable to accommodate larger bicycles, as shown on the proposed site plan at **Appendix A**. All bicycles would be made accessible at ground floor level.

5.4.5 The proposals also provide 8 short stay spaces in accessible locations outside the building within the landscaped areas which is above London Plan requirements to encourage active travel and support the low parking provision.

5.5 Deliveries and Servicing Arrangements

5.5.1 A separate Delivery and Servicing Management Plan (DSMP) setting out how deliveries and servicing would be managed at the site on a day-to-day basis has been prepared to accompany this planning application and it is therefore recommended that these two reports are read in conjunction. A standalone Waste Management Plan has also been prepared to accompany this planning application.

Existing Office Use

5.5.2 The site entrance is currently gated and it is understood that most delivery and servicing activity associated with the existing site currently takes place from the shared service road to the south of the site. Some smaller transit type deliveries can be undertaken on the site once permitted through the telecom system, although in practice most vehicles currently wait on the service road.

5.5.3 To understand the likely level of deliveries associated with the existing office space, the TRICS data used as part of the trip generation assessment later in this report has been interrogated. Based on the TRICS assessment outputs, it is evident that the existing office could generate up to 1 delivery vehicle arrival per day.

5.5.4 Most office deliveries are generally undertaken by transit type vans comprising deliveries of office equipment and supplies as well as a weekly refuse service which are accommodated on the shared service road.

Morrisons

5.5.5 As discussed, the service road is shared with the adjacent Morrisons supermarket which benefits from two roller shutter service bays whereby vehicles currently reverse off Sutton Park Road into the service yard and into part of the building for servicing needs.

5.5.6 As illustrated in **photograph 7** below, from RGP's on-site observations and based on the applicant's day to day observations of Morrisons delivery activity, the southern loading bay (right) is utilised for all day-to-day delivery and servicing needs whilst the northern bay (left) is used for the storage of bins and goods only.



Photograph 7: Service Yard

- 5.5.7 In order to establish the existing level of occupancy and usage of the Morrisons loading bays, RGP commissioned an independent professional traffic survey company, Modal Data Ltd, to conduct a survey of the loading bays for a 24 hour period between Wednesday 6th December and Thursday 7th December 2023, which represented a neutral weekday period of activity. It is also notable that December is typically a time where supermarkets such as Morrisons experience the highest demand for deliveries during the Christmas period and therefore the results are considered particularly robust.
- 5.5.8 Full results from the loading bay survey are attached hereto at **Appendix H** and are discussed below. **Figure 5.1** below summarises the results of the loading bay survey which are presented in 30 minute time segments for ease of presenting the results.

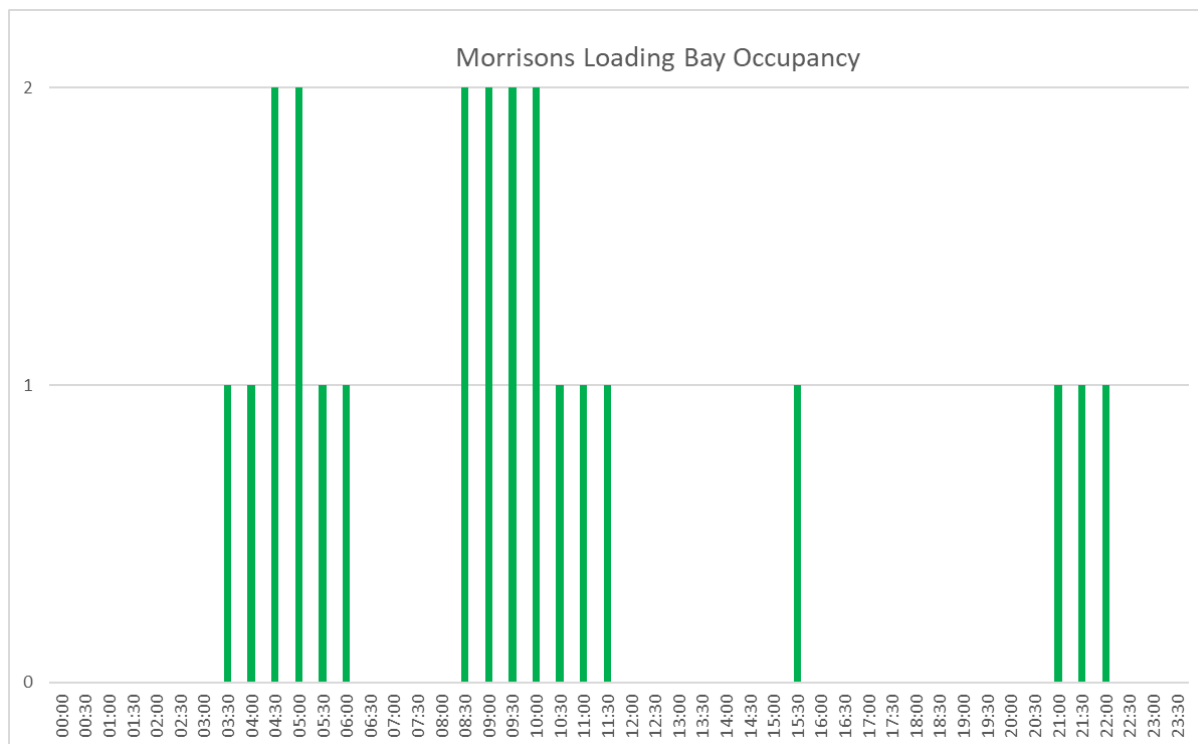


Figure 5.1: Summary of Morrisons Loading Bay Occupancy

- 5.5.9 The Morrisons loading bays (and the service yard) were moderately used over the course of a typical weekday with 11 observed deliveries across a 24 hour period. The loading bays were used for a total of 6 hours and 17 minutes across a 24 hour period, equivalent to a 26% occupancy, which is not significant. Throughout the remainder of the survey period the loading bays were unoccupied (i.e. 74%).
- 5.5.10 Most deliveries occurred throughout the early morning period with minimal activity taking place during the afternoon and evening.
- 5.5.11 As shown in **Figure 5.1** above (attached at **Appendix H**), there were no more than two deliveries observed on the service yard at any given time, which used the same loading bay each time, which is consistent with RGP's and the applicant's on-site observations. The northern loading bay was not used throughout the survey period.
- 5.5.12 There were three separate occasions where the loading bay was occupied by two vehicles at the same time, parking side by side in the service yard, without restricting access onto the service yard from the A232 or into the application site. The simultaneous deliveries lasted for up to 33 minutes as a worst case, although most simultaneous deliveries lasted for 5-10 minutes only. The service yard was only occupied by two vehicles for a total of 59 minutes across the entire survey. The majority of loading activity (i.e. 5 hrs 16 mins) comprised one vehicle loading/unloading at a time.
- 5.5.13 RGP has also undertaken extensive research of other Morrisons developments/planning applications to understand the likely frequency of delivery and servicing vehicles to other sites in order to validate the above survey data, including planning applications in Camden, Clacton on Sea and Hillingdon for example. These developments are all served by HGVs up to 16.5 long and generate up to 8 deliveries per day, which is very comparable to above survey results and further highlights its robustness.

5.5.14 It is therefore evident that the Morrisons loading bays are moderately used over the course of a typical day but retain significant spare capacity on the service yard. The Morrisons loading activity has been demonstrated through the survey to offer minimal impact on the operation of the application site.

5.6 Proposed Delivery and Servicing Arrangements

Overview

5.6.1 As part of the proposals a dedicated delivery bay would be provided on the site to enable a typical goods online delivery van to access the site in a forward gear, turn around on the site and egress the site in a forward gear, as illustrated on **Drawing 2022/6805/001** attached.

5.6.2 The residential units would typically generate deliveries of an ad-hoc nature, such as general postal services and occasional supermarket or other internet-based deliveries, for example. The vast majority of deliveries to the residential units would be carried out using 3.5t 'sprinter' or transit vans, which would be comfortably accommodated on the site.

5.6.3 Refuse collection for the site would continue to be undertaken on the service yard outside the site frontage in the same manner as the existing and established servicing arrangement for City House. A refuse vehicle would simply service the development in the same way it would service the office use currently without highway safety issue.

Residential Deliveries

5.6.4 To understand the likely frequency of deliveries made to the residential units, reference is made to RGP's Study of Household Deliveries for residential developments In London. The study was carried out during 2022 and comprises detailed delivery / servicing data obtained from two large-scale residential developments in Outer London, collected independently for the purposes of the study.

5.6.5 It is recognised that residential delivery habits have changed since the Covid-19 pandemic and therefore the above study reflects residential delivery habits in a post-covid situation.

5.6.6 The study results indicate a range of key aspects pertaining to the delivery of household goods, including the frequency, duration of loading, size of delivery vehicle, the type of goods / trip purpose and the timings of deliveries. This methodology therefore provides a more considered approach when compared to the traditional application of TRICS data alone, as TRICS surveys offer only the observed frequency of arrivals and departures.

5.6.7 The detailed results were subsequently used to develop a delivery calculator tool, representing a practical means to determine the frequency of household deliveries and the duration of stay required to complete loading activity. A summary of this study is attached hereto at **Appendix I** whilst the calculator outputs can be provided upon request. Based on this data the proposed residential development at City House is anticipated to generate up to 10 deliveries per day, all of which would be undertaken by LGVs as confirmed by the study, which would be comfortably accommodated on-site.

- 5.6.8 RGP's study of household deliveries identifies that the proposals would generate a total duration of approximately 67 minutes per day to complete all associated activity from the point of arrival to departure from the site (i.e. 6-7 minutes per delivery). This represents an average, including the occasional larger supermarket deliveries which take longer to unload, however the majority of deliveries comprise smaller courier services which generally require only a few minutes to complete.
- 5.6.9 For robustness, the TRICS database has also been reviewed in order to validate this study data. Based on the TRICS assessment outputs used as part of the Transport Assessment, it is evident that the proposals could generate up to 3 delivery vehicle arrivals per day, however, as outlined previously this does not fully take account of a post-covid situation and therefore a new TRICS assessment using the same parameters has been undertaken using comparable private flatted sites between 2020-2023 only. Full TRICS outputs from this assessment are also attached hereto at **Appendix I**, which indicate a two-way delivery vehicle trip rate of 0.315 per day. When factored to reflect 70 units, the proposals are anticipated to generate a total of 12 deliveries per day, which is very comparable to the above RGP delivery study and further highlights its reliability.
- 5.6.10 As is the typical delivery profile, these deliveries would not all arrival simultaneously but sporadically throughout the daytime period and therefore the provision of one delivery bay on the site is considered appropriate for a development of this scale and would prevent the need for any delivery vehicles to stop on the service yard.
- 5.6.11 In terms of servicing frequencies, LBS typically provide 1 refuse collection service per week.

Office Deliveries

- 5.6.12 Using the office trip rates outlined previously and in Section 6 of this report, the proposed office space comprising 220 sqm could generate up to 1 delivery per day, which would be comfortably accommodated on the site.

5.7 Total Deliveries and Impact Assessment

- 5.7.1 On the basis of the above analysis, the proposed development is anticipated to generate approximately 11 delivery vehicle visits per day, which is not significant. The RGP delivery study also confirms that most residential deliveries take up to 7 minutes to complete, equivalent to an occupancy of 67 minutes within the loading bay over the course of a typical weekday. Therefore, the provision of one delivery bay would be sufficient to accommodate all delivery demands (given that these do not typically occur at the same time but sporadically throughout the daytime), whilst also retaining significant spare capacity throughout the day-time to accommodate any increased demand.
- 5.7.2 It is also evident from the above analysis that the proposed development would offer a reduction in the level of delivery activity taking place on the service yard when compared with the existing office use, with only refuse collection and very infrequent larger deliveries (which are not typical of residential developments) taking place on the service yard.

- 5.7.3 **Drawing 2022/6805/002**, attached hereto, provides a swept path assessment of a large 10.7m refuse vehicle which is used by LBS, demonstrating that an LBS refuse vehicle can turn around on the service yard safely and conveniently, even during the rare occasions when the Morrisons loading bays are occupied by two vehicles. As indicated by the survey, during some occasions vehicles were observed to park side by side on the service yard which is reflected on the attached drawing as a worst case scenario. It also confirms that a refuse vehicle and a car can pass one another simultaneously at the site access safely.
- 5.7.4 The proposals would therefore offer an improvement in terms of the potential impact on and the relationship with the Morrisons servicing needs.

6 EXISTING TRIP GENERATION

6.1.1 A trip generation assessment has been undertaken to understand the existing trip generation for the site using the industry standard Trip Rate Information Computer System (TRICS). The TRICS database has therefore been interrogated to identify similar sites to the existing office space, as based on the following selection criteria:

- (i) Use Class: Office (B1);
- (ii) Regions: Greater London only;
- (iii) PTAL: 4-6;
- (iv) Survey days: Monday to Friday;
- (v) Floor space: 100 – 5000sqm;

6.1.2 Full TRICS outputs from the multi-modal assessment are attached at **Appendix J**, whilst the peak hour and daily TRICS person trip rates and the subsequent trip generation factored to reflect 1,117 sqm, is summarised in **Figure 10**.

Existing Office Trip Rate per sqn	Total People		Vehicles		Goods vehicles		Car Passengers		Cycle		Pedestrians		Public Transport	
	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.
AM Peak (08:00 - 09:00)	2.848	0.279	0.136	0.045	0.000	0.000	0.019	0.000	0.084	0.000	0.513	0.162	2.096	0.084
PM Peak (17:00 - 18:00)	0.370	3.069	0.097	0.208	0.000	0.000	0.02	0.065	0.006	0.097	0.208	0.545	0.039	2.154
Daily (07:00-19:00)	16.343	15.663	1.290	1.258	0.013	0.013	0.268	0.248	0.380	0.272	7.416	7.494	6.976	6.378
Existing Office Traffic Generation (1,117 sqm)														
AM Peak (08:00 - 09:00)	32	3	2	1	0	0	0	0	1	0	6	2	23	1
PM Peak (17:00 - 18:00)	4	34	1	2	0	0	0	1	0	1	2	6	0	24
Daily (07:00-19:00)	183	175	14	14	0	0	3	3	4	3	83	84	78	71

Figure 10 Existing Office Trip Generation

7 PROPOSED TRIP GENERATION

7.1 Residential

7.1.1 A trip generation assessment has been undertaken to understand the proposed trip generation for the site using the industry standard Trip Rate Information Computer System (TRICS). The TRICS database has therefore been interrogated to identify similar sites to the proposed residential development, as based on the following selection criteria:

- (i) Use Class: Private flats only (C3);
- (ii) Regions: Greater London only;
- (iii) PTAL: 4-6;
- (iv) Survey days: Monday to Friday;
- (v) Number of units: 20 – 200;

7.1.2 The proposed development would be car free, except for two disabled parking bays and therefore it is appropriate to adjust the modal split for vehicles (see **Appendix J**) to reflect up to 5% of all trips only (i.e. disabled users, taxis, etc), given that car usage would be very low. The remaining trips have been redistributed accordingly across other modes. **Figure 11** below presents the multi-modal trip generation associated with the proposed 70 units.

Proposed Flats Trip Rate per unit	Total People		Vehicles		Goods vehicles		Car Passengers		Cycle		Pedestrians		Public Transport	
	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.
AM Peak (08:00 - 09:00)	0.087	0.525	0.004	0.026	0.001	0.002	0.000	0.037	0.000	0.010	0.056	0.171	0.027	0.279
PM Peak (17:00 - 18:00)	0.293	0.166	0.015	0.008	0.000	0.000	0.019	0.015	0.004	0.001	0.133	0.092	0.123	0.050
Daily (07:00- 19:00)	2.540	2.640	0.127	0.132	0.017	0.030	0.094	0.059	0.052	0.049	1.142	1.192	1.108	1.178
Proposed Flats Traffic Generation (70 units)														
AM Peak (08:00 - 09:00)	6	37	0	2	0	0	0	3	0	1	4	12	2	19
PM Peak (17:00 - 18:00)	21	12	1	1	0	0	1	1	0	0	9	6	9	4
Daily (07:00- 19:00)	178	185	9	9	1	2	7	4	4	3	80	83	78	82

Figure 11 Proposed Development Trip Generation – 70 units

7.2 Proposed Office

7.2.1 The proposals would re-provide 220 sqm of office space at ground floor level. The TRICS trip rates set out above in **Figure 10** have therefore been re-applied to the retained office space at the site. **Figure 12** below presents the trip generation associate with the proposed office space.

Proposed Office Traffic Generation (220 sqm)	Total People		Vehicles		Goods vehicles		Car Passengers		Cycle		Pedestrians		Public Transport	
	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.
AM Peak (08:00 - 09:00)	6	1	0	0	0	0	0	0	0	0	1	0	5	0
PM Peak (17:00 - 18:00)	1	7	0	0	0	0	0	0	0	0	0	1	0	5
Daily (07:00-19:00)	36	34	3	3	0	0	1	1	1	1	16	16	15	14

Figure 12 Proposed Office Trip Generation – 220 sqm.

7.3 Total Proposed Trip Generation

7.3.1 **Figure 13** presents the total proposed trip generation for the site using the data outlined above in **Figures 11** and **12**.

Total Proposed Trip Generation	Total People		Vehicles		Goods vehicles		Car Passengers		Cycle		Pedestrians		Public Transport	
	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.
AM Peak (08:00 - 09:00)	12	37	1	2	0	0	0	3	0	1	5	12	6	20
PM Peak (17:00 - 18:00)	21	18	1	1	0	0	1	1	0	0	10	8	9	8
Daily (07:00-19:00)	214	219	12	12	1	2	7	5	4	4	96	100	93	97

Figure 13 Total Proposed Trip Generation

7.3.2 As shown, the proposed development is anticipated to generate 50 two-way person trips by all modes during the morning peak hour, 40 two-way person trips by all modes during the evening peak hour and a total of 433 two-way trips by all modes over the course of a typical weekday.

7.3.3 The proposals would generate a very low level of vehicle traffic, owing to the car-free nature of the site. The site is anticipated to generate up to 3 two-way vehicle movements during each of the peak hours which would comprise any disabled users, deliveries, etc.

- 7.3.4 Most trips would be undertaken by active or sustainable modes of transport to reflect the town centre location of the site and the site's highly accessible location by public transport (PTAL 6). A full traffic impact assessment has been undertaken in the following section of this report.

8 TRAFFIC IMPACT ASSESSMENT

8.1.1 By consideration of the information in **Figure 10** and **Figure 13** above, it is possible to distinguish the net traffic impact of the development proposals against the existing office use at the site. **Figure 14** below presents the net traffic impact of the development proposals during the morning and evening peak hours and over the course of typical 12-hour weekday period.

Net Impact	Total People		Vehicles		Goods vehicles		Car Passengers		Cycle		Pedestrians		Public Transport	
	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.	Arr.	Dep.
AM Peak (08:00 - 09:00)	-19	34	-1	1	0	0	0	3	-1	1	-1	10	-17	19
PM Peak (17:00 - 18:00)	17	-16	0	-1	0	0	1	0	0	-1	7	2	8	-16
Daily (07:00-19:00)	31	44	-3	-2	1	2	4	2	0	1	13	16	15	25

Figure 14 Net Impact

8.1.2 As shown in **Figure 14**, the proposed development is anticipated to generate an increase of 15 two-way person trips by all modes during the morning peak hour and an increase of 1 two-way person trip during the evening peak hour.

8.2 Vehicle Trips

8.2.1 The proposals would not offer any material change in vehicle traffic owing to the car-free nature of the site. In practice however, City House currently benefits from a large car park on the site which would be an attractive mode of transport amongst existing staff and it is therefore likely, in practice, that the proposed development would offer a reduction in vehicle traffic when compared with the existing office space.

8.3 Active Modes and Public Transport Impact

8.3.1 Most additional trips as a result of the proposals would be undertaken by active or sustainable modes of transport to reflect the town centre location of the site and the site's highly accessible location by public transport (PTAL 6).

8.3.2 Most additional walking trips would be undertaken to the wide range of destinations within the town centre of Sutton. The POV Photography Assessment has demonstrated that the existing pedestrian infrastructure to many of the key destinations would be suitable to serve the low level of additional walking trips.

- 8.3.3 As detailed in Sections 3 and 4 of this report, Sutton town centre benefits from a wide range of cycle routes as shown on Plan 04 attached at **Appendix C**. The proposed development would continue to benefit from a good level of permeability across the site with pedestrian and cycle access provided to Sutton Park Road and Cheam Road to the north. There are no dedicated cycle lanes located on Sutton Park Road, however Sutton Park Road provides a one-way route for vehicle traffic and provides safe and convenient connections to dedicated cycle routes in the local area, including Sutton High Street as well as the shared cycle/bus lane on St Nicholas Way for example. The TfL Healthy Streets Check for Designers (attached at **Appendix G**) also classifies Sutton Park Road as a safe route for cyclists for on-road cycling, owing to the current level of vehicle usage at peak times.
- 8.3.4 Using the data in **Figure 14** above, it is possible to establish the impact of the additional public transport users on the capacity of the existing bus network and rail services. As shown, the proposals would generate an additional 2 two-way public transport trips during the worst-case peak hour. By interrogating the residential TRICS data further (attached at **Appendix J**) it is evident that approximately 66% of these additional trips would be undertaken by rail and 34% via bus. Based on this, the site would generate up to 1 additional bus trip at peak times and up to 1 additional trip by rail at peak times.
- 8.3.5 The bus services in the vicinity of the site are extensive, providing a combined provision of approximately 60 services per hour from the bus stops on Sutton Park Road and outside the Civic Centre. Therefore, the additional two-way bus trip at peak times would offer a negligible impact on the existing bus network.
- 8.3.6 In terms of impact on rail services, there are approximately 16 rail services per hour at peak times from Sutton Station. Therefore, the additional two-way person trip equates to approximately one additional rail user for every two rail services at peak times, which is also insignificant and would not be detrimental to the operation or capacity of the existing rail network.
- 8.3.7 It is therefore evident that the increase in public transport trips would be comfortably accommodated by the extensive services available locally and it has been demonstrated that the proposals would certainly not offer an impact deemed 'severe', when considered in the context of the NPPF.

9 CONSTRUCTION TRAFFIC

- 9.1.1 Full consideration of the construction phase of the development has been set out within the Outline Demolition/Construction Logistics Plan (DCLP) that accompanies the planning application and it is therefore recommended that these two reports are read in conjunction with one another. This DCLP also provides a demolition/construction site waste management plan.
- 9.1.2 The developer will be responsible for managing the appointed contractor(s), who will oversee and deliver the demolition and construction phases of the development.
- 9.1.3 The Outline Construction Logistics Plan identifies an indicative construction programme and anticipated delivery frequencies. Such information would be updated further as part of a Full CLP, once a contractor has been appointed and the programme becomes clearer/known.
- 9.1.4 The appointed contractor will prioritise sustainable modes of transport for contractors to visit the site. Lockers will be provided for staff who wish to travel by public transport and need to store tools on site.
- 9.1.5 Contractors will be informed that parking will not be permitted along the adjacent roads. Suitable loading and unloading arrangements for construction deliveries would be provided during both demolition phase and construction phase, with regards to current Morrisons operations on the service yard.
- 9.1.6 The site would be gated and remain locked at all times to ensure pedestrians cannot enter the live construction site. The site must be a safe place to work on and also a safe place for pedestrians to pass by.
- 9.1.7 All construction deliveries would take place from the dedicated loading area only and in accordance with a dedicated time slot.
- 9.1.8 Engines of vehicles must be switched off wherever practicable, when the vehicle is not in use, to ensure unnecessary noise is kept to a minimum. The contractor will ensure wheel washing facilities are provided within the site to minimise the carry of dust, mud and debris onto the public highway. Where possible, multiple deliveries will be consolidated into fewer vehicles in order to reduce the number of times vehicles will be accessing the site.

10 SUMMARY AND CONCLUSIONS

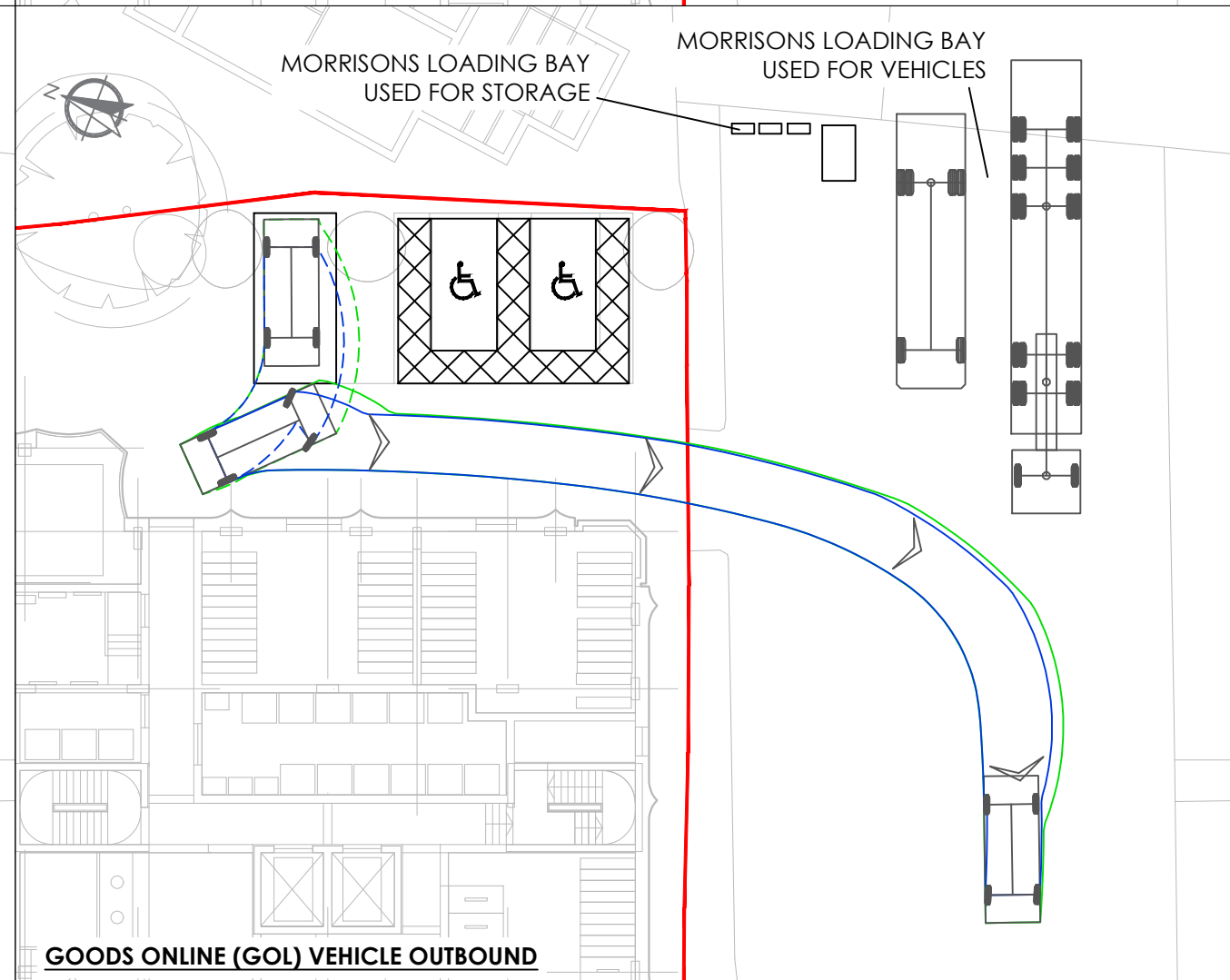
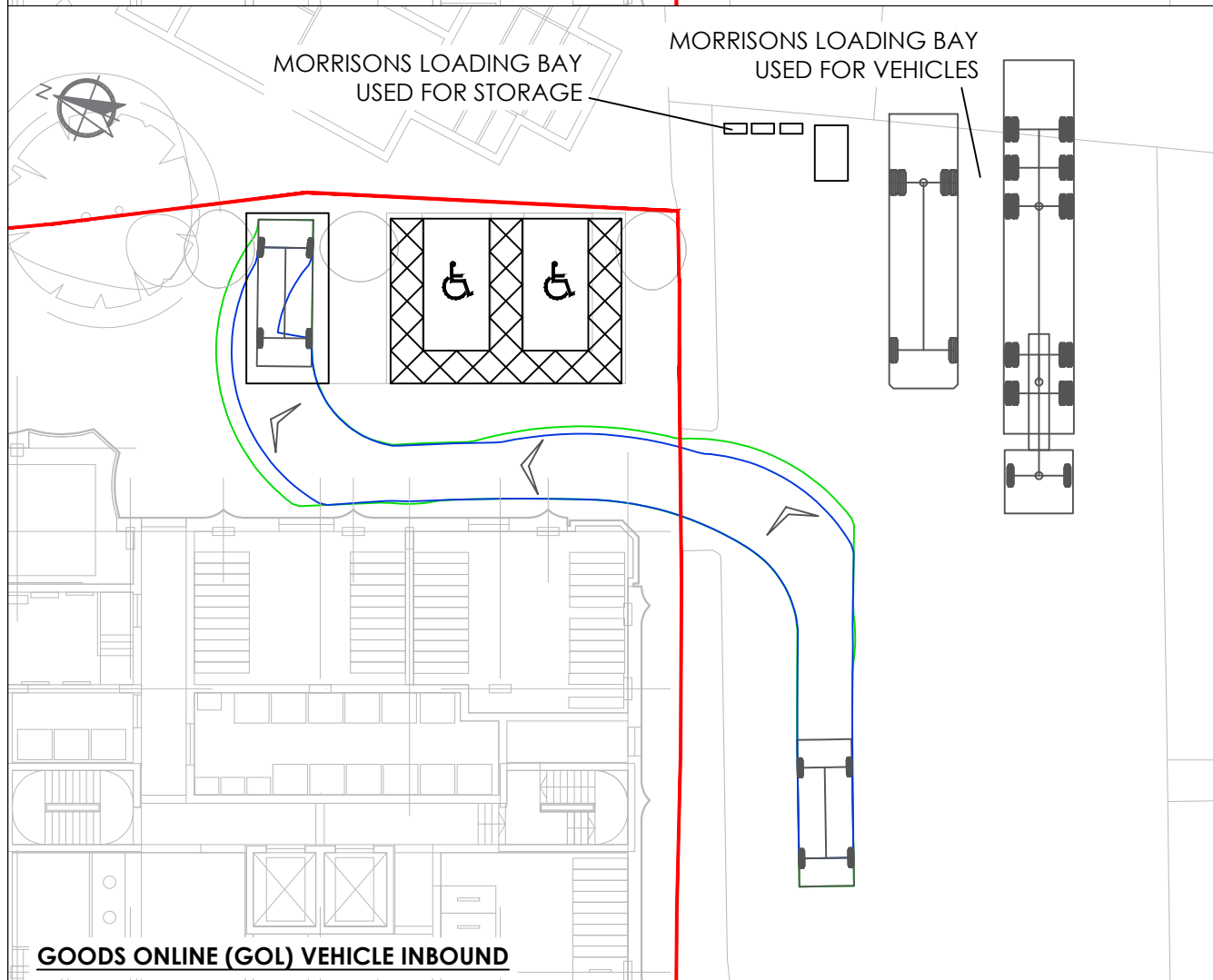
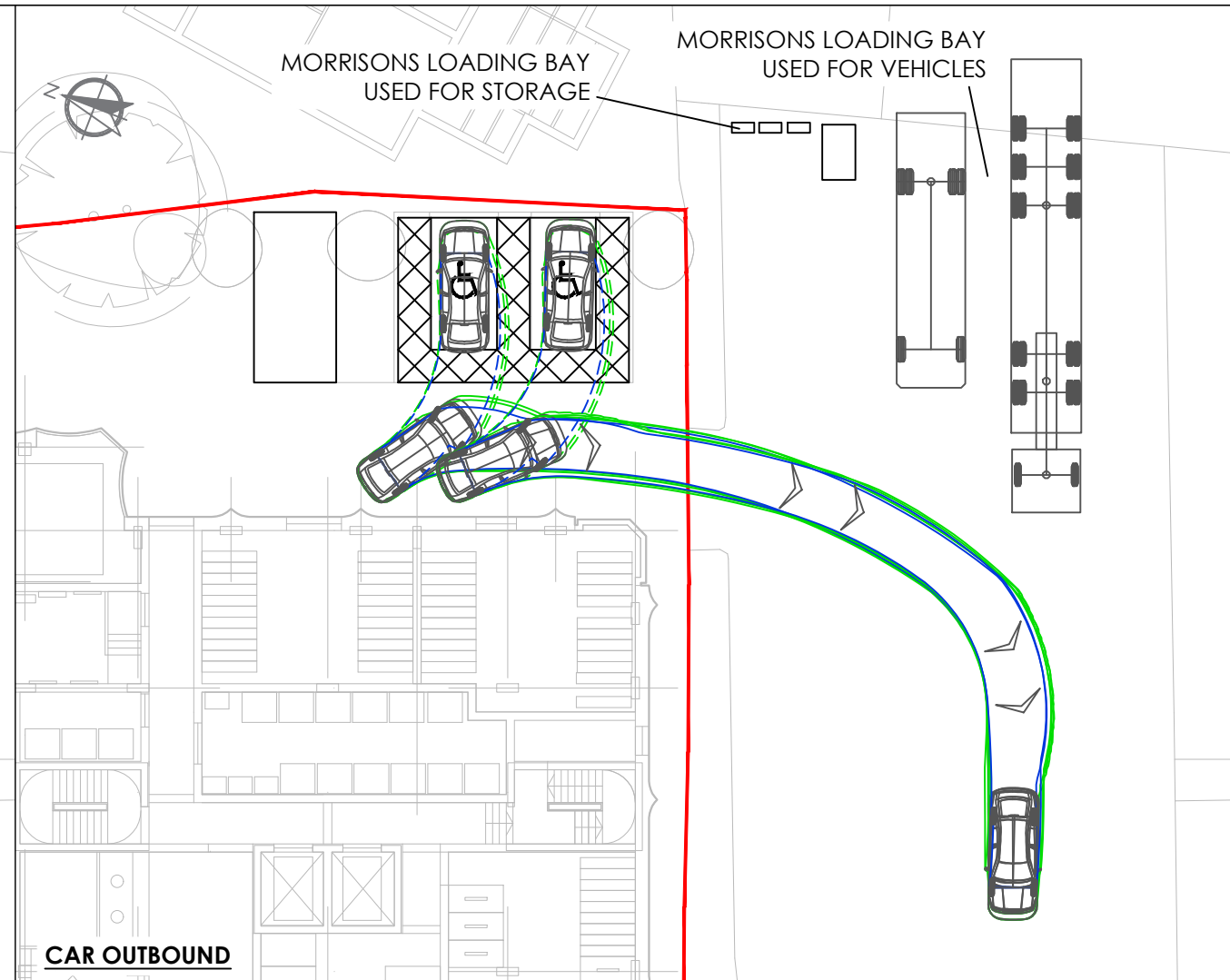
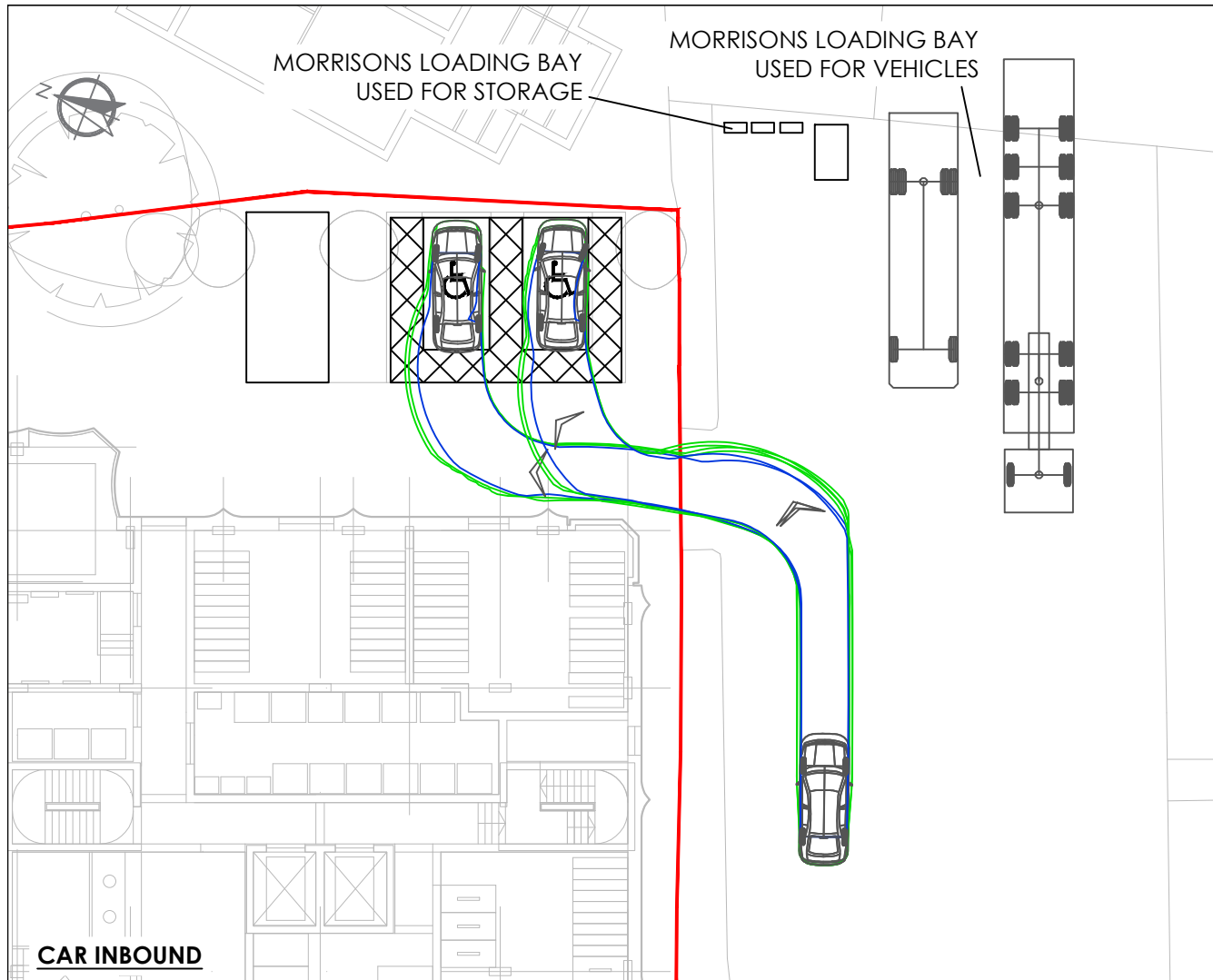
10.1.1 This Transport Assessment provides a full Healthy Streets compliant assessment which has considered the highway and transport planning implications relating to a proposed mixed-use development at City House, Sutton Park Road, Sutton. This Transport Assessment has concluded the following:

- The site is located on the eastern side of the one-way section of the A232 gyratory within the town centre of Sutton and currently comprises an office building. Vehicular access to the site is provided from the eastern side of the A232 Sutton Park Road via a shared service road with the adjacent Morrisons, over which the applicant has suitable rights of access;
- The site is located within the town centre of Sutton and therefore benefits from excellent accessible credentials (PTAL 6). A full Healthy Streets assessment has been undertaken demonstrating that the site exhibits the features required by the Healthy Streets toolkit;
- The proposals are for the redevelopment of the site to re-provide office space at ground floor and 70 residential units on the upper floors. Vehicle access would be retained via the existing service road from Sutton Park Road;
- The proposals would be car-free, except for two disabled bays, in accordance with the London Plan standards, the site's highly accessible location via active/sustainable modes and following pre-application discussions with LBS;
- Cycle parking will be provided in line with London Plan standards;
- A dedicated delivery bay would be provided on the site for delivery requirements to reduce the level of activity on the shared service road. The proposals would not offer any material impact on the current servicing needs of the Morrisons;
- The proposals would offer a significant betterment in terms of highway safety and capacity, given the car-free nature of the site and the improved delivery arrangements for the site. Most additional trips to/from the site would comprise public transport users and/or walking trips to local destinations, for example. The proposals have been demonstrated to offer a negligible impact on the existing bus and rail network as a result of the minimal increase in users during peak times.

10.1.2 Overall, it is demonstrated that the proposed development would not result in any detrimental nor 'severe' impact on the local highway network, as defined by the NPPF. Therefore, there are no impediments on highway or transport grounds that should prevent the granting of planning permission for the proposed development at City House, Sutton Park Road, Sutton, SM1 2AE.



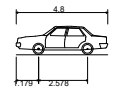
DRAWINGS



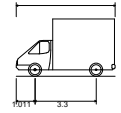
NOTES

This drawing has been prepared for the purpose of planning discussions and does not constitute a detailed design drawing, or construction drawing. A Design Hazard Inventory has been prepared by RGP setting out the hazards which have been designed out. This is available upon request.

SITE BOUNDARY



Standard Car (4.8m)
 Overall Length 4.800m
 Overall Width 1.769m
 Overall Body Height 1.488m
 Min Body Ground Clearance 0.249m
 Max Track Width 1.713m
 Lock to lock time 4.00s
 Kerb to Kerb Turning Radius 5.100m



GOL Delivery Vehicle
 Overall Length 5.339m
 Overall Width 1.986m
 Overall Body Height 3.085m
 Min Body Ground Clearance 0.338m
 Track Width 1.986m
 Lock to lock time 4.00s
 Kerb to Kerb Turning Radius 6.400m

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RESIDUAL HAZARDS

In addition to the hazards/risks normally associated with the type of work detailed on this drawing, please note the following residual hazards:

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved risk assessment and method statement.

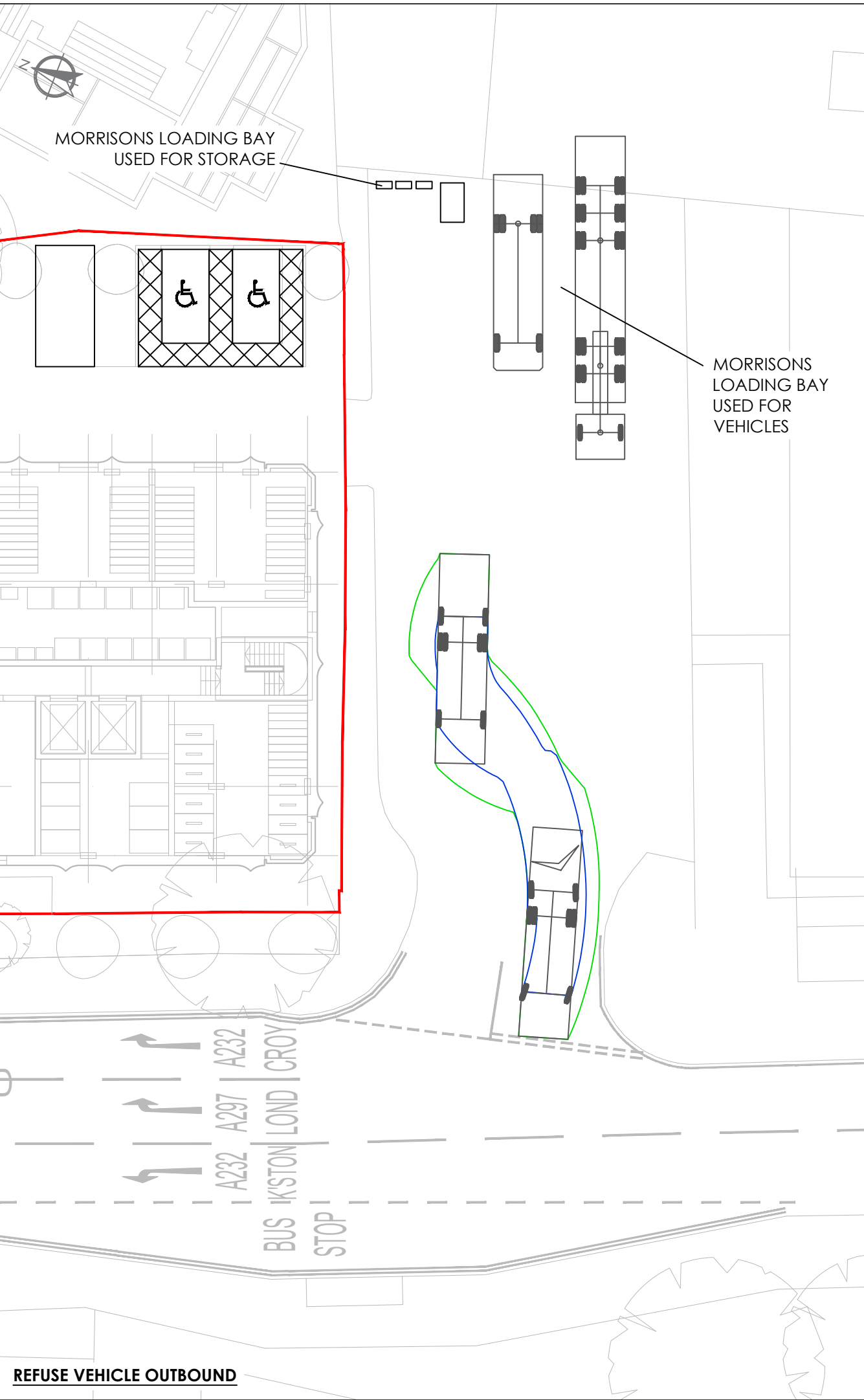
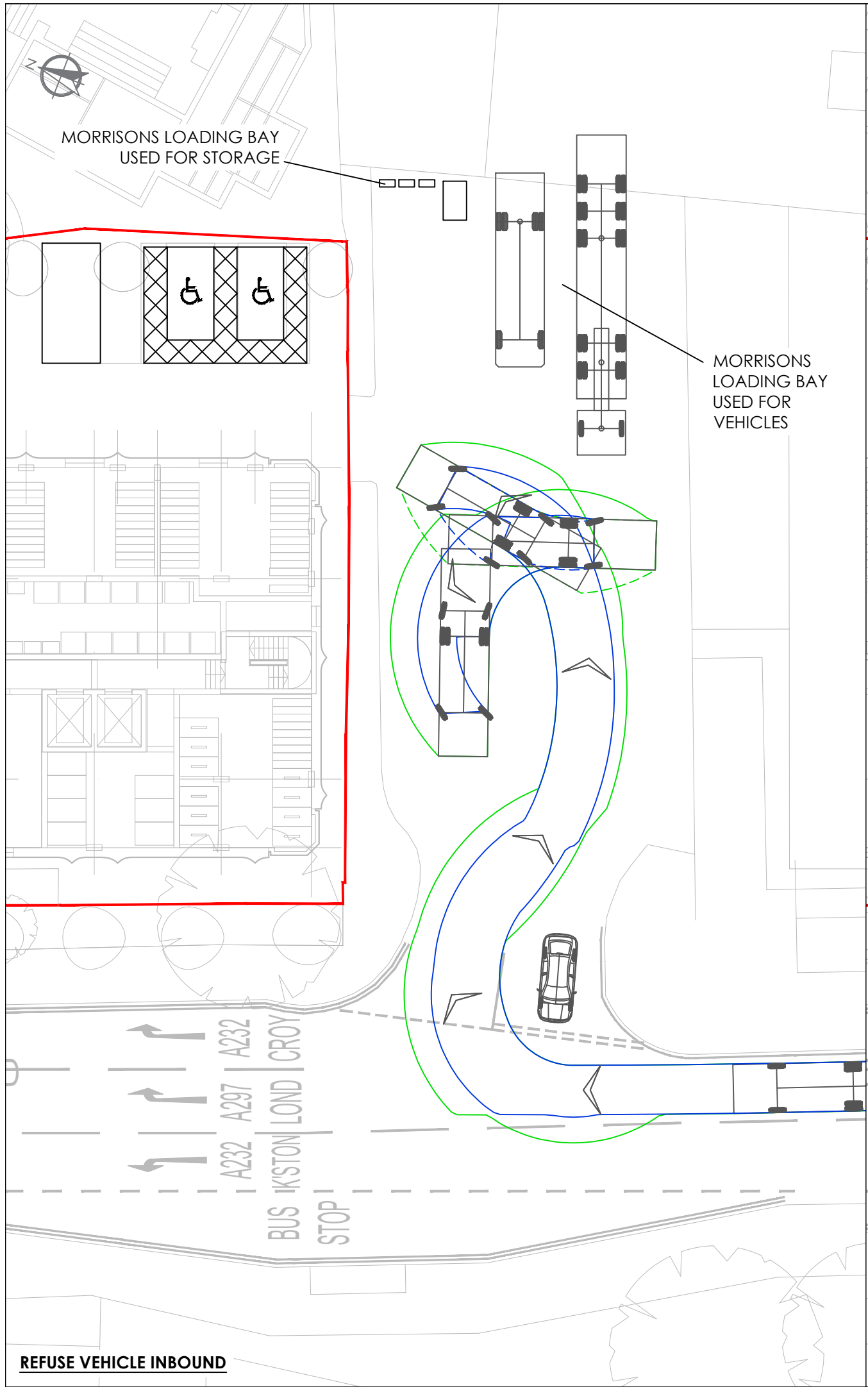
Rev.	Drawn	Comments	Date
P5	DLH	DETAIL AMENDMENT	15/12/23
P4	DLH	LAYOUT UPDATED	11/12/23
P3	DLH	LAYOUT UPDATED	01/11/22
P2	DLH	LAYOUT UPDATED	21/10/22
P1	DLH	FIRST ISSUE	06/09/22

Client
 Macar Living (City House) Ltd

Project
 City House,
 Sutton Park Road

Drawing Title
 Swept Path Analysis

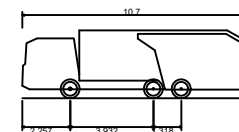
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		Checked by	WTT
			A3



NOTES

This drawing has been prepared for the purpose of planning discussions and does not constitute a detailed design drawing, or construction drawing. A Design Hazard Inventory has been prepared by RGP setting out the hazards which have been designed out. This is available upon request.

— SITE BOUNDARY



Phoenix 2-20W (with Elite 2 6x2 RS chassis)
 Overall Length 10.700m
 Overall Width 2.590m
 Overall Body Height 3.211m
 Min Body Ground Clearance 0.416m
 Track Width 2.530m
 Lock to lock time 4.00s
 Kerb to Kerb Turning Radius 7.340m

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RESIDUAL HAZARDS

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It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved risk assessment and method statement.

Rev.	Drawn	Comments	Date
P3	DLH	DETAIL AMENDMENT	15/12/22
P2	DLH	LAYOUT UPDATED	11/12/22
P1	DLH	FIRST ISSUE	06/09/22

Client
Macar Living (City House) Ltd

Project
City House,
Sutton Park Road

Drawing Title
Swept Path Analysis -
Refuse Vehicle

Drawing No. 2022/6805/002 Rev. P3

Scale 1:250 Drawn by DLH Checked by WTT A3

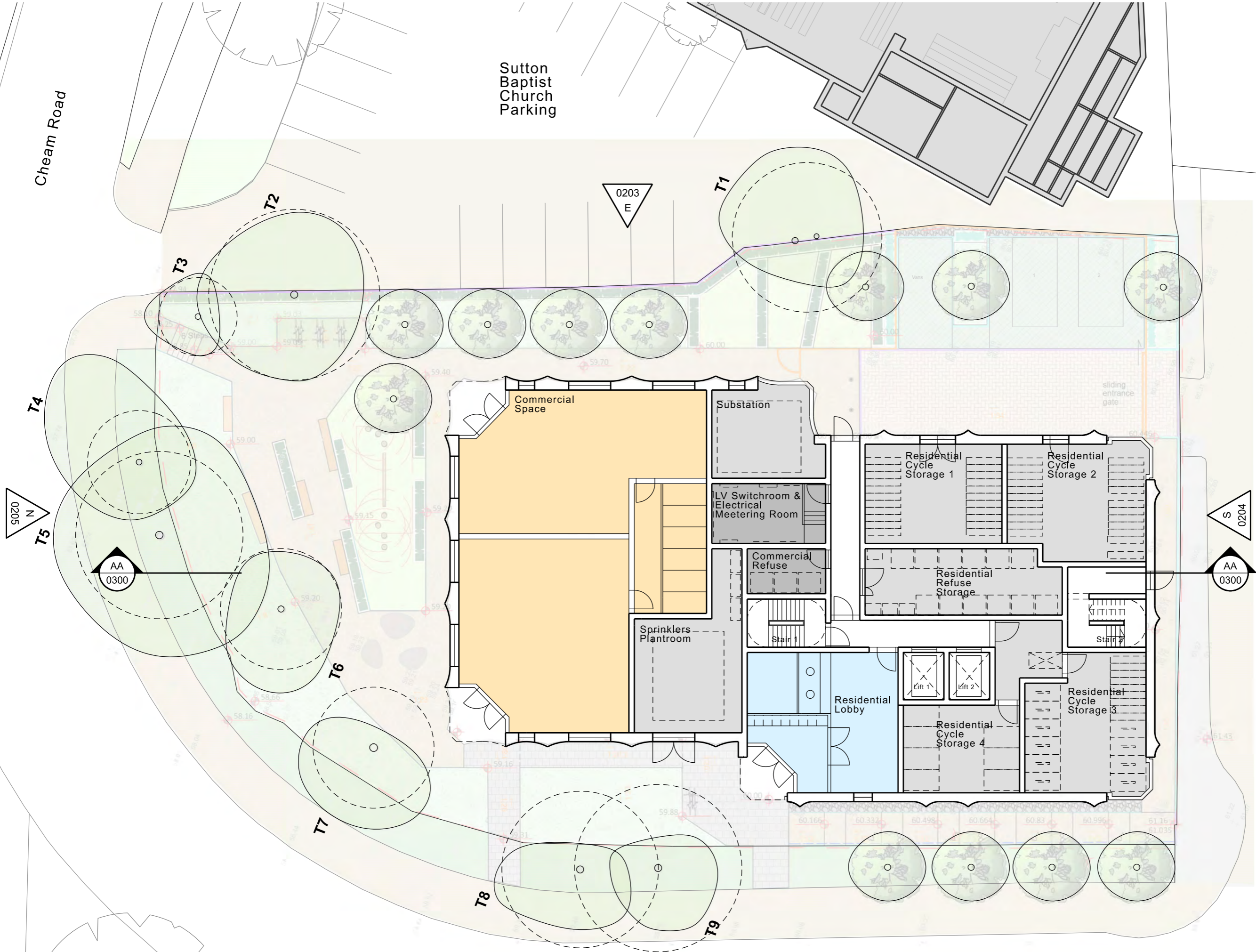
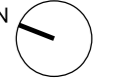


APPENDIX A

Cheam Road

Sutton Baptist Church Parking

0 1m 5m



- Key:**
- Residential Lobby
 - Residential BOH
 - Commercial Space
 - Commercial BOH

P0	XX/01/24	Planning Issue
Revision	Date	Description

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The sizing of all structural and service elements must always be checked against the relevant engineers drawings. No reliance should be placed upon sizing information shown on this drawing.

Project
City House, Sutton
 Sutton Park Road, SM1 2AE

Drawing Title
 Ground Floor Plan
 Proposed


Drawing Number	Revision
0816-WPA-0110	P0
Scale @ A3	Revision Date
1:200	

Drawing Purpose
 PLANNING

WIMSHURST PELLERITI

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 6 Putney Common, SW15 1HL

0208 780 2206
 info@wp.uk.com
 wimshurst-pelleriti.com

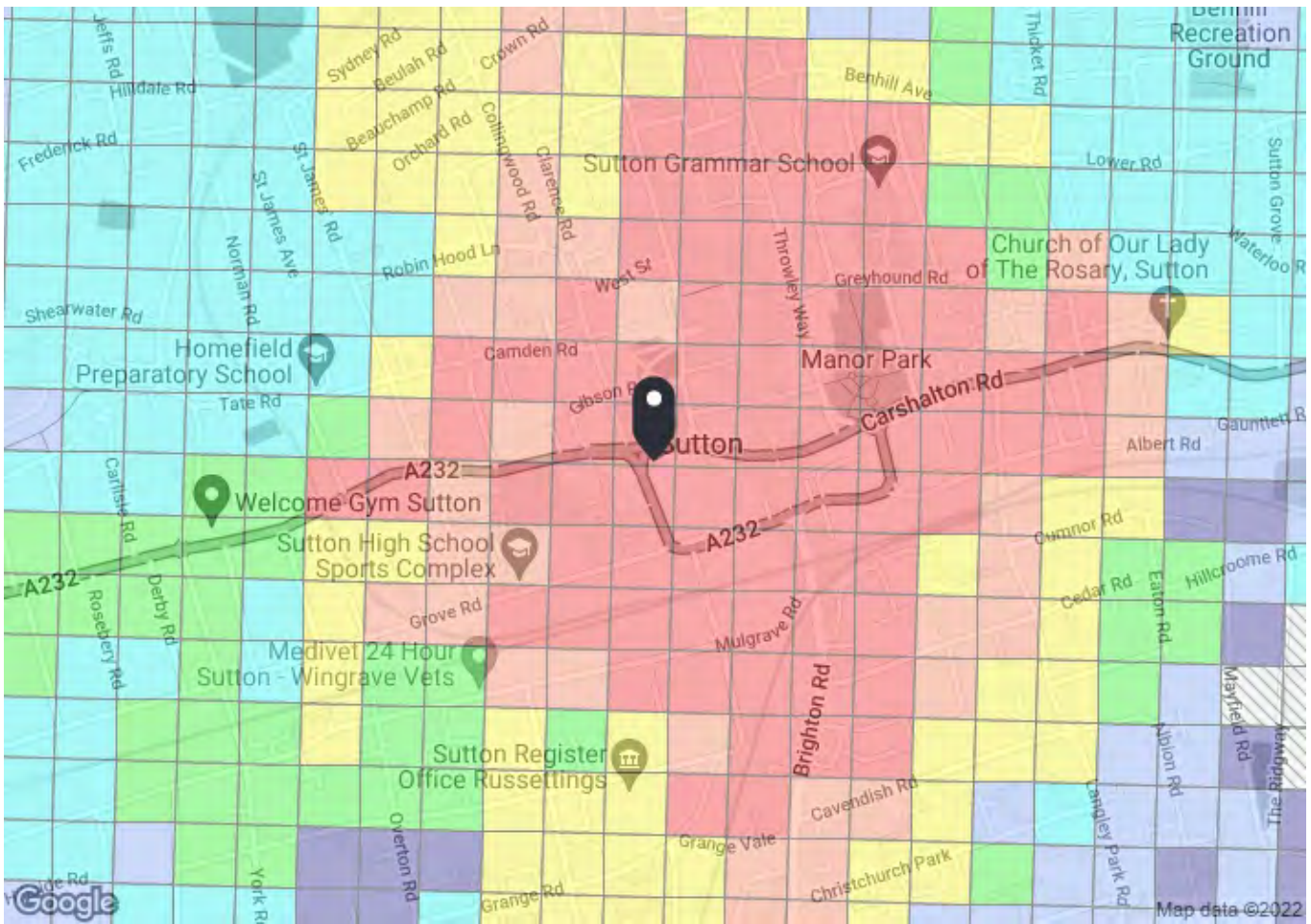


W 0202

Sutton Park Road



APPENDIX B



PTAL output for Base Year 6a

CityHouse
CityHouse, Sutton Park Rd, Sutton SM1 2AE, UK
Easting: 525765, Northing: 163995

Grid Cell: 12263

Report generated: 31/08/2022

Calculation Parameters

Day of Week	M-F
Time Period	AM Peak
Walk Speed	4.8 kph
Bus Node Max. Walk Access Time (mins)	8
Bus Reliability Factor	2.0
LU Station Max. Walk Access Time (mins)	12
LU Reliability Factor	0.75
National Rail Station Max. Walk Access Time (mins)	12
National Rail Reliability Factor	0.75

Map key - PTAL

0 (Worst)	1a
1b	2
3	4
5	6a
6b (Best)	

Map layers

- PTAL (cell size: 100m)

Calculation data

Mode	Stop	Route	Distance (metres)	Frequency(vph)	Walk Time (mins)	SWT (mins)	TAT (mins)	EDF	Weight	AI
Bus	SUTTON ST NICHOLAS WAY	280	169.84	6	2.12	7	9.12	3.29	0.5	1.64
Bus	SUTTON PARK ROAD	151	6.09	6	0.08	7	7.08	4.24	0.5	2.12
Bus	SUTTON PARK ROAD	X26	6.09	2	0.08	17	17.08	1.76	0.5	0.88
Bus	SUTTON PARK ROAD	S3	6.09	3	0.08	12	12.08	2.48	0.5	1.24
Bus	SUTTON PARK ROAD	413	6.09	4	0.08	9.5	9.58	3.13	0.5	1.57
Bus	SUTTON PARK ROAD	80	6.09	6	0.08	7	7.08	4.24	0.5	2.12
Bus	SUTTON PARK ROAD	S1	6.09	4	0.08	9.5	9.58	3.13	0.5	1.57
Bus	SUTTON PARK ROAD	407	6.09	4	0.08	9.5	9.58	3.13	0.5	1.57
Bus	SUTTON PARK ROAD	164	6.09	6	0.08	7	7.08	4.24	0.5	2.12
Bus	SUTTON PARK ROAD	470	6.09	2	0.08	17	17.08	1.76	0.5	0.88
Bus	SUTTON PARK ROAD	S4	6.09	2	0.08	17	17.08	1.76	0.5	0.88
Bus	SUTTON PARK ROAD	213	6.09	7	0.08	6.29	6.36	4.72	1	4.72
Rail	Sutton	'WIMBLDN-LNDNBDC 2E6Z'	390.78	1.67	4.88	18.71	23.6	1.27	1	1.27
Rail	Sutton	'LNDNBDC-EPSM 2E91'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'SUTTON-LNDNBDC 2U06'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'EPSM-LNDNBDC 2U70'	390.78	1	4.88	30.75	35.63	0.84	0.5	0.42
Rail	Sutton	'GUILDFD-LNDNBDC 2U98'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'BEDFDM-SUTTON 1O13'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'BEDFDM-SUTTON 1V23'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'BEDFDM-SUTTON 1V82'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'SUTTON-LUTON 2O00'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'SUTTON-BEDFDM 2O04'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'SUTTON-STALBCY 2O06'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'SUTTON-LUTON 2O10'	390.78	1	4.88	30.75	35.63	0.84	0.5	0.42
Rail	Sutton	'LUTON-SUTTON 2O17'	390.78	0.67	4.88	45.53	50.41	0.6	0.5	0.3
Rail	Sutton	'STALBCY-SUTTON 2O21'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'STALBCY-SUTTON 2O29'	390.78	0.67	4.88	45.53	50.41	0.6	0.5	0.3
Rail	Sutton	'SUTTON-STALBCY 2V02'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'SUTTON-STALBCY 2V08'	390.78	0.67	4.88	45.53	50.41	0.6	0.5	0.3
Rail	Sutton	'BEDFDM-SUTTON 2V15'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'SUTTON-BEDFDM 2V16'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'LUTON-SUTTON 2V19'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'SUTTON-KNTSHTN 2V20'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'STALBCY-SUTTON 2V27'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'LUTON-SUTTON 2V31'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'VICTRIC-SUTTON 2B90'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'SUTTON-VICTRIC 2B91'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'HORSHAM-VICTRIC 2E03'	390.78	1	4.88	30.75	35.63	0.84	0.5	0.42
Rail	Sutton	'VICTRIC-HORSHAM 2E04'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'DORKING-VICTRIC 2E07'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'HORSHAM-VICTRIC 2E09'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
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Rail	Sutton	'VICTRIC-HORSHAM 2E12'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'HORSHAM-VICTRIC 2E13'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'VICTRIC-HORSHAM 2E14'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'VICTRIC-EPSM 2E16'	390.78	1	4.88	30.75	35.63	0.84	0.5	0.42
Rail	Sutton	'DORKING-VICTRIC 2E17'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'VICTRIC-DORKING 2E18'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'VICTRIC-HORSHAM 2E22'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'GUILDFD-VICTRIC 2E95'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'SUTTON-VICTRIC 2R05'	390.78	0.67	4.88	45.53	50.41	0.6	0.5	0.3
Rail	Sutton	'VICTRIC-EPDMS 2R06'	390.78	1.33	4.88	23.31	28.19	1.06	0.5	0.53
Rail	Sutton	'EPDMS-VICTRIC 2R11'	390.78	1.67	4.88	18.71	23.6	1.27	0.5	0.64
Rail	Sutton	'SUTTON-VICTRIC 2R17'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'VICTRIC-SUTTON 2R20'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'VICTRIC-EPSM 2R24'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'VICTRIC-SUTTON 2R26'	390.78	0.67	4.88	45.53	50.41	0.6	0.5	0.3
Rail	Sutton	'VICTRIC-EPDMS 2R28'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16

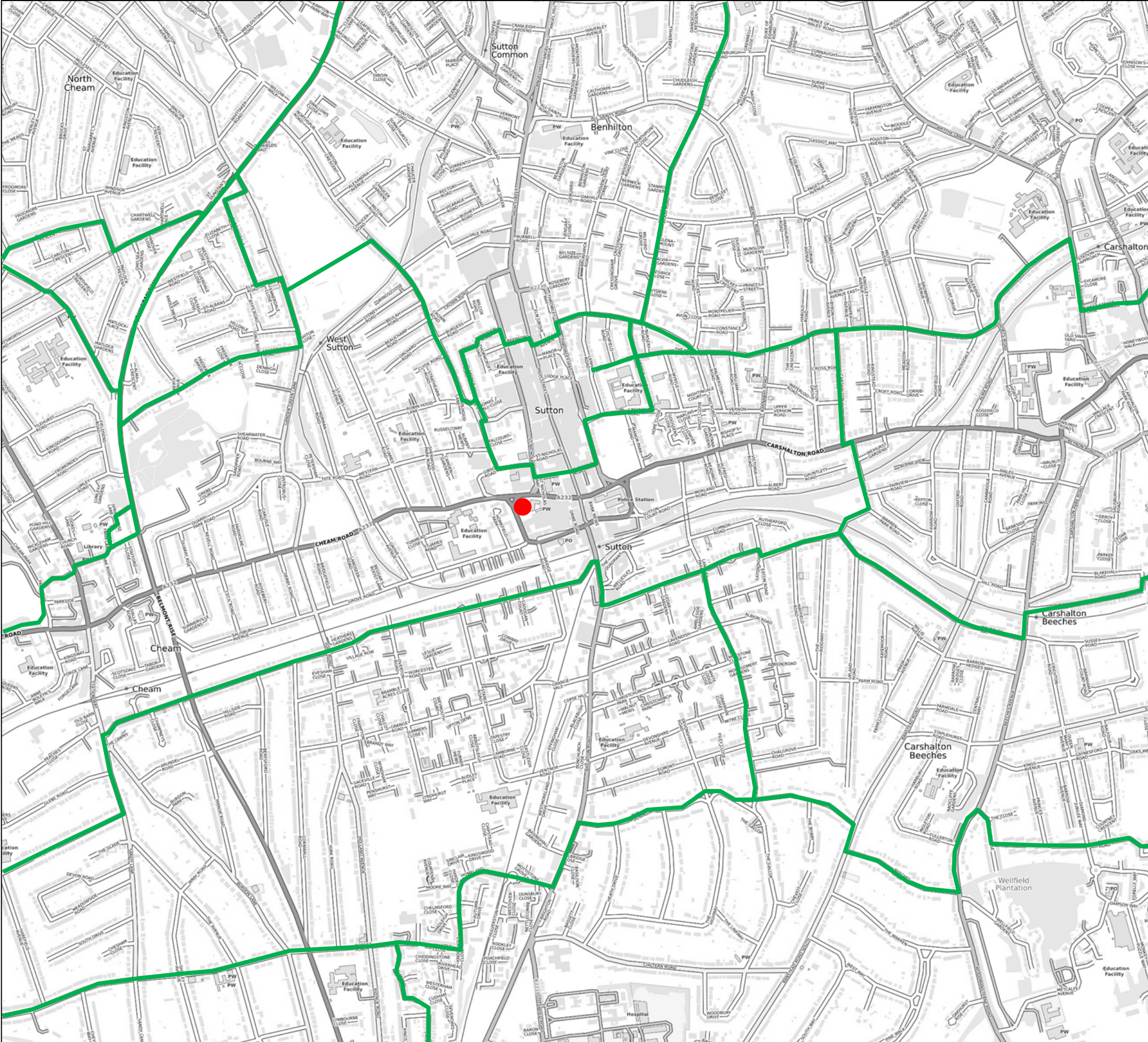
Mode	Stop	Route	Distance (metres)	Frequency(vph)	Walk Time (mins)	SWT (mins)	TAT (mins)	EDF	Weight	AI
Rail	Sutton	'VICTRIC-EPSM 2R32'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'SUTTON-VICTRIC 2S15'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'VICTRIC-EPSM 2S66'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'VICTRIC-DORKING 2S58'	390.78	0.33	4.88	91.66	96.54	0.31	0.5	0.16
Rail	Sutton	'VICTRIC-SUTTON 2S60'	390.78	1.33	4.88	23.31	28.19	1.06	0.5	0.53
Total Grid Cell AI:										33.53



APPENDIX C

LEGEND

- SITE LOCATION
- CYCLE ROUTES



Transport Planning and Infrastructure Design Consultants
 Shackelford Suite, Mill Pool House, Mill Lane, Godalming, GU7 1EY
 1-2 Paris Garden, London, SE1 8ND
 Tel: 01483 861681 / 020 7078 9662 Fax: 01483 861682
www.rgp.co.uk

Client: Macar Living (City House) Ltd

Project: City House, Sutton Park Road

Title: Cycle Route Plan

Plan No: Plan 04	Job No: 23/6805	Date: December 2023
----------------------------	---------------------------	-------------------------------

Drawn By: GE	Checked By: WT	Rev: -	A3
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APPENDIX D

ATZ Map 01

★ Site Location

National Cycle Network (NCN)

--- On Road

--- Traffic Free

Important Buildings

● Hospital

○ Place Of Worship

● Primary Education

● Secondary Education

● Further Education

● Town Centres

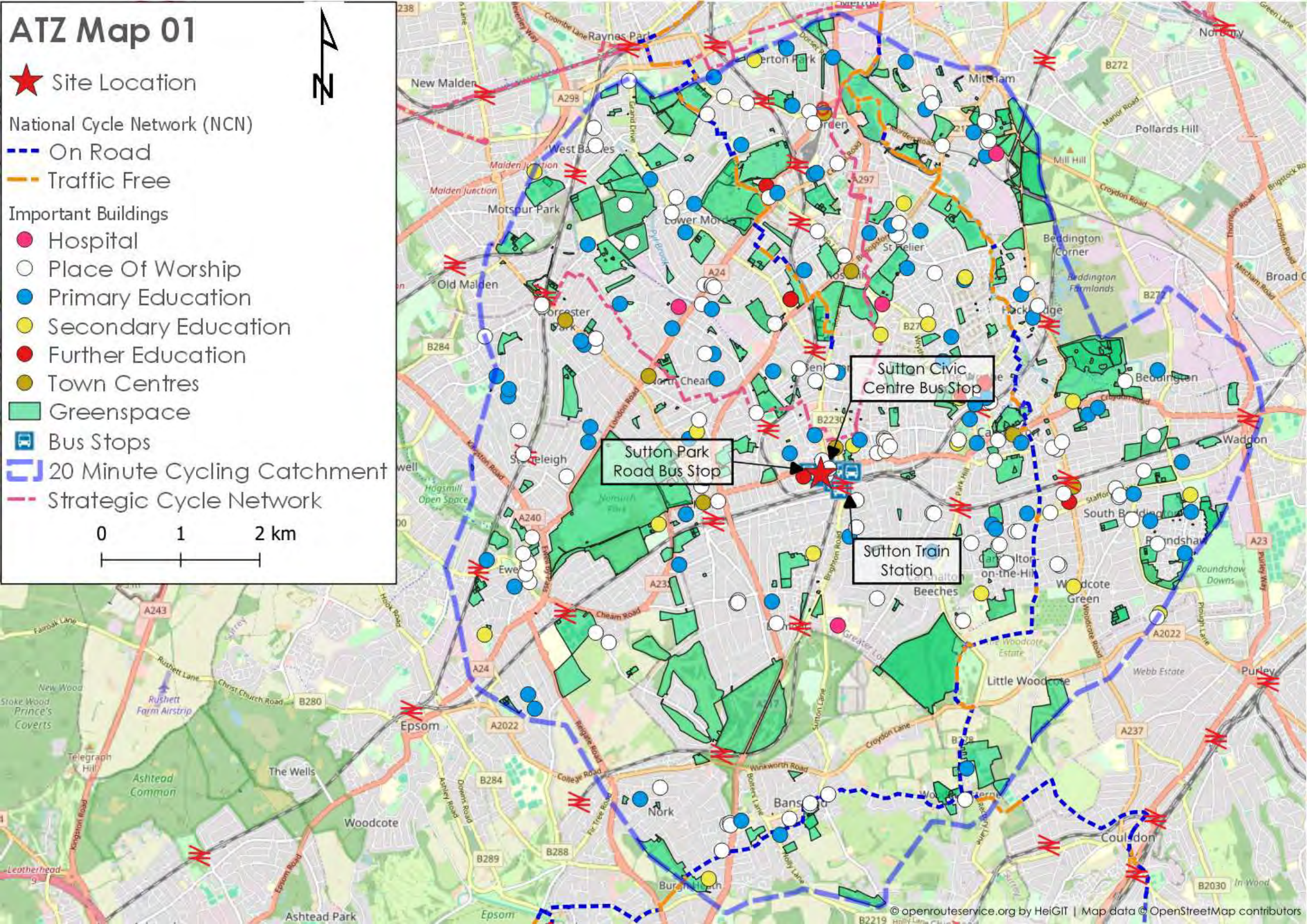
■ Greenspace

■ Bus Stops

■ 20 Minute Cycling Catchment

--- Strategic Cycle Network

0 1 2 km

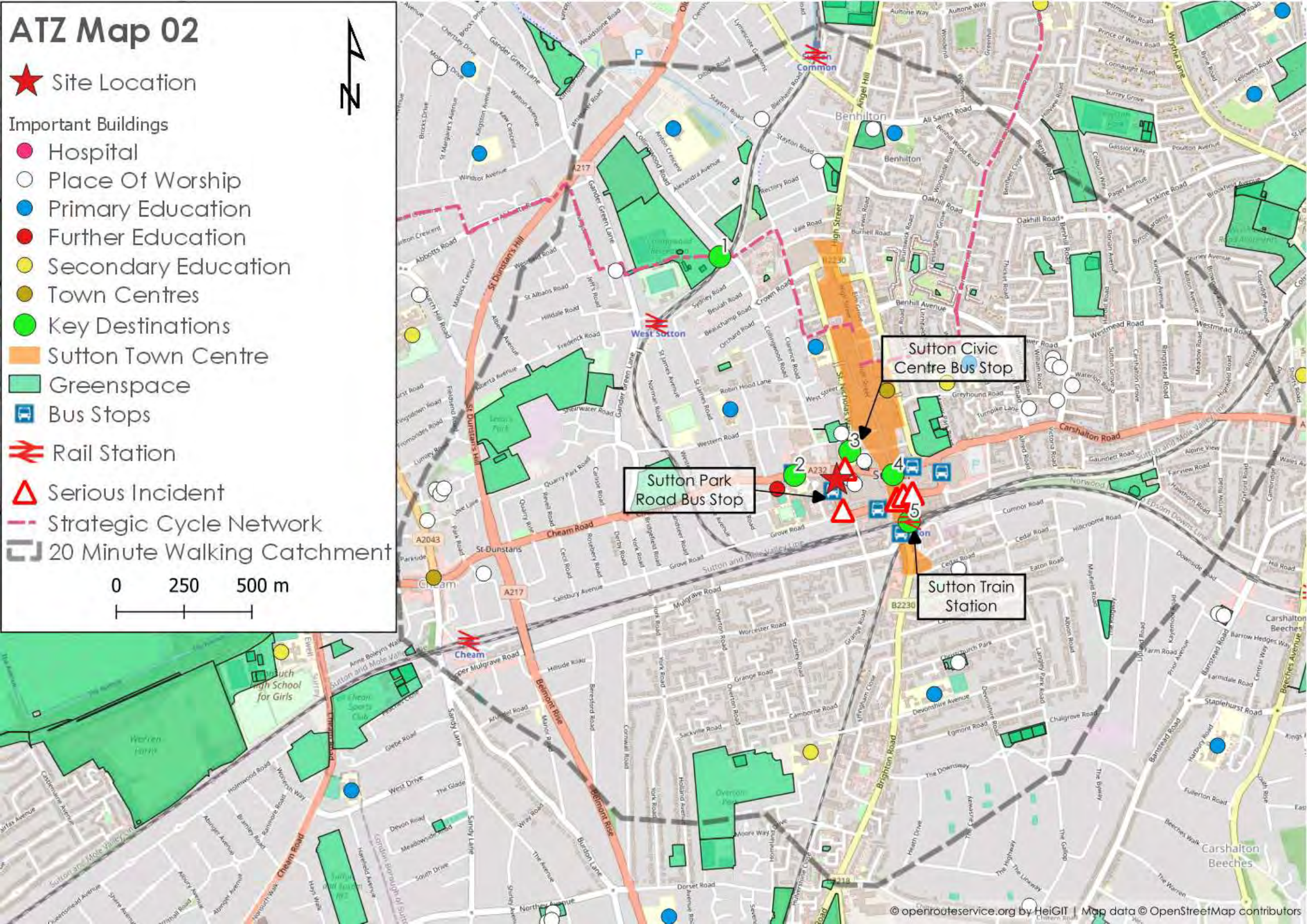
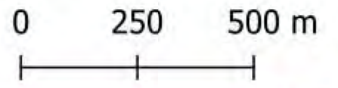


ATZ Map 02

★ Site Location

Important Buildings

- Hospital
- Place Of Worship
- Primary Education
- Further Education
- Secondary Education
- Town Centres
- Key Destinations
- Sutton Town Centre
- Greenspace
- Bus Stops
- Rail Station
- ▲ Serious Incident
- - - Strategic Cycle Network
- 20 Minute Walking Catchment



ATZ Map 03

Site Location

Sutton Town Centre

Greenspace

Permeable Area

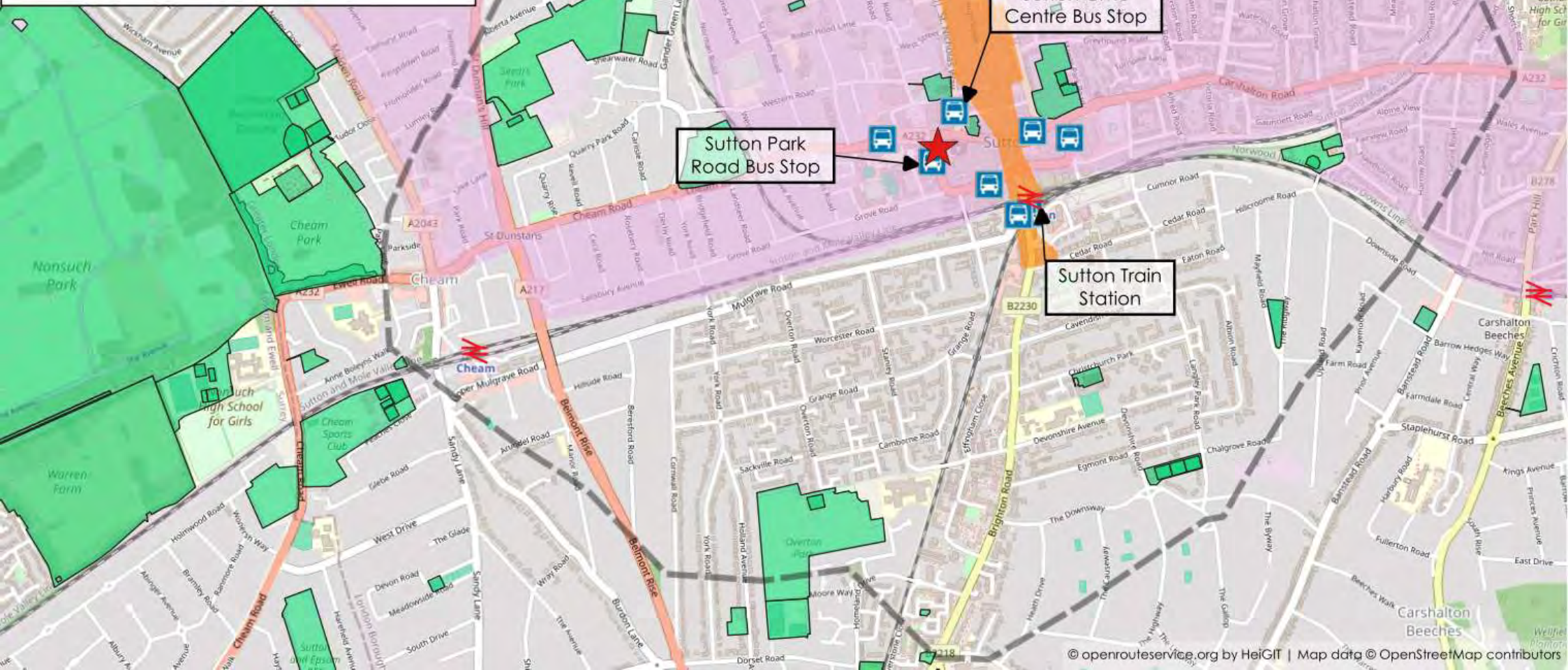
Bus Stops

Rail Station

20 Minute Walking Catchment



0 250 500 m





APPENDIX E

HEALTHY STREETS NEIGHBOURHOOD PHOTOGRAPHY

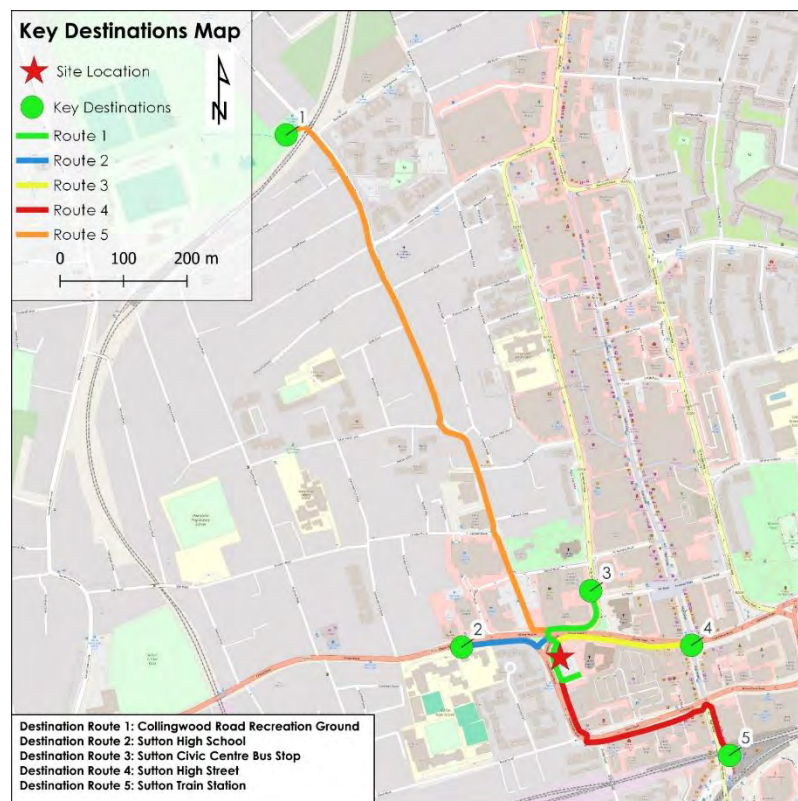
CITY HOUSE, SUTTON PARK ROAD, SUTTON, SM1 2AE

Point of View (POV) Photography to Key Destinations

Date: December 2023

Ref: 202/6805/POV

The below POV photography assesses the walking routes to/from five key destinations in the local area to/from the development site. These key routes and destinations have been considered and discussed within the Transport Assessment.



1 DEVELOPMENT SITE TO COLLINGWOOD ROAD RECREATION GROUND (KEY DESTINATION 1)



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6



Photo 7



Photo 8



Photo 9



Photo 10



Photo 11



Photo 12

Route 1- Development Site to Collingwood Recreation Ground		
Worst section of Route – Photo 9		
Heathy Streets Indicators	Observed Problems/Issues	Improvements
Easy to cross	No tactile paving and dropped kerbing damaged, making it difficult for pedestrians to cross safely.	Improved surface dressing.
People feel safe	Vehicles turning into / out of the junction with limited crossing infrastructure may make people feel less safe at this junction. The junction is however lightly trafficked and does benefit from street lighting.	None suggested.
Things to see and do	Surrounding area is predominantly residential therefore there are limited things to see and do at this point.	None suggested.
Places to stop and rest	There are no rest stops at this link. Pedestrian crossing point at a junction.	None suggested.

People feel relaxed	Good natural surveillance due to residential nature and good level of street lighting to make users feel more relaxed.	None suggested
Not too noisy	The nature of the road is relatively quiet due to surrounding road network and residential area.	None suggested.
Clean air	The air quality here varies but most commonly air pollution is classified as low for London.	None suggested.
Shade and Shelter	The infrastructure in the area may provide some shade although there are few opportunities for shelter.	None suggested.

2 DEVELOPMENT SITE TO SUTTON HIGH SCHOOL (KEY DESTINATION 2)



Photo 1



Photo 2



Photo 3



Photo 4

Route 2 – Development Site to Sutton High School		
Worst section of Route – Photo 4		
Heathy Streets Indicators	Observed Problems/Issues	Improvements
Easy to cross	This section of footway is functional.	None suggested.
People feel safe	Pavement is wide and allows for good separation between road and pedestrians. Some observed footway works taking place may make pedestrians feel less safe although these works are temporary.	None suggested.
Things to see and do	Limited things to see and do at this point. Footway is functional.	None suggested.
Places to stop and rest	The footway is wide enough to enable pedestrians to stop without obstructing pedestrian activity.	None suggested.
People feel relaxed	Good level of natural surveillance and street lighting.	None suggested
Not too noisy	The nature of noise on this section of the road is moderate due to traffic volumes on Cheam Road.	The proposed car-free nature of the development will aid in this not being exacerbated.
Clean air	The air quality here varies but most commonly air pollution is classified as low for London.	None suggested.
Shade and Shelter	The infrastructure in the area may provide some shade although there are few opportunities for shelter.	None suggested.

3 DEVELOPMENT SITE TO SUTTON CIVIC CENTRE BUS STOP (KEY DESTINATION 3)



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5

Route 3 - Development Site to Sutton Civic Centre Bus Stop		
Worst section of Route – Photo 3		
Heathy Streets Indicators	Observed Problems/Issues	Improvements
Easy to cross	Crossing points in the vicinity of this link are of a good standard and easy to cross.	None suggested.
People feel safe	Pavement is wide and allows for good separation between road and pedestrians.	None suggested.
Things to see and do	Sutton Civic Centre located immediately to the south of this location.	None suggested.
Places to stop and rest	Informal resting places located along the route due to wide footway, however ponding observed would provide limited opportunity for users to stop and rest during wet weather conditions.	Improved surface water drainage due to ponding.
People feel relaxed	Good level of natural surveillance and street lighting in location. Reasonable level of pedestrian footfall due to presence of bus stop and Civic Centre may help people feel relaxed.	None suggested
Not too noisy	Being located adjacent to the A232/Sutton Park Road junction there is a reasonable level of traffic creating noise in this location.	The proposed car-free nature of the development will aid in this not being exacerbated.
Clean air	The air quality here varies but most commonly air pollution is classified as low for London.	None suggested.
Shade and Shelter	Surrounding trees may provide some shade. This section of footway is functional.	None suggested.

4 DEVELOPMENT SITE TO SUTTON HIGH STREET (KEY DESTINATION 4)



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6

Route 4 - Development Site to Sutton High Street		
Worst section of Route – Photo 3		
Heathy Streets Indicators	Observed Problems/Issues	Improvements
Easy to cross	Slight gradient at junction of Cheam Road / adjacent Church with no tactile paving for pedestrians may make it difficult for mobility impaired users to cross. However observed vehicle usage at this junction appears very low.	Introduced tactile paving to improve crossing.
People feel safe	Limited street lighting in this location. Slight gradient at junction of Cheam Road / adjacent Church with no tactile paving for pedestrians may make it difficult for mobility impaired users to cross.	Introduced tactile paving to improve crossing.

Things to see and do	Provides a crossing associated with Sutton Baptist Church.	None suggested.
Places to stop and rest	This crossing is functional and provides appropriate places to stop and rest either side of the crossing.	None suggested.
People feel relaxed	Limited levels of street lighting and surveillance in the vicinity which may result in residents feeling less relaxed.	Improved lighting to enhance safety and awareness.
Not too noisy	The A232 Cheam Road provides a busy route operating through Sutton town centre and therefore levels of noise are moderate.	The proposed car-free nature of the development will aid in this not being exacerbated.
Clean air	Located within the ULEZ. The air quality here varies but most commonly air pollution is classified as low for London.	None suggested.
Shade and Shelter	Surrounding trees provide some shade and shelter for pedestrians.	None suggested.

5 DEVELOPMENT SITE TO SUTTON TRAIN STATION (KEY DESTINATION 5)



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6



Photo 7



Photo 8



Photo 9

Route 5 - Development Site to Sutton Train Station		
Worst section of Route – Photo 6		
Heathy Streets Indicators	Observed Problems/Issues	Improvements
Easy to cross	Uneven surface and no tactile paving may make it more challenging for mobility impaired users to cross, although this minor access road is very lightly trafficked (service yard access) and pedestrians can therefore cross cautiously with ease.	Improved surfacing and tactile paving.
People feel safe	Locality benefits from a high pedestrian footfall to help people feel safe and secure, being located close to Sutton town centre. Good level of street lighting and retail stores.	None suggested.
Things to see and do	This location is a functional section of footway which crosses a minor access to a service yard.	None suggested.
Places to stop and rest	The footway is wide to enable pedestrians to stop without obstructing the footway although there are no benches within this area for people to rest.	Provide of a bench to enable pedestrians to stop and rest.
People feel relaxed	Being located in central Sutton this area features high pedestrian flow to help pedestrian feel relaxed and at ease. There are a number of retail stores nearby also and street lighting is of a good standard.	None suggested.
Not too noisy	Location in the centre of Sutton the area is classified as moderate.	None suggested.
Clean air	Area is located in the ULEZ. The air quality here varies but most commonly air pollution is classified as low for London.	None suggested.
Shade and Shelter	Proximity of retail stores and buildings provide some opportunities for shade and shelter.	None suggested.



APPENDIX F

Accident Rate Calculation Tool at Junctions

Information taken from DMRB, Volume 13, Section 1, Part 2, Chapter 5 Table 5/1: Junction Accident Parameters - 1997 Base

Step 1	Type of Junction (eg. Priority)	No. of Arms	Single or Dual Carriageway	Urban or Rural Location
	Signalised Junction	3	S	Urban

Step 2	Junction Type (Using Coeff/Power tab)
	38

Step 3	Coeff 'a'	Power 'b'
	0.223	0.610

Step 4	AADT Flow for Junction
	15,568

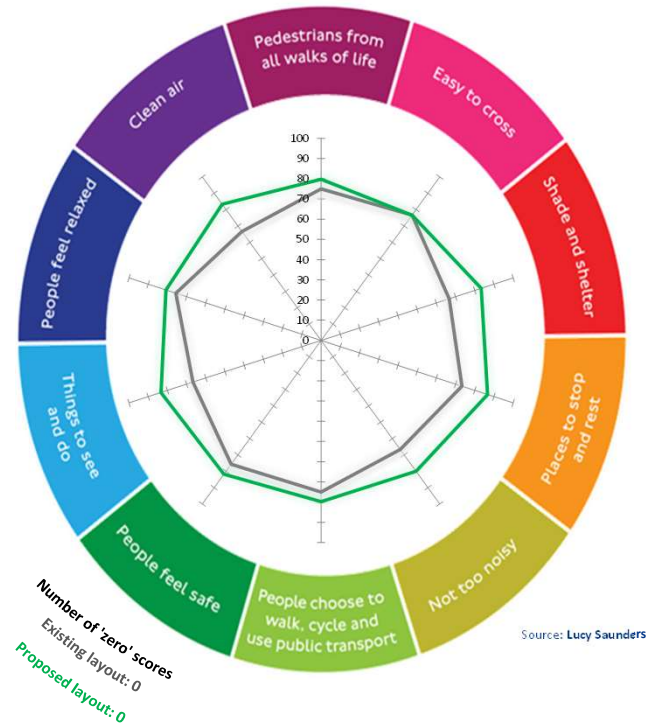
Accident Rate
1.19



APPENDIX G

Name of scheme
Segment number

City House
1



Healthy Streets Indicators' scores (%)

(Results will only display once all metrics have been scored)

	Existing layout	Proposed layout
Pedestrians from all walks of life	75	80
Easy to cross	77	77
Shade and shelter	67	83
Places to stop and rest	73	87
Not too noisy	67	80
People choose to walk, cycle and use public transport	75	80
People feel safe	76	82
Things to see and do	67	83
People feel relaxed	76	81
Clean Air	67	83
Overall Healthy Streets Check score	74	81
Number of 'zero' scores	0	0



APPENDIX H



APPENDIX I

STUDY OF RESIDENTIAL SERVICING IN LONDON

Date: March 2023

Ref: 22/6649

SUMMARY OF KEY FINDINGS

Survey Parameters

- RGP commissioned detailed traffic surveys undertaken at two residential developments within the London Borough of Wandsworth to establish and understand the typical servicing requirements of households and residential-led developments.
- The surveys were conducted over the course of 3 days at each respective development in June 2022 (Thursday 23rd, Friday 24th & Saturday 25th), with 72 hours of video data obtained per site to identify all delivery and servicing vehicle activity.
- The surveys represent a post-covid position when it is generally accepted that deliveries to home have increased as retail habits by households have changed over recent time. The observations have been compared with surveys contained within the TRICS database in order to establish a reasonable service trip generation for a range of residential developments.
- The surveys captured the trip purpose, vehicle size and type, frequency of visits, the freight operator, the duration of stay, the specific time of arrival / departure and the type of goods delivered.

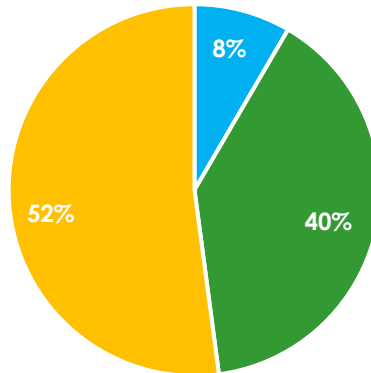
Trip Purpose

- The surveys indicate the following types of deliveries carried out by freight operators:

52% - Hot food takeaways

40% - General household goods

8% - Supermarket goods



■ Supermarket Deliveries ■ General Goods ■ Hot Food Takeaways

Delivery Vehicle Sizes

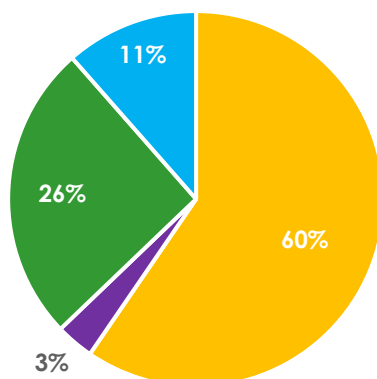
- The majority of recorded vehicles comprise bicycles, motorcycles and small light goods vehicles (LGVs). There were no heavy goods vehicles (HGVs) identified at either survey site for the duration of the 3 survey days. The types of vehicles utilised are summarised as follows:

60% - Bicycles & motorcycles

3% - Cars

26% - Small LGVs (light vans / transit vans / sprinter vans)

11% - Large LGVs (7.5t box / panel vans)

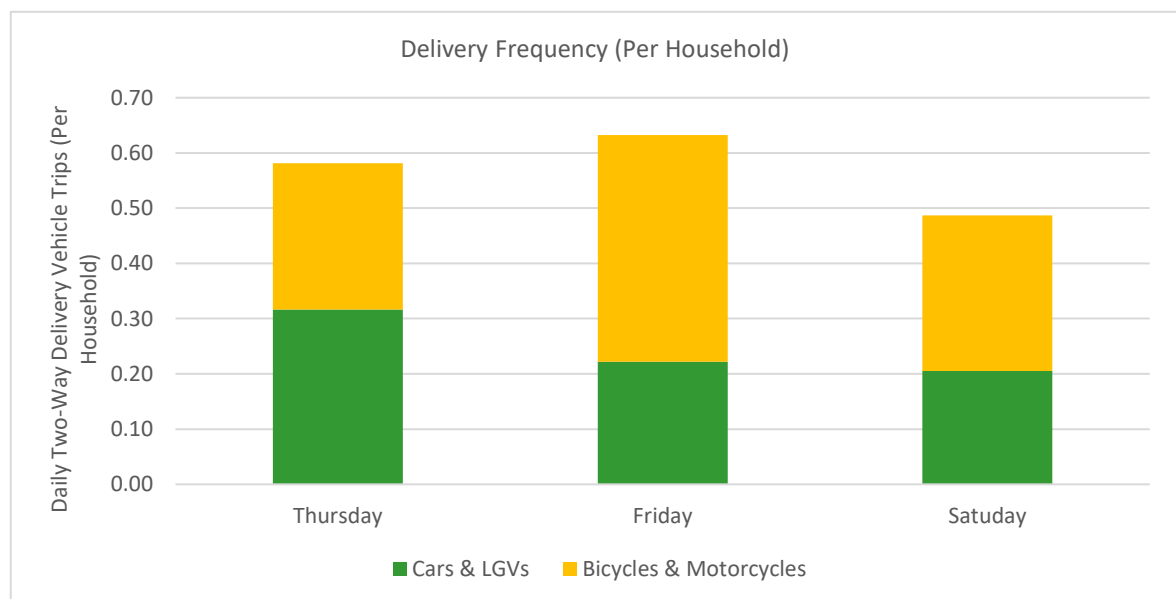


■ Bicycle & Motorcycle ■ Car ■ Small LGV ■ Large LGV

Delivery Frequencies

- A daily peak of 0.63 two-way delivery vehicle trips was observed on Friday as an average across the 2 surveyed sites, when considering all delivery vehicle types (including goods delivered by bicycle / motorcycle). If discounting bicycles and motorcycles, a peak weekday trip rate of 0.32 two-way daily trips by car / LGVs is generated per household (i.e. 0.16 deliveries per unit per day). This proportion of trips reduces over the weekend to a peak of 0.21 two-way trips by car / LGV.

Survey Day	Daily Two-Way Trips (Cars & LGVs)	Daily Two-Way Trips (Bicycles / Motorcycles)	Daily Two-Way Trips (All Vehicles)
Thursday	0.32	0.26	0.58
Friday	0.22	0.41	0.63
Saturday	0.21	0.28	0.49
Weekday Average	0.270	0.335	0.605

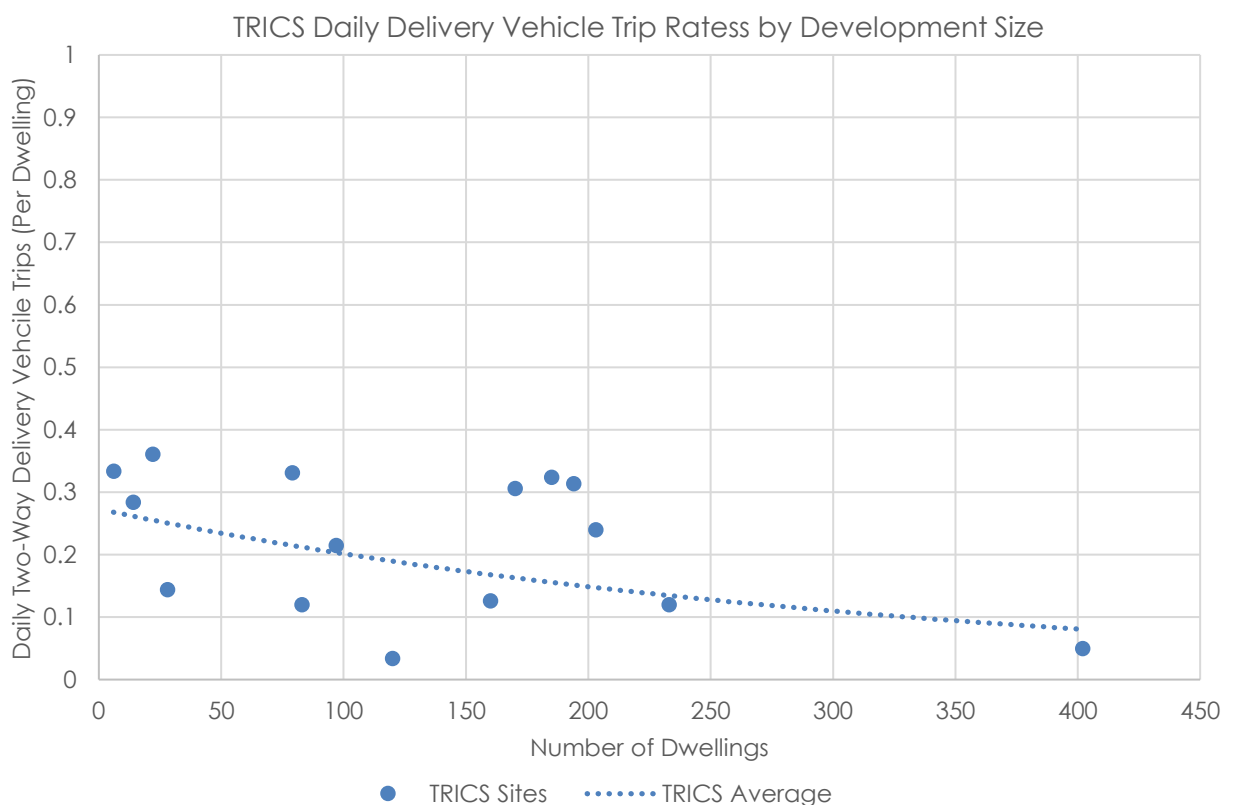


- The above trip rates represent the average rate of daily deliveries generated by households within developments of between circa 80 and 160 dwellings, based on the surveys commissioned by RGP which observed developments of 100 and 134 dwellings, respectively.

Impact of Delivery Consolidation

- Freight consolidation refers to the number of goods that can be delivered by a vehicle in a single trip to multiple residences located within a wider development or street, whilst 'linked trips' refers to the use of multiple stops along an optimised delivery route.

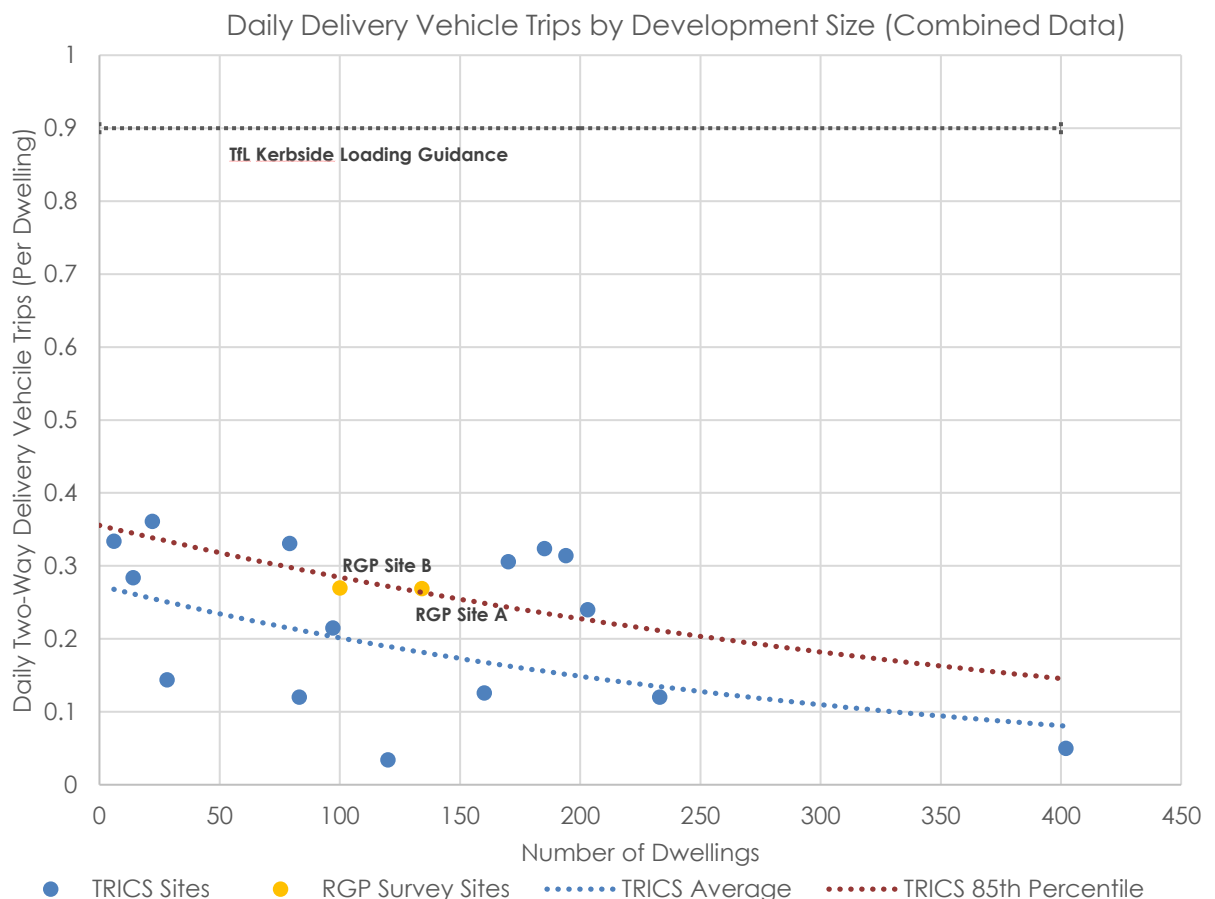
- Freight operators, including supermarkets and hot food delivery services, consolidate deliveries where possible to ensure the minimum number of delivery vehicles are dispatched to drop-off goods to as many households as possible on a single optimised delivery route. Separate vehicles dispatched to deliver an individual's goods is not undertaken by freight operators since it is not feasible from either a logistical or financial perspective, and as such freight operators schedule deliveries to similar addresses at similar times to maximise efficiency. Therefore, the larger the quantum of residential units on a development the lower the trip rate for deliveries as the effect of consolidation occurs.
- To determine the impact of delivery consolidation on the projected trip rates for developments of varied scale, RGP has reviewed detailed survey data obtained from 16 TRICS sites containing privately owned flats in London. These surveys were carried out from 2017 onwards and include detailed servicing vehicle counts, not including cyclists and/or motorcyclists.
- A consolidation factor is established for increases in total numbers of dwellings, as demonstrated by the best fit line for the TRICS data in the chart and table below reducing from a daily two-way trip rate of 0.28 per unit for small developments (10 units) to 0.08 per unit for larger developments (400+units).
- The trendline of trip rates derived from the sample of TRICS sites is summarised below, with the individual survey sites plotted on the graph below. A summary of trip rates corresponding to a variety of development sizes is provided in the following table, overleaf.



	Development Size (Number of Dwellings)									
	0-19	20-39	40-59	60-79	80-99	100-119	120-139	140-159	160-179	180-199
2-Way Daily Trips per Household (Typical Weekday)	0.27	0.26	0.24	0.22	0.21	0.19	0.18	0.18	0.17	0.16
	200-219	220-239	240-259	260-279	280-299	300-319	320-339	340-359	360-379	380-400
	0.15	0.14	0.13	0.12	0.11	0.11	0.1	0.1	0.09	0.08

Trip Rates

- The study sites surveyed on behalf of RGP generated slightly higher vehicle trip rates to that suggested by the best fit line from the TRICS data above (i.e. 0.270 for circa 100 units instead of 0.20 – TRICS). The RGP surveys were however reflective of a post-covid situation which is it generally accepted has resulted in increased household deliveries.
- Therefore, in order to obtain a usable daily trip-rate (cars/LGVs only) for a range of sizes of development the best fit line has been factored upwards to align with RGP's survey results. This allows for an element of robustness and represents the 85th percentile rate based on the TRICS database. These adjusted robust trip rates are illustrated on the chart below and summarised, based on approximate number of units, within the following table, also below.



	Development Size (Number of Dwellings)									
	0-19	20-39	40-59	60-79	80-99	100-119	120-139	140-159	160-179	180-199
2-Way Daily Trips per Household (85 th Percentile)	0.35	0.33	0.32	0.30	0.29	0.28	0.27	0.26	0.25	0.24
	200-219	220-239	240-259	260-279	280-299	300-319	320-339	340-359	360-379	380-400
	0.23	0.22	0.21	0.20	0.19	0.18	0.18	0.17	0.16	0.15

Duration of Stay

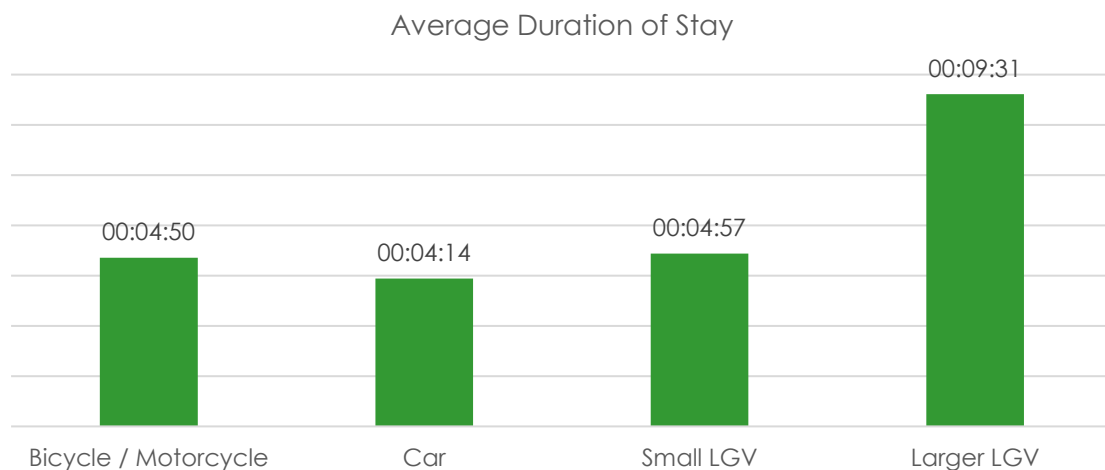
- The detailed surveys commissioned by RGP for this study identify the duration of stay for each recorded visit. The average duration of stay for each delivery vehicle size is summarised below:

00:04:50 - Bicycles & motorcycles

00:04:14 - Cars

00:04:57 - Small LGVs (light vans / transit vans / sprinter vans)

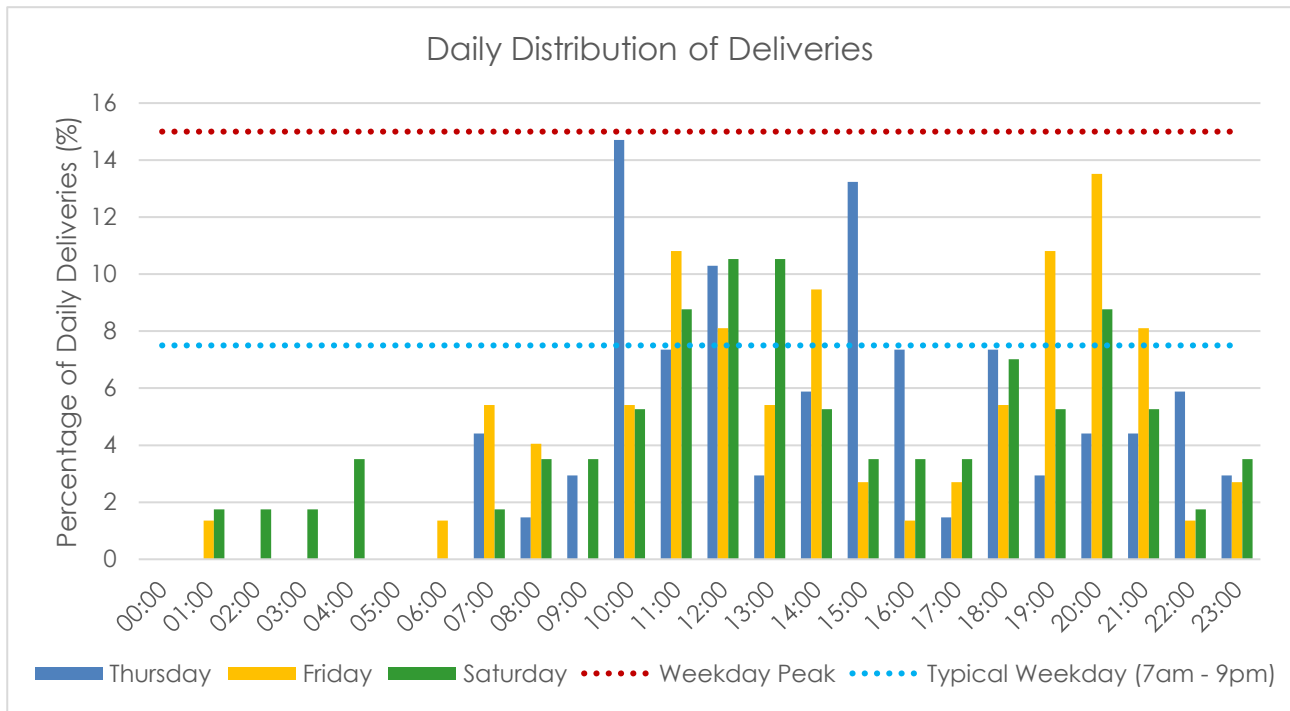
00:09:31 - Large LGVs (7.5t box / panel vans)



- It is important to note that the majority of deliveries by bike / motorcycle required less than 1 minute to complete, however, some riders remained on-site for up to 10 minutes, presumably waiting to receive a new pick-up instruction following the completion of the previous delivery.
- For assessment purposes, it is considered robust to assume the following:
 - Cars and Small LGVs** would have an average duration of stay of **5 minutes**;
 - Large LGVs** would have an average duration of stay of **10 minutes**.

Daily Distribution of Deliveries

- The distribution of deliveries across each surveyed day is as indicated in the chart below.



- The peak time of weekday deliveries is demonstrated to occur between 10:00 and 11:00 hours, during which time circa 15% of daily deliveries are undertaken. A second evening peak was observed on Friday evenings between 20:00 and 21:00 hours, associated with deliveries of hot food takeaways undertaken by bicycle and motorcycle.
- Weekend deliveries are more evenly distributed throughout the day, although still with identifiable peaks at 12:00 and 20:00 hours.
- Assuming that most deliveries occur during a typical daytime period of 14 hours (i.e. 07:00 hours to 21:00 hours) it is expected that a typical hourly demand from deliveries would be circa 7% – 7.5% of daily deliveries.
- For assessment purposes, it is considered reasonable to assume the following:
 - The **peak hour**, in terms of deliveries at a development, is equivalent to **15%** of the daily number of deliveries;
 - The **typical weekday hour**, in terms of deliveries at a development, is equivalent to **7.5%** of the daily number of deliveries;

Implications of Study

- This study demonstrates that a fixed trip rate should not necessarily be applied when assessing the likely servicing requirements of individual households within varied development sizes. Trip rates should be established according to the trends associated with the impact of delivery consolidation.
- RGP has expanded on the traditional application of TRICS survey data by providing a 'sliding scale' of delivery vehicle trip rates depending on the quantum of housing with a given development. The effect of delivery consolidation significantly impacts the forecast frequency of deliveries to residential developments depending on the quantity of households.
- RGP has also validated the TRICS database surveys and uplifted the trip rates to reflect a post-covid scenario where households generally exhibit a greater quantum of deliveries than the pre-covid scenario.
- This study confirms that delivery frequencies established by TfL in the 'Kerbside Loading Guidance' document (4.5 weekly freight movements per household) are significantly overestimated, emphasising the household demand for goods, rather than the logistics of delivering goods and hence the impact of such vehicles on the highway or servicing area. The trip rate applied by TfL is considered to be unsuitable to use for the planning of new residential development of any scale.
- This study demonstrates that typical household deliveries are accommodated by small delivery vehicles, with the largest comprising a 7.5t panel or box van (Large LGV). Any loading bays provided for a residential development would therefore need to measure 8m in length to accommodate a box van. Although larger delivery bays would remain beneficial, they are not a necessity to accommodate typical household deliveries.
- This study allows an assessment of the likely occupancy rate for a service yard or delivery bay, based on reasonable survey data, for any size of residential development. The study therefore allows the level of servicing need to be established to inform the impact of the development or the size and scale of delivery bays needed.

RGP Mill Pool House Godalming

Licence No: 728001

Calculation Reference: AUDIT-728001-231205-1209

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

01	GREATER LONDON	
	BK BARKING	1 days
	WF WALTHAM FOREST	4 days

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

RGP Mill Pool House Godalming

Licence No: 728001

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: 22 to 44 (units:)
Range Selected by User: 20 to 150 (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: 01/01/15 to 25/05/21

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 3 days
Thursday 1 days
Friday 1 days

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

Selected survey types:

Manual count 5 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:

Town Centre 1
Edge of Town Centre 2
Suburban Area (PPS6 Out of Centre) 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 3
No Sub Category 2

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included 2 days - Selected
Servicing vehicles Excluded 3 days - Selected

Secondary Filtering selection:

Use Class:

C3 5 days

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

Population within 500m Range:

All Surveys Included

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Secondary Filtering selection (Cont.):

Population within 1 mile:

20,001 to 25,000	1 days
25,001 to 50,000	3 days
50,001 to 100,000	1 days

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

Population within 5 miles:

500,001 or More	5 days
-----------------	--------

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

Car ownership within 5 miles:

0.6 to 1.0	5 days
------------	--------

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

Travel Plan:

No	5 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:

1a (Low) Very poor	1 days
3 Moderate	1 days
4 Good	2 days
6a Excellent	1 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	BK-03-C-01 NORTH STREET BARKING	BLOCKS OF FLATS		BARKING
	Town Centre No Sub Category Total No of Dwellings:		40	
	<i>Survey date: THURSDAY</i>		<i>10/09/20</i>	<i>Survey Type: MANUAL</i>
2	WF-03-C-02 GROSVENOR ROAD WANSTEAD	BLOCKS OF FLATS		WALTHAM FOREST
	Edge of Town Centre Residential Zone Total No of Dwellings:		28	
	<i>Survey date: TUESDAY</i>		<i>25/05/21</i>	<i>Survey Type: MANUAL</i>
3	WF-03-C-03 FOREST ROAD WALTHAMSTOW	FLATS & TERRACED HOUSES		WALTHAM FOREST
	Neighbourhood Centre (PPS6 Local Centre) No Sub Category Total No of Dwellings:		22	
	<i>Survey date: FRIDAY</i>		<i>21/05/21</i>	<i>Survey Type: MANUAL</i>
4	WF-03-C-04 GROSVENOR ROAD WANSTEAD	BLOCKS OF FLATS		WALTHAM FOREST
	Edge of Town Centre Residential Zone Total No of Dwellings:		42	
	<i>Survey date: TUESDAY</i>		<i>25/05/21</i>	<i>Survey Type: MANUAL</i>
5	WF-03-C-06 BELGRAVE ROAD WANSTEAD	BLOCKS OF FLATS		WALTHAM FOREST
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:		44	
	<i>Survey date: TUESDAY</i>		<i>25/05/21</i>	<i>Survey Type: MANUAL</i>

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

RGP Mill Pool House Godalming

Licence No: 728001

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	32	0.000	2	32	0.000	2	32	0.000
07:00 - 08:00	5	35	0.011	5	35	0.125	5	35	0.136
08:00 - 09:00	5	35	0.068	5	35	0.153	5	35	0.221
09:00 - 10:00	5	35	0.097	5	35	0.091	5	35	0.188
10:00 - 11:00	5	35	0.097	5	35	0.114	5	35	0.211
11:00 - 12:00	5	35	0.119	5	35	0.074	5	35	0.193
12:00 - 13:00	5	35	0.068	5	35	0.091	5	35	0.159
13:00 - 14:00	5	35	0.068	5	35	0.102	5	35	0.170
14:00 - 15:00	5	35	0.068	5	35	0.114	5	35	0.182
15:00 - 16:00	5	35	0.142	5	35	0.085	5	35	0.227
16:00 - 17:00	5	35	0.108	5	35	0.097	5	35	0.205
17:00 - 18:00	5	35	0.119	5	35	0.057	5	35	0.176
18:00 - 19:00	5	35	0.091	5	35	0.063	5	35	0.153
19:00 - 20:00	5	35	0.080	5	35	0.045	5	35	0.125
20:00 - 21:00	5	35	0.057	5	35	0.034	5	35	0.091
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.193			1.244			2.437

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

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

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Parameter summary

Trip rate parameter range selected: 22 - 44 (units:)
Survey date date range: 01/01/15 - 25/05/21
Number of weekdays (Monday-Friday): 5
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 0

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

RGP Mill Pool House Godalming

Licence No: 728001

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

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	2	32	0.000	2	32	0.000	2	32	0.000
07:00 - 08:00	5	35	0.000	5	35	0.006	5	35	0.006
08:00 - 09:00	5	35	0.017	5	35	0.011	5	35	0.028
09:00 - 10:00	5	35	0.023	5	35	0.011	5	35	0.034
10:00 - 11:00	5	35	0.017	5	35	0.017	5	35	0.034
11:00 - 12:00	5	35	0.023	5	35	0.017	5	35	0.040
12:00 - 13:00	5	35	0.023	5	35	0.017	5	35	0.040
13:00 - 14:00	5	35	0.023	5	35	0.023	5	35	0.046
14:00 - 15:00	5	35	0.006	5	35	0.023	5	35	0.029
15:00 - 16:00	5	35	0.006	5	35	0.006	5	35	0.012
16:00 - 17:00	5	35	0.006	5	35	0.011	5	35	0.017
17:00 - 18:00	5	35	0.011	5	35	0.000	5	35	0.011
18:00 - 19:00	5	35	0.006	5	35	0.006	5	35	0.012
19:00 - 20:00	5	35	0.006	5	35	0.000	5	35	0.006
20:00 - 21:00	5	35	0.000	5	35	0.000	5	35	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.167			0.148			0.315

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

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



APPENDIX J

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : A - OFFICE
 MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON	
	CI CITY OF LONDON	2 days
	CN CAMDEN	1 days
	HM HAMMERSMITH AND FULHAM	1 days
	LB LAMBETH	1 days
	SK SOUTHWARK	1 days
	WH WANDSWORTH	1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 1215 to 4062 (units: sqm)
 Range Selected by User: 100 to 5000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/00 to 05/11/19

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

Selected survey days:

Monday	2 days
Tuesday	1 days
Wednesday	1 days
Thursday	2 days
Friday	1 days

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

Selected survey types:

Manual count	7 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:

Town Centre	5
Edge of Town Centre	2

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

Selected Location Sub Categories:

Commercial Zone	2
Built-Up Zone	4
High Street	1

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

Secondary Filtering selection:

Use Class:

Not Known 7 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®.

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Population within 1 mile:

10,001 to 15,000	1 days
25,001 to 50,000	1 days
50,001 to 100,000	5 days

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

Population within 5 miles:

250,001 to 500,000	1 days
500,001 or More	6 days

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

Car ownership within 5 miles:

0.5 or Less	3 days
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:

No 7 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	2 days
4 Good	1 days
5 Very Good	1 days
6a Excellent	1 days
6b (High) Excellent	2 days

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

LIST OF SITES relevant to selection parameters

1	CI-02-A-01 OFFICES 50 CANNON STREET BANK CITY OF LONDON Town Centre Built-Up Zone Total Gross floor area: 1386 sqm <i>Survey date: WEDNESDAY 21/10/09</i>	CITY OF LONDON	<i>Survey Type: MANUAL</i>
2	CI-02-A-03 OFFICES MONUMENT STREET CITY OF LONDON MONUMENT Town Centre Commercial Zone Total Gross floor area: 1951 sqm <i>Survey date: FRIDAY 29/11/13</i>	CITY OF LONDON	<i>Survey Type: MANUAL</i>
3	CN-02-A-01 OFFICES ELY PLACE HOLBORN HOLBORN CIRCUS Edge of Town Centre Built-Up Zone Total Gross floor area: 4062 sqm <i>Survey date: THURSDAY 23/10/08</i>	CAMDEN	<i>Survey Type: MANUAL</i>
4	HM-02-A-01 REGUS OFFICES QUEEN CAROLINE STREET HAMMERSMITH Town Centre Built-Up Zone Total Gross floor area: 2036 sqm <i>Survey date: MONDAY 13/11/17</i>	HAMMERSMITH AND FULHAM	<i>Survey Type: MANUAL</i>
5	LB-02-A-02 MUSIC COMPANY STREATHAM HIGH ROAD STREATHAM Town Centre High Street Total Gross floor area: 3054 sqm <i>Survey date: TUESDAY 05/11/19</i>	LAMBETH	<i>Survey Type: MANUAL</i>
6	SK-02-A-02 OFFICES ST OLAV'S COURT ROTHERHITHE Edge of Town Centre Commercial Zone Total Gross floor area: 2371 sqm <i>Survey date: MONDAY 20/10/08</i>	SOUTHWARK	<i>Survey Type: MANUAL</i>
7	WH-02-A-02 OFFICES BATTERSEA PARK ROAD BATTERSEA Town Centre Built-Up Zone Total Gross floor area: 1215 sqm <i>Survey date: THURSDAY 10/05/12</i>	WANDSWORTH	<i>Survey Type: MANUAL</i>

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

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 12.55

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	2202	0.084	7	2202	0.032	7	2202	0.116
08:00 - 09:00	7	2202	0.136	7	2202	0.045	7	2202	0.181
09:00 - 10:00	7	2202	0.175	7	2202	0.052	7	2202	0.227
10:00 - 11:00	7	2202	0.130	7	2202	0.110	7	2202	0.240
11:00 - 12:00	7	2202	0.123	7	2202	0.123	7	2202	0.246
12:00 - 13:00	7	2202	0.123	7	2202	0.130	7	2202	0.253
13:00 - 14:00	7	2202	0.071	7	2202	0.104	7	2202	0.175
14:00 - 15:00	7	2202	0.143	7	2202	0.104	7	2202	0.247
15:00 - 16:00	7	2202	0.052	7	2202	0.084	7	2202	0.136
16:00 - 17:00	7	2202	0.104	7	2202	0.097	7	2202	0.201
17:00 - 18:00	7	2202	0.097	7	2202	0.208	7	2202	0.305
18:00 - 19:00	7	2202	0.052	7	2202	0.169	7	2202	0.221
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.290			1.258			2.548

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

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

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Parameter summary

Trip rate parameter range selected:	1215 - 4062 (units: sqm)
Survey date date range:	01/01/00 - 05/11/19
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
 MULTI-MODAL OGVS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	2202	0.000	7	2202	0.000	7	2202	0.000
08:00 - 09:00	7	2202	0.000	7	2202	0.000	7	2202	0.000
09:00 - 10:00	7	2202	0.013	7	2202	0.006	7	2202	0.019
10:00 - 11:00	7	2202	0.000	7	2202	0.006	7	2202	0.006
11:00 - 12:00	7	2202	0.000	7	2202	0.000	7	2202	0.000
12:00 - 13:00	7	2202	0.000	7	2202	0.000	7	2202	0.000
13:00 - 14:00	7	2202	0.000	7	2202	0.000	7	2202	0.000
14:00 - 15:00	7	2202	0.000	7	2202	0.000	7	2202	0.000
15:00 - 16:00	7	2202	0.000	7	2202	0.000	7	2202	0.000
16:00 - 17:00	7	2202	0.000	7	2202	0.000	7	2202	0.000
17:00 - 18:00	7	2202	0.000	7	2202	0.000	7	2202	0.000
18:00 - 19:00	7	2202	0.000	7	2202	0.000	7	2202	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.013			0.012			0.025

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 02 - EMPLOYMENT/A - OFFICE
 MULTI-MODAL CYCLISTS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	2202	0.052	7	2202	0.000	7	2202	0.052
08:00 - 09:00	7	2202	0.084	7	2202	0.000	7	2202	0.084
09:00 - 10:00	7	2202	0.130	7	2202	0.000	7	2202	0.130
10:00 - 11:00	7	2202	0.013	7	2202	0.013	7	2202	0.026
11:00 - 12:00	7	2202	0.032	7	2202	0.013	7	2202	0.045
12:00 - 13:00	7	2202	0.000	7	2202	0.019	7	2202	0.019
13:00 - 14:00	7	2202	0.019	7	2202	0.000	7	2202	0.019
14:00 - 15:00	7	2202	0.006	7	2202	0.000	7	2202	0.006
15:00 - 16:00	7	2202	0.026	7	2202	0.026	7	2202	0.052
16:00 - 17:00	7	2202	0.006	7	2202	0.026	7	2202	0.032
17:00 - 18:00	7	2202	0.006	7	2202	0.097	7	2202	0.103
18:00 - 19:00	7	2202	0.006	7	2202	0.078	7	2202	0.084
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.380			0.272			0.652

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 02 - EMPLOYMENT/A - OFFICE
 MULTI-MODAL VEHICLE OCCUPANTS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	2202	0.123	7	2202	0.026	7	2202	0.149
08:00 - 09:00	7	2202	0.156	7	2202	0.032	7	2202	0.188
09:00 - 10:00	7	2202	0.195	7	2202	0.058	7	2202	0.253
10:00 - 11:00	7	2202	0.136	7	2202	0.117	7	2202	0.253
11:00 - 12:00	7	2202	0.149	7	2202	0.130	7	2202	0.279
12:00 - 13:00	7	2202	0.156	7	2202	0.162	7	2202	0.318
13:00 - 14:00	7	2202	0.078	7	2202	0.123	7	2202	0.201
14:00 - 15:00	7	2202	0.195	7	2202	0.123	7	2202	0.318
15:00 - 16:00	7	2202	0.078	7	2202	0.104	7	2202	0.182
16:00 - 17:00	7	2202	0.130	7	2202	0.117	7	2202	0.247
17:00 - 18:00	7	2202	0.117	7	2202	0.273	7	2202	0.390
18:00 - 19:00	7	2202	0.058	7	2202	0.253	7	2202	0.311
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.571			1.518			3.089

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 02 - EMPLOYMENT/A - OFFICE
 MULTI-MODAL PEDESTRIANS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	2202	0.311	7	2202	0.032	7	2202	0.343
08:00 - 09:00	7	2202	0.513	7	2202	0.162	7	2202	0.675
09:00 - 10:00	7	2202	0.519	7	2202	0.273	7	2202	0.792
10:00 - 11:00	7	2202	0.415	7	2202	0.428	7	2202	0.843
11:00 - 12:00	7	2202	0.389	7	2202	0.513	7	2202	0.902
12:00 - 13:00	7	2202	1.389	7	2202	1.934	7	2202	3.323
13:00 - 14:00	7	2202	1.817	7	2202	1.531	7	2202	3.348
14:00 - 15:00	7	2202	0.934	7	2202	0.655	7	2202	1.589
15:00 - 16:00	7	2202	0.506	7	2202	0.590	7	2202	1.096
16:00 - 17:00	7	2202	0.331	7	2202	0.584	7	2202	0.915
17:00 - 18:00	7	2202	0.208	7	2202	0.545	7	2202	0.753
18:00 - 19:00	7	2202	0.084	7	2202	0.247	7	2202	0.331
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			7.416			7.494			14.910

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 02 - EMPLOYMENT/A - OFFICE
 MULTI-MODAL BUS/TRAM PASSENGERS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	2202	0.214	7	2202	0.019	7	2202	0.233
08:00 - 09:00	7	2202	0.584	7	2202	0.045	7	2202	0.629
09:00 - 10:00	7	2202	0.474	7	2202	0.045	7	2202	0.519
10:00 - 11:00	7	2202	0.162	7	2202	0.078	7	2202	0.240
11:00 - 12:00	7	2202	0.097	7	2202	0.091	7	2202	0.188
12:00 - 13:00	7	2202	0.110	7	2202	0.227	7	2202	0.337
13:00 - 14:00	7	2202	0.182	7	2202	0.182	7	2202	0.364
14:00 - 15:00	7	2202	0.149	7	2202	0.175	7	2202	0.324
15:00 - 16:00	7	2202	0.065	7	2202	0.175	7	2202	0.240
16:00 - 17:00	7	2202	0.032	7	2202	0.285	7	2202	0.317
17:00 - 18:00	7	2202	0.019	7	2202	0.519	7	2202	0.538
18:00 - 19:00	7	2202	0.000	7	2202	0.175	7	2202	0.175
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.088			2.016			4.104

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 02 - EMPLOYMENT/A - OFFICE
 MULTI-MODAL TOTAL RAIL PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	2202	0.577	7	2202	0.019	7	2202	0.596
08:00 - 09:00	7	2202	1.512	7	2202	0.039	7	2202	1.551
09:00 - 10:00	7	2202	1.389	7	2202	0.084	7	2202	1.473
10:00 - 11:00	7	2202	0.298	7	2202	0.091	7	2202	0.389
11:00 - 12:00	7	2202	0.240	7	2202	0.149	7	2202	0.389
12:00 - 13:00	7	2202	0.208	7	2202	0.143	7	2202	0.351
13:00 - 14:00	7	2202	0.169	7	2202	0.123	7	2202	0.292
14:00 - 15:00	7	2202	0.169	7	2202	0.234	7	2202	0.403
15:00 - 16:00	7	2202	0.123	7	2202	0.292	7	2202	0.415
16:00 - 17:00	7	2202	0.117	7	2202	0.707	7	2202	0.824
17:00 - 18:00	7	2202	0.019	7	2202	1.635	7	2202	1.654
18:00 - 19:00	7	2202	0.052	7	2202	0.831	7	2202	0.883
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.873			4.347			9.220

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 02 - EMPLOYMENT/A - OFFICE
 MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	2202	0.792	7	2202	0.039	7	2202	0.831
08:00 - 09:00	7	2202	2.096	7	2202	0.084	7	2202	2.180
09:00 - 10:00	7	2202	1.862	7	2202	0.130	7	2202	1.992
10:00 - 11:00	7	2202	0.461	7	2202	0.169	7	2202	0.630
11:00 - 12:00	7	2202	0.344	7	2202	0.240	7	2202	0.584
12:00 - 13:00	7	2202	0.318	7	2202	0.370	7	2202	0.688
13:00 - 14:00	7	2202	0.357	7	2202	0.305	7	2202	0.662
14:00 - 15:00	7	2202	0.318	7	2202	0.415	7	2202	0.733
15:00 - 16:00	7	2202	0.188	7	2202	0.467	7	2202	0.655
16:00 - 17:00	7	2202	0.149	7	2202	0.999	7	2202	1.148
17:00 - 18:00	7	2202	0.039	7	2202	2.154	7	2202	2.193
18:00 - 19:00	7	2202	0.052	7	2202	1.006	7	2202	1.058
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			6.976			6.378			13.354

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 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 12.55

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	2202	1.278	7	2202	0.097	7	2202	1.375
08:00 - 09:00	7	2202	2.848	7	2202	0.279	7	2202	3.127
09:00 - 10:00	7	2202	2.706	7	2202	0.461	7	2202	3.167
10:00 - 11:00	7	2202	1.025	7	2202	0.727	7	2202	1.752
11:00 - 12:00	7	2202	0.915	7	2202	0.895	7	2202	1.810
12:00 - 13:00	7	2202	1.862	7	2202	2.485	7	2202	4.347
13:00 - 14:00	7	2202	2.271	7	2202	1.960	7	2202	4.231
14:00 - 15:00	7	2202	1.453	7	2202	1.194	7	2202	2.647
15:00 - 16:00	7	2202	0.798	7	2202	1.187	7	2202	1.985
16:00 - 17:00	7	2202	0.616	7	2202	1.726	7	2202	2.342
17:00 - 18:00	7	2202	0.370	7	2202	3.069	7	2202	3.439
18:00 - 19:00	7	2202	0.201	7	2202	1.583	7	2202	1.784
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			16.343			15.663			32.006

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.

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TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

01	GREATER LONDON	
BM	BROMLEY	1 days
HM	HAMMERSMITH AND FULHAM	1 days
IS	ISLINGTON	1 days
KI	KINGSTON	1 days
KN	KENSINGTON AND CHELSEA	1 days
SK	SOUTHWARK	1 days
WF	WALTHAM FOREST	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: 53 to 194 (units:)
 Range Selected by User: 50 to 200 (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: 01/01/00 to 05/11/19

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

Selected survey days:

Monday	2 days
Tuesday	2 days
Thursday	1 days
Friday	2 days

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

Selected survey types:

Manual count	7 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:

Town Centre	2
Edge of Town Centre	5

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:

Development Zone	1
Residential Zone	2
Built-Up Zone	3
No Sub Category	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village,

Secondary Filtering selection:

Use Class:

C3 7 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:

5,001 to 10,000	1 days
25,001 to 50,000	2 days
50,001 to 100,000	3 days
100,001 or More	1 days

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

Population within 5 miles:

125,001 to 250,000	1 days
500,001 or More	6 days

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

Car ownership within 5 miles:

0.5 or Less	2 days
0.6 to 1.0	4 days
1.1 to 1.5	1 days

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

Travel Plan:

Yes	2 days
No	5 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:

5 Very Good	3 days
6a Excellent	2 days
6b (High) Excellent	2 days

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

LIST OF SITES relevant to selection parameters

1	BM-03-C-01 RINGER'S ROAD BROMLEY	BLOCKS OF FLATS		BROMLEY
	Town Centre Built-Up Zone Total No of Dwellings:		160	
	<i>Survey date: MONDAY</i>		<i>12/11/18</i>	<i>Survey Type: MANUAL</i>
2	HM-03-C-02 GLENTHORNE ROAD HAMMERSMITH	BLOCKS OF FLATS		HAMMERSMITH AND FULHAM
	Town Centre Built-Up Zone Total No of Dwellings:		194	
	<i>Survey date: TUESDAY</i>		<i>30/04/19</i>	<i>Survey Type: MANUAL</i>
3	IS-03-C-07 CITY ROAD ISLINGTON	BLOCK OF FLATS		ISLINGTON
	Edge of Town Centre Development Zone Total No of Dwellings:		185	
	<i>Survey date: THURSDAY</i>		<i>06/06/19</i>	<i>Survey Type: MANUAL</i>
4	KI-03-C-02 SOPWITH WAY KINGSTON UPON THAMES	BLOCK OF FLATS		KINGSTON
	Edge of Town Centre No Sub Category Total No of Dwellings:		132	
	<i>Survey date: MONDAY</i>		<i>14/06/10</i>	<i>Survey Type: MANUAL</i>
5	KN-03-C-03 ALLEN STREET KENSINGTON	BLOCK OF FLATS		KENSINGTON AND CHELSEA
	Edge of Town Centre Residential Zone Total No of Dwellings:		72	
	<i>Survey date: FRIDAY</i>		<i>11/05/12</i>	<i>Survey Type: MANUAL</i>
6	SK-03-C-01 PARK STREET SOUTHWARK	BLOCK OF FLATS		SOUTHWARK
	Edge of Town Centre Built-Up Zone Total No of Dwellings:		53	
	<i>Survey date: FRIDAY</i>		<i>19/09/14</i>	<i>Survey Type: MANUAL</i>
7	WF-03-C-01 ERSKINE ROAD WALTHAMSTOW	BLOCKS OF FLATS		WALTHAM FOREST
	Edge of Town Centre Residential Zone Total No of Dwellings:		97	
	<i>Survey date: TUESDAY</i>		<i>05/11/19</i>	<i>Survey Type: MANUAL</i>

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

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): 4.38

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	7	128	0.017	7	128	0.054	7	128	0.071
08:00 - 09:00	7	128	0.032	7	128	0.072	7	128	0.104
09:00 - 10:00	7	128	0.044	7	128	0.041	7	128	0.085
10:00 - 11:00	7	128	0.036	7	128	0.028	7	128	0.064
11:00 - 12:00	7	128	0.030	7	128	0.040	7	128	0.070
12:00 - 13:00	7	128	0.034	7	128	0.039	7	128	0.073
13:00 - 14:00	7	128	0.030	7	128	0.031	7	128	0.061
14:00 - 15:00	7	128	0.027	7	128	0.029	7	128	0.056
15:00 - 16:00	7	128	0.055	7	128	0.040	7	128	0.095
16:00 - 17:00	7	128	0.055	7	128	0.047	7	128	0.102
17:00 - 18:00	7	128	0.060	7	128	0.037	7	128	0.097
18:00 - 19:00	7	128	0.076	7	128	0.067	7	128	0.143
19:00 - 20:00	4	159	0.060	4	159	0.049	4	159	0.109
20:00 - 21:00	4	159	0.027	4	159	0.027	4	159	0.054
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.583			0.601			1.184

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

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

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Parameter summary

Trip rate parameter range selected: 53 - 194 (units:)
Survey date date range: 01/01/00 - 05/11/19
Number of weekdays (Monday-Friday): 7
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 2
Surveys manually removed from selection: 0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
 MULTI-MODAL 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	7	128	0.000	7	128	0.000	7	128	0.000
08:00 - 09:00	7	128	0.001	7	128	0.001	7	128	0.002
09:00 - 10:00	7	128	0.002	7	128	0.002	7	128	0.004
10:00 - 11:00	7	128	0.003	7	128	0.002	7	128	0.005
11:00 - 12:00	7	128	0.003	7	128	0.004	7	128	0.007
12:00 - 13:00	7	128	0.001	7	128	0.001	7	128	0.002
13:00 - 14:00	7	128	0.000	7	128	0.000	7	128	0.000
14:00 - 15:00	7	128	0.003	7	128	0.003	7	128	0.006
15:00 - 16:00	7	128	0.000	7	128	0.000	7	128	0.000
16:00 - 17:00	7	128	0.001	7	128	0.001	7	128	0.002
17:00 - 18:00	7	128	0.000	7	128	0.000	7	128	0.000
18:00 - 19:00	7	128	0.000	7	128	0.000	7	128	0.000
19:00 - 20:00	4	159	0.000	4	159	0.000	4	159	0.000
20:00 - 21:00	4	159	0.000	4	159	0.000	4	159	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.014			0.014			0.028

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
 MULTI-MODAL 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	7	128	0.000	7	128	0.000	7	128	0.000
08:00 - 09:00	7	128	0.000	7	128	0.001	7	128	0.001
09:00 - 10:00	7	128	0.000	7	128	0.001	7	128	0.001
10:00 - 11:00	7	128	0.000	7	128	0.000	7	128	0.000
11:00 - 12:00	7	128	0.000	7	128	0.002	7	128	0.002
12:00 - 13:00	7	128	0.000	7	128	0.003	7	128	0.003
13:00 - 14:00	7	128	0.000	7	128	0.001	7	128	0.001
14:00 - 15:00	7	128	0.000	7	128	0.000	7	128	0.000
15:00 - 16:00	7	128	0.000	7	128	0.001	7	128	0.001
16:00 - 17:00	7	128	0.000	7	128	0.001	7	128	0.001
17:00 - 18:00	7	128	0.000	7	128	0.000	7	128	0.000
18:00 - 19:00	7	128	0.000	7	128	0.000	7	128	0.000
19:00 - 20:00	4	159	0.000	4	159	0.000	4	159	0.000
20:00 - 21:00	4	159	0.000	4	159	0.000	4	159	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.010			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/C - FLATS PRIVATELY OWNED
 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	7	128	0.000	7	128	0.002	7	128	0.002
08:00 - 09:00	7	128	0.000	7	128	0.009	7	128	0.009
09:00 - 10:00	7	128	0.002	7	128	0.006	7	128	0.008
10:00 - 11:00	7	128	0.007	7	128	0.009	7	128	0.016
11:00 - 12:00	7	128	0.002	7	128	0.001	7	128	0.003
12:00 - 13:00	7	128	0.000	7	128	0.000	7	128	0.000
13:00 - 14:00	7	128	0.001	7	128	0.001	7	128	0.002
14:00 - 15:00	7	128	0.006	7	128	0.002	7	128	0.008
15:00 - 16:00	7	128	0.001	7	128	0.001	7	128	0.002
16:00 - 17:00	7	128	0.002	7	128	0.000	7	128	0.002
17:00 - 18:00	7	128	0.003	7	128	0.001	7	128	0.004
18:00 - 19:00	7	128	0.004	7	128	0.001	7	128	0.005
19:00 - 20:00	4	159	0.009	4	159	0.005	4	159	0.014
20:00 - 21:00	4	159	0.005	4	159	0.002	4	159	0.007
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.042			0.040			0.082

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

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	7	128	0.016	7	128	0.062	7	128	0.078
08:00 - 09:00	7	128	0.031	7	128	0.109	7	128	0.140
09:00 - 10:00	7	128	0.038	7	128	0.046	7	128	0.084
10:00 - 11:00	7	128	0.035	7	128	0.032	7	128	0.067
11:00 - 12:00	7	128	0.029	7	128	0.041	7	128	0.070
12:00 - 13:00	7	128	0.041	7	128	0.038	7	128	0.079
13:00 - 14:00	7	128	0.029	7	128	0.032	7	128	0.061
14:00 - 15:00	7	128	0.034	7	128	0.035	7	128	0.069
15:00 - 16:00	7	128	0.081	7	128	0.043	7	128	0.124
16:00 - 17:00	7	128	0.064	7	128	0.052	7	128	0.116
17:00 - 18:00	7	128	0.076	7	128	0.048	7	128	0.124
18:00 - 19:00	7	128	0.106	7	128	0.057	7	128	0.163
19:00 - 20:00	4	159	0.061	4	159	0.058	4	159	0.119
20:00 - 21:00	4	159	0.030	4	159	0.022	4	159	0.052
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.671			0.675			1.346

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

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	7	128	0.016	7	128	0.043	7	128	0.059
08:00 - 09:00	7	128	0.038	7	128	0.155	7	128	0.193
09:00 - 10:00	7	128	0.028	7	128	0.092	7	128	0.120
10:00 - 11:00	7	128	0.038	7	128	0.054	7	128	0.092
11:00 - 12:00	7	128	0.049	7	128	0.045	7	128	0.094
12:00 - 13:00	7	128	0.057	7	128	0.054	7	128	0.111
13:00 - 14:00	7	128	0.055	7	128	0.065	7	128	0.120
14:00 - 15:00	7	128	0.057	7	128	0.062	7	128	0.119
15:00 - 16:00	7	128	0.097	7	128	0.074	7	128	0.171
16:00 - 17:00	7	128	0.094	7	128	0.068	7	128	0.162
17:00 - 18:00	7	128	0.111	7	128	0.075	7	128	0.186
18:00 - 19:00	7	128	0.132	7	128	0.082	7	128	0.214
19:00 - 20:00	4	159	0.096	4	159	0.050	4	159	0.146
20:00 - 21:00	4	159	0.058	4	159	0.050	4	159	0.108
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.926			0.969			1.895

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL 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	7	128	0.002	7	128	0.041	7	128	0.043
08:00 - 09:00	7	128	0.007	7	128	0.084	7	128	0.091
09:00 - 10:00	7	128	0.008	7	128	0.041	7	128	0.049
10:00 - 11:00	7	128	0.007	7	128	0.025	7	128	0.032
11:00 - 12:00	7	128	0.008	7	128	0.009	7	128	0.017
12:00 - 13:00	7	128	0.021	7	128	0.012	7	128	0.033
13:00 - 14:00	7	128	0.021	7	128	0.012	7	128	0.033
14:00 - 15:00	7	128	0.017	7	128	0.012	7	128	0.029
15:00 - 16:00	7	128	0.030	7	128	0.019	7	128	0.049
16:00 - 17:00	7	128	0.024	7	128	0.019	7	128	0.043
17:00 - 18:00	7	128	0.041	7	128	0.016	7	128	0.057
18:00 - 19:00	7	128	0.063	7	128	0.013	7	128	0.076
19:00 - 20:00	4	159	0.044	4	159	0.011	4	159	0.055
20:00 - 21:00	4	159	0.011	4	159	0.009	4	159	0.020
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.304			0.323			0.627

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL TOTAL 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	7	128	0.012	7	128	0.135	7	128	0.147
08:00 - 09:00	7	128	0.011	7	128	0.169	7	128	0.180
09:00 - 10:00	7	128	0.024	7	128	0.057	7	128	0.081
10:00 - 11:00	7	128	0.022	7	128	0.031	7	128	0.053
11:00 - 12:00	7	128	0.020	7	128	0.032	7	128	0.052
12:00 - 13:00	7	128	0.025	7	128	0.028	7	128	0.053
13:00 - 14:00	7	128	0.034	7	128	0.030	7	128	0.064
14:00 - 15:00	7	128	0.025	7	128	0.020	7	128	0.045
15:00 - 16:00	7	128	0.025	7	128	0.016	7	128	0.041
16:00 - 17:00	7	128	0.036	7	128	0.031	7	128	0.067
17:00 - 18:00	7	128	0.062	7	128	0.026	7	128	0.088
18:00 - 19:00	7	128	0.140	7	128	0.036	7	128	0.176
19:00 - 20:00	4	159	0.108	4	159	0.011	4	159	0.119
20:00 - 21:00	4	159	0.052	4	159	0.011	4	159	0.063
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.596			0.633			1.229

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

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	7	128	0.015	7	128	0.177	7	128	0.192
08:00 - 09:00	7	128	0.018	7	128	0.253	7	128	0.271
09:00 - 10:00	7	128	0.031	7	128	0.099	7	128	0.130
10:00 - 11:00	7	128	0.029	7	128	0.056	7	128	0.085
11:00 - 12:00	7	128	0.028	7	128	0.041	7	128	0.069
12:00 - 13:00	7	128	0.046	7	128	0.040	7	128	0.086
13:00 - 14:00	7	128	0.055	7	128	0.043	7	128	0.098
14:00 - 15:00	7	128	0.041	7	128	0.032	7	128	0.073
15:00 - 16:00	7	128	0.055	7	128	0.035	7	128	0.090
16:00 - 17:00	7	128	0.059	7	128	0.050	7	128	0.109
17:00 - 18:00	7	128	0.103	7	128	0.041	7	128	0.144
18:00 - 19:00	7	128	0.203	7	128	0.049	7	128	0.252
19:00 - 20:00	4	159	0.153	4	159	0.022	4	159	0.175
20:00 - 21:00	4	159	0.063	4	159	0.020	4	159	0.083
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.899			0.958			1.857

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 4.38

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	7	128	0.046	7	128	0.283	7	128	0.329
08:00 - 09:00	7	128	0.087	7	128	0.525	7	128	0.612
09:00 - 10:00	7	128	0.100	7	128	0.242	7	128	0.342
10:00 - 11:00	7	128	0.109	7	128	0.151	7	128	0.260
11:00 - 12:00	7	128	0.109	7	128	0.129	7	128	0.238
12:00 - 13:00	7	128	0.144	7	128	0.132	7	128	0.276
13:00 - 14:00	7	128	0.140	7	128	0.141	7	128	0.281
14:00 - 15:00	7	128	0.138	7	128	0.131	7	128	0.269
15:00 - 16:00	7	128	0.234	7	128	0.152	7	128	0.386
16:00 - 17:00	7	128	0.219	7	128	0.170	7	128	0.389
17:00 - 18:00	7	128	0.293	7	128	0.166	7	128	0.459
18:00 - 19:00	7	128	0.446	7	128	0.189	7	128	0.635
19:00 - 20:00	4	159	0.319	4	159	0.135	4	159	0.454
20:00 - 21:00	4	159	0.156	4	159	0.094	4	159	0.250
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.540			2.640			5.180

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

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



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