Sister Plot C

Transport Assessment v1.1

May 2025

PREPARED FOR

ID Manchester Ltd and University of Manchester

Transport Assessment v1.1

Prepared By	Joel Sorsby
Reviewed By	Leah Stuart
Report Reference	2750/01
Issued	V1.0 on 25/04/25
Revised	V1.1 on 07/05/2025

This report is the copyright of Civic Engineers and is for the sole use of the person/organisation to whom it is addressed. It may not be used or referred to in whole or in part by anyone else without the express agreement of Civic Engineers. Civic Engineers do not accept liability for any loss or damage arising from any unauthorised use of this report. Civic Engineers is a trading name of Civic Engineers Limited (registered number 06824088), which is a limited company registered in England, registered address Carver's Warehouse, 77 Dale Street, Manchester M1 2HG

© Civic Engineers 2025

Contents

1. Introduction 1
1.1. Liaison with Manchester City Council Highway Officers 1
1.2. Structure of this Transport Assessment 2
2. Existing Site and Transport Context 3
2.1. Site Location 3
2.2. Existing Land Use 4
2.3. Local Amenities 5
2.4. IDM Strategic Regeneration Framework 2023 5
2.5. Future Changes to London Road 6
2.6. Pedestrian Access 7
2.7. Access for Disabled People 8
2.8. Cycle Access, Cycle Parking, and Cycle Hire 8
2.9. Public Transport Access 12
2.10. Car Club 13
2.11. Highway Network 13
2.12. Car Parking and Traffic Regulation Orders (TROs) 14
2.13. Off-street Parking 15
2.14. Electric Vehicle Charging 16
2.15. Traffic Collision Data 17
3. Policy Context 18
3.1. National Planning Policy Framework 18
3.2. The Climate Emergency 20
3.3. Manchester's Core Strategy 2012-2027, adopted 2012 and 2024 Addendum 20
3.4. Greater Manchester Transport Strategy 2040 22
3.5. Places for Everyone 22
3.6. MCC's guidance to Development in Manchester Planning Guidance 23
3.7. Manchester City Centre Transport Strategy to 2040 23
3.8. Travel Plans, Transport Assessments and Statements (March 2014) 24
4. Development Proposals 25
4.1. Public Realm, Changes to Highway, and Pedestrian and Cycle Access 25
4.2. Cycle Parking 27
4.2.1. Staff Cycle Parking 27
4.2.2. Showering and Locker Facilities 27
4.3. Car Parking 27
4.3.1. Car Free Development 27
4.3.2. Disabled Car Parking 27
4.3.3. Electric Vehicle Charging 27
4.3.4. Impact on Parking on Surrounding Streets 28

4.4. Vehicle Access 28
4.4.1. Altrincham Street 28
4.4.2. Echo Street 28
4.4.3. Mill Lane 28
4.4.4. Taxi and Ad hoc Deliveries 29
4.4.5. Fire Tender 29
4.4.6. Refuse Vehicle Access 29
4.5. Stage 1 Road Safety Audit Findings 29
5. Trip Generation and Impact 31
5.1. Trip Generation of Existing Use 31
5.2. Trip Generation of Proposed Use 31
5.3. A Note on Trip Type, Pass-by Trips and Distribution 31
5.4. TRICS Criteria 32
5.5. Trip Rates and Trip Generation 32
5.6. Impact on the Highway Network 34
5.7. Transport Impact by Mode – Non-operational Trips 34
5.8. Operational Trips to Site, and Capacity of Loading Bays 36
5.9. Mill Lane Loading Bays 37
5.10. Service Tunnel 37
6. Conclusions 38

Appendix A: Development Proposals
Appendix B: Vehicle Tracking
Appendix C: Stage 1 Road Safety Audit Report
Appendix D: TRICS Output
Appendix E: Hourly Operational Trips

1. Introduction

This Transport Assessment (TA) has been commissioned by ID Manchester Ltd and University of Manchester in order to inform Manchester City Council (MCC) highway officers, TfGM and other consultees on the proposals for access to the development and its impact on the surrounding transport network.

The development description is:

The proposals comprise the demolition of Barnes-Wallis, Wright Robinson, Manchester Meeting The proposals comprise the demolition of Barnes-Wallis, Wright Robinson, Manchester Meeting Place, Morton, Moffat Buildings and the construction of two office buildings (Use Class E). At the base of the building the buildings will be connected via an open shared lobby space, which shall comprise a variety of uses including social amenity spaces, as well as food and beverage establishments (Use Class E, Sui Generis – drinking establishment). The proposals will also include interventions to the Hollaway Wall, incorporating it into the new commercial element. Additionally, the proposals will involve the change of use of the railway arches to retail and food and beverage uses (Use Class E and Sui Generis– drinking establishment). The proposals will also include the creation of a new public square, access and other associated works. The development plans are included at Appendix A.

1.1. Liaison with Manchester City Council Highway Officers

Civic Engineers has engaged with MCC highway development control officers at the following meetings:

- 9 September 2024.
- 27 January 2025.

The Transport Assessment Scoping Note was issued to MCC highway development control officers on the 21 February 2025, and response received via the EIA Scoping Opinion response issued on 7 April 2025.

The following points were made, with Civic Engineers response, further information provided in *italic*:

- Highways/TfGM would not accept disabled parking, loading or taxi provision along London Road due to potential safety and operational issues – *London Road loading/parking/taxi provision has been removed from the proposals in response to this feedback.*
- Disabled parking provision accessed from ‘Mill Lane’ (directly from London Road) would be acceptable in principle on the basis that access to Mill Lane will be controlled/restricted – *disabled parking on Mill Lane will be for vehicles displaying a blue badge only.*
- Proposals include removal of vehicle link between Echo Street and Altrincham Street creating a dead-end at Echo Street (without turning-head?). How will vehicles safely turn at the end of Echo Street – *this is discussed in Section 4.4.2*
- Further assessment/justification is required regarding provision of shared pedestrian/cycle routes – with referent to LTN 1-20 Cycle Infrastructure Design – *the route on Altrincham Street will be segregated following this feedback, see Section 4.1.*
- Early pre-application discussions referenced (controlled) pedestrian crossing provision at London Road - such facilities do not appear to have been provided as part of the Plot C (Sister) proposals. Due to the scale of the proposals, Highways request that crossing facilities are brought forward as part of the Plot C (Sister) works to safely facilitate pedestrian movement across London Road – *a new crossing is not proposed on London Road at this stage. This is because it is understood that MCC has proposals to make changes to London Road (see Section 2.4) and therefore a crossing provided ahead of this would be abortive work.*

1.2. Structure of this Transport Assessment

This Transport Assessment sets out:

- Section 2: Existing land use of the Site and its context in the local transport network
- Section 3: Policy context on national, regional and local levels
- Section 4: Development proposals, including findings of the Stage 1 Road Safety Audit
- Section 5: Trip generation and impacts
- Section 6: Conclusions

2. Existing Site and Transport Context

2.1. Site Location

The Site is located to the southeast of Manchester city centre, shown in Figure 1.

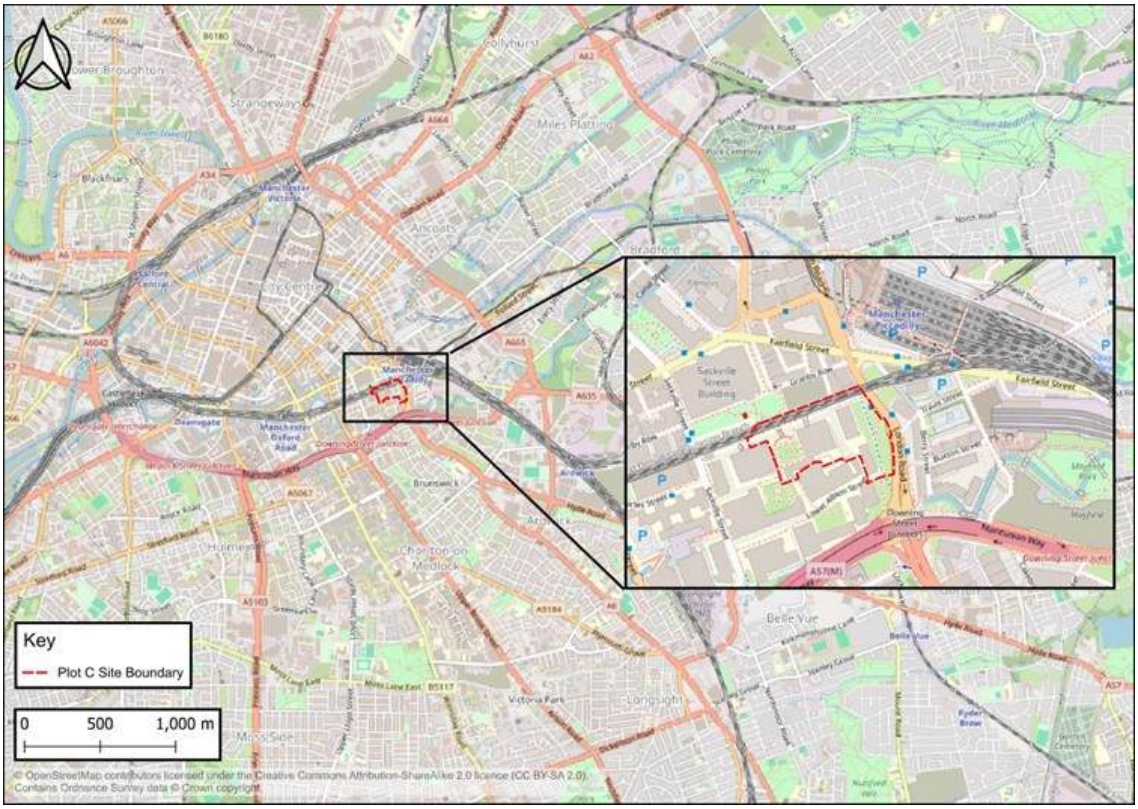


Figure 1: Site location

The Site is in Manchester City Centre and is bound by the Deansgate-Castlefield Viaduct (Altrincham Street) to the north, London Road to the east, The Mill to the south and the Renold Building to the west.

The Site currently comprises the landscaped area known as the Bowling Green, the Barnes Wallis and Wright Robinson Building, Morton Labs and The Moffat Building all associated with the former UMIST Campus of the University of Manchester. Although not listed these buildings are of heritage interest. The Site also contains the Grade II Hollaway Wall and the Altrincham Railway (MSJ&AR) Viaduct. The Moffat Building is also contained within the Plot C (Sister) boundary, this building is not considered to yield any heritage interest, however it is physically connected to the Holloway Wall.

The Site sits within the north east corner of the former UMIST Campus and is covered by the IDM Strategic Regeneration Framework (IDM SRF), shown in Figure 2 and discussed in more detail in Section 2.4.

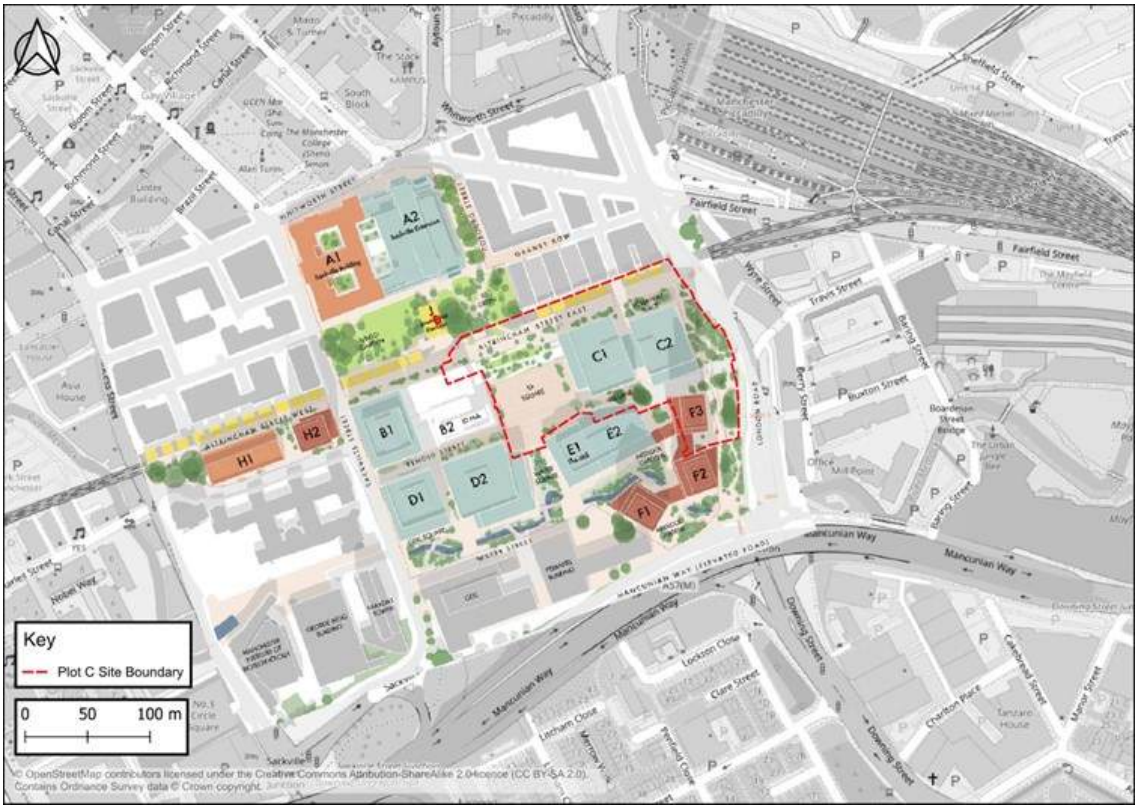


Figure 2: Plot C (Sister) location within the wider IDM SRF masterplan area.

2.2. Existing Land Use

The Site is currently a brownfield site, until recently this has been part of The University of Manchester's northern campus, but it is understood that the Site is currently vacant.

2.3. Local Amenities

Local amenities surrounding the site location are shown in Figure 3.



Figure 3: Local amenities around the site.

The above figure demonstrates a high density of amenities.

2.4. IDM Strategic Regeneration Framework 2023

The IDM SRF sets out principles of development in the wider masterplan area. As shown in the excerpt below in Figure 4, the SRF sets out access principles that are taken forward in the proposals for Plot C (Sister), in particular:

- Servicing access from London Road via a new junction opposite The Picadilly Hotel.
- Capping and widening of Altrincham Street east to create a generous, safe thoroughfare leading from Piccadilly Station and Mayfield through to the Corridor, enlivened by re-activated railway arches.
- Creation of public realm, referred to ID Square at the time.
- Creation of below ground service route to east and north of Plot C (Sister), utilising the level change immediately south of the viaduct to introduce a concealed servicing tunnel underneath a widened Altrincham Street to serve buildings out-of-sight of the public realm.
- Deliveries and servicing limited to the periphery of the Framework Area. Vehicles (other than maintenance and emergency vehicles) should be restricted from entering the principal areas of public realm wherever possible.
- Altrincham Street and London Road offer the opportunity for wide pathways with cycle lanes off the public road and dwell spaces. Altrincham Street is perfectly positioned to form an extension to Manchester's Bee Network.

- Creative solutions required to address level changes across the public realm without the use of lifts.
- By designing for sustainable modes of transport and linkages to adjacent public transport hubs, developments can seek to minimise use of private cars to travel to or from the Framework Area.

De-engineering of London Road to enhance connections between IDM and Mayfield was included in the SRF, however this is not proposed as part of this planning application.

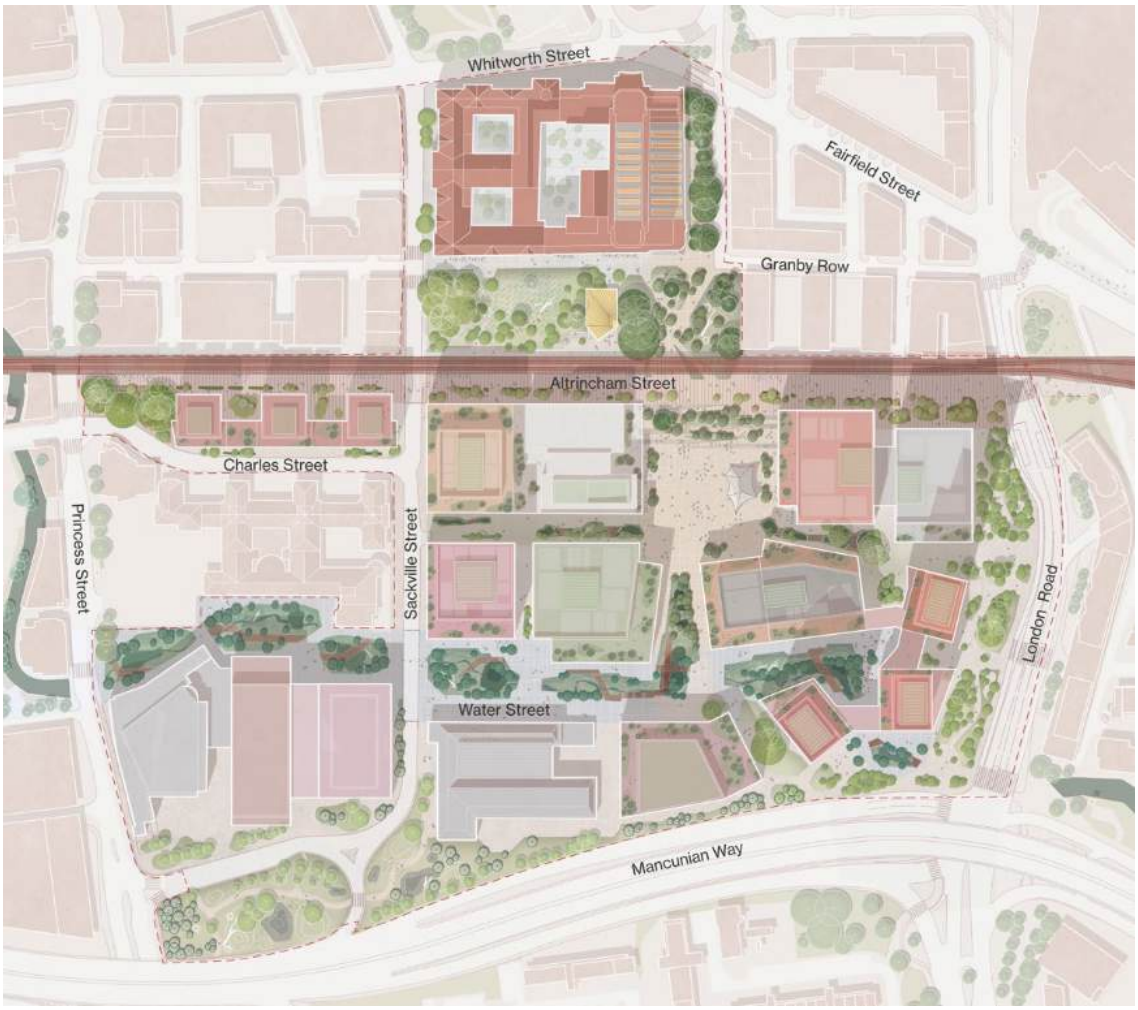


Figure 4: IDM SRF Illustrative Masterplan- taken from the December 2023 SRF document (pg. 85).

The SRF for ID Manchester was endorsed by MCC in late 2023.

2.5. Future Changes to London Road

London Road is currently a single carriageway along the north portion of the Plot C (Sister) frontage, where the speed limit is 20mph and there are two lanes in each direction. At the north east corner of the Site, just south of Altrincham Street, there are three northbound lanes, with the left turn lane beginning north of the bus layby before the junction with Fairfield Street.

Along the southern frontage of Plot C (Sister), London Road is a dual carriageway and the speed limit is 30mph, with two lanes in each direction.

It is understood there are MCC aspirations to make changes to London Road which would reallocate road space to improve active travel connectivity and reduce the vehicle dominance of the streetscape. These are not part of the Plot C (Sister) planning application and are not relied upon.

Therefore, this application does not propose widescale changes to the London Road carriageway as this is being undertaken by MCC.

Changes to London Road proposed by this development include:

- Provision of wider cycleways on the west side through Hollaway Forest – see Section 4.1
- Provision of wider pedestrian routes through Hollaway Forest – see Section 4.1

2.6. Pedestrian Access

Existing accesses into the Site include a footpath along the A6 (London Road) to the north-east of the Site, just south of Altrincham Street. At the southern extent of the Site along this route, signalised crossings are in place to allow the crossing of the A57(M) (Mancunian Way) motorway slip road. This footway then continues along London Road southwards.

North of Altrincham Street, the footway under the railway arch towards Piccadilly Station is relatively narrow and there may be intervisibility issues between pedestrians on the footway and cyclists emerging from Altrincham Street.

From the west, there are 3m wide footways along the southern side of Altrincham Street as well as routes through the existing campus originating from Sackville Street. Pedestrian access from the south of the Site is currently severed by the A57(M) (Mancunian Way), with pedestrians being routed into the Site via Sackville Street or London Road.

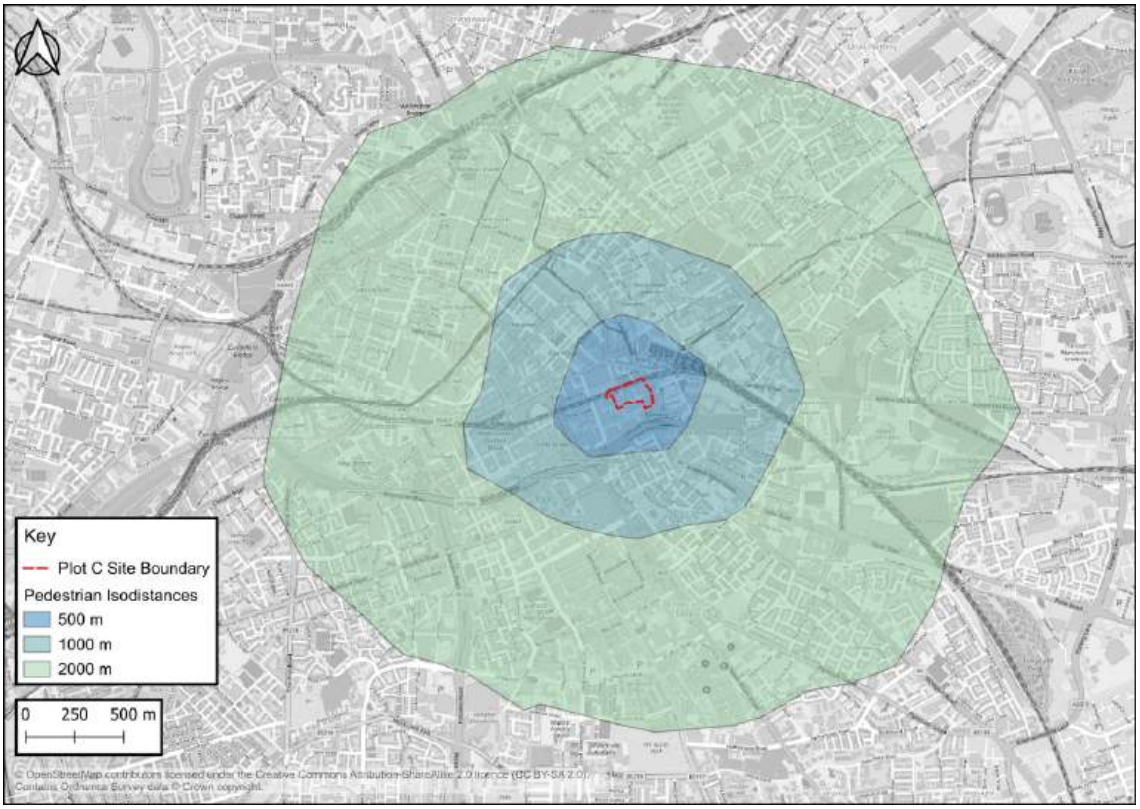


Figure 5: Walking isodistances

Figure 5 demonstrates that Manchester city centre, Ancoats, Deansgate, Castlefield and NOMA can be reached from the Site within a 2km walk. 2km is assessed by CIHT as the maximum distance that people are generally willing to walk to get to work or school [1]. This will encourage employees living within the 2km isodistance shown to walk to the Site.

[1] https://www.ciht.org.uk/media/4465/planning_for_walking_-_long_-_april_2015.pdf

2.7. Access for Disabled People

The current condition of the public realm at SISTER Plot C (Sister) has been assessed from the perspective of those with disabilities. This is shown in Figure 6.

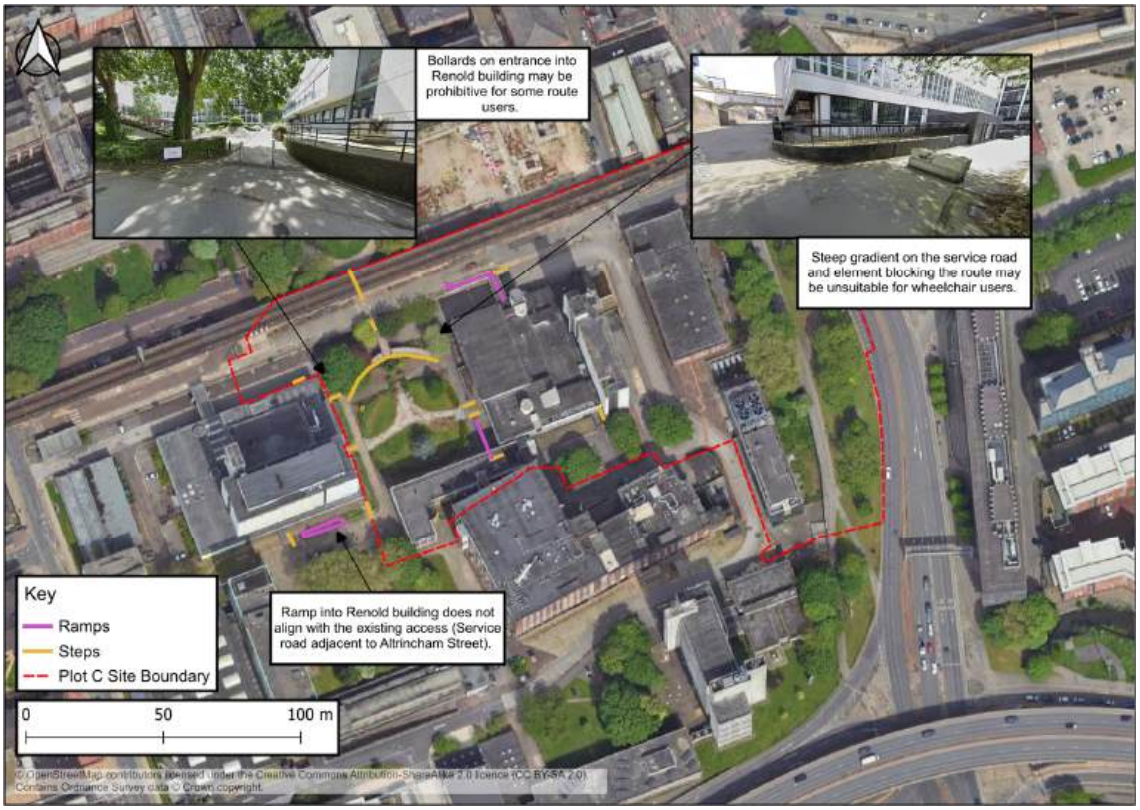


Figure 6: Disabled accessibility of the existing public realm at the site.

The various level-changes and gradients within the existing site do not lend it to being accessible to those who are less bodily able. Moreover, the ramps surrounding the existing buildings do not align well with the main disabled access into the public realm, which is a service road adjacent to Altrincham Street.

The service road does not have footways or crossing points and is not well-signed as the route into the site that is intended for wheelchair users. Furthermore, there are elements blocking much of the path into the public realm of the site, which may be prohibitive to some route users.

Outside the Site boundary, signal controlled crossing points at London Road's junctions with the Mancunian Way and Fairfield Street feature dropped kerbs, tactile paving and other features to assist disabled people crossing. Priority junctions in the surrounding area mostly feature dropped kerbs but few have tactile paving.

2.8. Cycle Access, Cycle Parking, and Cycle Hire

Cycle routes surrounding the Site include a short section of on-carriageway lanes on Sackville Street that lead to a segregated lane through the junction of Sackville Street and the A34 Princess Street. Cycling infrastructure along Sackville Street itself is not cohesive and generally of a poor quality. There is a lack of routes on the east-west axis around the Site, with only a short section of on-carriageway lane along Altrincham Street to the north of Plot C (Sister) being present.

This lane leads to London Road, which has a 20m section of on-carriageway cycle lane routing to the north into the junction of London Road and Fairfield Street. To the south along London Road, there is a segregated cycleway that aligns with the footpath and is set back from the carriageway. At present, there is a dropped kerb from London Road for northbound cyclists to access the cycleway.

southbound cyclists would reach a puffin crossing (signed for pedestrian-use only) and use this to cross London Road. After crossing, the on-carriageway southbound cycle lane on London Road can be accessed. The cycle network immediately surrounding the Site is shown in Figure 7.

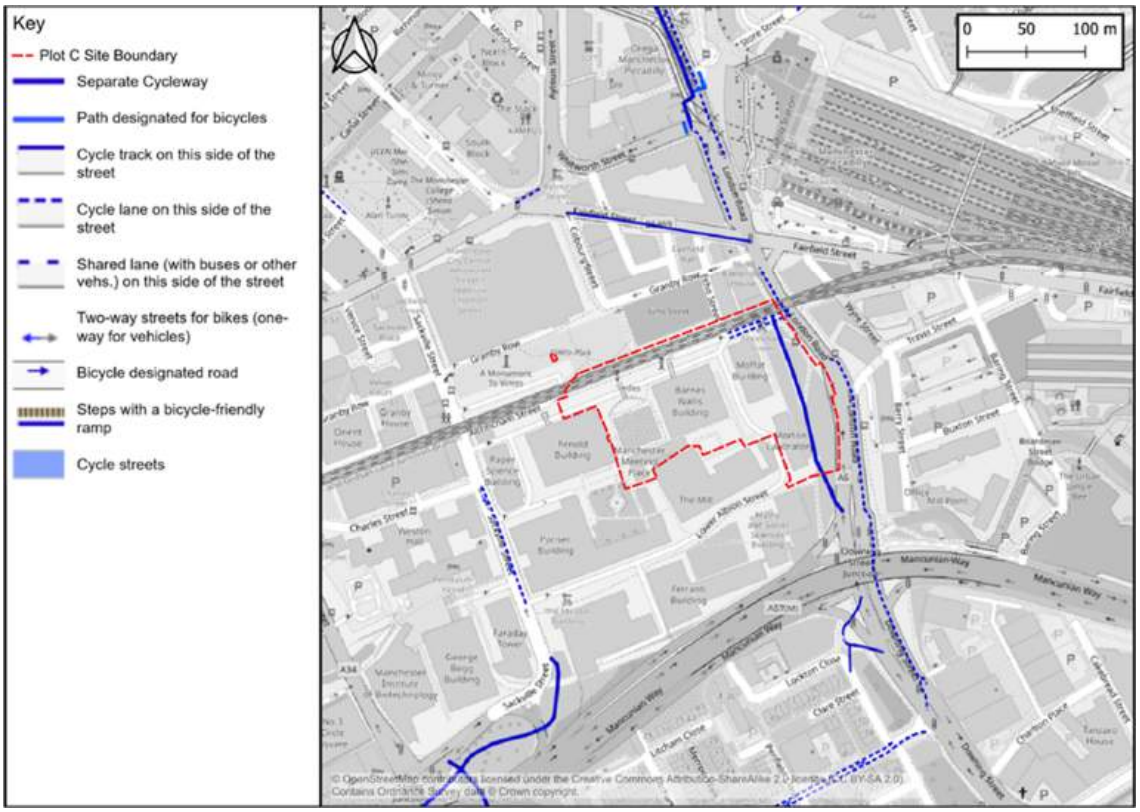


Figure 7: Cycle network immediately surrounding the Site.

The beeways are a network of new and proposed cycle routes to connect Greater Manchester by cycle. Figure 8 shows the proposed network with a facility running adjacent to the Site on London Road. Should these beeways be constructed, the Site will have a direct north/south link accessible from the east of the Site off of Altrincham Street.

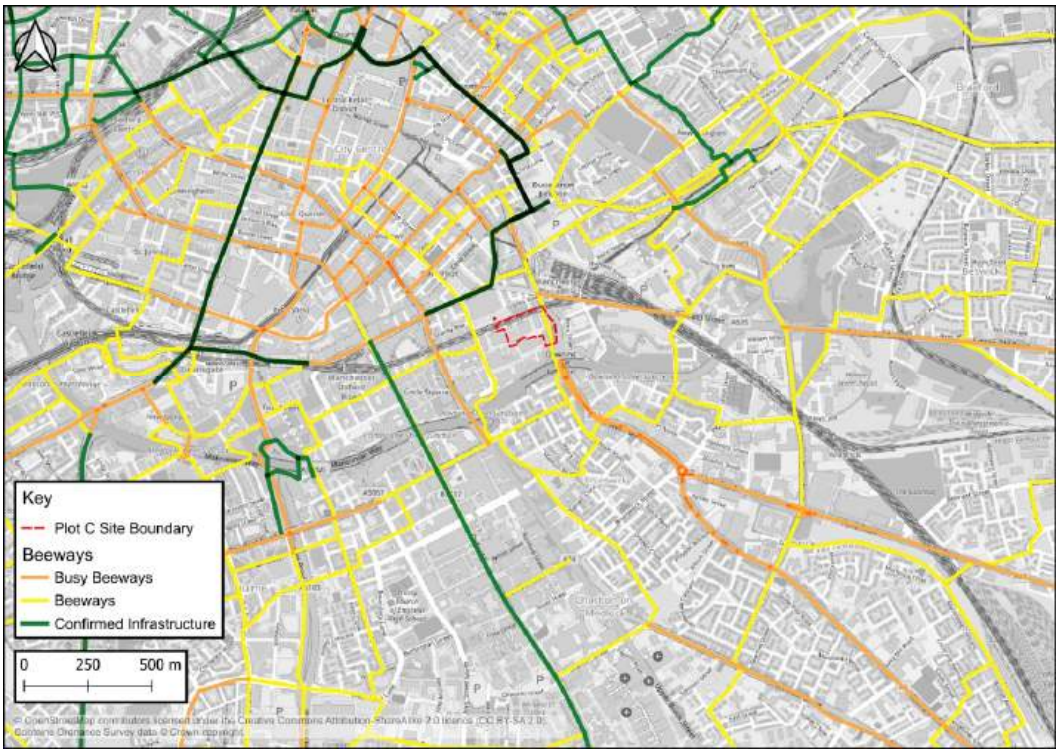


Figure 8: Proposed cycle network

A distance of 8km takes around 30-35 minutes for the average cyclist and is a distance that is reasonable for commuting. An 8km isodistance is shown on Figure 9, within this distance is all of Manchester city centre, central Salford, Salford Quays, Stretford, Chorlton, Droylsden, Didsbury, and Broughton Park.

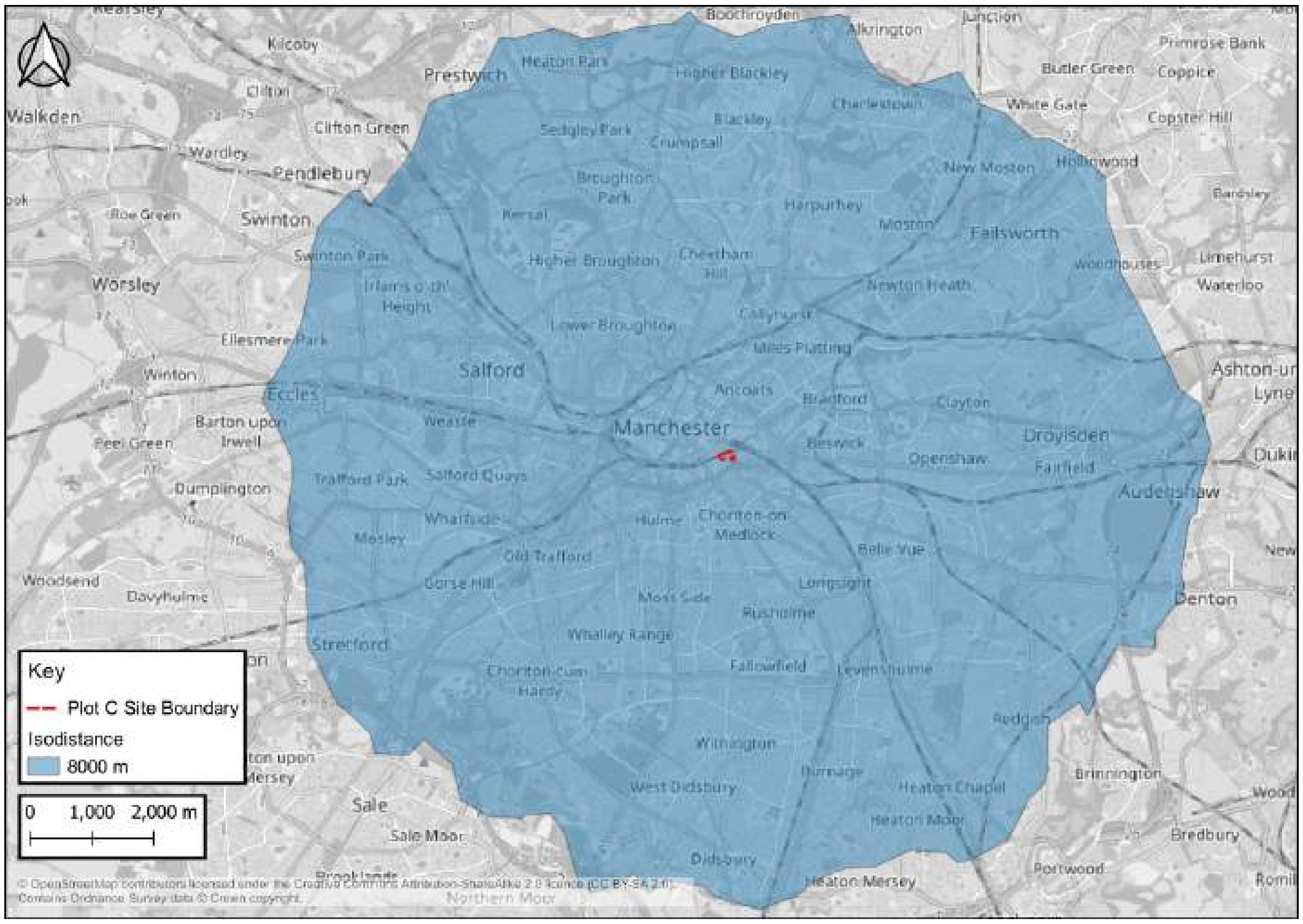


Figure 9: Cycle isodistance

2.9. Public Transport Access

The Site has excellent public transport access, it sits within an area that scores an 8 on the Greater Manchester Accessibility Level (GMAL) scale. GMAL is a rating of public transport accessibility that rates places on a scale of 1-8 with 1 being the lowest level of accessibility and 8 being the highest. The scores are determined by proximity to services as well as frequency and quality of service. The Site is located within 100m of Manchester Piccadilly train station, which has an associated tram stop that facilitates access to the wider Manchester transport network.

There are bus stops served by northbound and southbound services along London Road immediately to the east of the Site. The closest bus stop (Naptan: MANADAPT) is served by the X92, 192, 201, 202, 203 and 205 buses. These services route to many areas around Manchester, including Stockport, Hyde, Ardwick, Gorton and Belle Vue. During the day buses stop on both sides of the road every 1-3 minutes. The London Road bus stops both have a shelter, printed timetable, bin and seating, They do not have live passenger information.

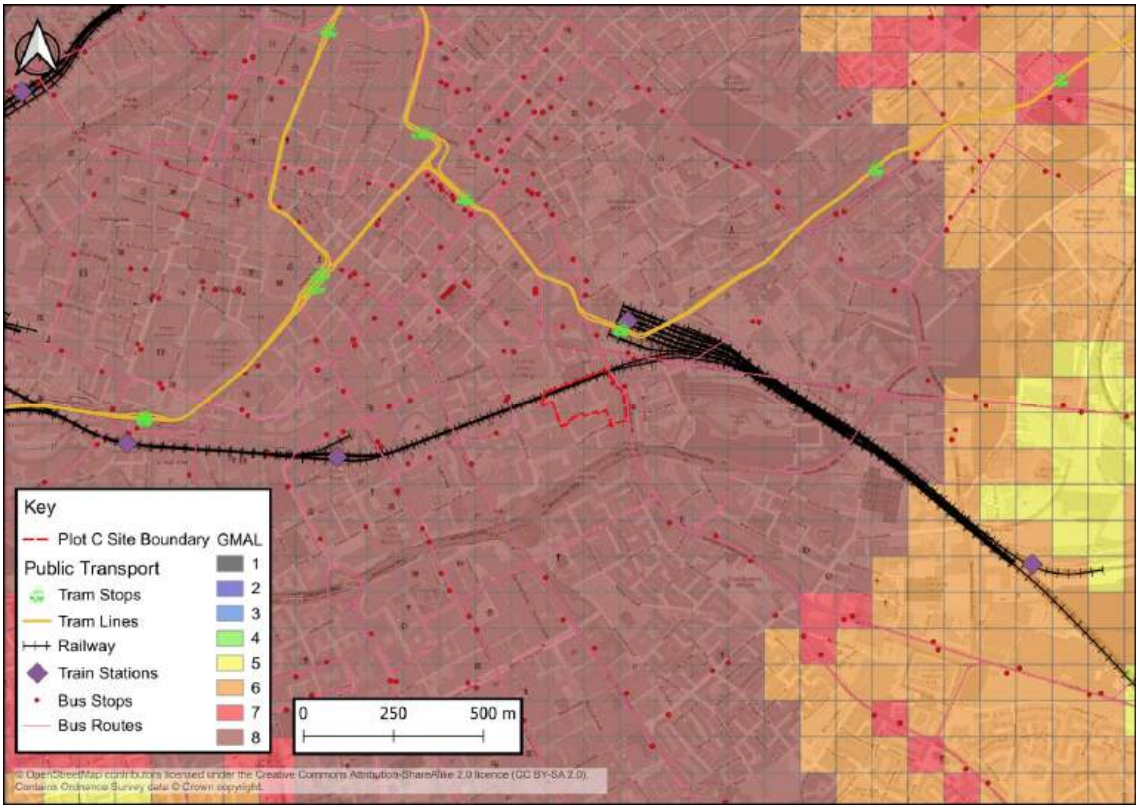


Figure 10: Public Transport

2.10. Car Club

There are 4 Enterprise Car Club locations within 500m of the Site, as shown in Figure 11. The proximity of these car clubs to the Site enables employees to access a vehicle easily if it's required for work purposes, without having to commute by car. There are a total of 9 cars available at these sites, with 4 of these being Electric Vehicles.

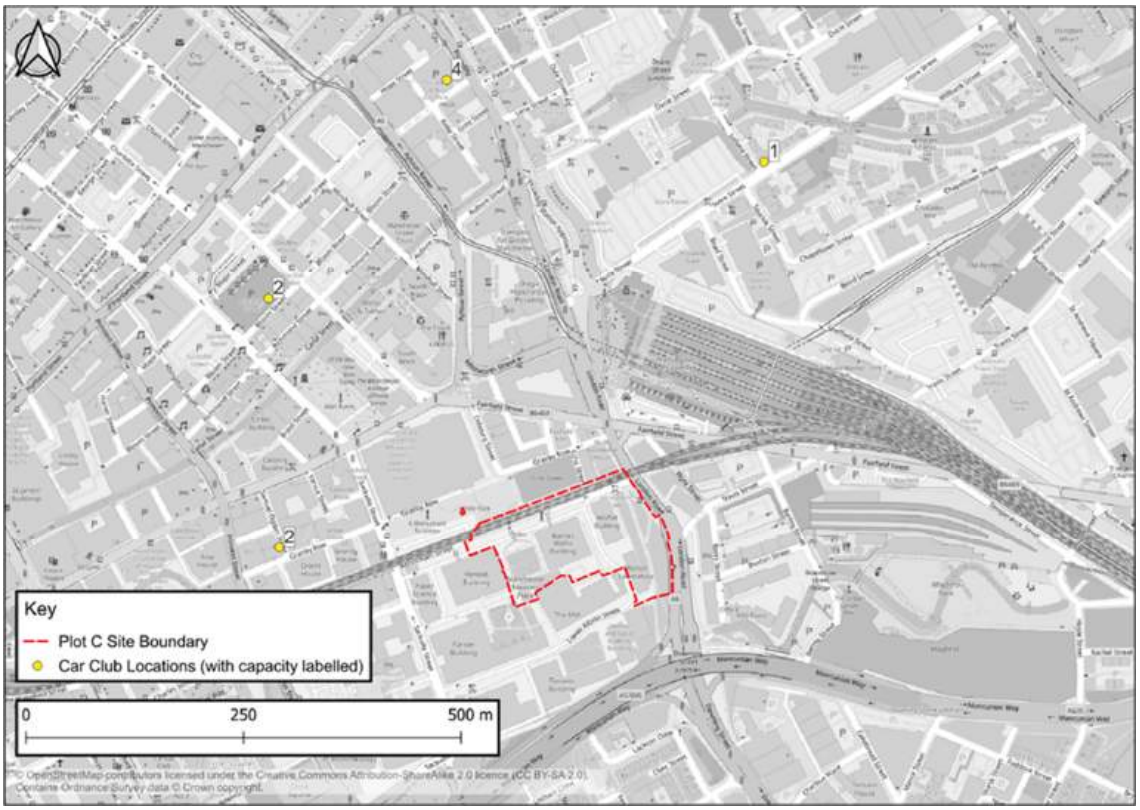


Figure 11: Car club (number indicates how many vehicles at each location)

2.11. Highway Network

The Site is well connected to the surrounding highway which is at present accessed by motor traffic via the eastern side of Altrincham Street, although this is a gated access. Altrincham Street connects to Lower Albion Street inside of the Site which then facilitates access to Sackville Street and the A34 Princess Street to the West. Altrincham Street also connects to Echo Street to the north of the Site. Both Altrincham Street and Echo Street have a carriageway width of approximately 5m. Echo Street has footways on both sides of the carriageway of approximately 1.8m in width. These footways are interrupted by road accesses into various buildings. Both Echo Street and the eastern side of Altrincham Street are approximately 60m in length, with Echo Street terminating at its junction with Granby Row. Granby Row then connects onto Fairfield Street to the north of the Site.

The western side of Altrincham Street has an eastbound only junction from Sackville Street. The two sections of Altrincham Street do not meet.

London Road is a dual-carriageway to the south of the Site that becomes a single-carriageway road as it passes the Site. The speed limit on this road is 30mph south of the bus stop, and 20mph to the north. London Road has a junction with the A57(M) Mancunian Way to the south of the Site, which forms a part of the Manchester Ring Road. The A57 (M) connects to the M60 both to the east and west of Manchester To the north of the Site, London Road has a junction with Fairfield Street and then continues past Manchester Piccadilly Station where it separates into smaller streets.

2.12. Car Parking and Traffic Regulation Orders (TROs)

On-street Parking

On-street parking is restricted around the Site, with Altrincham Street being subject to double yellow lines and on-carriageway cycle lanes that prohibit parking or waiting at any time. Similarly, Sackville Street and Lower Albion Street are also subject to double yellow lines. Ancillary streets adjacent to the Site also have 'No waiting at any time' parking restrictions, including the eastern side of Echo Street and London Road.

Figure 12: Controlled parking zonesFigure 12 shows the controlled parking zone that the Site is contained within, Zone 2 (purple), which indicates that 2 hours of parking is the maximum stay time.

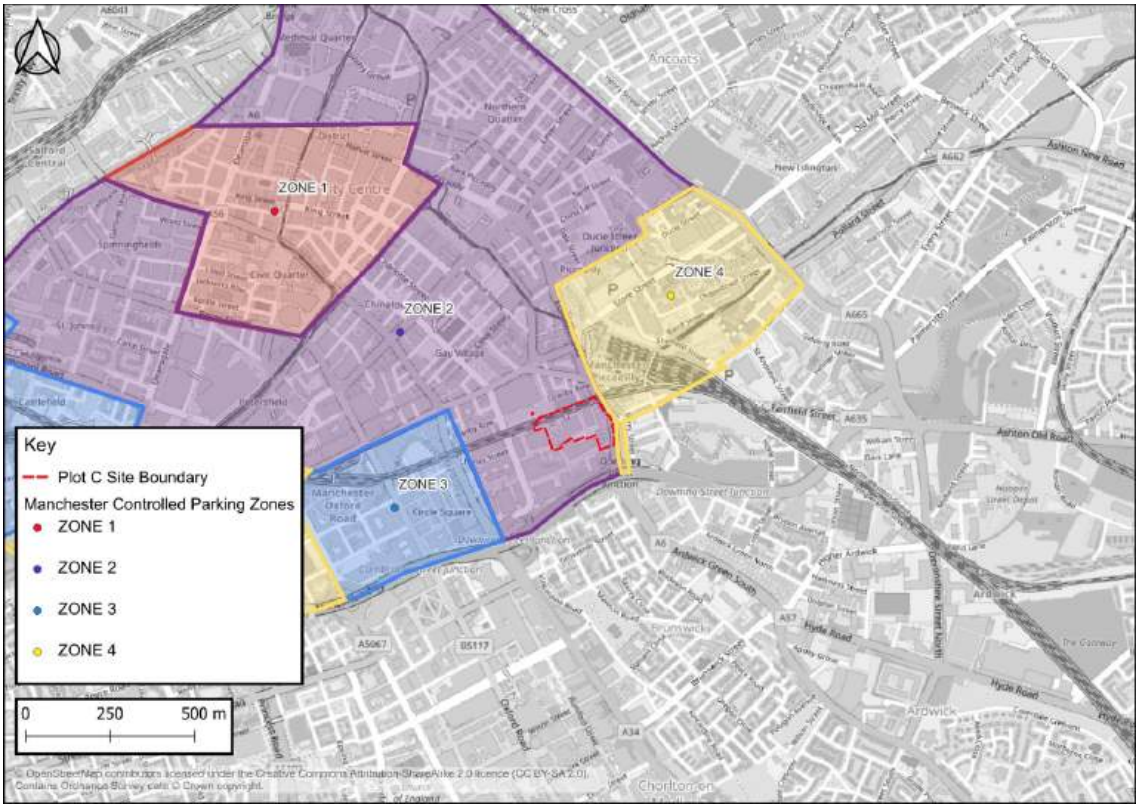


Figure 12: Controlled parking zones

The streets within and around the Site are subject to double-yellows and therefore parking is restricted at all times.

2.13. Off-street Parking

There are several publicly accessible car parks around the Site, as shown in Figure 13. The cost of using these car parks for a full day (08:30 to 17:00) on a typical weekday ranges from £5 to £33.

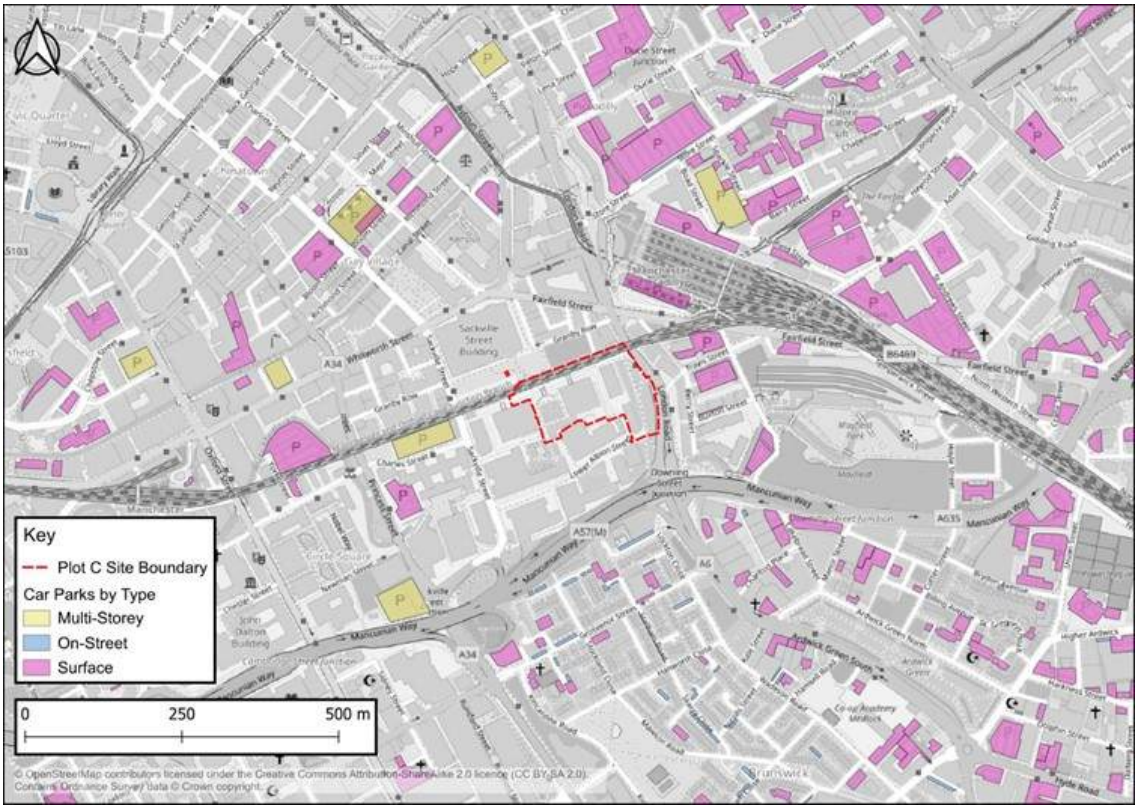


Figure 13: Car parking

As well as the parking areas shown in the above Figure, a multi-storey car park associated with the Mayfield Park development (Planning Ref: 137350/JO/2023) will be located on the eastern side of London Road and have capacity for approximately 500 vehicles.

2.14. Electric Vehicle Charging

Figure *14* describes the location of existing EV charging points around the Site. There are 8 slow charging points within 600m of the Site, and one rapid charging point also within this range.

As can be seen in the below Figure, there are a range of charging points within the vicinity of the Site that would be accessible to users of the Site.

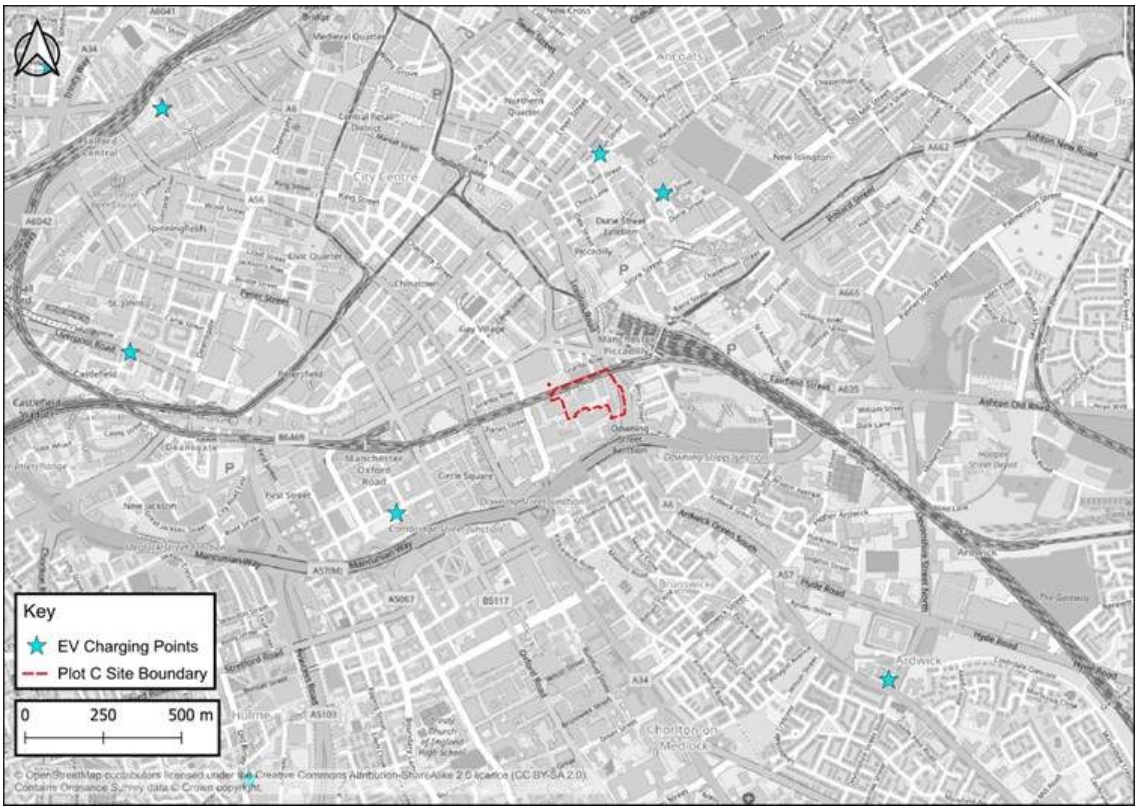


Figure 14*: Public EV charging points*

2.15. Traffic Collision Data

Within the 5-year period between 2019 and 2023, there have been 9 collisions on London Road directly east of the Site. Of these, 3 resulted in 'serious' injuries and 6 in 'slight' injuries. No collisions resulted in 'severe' injuries or fatalities.

Four of the collisions along London Road have involved a bicycle, all resulting in slight injuries and four also have involved pedestrians, with similarly slight injuries.

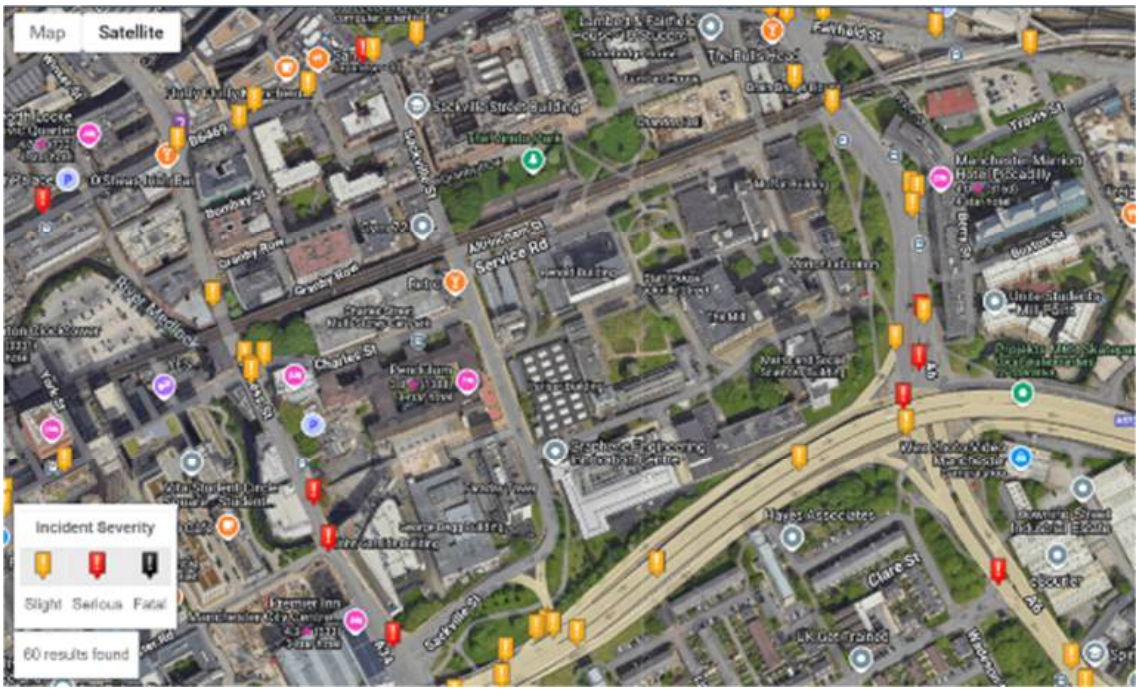


Figure 15: Traffic collisions 2018-2023 (inclusive)

3. Policy Context

3.1. National Planning Policy Framework

The revised National Planning Policy Framework (NPPF)[2] was published in December 2024, setting out the government's planning policies for England and how these are expected to be applied. It provides a framework within which locally prepared plans for housing and other developments can be produced. At the heart of the document is a presumption in favour of sustainable development.

In order to achieve sustainable development, there are three identified overarching interdependent objectives outlined within the NPPF, including an economic, a social and an environmental objective.

Paragraph 109 of the NPPF states that "Transport issues should be considered from the earliest stages of plan-making and development proposals, using a vision-led approach to identify transport solutions that deliver well-designed, sustainable and popular places. This should involve:

- making transport considerations an important part of early engagement with local communities;
- ensuring patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places;
- understanding and addressing the potential impacts of development on transport networks;
- realising opportunities from existing or proposed transport infrastructure, and changing transport technology and usage – for example in relation to the scale, location or density of development that can be accommodated;
- identifying and pursuing opportunities to promote walking, cycling and public transport use; and
- identifying, assessing and taking into account the environmental impacts of traffic and transport infrastructure – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains."

Paragraph 110 states that "The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making."

Paragraph 111 states that planning policies should:

- support an appropriate mix of uses across an area, and within larger scale sites, to minimise the number and length of journeys needed for employment, shopping, leisure, education and other activities;
- be prepared with the active involvement of local highways authorities, other transport infrastructure providers and operators and neighbouring councils, so that strategies and investments for supporting sustainable transport and development patterns are aligned;
- identify and protect, where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen transport choice and realise opportunities for large scale development;
- provide for attractive and well-designed walking and cycling networks with supporting facilities such as secure cycle parking (drawing on Local Cycling and Walking Infrastructure Plans);
- provide for any large scale transport facilities that need to be located in the area, and the infrastructure and wider development required to support their operation, expansion and contribution to the wider economy. In doing so they should take into account whether such

[2] National Planning Policy Framework, December 2024, available online at https://assets.publishing.service.gov.uk/media/67aafe8f3b41f783cca46251/NPPF_December_2024.pdf [accessed 9th April 2025]

development is likely to be a nationally significant infrastructure project and any relevant national policy statements; and

- recognise the importance of maintaining a national network of general aviation airfields, and their need to adapt and change over time – taking into account their economic value in serving business, leisure, training and emergency service needs, and the General Aviation Strategy.

Paragraph 112 suggests that: "If setting local parking standards for residential and non-residential development, policies should take into account:

- the accessibility of the development;
- the type, mix and use of development;
- the availability of and opportunities for public transport;
- local car ownership levels; and
- the need to ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles."

Paragraph 115 describes that, in considering development proposals, "it should be ensured that:

- sustainable transport modes are prioritised taking account of the vision for the site, the type of development and its location;
- safe and suitable access to the site can be achieved for all users;
- 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
- 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 through a vision-led approach."

Crucially, it states in Paragraph 116 that "Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios."

It outlines in Paragraph 117 that "developments should:

- give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;
- address the needs of people with disabilities and reduced mobility in relation to all modes of transport;
- create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;
- allow for the efficient delivery of goods, and access by service and emergency vehicles; and
- be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations."

Paragraph 118 states:

'*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 vision-led transport statement or transport assessment so that the likely impacts of the proposal can be assessed and monitored.*'

3.2. The Climate Emergency

The aspiration to reduce car use and car ownership over time is a common thread running through emerging national and local planning policies, with its links to improved local air quality, reduced impact on global climate change, increased activity levels among residents and reduction in conflict between vehicles and pedestrians/cyclists.

In July 2019 Manchester City Council announced a Climate Emergency, with the target for Manchester to become a zero carbon city by 2038. Manchester has a Climate Change Action Plan 2020-25 which sits alongside a citywide framework produced by Manchester Climate Change Partnership.

3.3. Manchester's Core Strategy 2012-2027, adopted 2012 and 2024 Addendum

The policies within the Core Strategy which are of relevance to this Transport Assessment are set out below.

Policy T 1 Sustainable Transport

To deliver a sustainable, high quality, integrated transport system to encourage modal shift away from car travel to public transport, cycling and walking, to support the needs of residents and businesses and to prepare for carbon free modes of transport, the Council will support proposals that:

- *Improve choice by developing alternatives to the car.*
- *Promote regeneration and economic vitality by relieving traffic congestion and improving access to jobs and services, particularly for those most in need and for those without a car.*
- *Improve access to transport services and facilities in order to enable disabled people and people with mobility impairments to participate fully in public life.*
- *Improve pedestrian routes and the pedestrian environment. Improve and develop further Manchester's cycle network (for example the Manchester Cycleway and the Trans Pennine Trail).*
- *Contribute to improvements to the extent and reliability of the public transport network through safe and attractive waiting and interchange facilities, better priority, improved services and information provision.*
- *Improve and develop appropriate road, rail and water freight transport routes and associated intermodal freight transport facilities in order to assist in the sustainable and efficient movement of goods.*
- *Facilitate modes of transport that reduce carbon emissions e.g. by incorporating charging points for electric vehicles, subject to their appropriate design and location.*
- *Would reduce the negative impacts of road traffic, for example, congestion, air pollution and road accident casualties.*
- *Take account of the needs of road users according to a broad hierarchy consisting of, in order of priority:*
    1. *Pedestrians and disabled people*
    2. *Cyclists, public transport,*
    3. *Commercial access,*

4. *General off-peak traffic,*

5. *General peak time traffic.*

Policy T 2 Accessible areas of opportunity and need

The Council will actively manage the pattern of development to ensure that new development:

- *Is located to ensure good access to the City's main economic drivers, including the Regional Centre, the Oxford Road Universities and Hospitals and the Airport and to ensure good national and international connections*

- *Is easily accessible by walking, cycling and public transport; connecting residents to jobs, centres, health, leisure, open space and educational opportunities.*

- *Particular priority will be given to providing all residents access to strategic employment sites including:*

    - *Links between North Manchester residents and key employment locations, including the City Centre, Central Park, Salford Quays and Chadderton Industrial Estate and Trafford Park.*

    - *Links within east Manchester to employment locations, Central Park and Eastlands in particular.*

    - *Links within Central Area between residents and employment, the Corridor in particular and east/west connectivity for residents in Central Area to employment areas in Trafford and east Manchester.*

    - *Maintaining strong links between residential areas in the South and the Regional Centre and improving connectivity with the Airport.*

    - *Ensuring good links between Wythenshawe residents and the Airport and further employment opportunities in Stockport, Trafford and the Regional Centre.*

- *Within the City Centre, provides a level of car parking which reflects the highly accessible nature of the location, as well as the realistic requirements of the users of the development. Elsewhere, all new development should provide appropriate car parking facilities, taking account of the guidance in appendix B, which reflects policy in the Regional Strategy (RS). In all parts of the City proposals should have regard to the need for disabled and cycle parking, in line with appendix B. If the RS is revoked the Council will continue to use these standards when applying this policy. Standards are set for two different area types:*

    - *District Centres*

    - *Areas not within the City Centre or District Centres*

- *The car parking standards are maximums and the cycle and disabled car parking standards are minimums. However, the Council will take the circumstances of each proposal into account to establish what level of parking is appropriate.*

- *Includes proportionate Traffic Impact Assessments and Travel Plans for all major applications and for any proposals where there are likely to be access or transport issues.*

The 2024 Addendum to Manchester's Core Strategy updates the 2012-2027 plan by aligning certain policies with the newly adopted 'Places for Everyone' joint development plan. Specifically, it replaces

the final bullet point of Core Strategy Policy T1 (Sustainable Transport) with Policy JP-C1 from 'Places for Everyone'. This change aims to ensure that new developments are sustainably integrated into Greater Manchester's transport network or supported by new infrastructure

Policy SP1 Spatial Principles

Policy SP1 establishes the overarching spatial principles for Manchester's development. It emphasizes creating well-designed, sustainable, and inclusive neighbourhoods that enhance the city's character and support residents' health and well-being. Key aspects include:

- Sustainable Development: Promoting the use of previously developed land and minimizing emissions.
- Efficient Resource Use: Ensuring natural resources are used efficiently
- Accessibility: Improving access to jobs, services, and open spaces.
- Sustainable Transport: Encouraging walking, cycling, and public transport use.
- Community Needs: Considering the needs of all community members and enhancing the built environment.

This policy guides the strategic development of Manchester, ensuring that growth contributes positively to the city's social, economic, and environmental objectives.

Policy DM1: Development Management

Policy DM1 provides detailed criteria for assessing development proposals, ensuring they align with the city's strategic objectives. Considerations include:

- Design and Appearance: Appropriate siting, layout, scale, form, and materials.
- Impact on Surroundings: Effects on the surrounding area and existing amenities.
- Accessibility: Ensuring developments are accessible to all, including provisions for disabled individuals.
- Community Safety: Incorporating measures to prevent crime and promote safety.
- Health and Well-being: Designing for health, including adequate internal accommodation and amenity space.
- Environmental Considerations: Minimizing emissions and ensuring efficient use of resources.

This policy ensures that all developments contribute positively to Manchester's urban environment and meet the needs of its diverse population.

3.4. Greater Manchester Transport Strategy 2040

Adopted in 2017 and updated in 2021, the Greater Manchester Transport Strategy 2040 has the vision ‘to make Greater Manchester one of the best places in the world to grow up, get on and grow old’. It sets out how Government funding will be allocated by this devolved authority to address long-term challenges such as a rapidly growing and ageing population, climate change and the need to improve productivity and reduce social inequality in the city region.

It sets the Right Mix vision for 50% of trips to be made by sustainable modes by 2040, with no net increase in motor vehicles.

It highlights the intention to make best use of powers included in the Bus Services Act (as well as GM existing powers) to give effect to the Vision for Bus and provides an overview of plans to establish Greater Manchester as a modern, pedestrian and cycle-friendly city-region, including through the Bee Network for cycling. Oxford Road Corridor Strategic Regeneration Framework Guidance 2019.

3.5. Places for Everyone

Places for Everyone is a long-term plan for jobs, new homes and sustainable growth prepared by

Greater Manchester City Authority. The PfE plan was adopted in March 2024 for Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford and Wigan.

Policy JP-C1- An Integrated Network

This policy dictates a pattern of development that minimises the need to travel as well as the distance travelled, particularly by unsustainable modes.

Policy JP-C3- Strategic Infrastructure

Policy JP-C3 focuses on the delivery of strategic infrastructure necessary to support the PfE plan's growth objectives. It outlines the need for coordinated investment in transportation, utilities, digital connectivity, and other critical infrastructure components. The policy aims to ensure that infrastructure development aligns with planned housing and employment growth, facilitating sustainable and inclusive development across the region

Policy JP-C4- The Strategic Road Network

This policy describes Streets for All guidance- namely the ambition of achieving 50% of trips being made by sustainable modes by 2040 in Manchester.

Policy JP-C5- Transport Requirements of New Development

This policy sets out the expectations for transport provisions in new developments. It requires that developments are designed to promote sustainable travel modes, such as walking, cycling, and public transport, reducing reliance on private vehicles. The policy mandates the incorporation of appropriate transport infrastructure and connectivity to ensure accessibility and minimize environmental impacts.

Policy JP-C8- Transport Requirement of New Development

Policy JP-C8 details a requirement of new developments to be located and designed to enable and encourage walking, cycling and public transport use. Moreover, it aims to reduce the negative effects of car dependency.

Policy JP- Strat 14- Green Infrastructure

This policy emphasizes the protection and enhancement of green infrastructure across Greater Manchester. It seeks to create a network of green spaces that support biodiversity, provide recreational opportunities, and contribute to climate resilience. The policy promotes the integration of green infrastructure into new developments and the improvement of existing green spaces to benefit communities and the environment.

3.6. MCC’s guidance to Development in Manchester Planning Guidance

This document underlines the importance of integrating transportation planning into the design of developments across Manchester. It promotes compact, walkable communities supported by reliable public transport and cycling infrastructure. The guide seeks to minimize car dependency by encouraging mixed-use developments with accessible, sustainable transport options, and ensuring development contributes to a well-connected urban environment.

3.7. Manchester City Centre Transport Strategy to 2040

Focused on transforming Manchester’s city centre into a more sustainable, low-carbon urban core, this strategy prioritizes walking, cycling, and public transport. It sets out bold goals like reducing car trips by 50% and enhancing pedestrian zones, bus routes, and cycling networks. Transportation is framed not only as a mobility issue but as central to improving air quality, health outcomes, economic opportunity, and inclusivity.

3.8. Travel Plans, Transport Assessments and Statements (March 2014)

This national guidance ensures that transport is a key part of the development planning process. It requires developers to assess how their projects will impact travel demand and infrastructure, and to propose sustainable solutions such as travel plans and improved active travel connections. The goal is to support efficient transport networks and encourage mode shifts away from private vehicles, aligning with broader environmental and community access objectives.

4. Development Proposals

This section sets out the proposals for the development, and respond to feedback from MCC highway development control officers received during the pre-application period (see Section 1.1).

Plot C (Sister) will comprise of 72,928 sqm GEA office accommodation and 7,265 sqm GEA of flexible uses which could be food and beverage/commercial/gym/wellness, as well as 860 sqm community space. The proposals include Sister Square, a large new area of public realm at the west of the Site, as well as reconfiguring Altrincham Street at the north to create a new pedestrian and walking route, with a capped service road beneath. Development plans can be found in Appendix A.

4.1. Public Realm, Changes to Highway, and Pedestrian and Cycle Access

The main entrances to the development will be from Hollaway Place to the north east. This provides access directly onto Altrincham Street which will become new public realm with very limited vehicle access (see Section 4.4).

Pedestrian access through the Site will be available from all sides of the building as below.

The needs of disabled people have been accommodated within the design of the public realm within the Site. Tactile paving in accordance with 'Guidance on the Use of Tactile Paving Surfaces' (DfT, December 2021) will be provided. New seating is located at regular intervals to allow people to stop and rest.

Cycle access will mainly be via the north and east of the building, with access along the south to reach the indoor cycle stores on the south side of the buildings and the Renold Building. Figure 16 shows how the Site will integrate with the existing and future pedestrian and cycle network, and this is set out in the following sections.

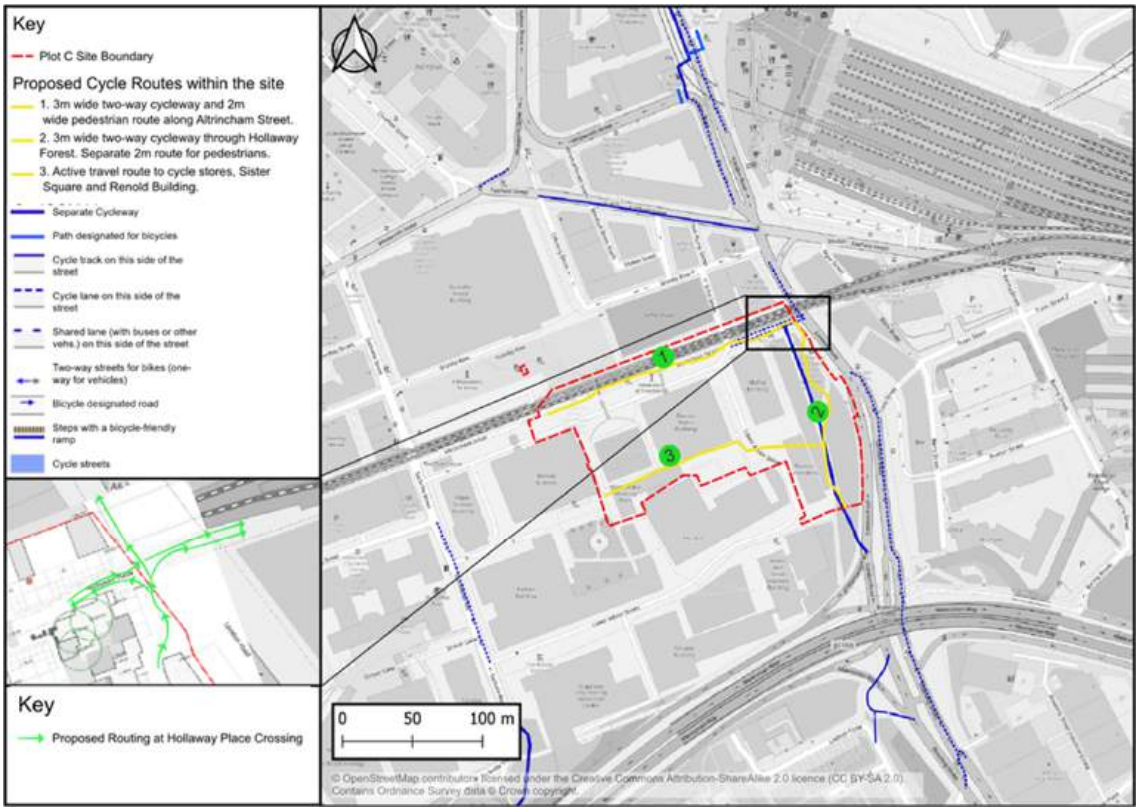


Figure 16: Cycle and Walking Connectivity

Along the north via Altrincham Street

Altrincham Street is currently public highway from London Road to Echo Street. To the west of this it is a private service road.

The proposal is to create a new area of public realm along Altrincham Street, which will sit above the Service Tunnel route (see Section 4.4). This is indicated as route 1 on Figure 16 and shown on the plans at Appendix A.

Altrincham Street will generally be for walking and cycling only. It will be highly managed (via bollards) service vehicles for the viaduct units and emergency vehicles will also use this route, this is discussed in Section 4.4.

The proposals show an indicative crossing on London Road at the east Hollaway Place to allow pedestrian and cyclist movements to and from Manchester Piccadilly and Mayfield. This will not be delivered as part of this application, but the proposals for Plot C (Sister) tie into this indicative location, and can be before construction to interface with emerging proposals.

A 3.0m cycling route, and 2.0m segregated walking route will run along Altrincham Street. The routes will be meandering in order to keep cyclist speeds low and reduce spatial conflict between pedestrians and cyclists. A high contrast delineation strip of 150mm will be provided to distinguish between the pedestrian and cycle routes. No kerb is proposed, as the route is required for the fire tender access.

This link will feature associated bicycle parking infrastructure and provides access into the main entrances to Buildings C1 and C2.

To the east via London Road

Currently along the east of Plot C (Sister) there are paved cycle and pedestrian paths, however these are relatively narrow and it is not always clear which part is for pedestrians and/or cyclists.

The proposals therefore seek to improve these routes, making them more legible, and the landscape proposals include for a new ‘Hollaway Forest’ environment. These are indicated as route 2 on Figure 16 and shown on the plans at Appendix A.

A 3m two-way cycle route is proposed, as well as a 2m pedestrian route. Texture differences will distinguish the footway and cycleway from one another, in the form of either different sized grit paving or a different coloured texture. These routes will be at the same level with no kerb separation.

At the north end cyclists will either join the London Road carriageway via a dropped kerb, south of Altrincham Street, or cycle to/from Altrincham Street, or to/from the indicative crossing over London Road.

At the south end, the pedestrian and cycle routes transect the proposed Mill Lane service access into the service tunnel. Bollards will be in place east of the pedestrian and cycle routes, and therefore only slow-moving vehicles permitted access to the service tunnel will be crossing the pedestrian and cycle route.

South of this, the proposals will tie into the existing provision which runs along the east of future Plot F.

Along the south via Mill Lane

Mill Lane is not the main east-west route promoted to cyclists, however, can provide access to the cycle stores on the south of the Plot C (Sister) buildings, and to the Renold Building. This is indicated as route 3 on Figure 16.

To the west via Sister Square

Cycling through Sister Square is likely to be discouraged by the design – the step free route is meandering and it is more direct and attractive to make north-south movement through Hollaway Forest to the east. This will ensure Sister Square is more of a pedestrian area, with cycle routing on the other three sides of Plot C (Sister).

4.2. Cycle Parking

4.2.1. Staff Cycle Parking

Building C1 of the development will be served by 148 cycle parking spaces in total, which equates to a ratio of 1 cycling parking space per ten staff. Of these, 7 spaces will be able to accommodate accessible/larger cycles, 15 will be Sheffield stands and 126 will be two-tiered racks. The proportion of accessible cycle parking spaces is 5% and 10% for Sheffield stands.

For Building C2 of the development there will be 269 total cycle parking spaces. Of these, 13 will be accessible/larger spaces (5% of total), 27 will be Sheffield stands (10%) and 229 will be two-tiered racks.

The development will also feature short-stay bicycle parking within the public realm in order to accommodate visitors and cycle couriers. These will be located in the north-east of the site as the Holloway Forest cycleway approaches Altrincham Street.

4.2.2. Showering and Locker Facilities

Adjacent to the cycle parking stores, each plot will have separated male and female changing rooms which have associated drying rooms. Showers will be provided at a ratio of 1 shower per 100 staff and lockers will be provided at the same ratio as cycle parking spaces. In total, there will be 148 lockers for Building C1 and 269 for Building C2.

From the changing/drying rooms, there is direct access to the Plot C (Sister) stairwell and accessible lift.

4.3. Car Parking

4.3.1. Car Free Development

The development will be car free except for disabled parking. This reflects the highly accessible location of the development.

4.3.2. Disabled Car Parking

MCC consider parking provision for city centre sites on a case-by-case basis. Provision of disabled car parking is linked in policy to the provision of general parking, so there is no policy requirement to provide disabled parking given that no general parking is provided within the Site. However, there is precedent within the city centre to provide disabled parking close to building entrances of new development where possible.

Disabled parking is proposed as follows:

- 2 bays at the east end of Mill Lane before the service tunnel.
- 1 bay at the end of Echo Street under the arches.

Following discussion with MCC during the pre-application meetings stage, disabled parking and taxi/delivery provision is no longer proposed on London Road and it is not considered safe or appropriate to provide it within the underground service tunnel. 3 disabled parking spaces is the maximum number that can be proposed while balancing delivery/taxi provision (see Section 4.4.5), Biodiversity Net Gain requirements and other landscaping targets, and also responding to the IDM SRF principles.

It is considered that this disabled parking provision is in accordance with the transport policies set out in the Manchester Core Strategy, appropriate to the site location and balances competing constraints.

4.3.3. Electric Vehicle Charging

Appendix 5 of Manchester Electric Vehicle Charging Strategy 2024-2035 (published September 2024) recommends that for 10 or less parking spaces, there should be a minimum of 1 EV charge point, and cable ducting. EV charging and cable ducting can be provided for one of the parking spaces on Mill Lane.

4.3.4. Impact on Parking on Surrounding Streets

The impact on surrounding streets of the development being car free is considered to be minimal:

- Parking on London Road, other than in marked bays, will not take place as double yellow line TROs are already in place.
- Sackville Street already has TROs.
- Streets to the south, on the other side of the Mancunian Way have existing TROs.
- Areas to the north are also restricted.
- Areas to the east will be restricted as part of the Mayfield SRF development where parking will also be restricted.

There is therefore very limited scope for the development to impact on-street parking in the area, and further assessment is not proposed.

4.4. Vehicle Access

4.4.1. Altrincham Street

Altrincham Street will only be used for emergency vehicle access and any essential servicing required to the north of Plot C (Sister).

Vehicle access along Altrincham Street will be granted by retracting bollards at the east end of Altrincham Street, the bollards will be located such that a vehicle can turn off London Road and wait for the bollards to retract without protruding onto London Road.

Once on site, vehicles will be able to continue west, via another set of bollards, to rejoin the existing alignment of Altrincham Street to reach Sackville Street.

4.4.2. Echo Street

As set out in Section 4.3, it is proposed to provide 1 disabled parking bay at the end of Echo Street, and to close the end of Echo Street to through-traffic towards Altrincham Street. This allows Altrincham Street to be traffic-free other than controlled servicing/emergency access and provides additional disabled parking close to the main entrance of the building.

A review has been carried out of the planning applications to the west of Echo Street. In applications 118267/F0/2017 and 136874/F0/2023 for the Site west of Echo Street, at the time consideration was being made for future Northern Rail Hub works which would close Altrincham Street to traffic and therefore refuse and servicing vehicles are shown reversing down Echo Street. This strategy will be retained to deliver Plot C (Sister) and its vision for new high quality public realm connection into the IDM SRF area.

The only vehicle access to the Proposed Development via Echo Street will be to the proposed disabled space. Tracking for this movement is presented on Drawing 2750-CIV-00-ZZ-S-C-00009 at Appendix B.

In their response to the Transport Assessment Scoping Note (see Section 1.1), MCC highway officers asked about a turning head at the south end of Echo Street, if the vehicle link from Echo Street to Altrincham Street was to be removed. However, as mentioned above, the only developments requiring access to Echo Street received planning permission for a scenario in which the connection would be closed to accommodate the future Northern Rail Hub works. Therefore it is considered that their strategy to reverse down Echo Street then drive out is acceptable, and this is shown in tracking drawings submitted with those planning applications. It is therefore not proposed to provide a turning head at the end of Echo Street, notably because there is not space in the public highway to accommodate this.

4.4.3. Mill Lane

A new vehicle access will be created on London Road. Visibility splays are presented on Drawing 2750-CIV-00-ZZ-S-C-00011 at Appendix B.

This will provide access to 2no. disabled parking bays and 2no. taxi/loading bays. Vehicle tracking to

these bays is shown on 2750-CIV-00-ZZ-S-C-00009 and 2750-CIV-00-ZZ-S-C-00010 at Appendix B.

Beyond these bays, there will be bollards protecting the pedestrian and cycle routes through Hollaway Forest (see Section 4.1).

Only emergency vehicles and vehicles with permission to enter the service tunnel will gain access to the west of the bollards. The bollards are located sufficiently far from London Road that vehicles waiting to get through the bollards will not create queues on London Road.

Emergency vehicles will drive along the south of Plot C (Sister) and turn around before driving back to London Road. Fire tender tracking for this route is shown on Drawing 2750-CIV-00-ZZ-S-C-00012 at Appendix B.

Refuse collection to Buildings C1 and C2 will take place in the service tunnel, along with scheduled deliveries.

6no. loading bays are proposed in the service tunnel. This is sufficient to accommodate the demand for the bays, plus spare capacity. Calculations supporting this provision can be found at Section 5.8.

During design development, an option for locating disabled parking bays in the tunnel was tested. However, as there is a level change between the service area and the lower ground floor, disabled people would have to use a service lift to access the building. Also, the servicing area in the tunnel will be trafficked with heavy vehicles reversing. The service tunnel was therefore not considered an appropriate or safe location for disabled parking.

Vehicle tracking of the service tunnel is presented on Drawing 2750-CIV-00-ZZ-S-C-00007 at Appendix B.

4.4.4. Taxi and Ad hoc Deliveries

Taxis and deliveries will be able to park in the 2 new bays on Mill Lane. Calculations supporting this provision can be found at Section 5.8.

Vehicle tracking to these bays is presented on Drawing 2750-CIV-00-ZZ-S-C-00010 at Appendix B.

4.4.5. Fire Tender

Fire tender access will be along Altrincham Street, along Mill Lane from the east and into Sister Square via Renold Street from the west. Sufficient space to turn the vehicles will be provided on Mill Lane and in Sister Square as there will not be a through-route between the two.

Vehicle tracking for the fire tender is shown on Drawing 2750-CIV-00-ZZ-S-C-00012 at Appendix B.

4.4.6. Refuse Vehicle Access

A Waste Strategy is submitted under separate cover. Refuse vehicle access is summarised below:

- For Buildings C1 and C2 the refuse vehicle will enter the Service Tunnel via London Road and Mill Lane. Waste stores are in the Service Tunnel. Tracking analysis is shown on Drawing 2750-CIV-00-ZZ-S-C-00007 at Appendix B.
- For the viaduct units the refuse vehicle will enter the Site from Sackville Street using the existing access to the car park north of the viaduct, where there will be a screened-off waste store. Tracking analysis is shown on Drawing 2750-CIV-00-ZZ-S-C-00008 at Appendix B.

4.5. Stage 1 Road Safety Audit Findings

Civic Engineers commissioned an independent Stage 1 Road Safety Audit of the proposals, which was carried out by Seven Airs Consulting in April 2025.

The audit report is provided at Appendix C., this is summarised below, along with Civic Engineers' designers' response:

PROBLEM – A-01

Location: Fronting London Road and along Altrincham Street

Summary: Basic Design Principles – Unauthorised access may increase the risk of collisions involving pedestrians and cyclists.

Designers' response: The west and east ends of Altrincham Street and the south end of Echo Street will be bollarded to prevent motor vehicles entering the public realm.

PROBLEM – A-02

Location: Echo Street

Summary: Basic Design Principles – Manoeuvring vehicles may increase the risk of collisions involving pedestrians or cyclists.

Designers' response: only 1 disabled parking bay is proposed here which will turn around in the carriageway. Pedestrians will be on the footway and cyclists will be on carriageway with space between the proposed parking bay and the footway for cyclists.

PROBLEM – A-03

Location: London Road – At the service access

Summary: Specific Road Users – Lack of provision for users who rely on mobility aids may increase collisions involving this user group.

Designers' response: tactile paving to be introduced at detailed design.

PROBLEM – A-04

Location: London Road – At the service access.

Summary: Junction Visibility – Insufficient side road visibility may increase the risk of junction related collisions.

Designers' response: visibility splay is provided on Drawing 2750-CIV-00-ZZ-S-C-00011 at Appendix B which show that the required visibility splay can be accommodated in land which is either within the red line boundary or in the public highway.

PROBLEM – A-05

Location: London Road – Approach to Traffic Signal Controlled Crossing.

Summary: Traffic Signals – Insufficient conspicuity may increase the risk of collisions involving pedestrians on the crossing.

Designers' response: the pedestrian crossing shown on the plans assessed by the Road Safety Auditor is indicative only and is not part of the proposals for this planning application. Any future crossing is outside the scope of this application and would be subject to its own detailed design process including Road Safety Audits.

PROBLEM – A-06

Location: Mill Lane.

Summary: Pedestrians – Vehicle swept paths may increase the risk of collisions involving pedestrians and vehicles manoeuvring.

Designers' response: vehicles in this area will be travelling at very low speeds as they will have had to stop at the bollards east of the pedestrian and cycle route through Hollaway Forest, they will then be travelling at very low speed beyond this to the west as they will immediately have to make a relatively tight turn to enter the service tunnel at low speed. Pedestrians will most likely be walking on the south side of the access route from London Road to Mill Lane and therefore conflict between pedestrians and vehicles will be limited.

5. Trip Generation and Impact

This section sets out the methodology for assessing the trip generation of the proposed development.

5.1. Trip Generation of Existing Use

The Site is currently vacant and has therefore been assumed not to generate vehicle trips.

5.2. Trip Generation of Proposed Use

Plot C (Sister) will comprise of 72,928 sqm GEA office accommodation and 7,265 sqm GEA of flexible uses which could be food and beverage/commercial/gym/wellness, as well as 860 sqm community space..

For the purposes of trip generation, the following uses have been assessed, based on architects' proposals, taking the GIA of the units, not the GEA of the total development which is set out above. Using the GIA of each expected use is standard procedure when using the TRICS database for calculating vehicle trip generation.

Therefore the following GIAs have been assessed in this section:

Building C1:

- Office – 25,125 sqm.
- Restaurants– 451 sqm.
- Café – 829 sqm.
- Gym/health – 1,904 sqm.

Building C2:

- Office – 40,424 sqm.
- Café – 245 sqm.

Viaduct arches

- Flexible Use – 884 sqm. Assumed 50% café and 50% restaurant for this trip generation exercise.

TRICS was used to obtain trip rates for these land uses. Search parameters are set out below. For all, London surveys were removed as per TfGM's usual request.

5.3. A Note on Trip Type, Pass-by Trips and Distribution

Trip generation for the AM (08:00-09:00) and PM (17:00-18:00) peak hours have been calculated, looking at taxis, vans and heavy goods vehicles separately. As the development is car free and will provide parking for accessible bays only, car trips have not been assessed further.

The **operational trips** comprise of taxis, deliveries and waste collection and as such the majority of the trips are likely to already be on the city centre network with the vehicles making an additional stop on their route as they pass the development and should not be considered new trips.

All **taxi trips** are assumed to be new trips as they could divert from anywhere in the city, however this is a robust assessment, as taxis usually pick up whoever is closest to them.

80% of **LGVs** and 80% of **HGVs** are assumed to be already passing by the Site on London Road and therefore not new trips to the area. This is considered a reasonable estimate, as network management by the delivery/waste collection company will seek to reduce extra mileage and will plan routes accordingly. This has been applied to the trip rates of the extant and proposed land uses in the tables in the following sections.

Moreover, LGV and taxi traffic has been assumed to come from London Road south and leave the Site via London Road north. HGVs have been assumed to come from London Road (south) and leave via Sackville Street, as they will travel via the proposed one-way service tunnel which is located under Altrincham Street.

5.4. TRICS Criteria

Office

TRICS category 02A 'Offices' has been used. Town centre and edge of town centre surveys were included, for developments larger than 10,000sqm.

Restaurant

The TRICS category '06B Restaurants' has been used. Town centre and edge of town centre surveys were included.

Café

The TRICS category '06K Cafes' has been used. Town centre surveys were included.

Gym

The TRICS category '07K - fitness club (private)'. All locations were included as there were very few surveys. As only servicing and taxi trips are being derived from TRICS, it is assumed that the servicing needs of a gym are the same regardless of its location, and therefore this method is acceptable.

5.5. Trip Rates and Trip Generation

Trip rates taken from TRICS using the parameters detailed above are set out in Table 1. The full TRICS output is included at Appendix D.

Table 1: Trip Rates.

Land Use	Mode	AM Peak			PM Peak		
		In	Out	Total	In	Out	Total
06K Cafes	Taxis	0.120	0.120	0.240	0.000	0.000	0.000
	OGVs	0.000	0.000	0.000	0.000	0.000	0.000
	LGVs	0.000	0.120	0.120	0.000	0.000	0.000
06B Rest-aurants	Taxis	0.000	0.000	0.000	0.140	0.100	0.240
	OGVs	0.000	0.000	0.000	0.000	0.000	0.000
	LGVs	0.000	0.000	0.000	0.040	0.000	0.040
07K Gyms	Taxis	0.103	0.103	0.206	0.257	0.308	0.565
	OGVs	0.051	0.051	0.102	0.000	0.000	0.000
	LGVs	1.128	0.359	1.487	0.719	0.874	1.593
02A Office	Taxis	0.005	0.005	0.010	0.003	0.003	0.006
	OGVs	0.008	0.008	0.016	0.000	0.000	0.000
	LGVs	0.017	0.011	0.028	0.006	0.006	0.012

In Table 2 the trip rates above have been multiplied by the quantum of development which is set out in Section 5.2 above, noting these are work in progress and subject to change.

Importantly, for LGV and OGV trips, 80% of trips have been removed to account for 80% of LGV and OGV trips being pass-by trips on London Road and 20% being new trips on the highway network.

Trips generated in Building C1 of the Site are shown in Table 2.

Table 2: Building C1 Trip Generation – new trips on highway network.

Land Use	Mode	AM Peak			PM Peak		
		In	Out	Total	In	Out	Total
06K Cafes 829sqm	Taxis	1	1	2	0	0	0
	OGVs	0	0	0	0	0	0
	LGVs	0	0	0	0	0	0
06B Rest-aurants 451sqm	Taxis	0	0	0	1	0	1
	OGVs	0	0	0	0	0	0
	LGVs	0	0	0	0	0	0
07K Gyms 1,904sqm	Taxis	0	0	0	0	0	0
	OGVs	0	0	0	0	0	0
	LGVs	0	0	0	0	0	0
02A Office 25,125 sqm	Taxis	1	1	3	1	1	2
	OGVs	0	0	1	0	0	0
	LGVs	1	1	1	0	0	1
Building C1 Total	Taxis	2	2	5	1	1	3
	OGVs	0	0	1	0	0	0
	LGVs	1	1	2	0	0	1
	Total Veh	**4**	**3**	**7**	**2**	**2**	**3**

Trips generated for Building C2 are shown in Table 3.

Table 3: Building C2 Trip Generation – new trips on highway network.

Land Use	Mode	AM Peak			PM Peak		
		In	Out	Total	In	Out	Total
06K Cafes 245sqm	Taxis	0	0	1	0	0	0
	OGVs	0	0	0	0	0	0
	LGVs	0	0	0	0	0	0
02A Office 40,424 sqm	Taxis	2	2	4	1	1	2
	OGVs	1	1	1	0	0	0
	LGVs	1	1	2	0	0	1
Building C2 Total	Taxis	2	2	5	1	1	2
	OGVs	1	1	1	0	0	0
	LGVs	1	1	2	0	0	1
	Total Veh	**4**	**4**	**8**	**2**	**2**	**3**

The trips generated in the viaduct arches element of the development are shown in Table 4.

Table 4: Viaduct arches trip generation – new trips on highway network.

Land Use	Mode	AM Peak			PM Peak		
		In	Out	Total	In	Out	Total
06K Cafes	Taxis	1	1	1	0	0	0
	OGVs	0	0	0	0	0	0
	LGVs	0	0	0	0	0	0
06B Restaurants	Taxis	0	0	0	1	0	1
	OGVs	0	0	0	0	0	0
	LGVs	0	0	0	0	0	0
Viaducts Total	Taxis	1	1	1	1	0	1
	OGVs	0	0	0	0	0	0
	LGVs	0	0	0	0	0	0
	Total Veh	**1**	**1**	**1**	**1**	**0**	**1**

Table 5 sets out the peak hour trip generation impact on the local highway network of all of Plot C (Sister).

Table 5: Plot C (Sister) trip generation – new trips on highway network.

Land Use	Mode	AM Peak			PM Peak		
		In	Out	Total	In	Out	Total
Total Plot C (Sister)	Taxis	5	5	10	3	3	6
	OGVs	1	1	2	0	0	0
	LGVs	2	2	4	1	1	2
	Total Veh	**8**	**8**	**16**	**4**	**4**	**8**

5.6. Impact on the Highway Network

As set out in Table 5, the peak impact on the highway network will be 16 new trips in the AM peak hour. This is not significant and will not be assessed further.

5.7. Transport Impact by Mode – Non-operational Trips

In order to understand the peak hour trip generation by mode, a local adjusted mode share has been applied to the car trips derived from TRICS for office. Only office has been used as during the peak hours the café, restaurant and gym trip generation is very limited and can be considered ancillary.

Existing transport patterns within Manchester have been established by using the 'Transport Statistics Key Centre Reports' for the Manchester district[3]. The AM peak modal splits from 2021 for the Manchester district are presented in Table 6.

Note that this data is the most current data, however, as it from 2021 is likely to be skewed by the Covid-19 pandemic, when more people worked from home, and when people did travel to work they were more likely to be wary of public transport, and more likely to drive as there would be more parking opportunities the pre- or post-pandemic, as more people were working from home.

Therefore, the 2019 mode share is also presented.

As can be seen in Table 6, the walking and cycling mode share was constant between 2019 and 2021, however, the public transport mode share was lower during the pandemic, which impacted the

[3] https://www.gmtu.gov.uk/reports/transportKeyCentre20202021.htm (Accessed 10/04/2025)

car driver mode share significantly.

As the development will be car free, the car driver mode share at the proposed site will be lower than the baseline, which is taken to be as per 2019.

It has been assumed that 5% of people will use a car to travel to the Site and park off-site. This can be considered a conservative assumption, due to the fact that there is no parking provision at the site and the surrounding parking facilities are typically more expensive than rail, bus or tram transport.

The adjusted modal split, with car trips being re-distributed into the other modes proportionally, is shown in Table 6.

Table 6: TfGM Transport Statistics Key Centre Reports modal split data for Manchester in 2021.

Mode	Modal Split		
	2021	2019	Plot C (Sister) Adjusted Mode Share
Walking	13%	13%	16%
Cyclist	2%	2%	3%
Bus	18%	21%	25%
Metro/ Light Rail	14%	16%	19%
Rail	12%	26%	31%
Car Passenger	8%	5%	2%
Car Driver	32%	16%	5%
Total	100%	100%	100%

The car driver trip rates derived from TRICS have been adjusted in line with the Plot C (Sister) mode share, and trips per mode in the peak hours presented.

Table 7- Modal split adjusted to 5% car occupants and the resultant trip generation.

Mode	Plot C (Sister) Adjusted Modal Split	AM Peak Hour			PM Peak Hour		
		Arr	Dep	Total	Arr	Dep	Total
Trip rate - TRICS							
Car Driver	16%	0.318	0.052	0.370	0.076	0.219	0.295
	5%	0.098	0.016	0.114	0.023	0.067	0.091
Trips							
Walking	16%	201	33	233	48	138	186
Cyclist	3%	34	6	40	8	24	32
Bus	25%	314	51	366	75	216	292
Metro/ Light Rail	19%	245	40	285	59	169	227
Rail	31%	398	65	463	95	274	369
Car Passenger	2%	26	4	30	6	18	24
Car Driver	5%	64	10	75	15	44	59
Total	100%	1,282	210	1,492	306	883	1,189

A Travel Plan has been produced to accompany the planning application and sets out how people working at the development will be encouraged and enabled to travel by sustainable modes.

Active Travel Network Impacts

Walking

The pedestrian network in the vicinity of the Site will see an increase in people walking because of the proposed development. The estimated two-way walking trips during the peak hours are 186-233 pedestrians, although noting that in reality, all trips other than cycle trips will begin or end as a walking trip to nearby public transport or car parking provision. Additional pedestrians on existing footways and crossings can be accommodated without significant negative impact on pedestrian comfort levels given that there are a range of walking routes available to and from the site. Moreover, the Site itself is intended to act as a pedestrian-priority area that will improve pedestrian provision in the area.

Cycling

The cycle network in the vicinity of the site is estimated to see an increase of 32-40 trips during the peak hours. With the proposed cycle infrastructure improvements in the area the network should be well equipped to deal with higher volumes of cyclists.

Bus

292-366 additional people will be added to Manchester's bus network by the proposed development in the peak hours. With approximately 30 services per hour in each direction from the London Road stops, this equates to 5-6 additional passengers per service. This is not likely to have a significant effect and will support the bus network through increased revenue.

Metro/Light Rail

The Site is anticipated to generate 227-285 additional tram trips in the peak hours. This equates to an additional 4-5 people on the tram every minute. Due to the high capacity of Manchester's tram network, this is unlikely to have a significant impact on its operation.

Train

An additional 369-463 people are expected to use the rail network to travel to and from the Site in peak hours. Similar to tram journeys, this will equate to approximately 6-8 additional people on the train every minute in the peak hours. This is unlikely to have a negative impact on the train network.

Car Driver

An additional 59-75 car trips may be generated by the proposed development in the peak hour, 5% of trips. As the development will be car free, these trips will be distributed to off-site car parks described in Section 2.11, which already have planning consent as vehicle trip attractors, and therefore further analysis is not required.

5.8. Operational Trips to Site, and Capacity of Loading Bays

Using the TRICS parameters set out in Section 5.5, the hourly trip operational trips that will enter the site from London Road have been calculated, and are presented at Appendix E.

Note that for OGVs and LGVs in the peak hour the trip generation is higher than presented in Table 5 as those are new trips on the highway, netting off the 80% passby trips, whereas the operational trips presented at Appendix E have been used to understand the capacity and demand of the on site loading areas.

When determining the quantum of loading bays required, the following parameters were applied:

- Half of the taxis are assumed to be dropping off and half picking. Drop off is assumed to take 2 minutes and pick up is assumed to take 5 minutes.
- Half of the LGVs are assumed to use the service tunnel, requiring an average of 10 minutes to load/unload
- Half of the LGVs are assumed to park on Mill Lane, requiring an average of 10 minutes to load/unload
- All OGVs are assumed to use the service tunnel, requiring an average of 20 minutes to load/unload

The table at Appendix E presents the number of minutes per hour that the loading bays are in

demand. For each hour, the supply exceeds the demand.

5.9. Mill Lane Loading Bays

Analysis presented in Appendix E, shows that for each hour, the 2 loading bays at Mill lane would provide a total of 120 minutes of loading time. This is sufficient to accommodate the servicing demands of the development at surface level. The busiest hour will be 07:00-08:00 when the bays will be at 85% capacity. For the rest of the day, 08:00-20:00 the average demand will be 39%. It is therefore concluded that this provision is appropriate.

5.10. Service Tunnel

In the service tunnel there will be 3 larger bays for OGVs and 3 LGV bays which are not suitable for OGVs.

As shown at Appendix E for each hour, the 3 LGV loading bays, providing a total of 180 minutes of loading time, are sufficient to accommodate the LGV servicing demands of the development in the service tunnel. The busiest hour will be 07:00-08:00 when the LGV bays will be at 56% capacity. For the rest of the day, 08:00-20:00 the average demand will be 19%.

Appendix E also shows that, for each hour, the 3 OGV loading bays, providing a total of 180 minutes of loading time, are sufficient to accommodate the OGV servicing demands of the development in the service tunnel. The busiest hour will be 08:00-09:00 when the OGV bays will be at 88% capacity. For the rest of the day, 08:00-20:00 the average demand will be 25%.

This demonstrates that there will still be spare capacity even at the busiest hour, and significant spare capacity in the average hour. It will therefore be possible for the operators to manage deliveries and servicing to distribute the use of the bays over the day.

It is also important to note that, because of the lack of large developments in the TRICS database, the estimation of operational trips to the development is likely to be an overstatement.

The calculations are based on surveys taken of actual buildings, factored pro-rata to the size of the proposed development. As set out in Section 5.4, the TRICS surveys were filtered to show only office developments of more than 10,000sqm to avoid the issue of scaling up servicing trips inappropriately. The average size of the surveyed sites was 12,000sqm which is still 5 times smaller than the proposed office at Plot C (Sister).

When the TRICS servicing trips are converted pro rata to the proposed development, the trips are multiplied by 5, however it is likely that an office development 5 times the size of another wouldn’t actually generate 5 times the trips as the same vehicle could be bringing/collecting more than one thing to site, e.g. the same refuse vehicle could attend all of the site, 5 vehicles wouldn’t need to attend.

It is therefore considered that the methodology used presents a robust assessment and the proposed servicing layout will have sufficient capacity to meet the servicing and delivery needs of the development

6. Conclusions

This TA has been prepared by Civic Engineers to accompany the planning application for an office-based development with mixed use elements at Plot C (Sister), the first plot to be developed at Sister, Manchester, on the site of the former UMIST campus in the ID Manchester SRF area. The proposals comprise of 72,928 sqm GEA of office space, and 7,265 sqm GEA of flexible uses.

The Site is well connected to the surrounding rail and tram network, with Piccadilly Station and tram stop approximately 200m north-east of the Site, as well as bus stops for high-frequency services on London Road adjacent to the Site.

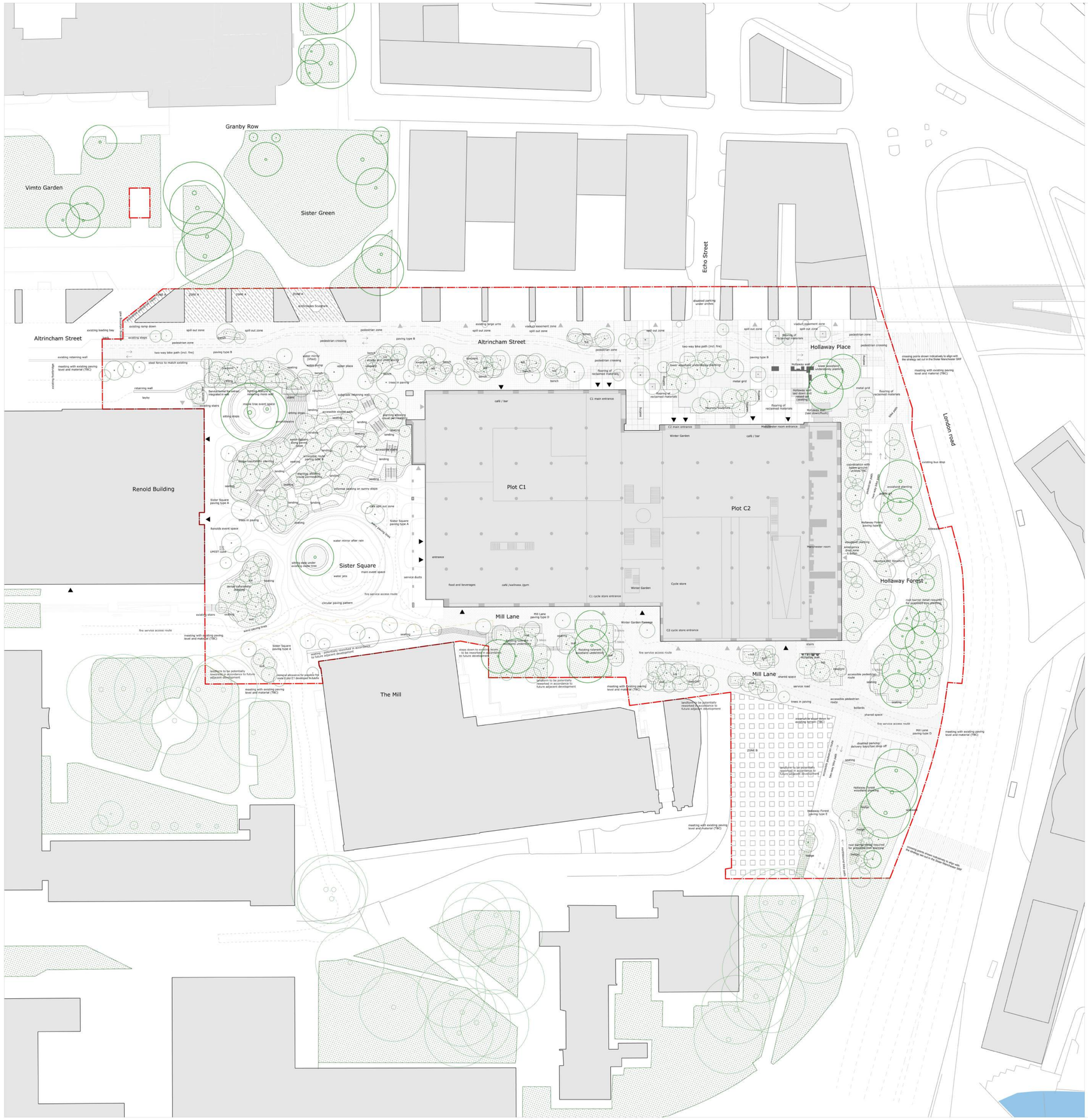
Pedestrian and cycle access into the Site will be via Altrincham Street to the north, Hollaway Forest to the east, and Mill Lane to the south. All of these routes are traffic-free except for essential servicing/emergency. A cohesive design throughout each plot of Sister will provide high-quality pedestrian infrastructure and benches, green spaces and public realm infrastructure to accommodate pedestrians.

The trip generation analysis undertaken as part of this TA shows that 16 operational vehicles would be added to the highway network in the AM peak and 8 in the PM peak. This number of trips is unlikely to impact the operation or safety of the highway network and will not necessitate further modelling.

As the development will be car free, car trips will be limited, and any car trips will be distributed to off-site car parks described which already have planning consent as vehicle trip attractors, and therefore further analysis is not required.

6 servicing bays are proposed in the service tunnel, 2 taxi/delivery bays are proposed at grade on Mill Lane. This provision has been demonstrated to accommodate anticipated demand. Disabled parking is proposed on Echo Street under the viaduct (1 space) and on Mill Lane (2 spaces).

Appendix A: Development Proposals



General legend

- Red line boundary
- Contour lines
- Fire and traffic routes
- Pedestrian path
- Temporary design zone (TBC with plot E landscape)
- Steps and seating
- Building entrances (primary/secondary)
- Art pieces
- Pedestrian tactile paving / crossing
- Perennial, grass and shrub planting
- Proposed hedge (25m)
- Existing tree retained
- Proposed tree
- ZONE A — Lighting installation. Further information to be installed with Plot A design team in subsequent phases
- ZONE B — Plot C boundary line encompasses demolition footprint of Morton Laboratory. Public realm proposals to be developed by Plot E design team in subsequent phases. Polyvitae opportunity for meanwhile use.

Note:
Tree placement and location of structures on Altrincham St. to be coordinated (utility zone to be confirmed).

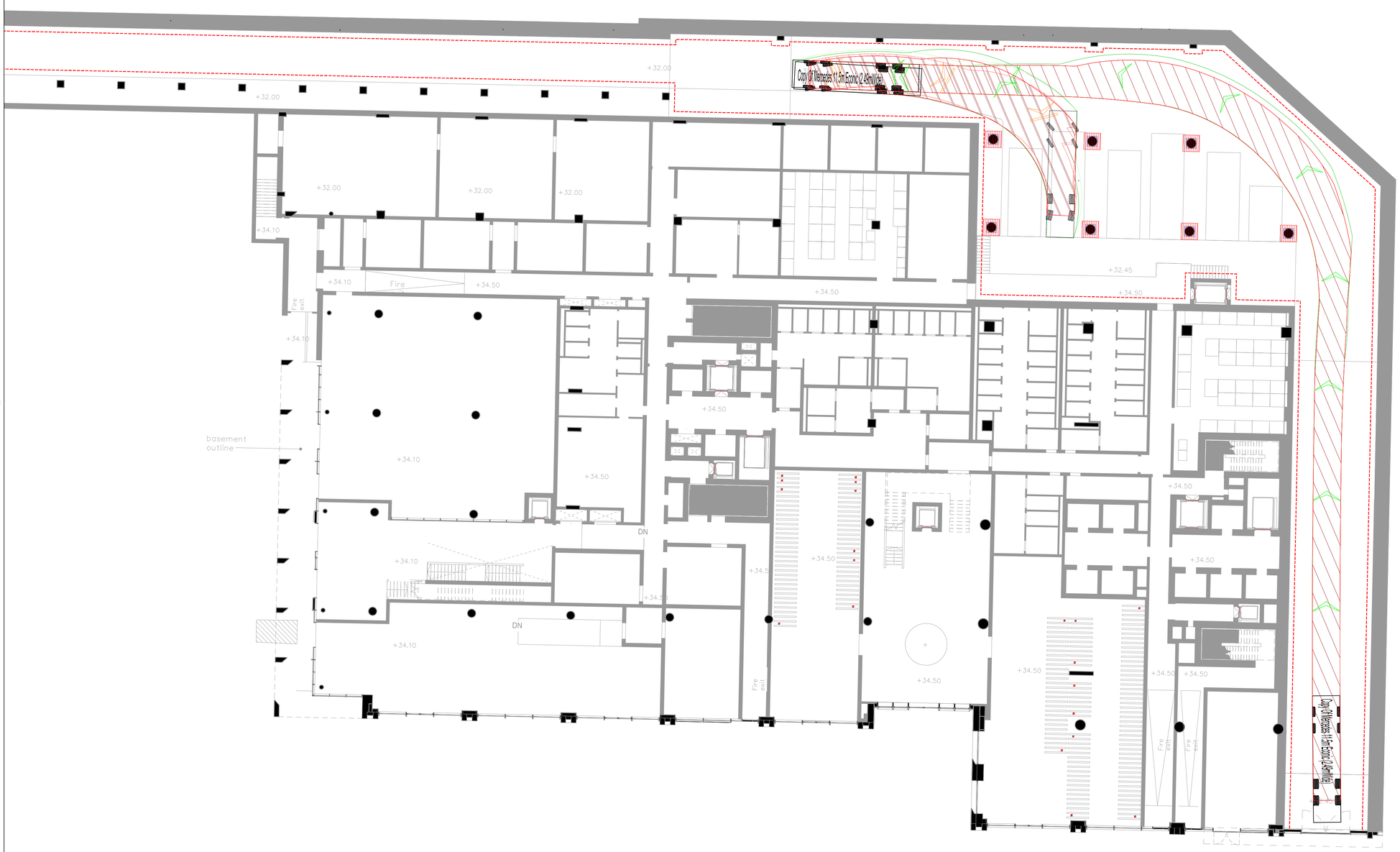
Revision no. :	Date	Comments	Drawn	Checked
02	31.01.2025	Revision including new C1 and C2 building footprints, incorporation of Butterfly stairs in the landscape, level changes.	LAM/RSU	JLB/SIS
03	18.02.2025	Plot boundary update, temporary design zone boundary by plot E added, bike lane update.	LAM	JLB
04	11.04.2025	Updates on: plot boundary, Sister Square central steps and slope design update, Altrincham St. bike lane and pedestrian zone, disabled parking , new trees number and location, Hollaway Wall, entrances, smaller updates	LAM	JLB
05	23.04.2025	Plot boundary update, Hollaway Wall update	LAM	JLB

This drawing is the copyright of SLA and may not be reproduced or used without written permission. The drawing is for planning and design purposes only and should not be used for construction without further detailed drawings and specifications. The contractor shall verify all dimensions and conditions on site prior to commencing any work. Any discrepancies between this drawing and site conditions must be reported to the Architect immediately. This drawing does not constitute approval under any building regulations, planning permissions, or other statutory requirements. The Contract Administrator is responsible for obtaining all necessary approvals before commencing work. SLA accepts no liability for any loss, damage, or injury caused by errors or omissions in this drawing or by use of this drawing for purposes other than those for which it was commissioned. Use of this drawing implies acceptance of these conditions. © 2024 [SLA]. All rights reserved.

Project:	SISTER MANCHESTER PLOT C	REV:	05
Project No:	1519	BRUNTWOOD REF. NO:	SISC0-SLA-LA-ZZ-DR-LA-00001
Title:	General Landscape Arrangement Plan	DRAWING NO.	1519-L-01-12-01
Scale:	1:500 (A1)	DRAWN:	LAM/RSU
Date:	27.09.2024	APPROVED:	JLB

SLA A/S
Njalsgade 17B,
Pakhus 2, 3.sal,
København S

Appendix B: Vehicle Tracking



STANDARD NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S AND ENGINEER'S DRAWINGS AND THE SPECIFICATIONS.
2. THIS DRAWING SHOULD NOT BE SCALED.
3. ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE.
4. ALL DISCREPANCIES SHOULD BE REPORTED TO C.A./E.A. PRIOR TO THE COMMENCEMENT OF WORKS.

© CIVIC ENGINEERS LIMITED

KEY:

FRONT MOVEMENT

BODY ENVELOPE

CHASSIS ENVELOPE

REVERSE MOVEMENT

BODY ENVELOPE

CHASSIS ENVELOPE

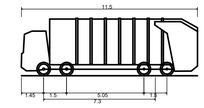
COLUMN PROTECTION ZONE

500mm CLEARANCE ZONE

NOTES:
500mm OFFSET PROVIDED FROM WALLS FOR CLEARANCE ZONE

300mm OFFSET PROVIDED FROM THE FACE OF CIRCULAR COLUMNS FOR CLEAR SPACE AND PROTECTION INSTALLATION, WITH AN ADDITIONAL 100mm FOR PROTECTION'S WIDTH

THE VEHICLE MOVEMENT ENVELOPES SHOWN ARE GENERATED USING AUTODESK VEHICLE TRACKING SOFTWARE AND ARE INDICATIVE ONLY. THE ENVELOPES SHOWN DO NOT MAKE ALLOWANCE FOR DRIVER ABILITY, GRADIENTS AND ALTERNATIVE VEHICLE SPECIFICATIONS.



Copy Of Mercedes 11.5m Econic (2.49mWide)	
Overall Length	11.500m
Overall Width	2.490m
Overall Body Height	3.740m
Min Body Ground Clearance	0.302m
Track Width	2.490m
Lock to lock time	4.00s
Wall to Wall Turning Radius	11.250m

DATE	REV	DESCRIPTION	DRAWN	CHKD
22.04.25	P01	ISSUED FOR INFORMATION	NL	EI

CIVIC ENGINEERS

civicengineers.com

PROJECT

SISTER - PLOT C
MANCHESTER

TITLE

SWEPT PATH ANALYSIS
REFUSE VEHICLE
SERVICE TUNNEL

DRAWING STATUS	STATUS CODE
FOR INFORMATION	--

CE PROJECT No.	SCALE @ A1	DATE CREATED	DRAWN	CHECKED
2750-01	1:200	APR'25	NL	EI

DRAWING No.	REV
2750-CIV-00-ZZ-S-C-00007	P01

FILE LOCATION PATH: P:\PROJECTS HOT\2750-01 ID MANCHESTER - PHASE 2 PLOT C\004 BIM\SKETCHES\2025 SISTER\25.04.14 - REFUSE VEHICLE TRACKING\2750-CIV-00-ZZ-S-C-00007_SWEPT PATH ANALYSIS REFUSE VEHICLES.DWG

STANDARD NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S AND ENGINEER'S DRAWINGS AND THE SPECIFICATIONS.
2. THIS DRAWING SHOULD NOT BE SCALED.
3. ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE.
4. ALL DISCREPANCIES SHOULD BE REPORTED TO C.A./E.A. PRIOR TO THE COMMENCEMENT OF WORKS.

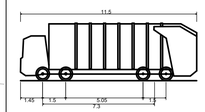
© CIVIC ENGINEERS LIMITED

1. THE VEHICLE MOVEMENT ENVELOPES SHOWN ARE GENERATED USING AUTODESK VEHICLE TRACKING SOFTWARE AND ARE INDICATIVE ONLY.
2. THE ENVELOPES SHOWN DO NOT MAKE ALLOWANCE FOR DRIVER VISIBILITY, GRADIENTS AND ALTERNATIVE VEHICLE SPECIFICATIONS.

KEY

- RED LINE BOUNDARY
- CHASSIS ENVELOPE
- BODY ENVELOPE
- CHASSIS ENVELOPE (REVERSE)
- BODY ENVELOPE (REVERSE)

VEHICLE PARAMETERS



Copy Of Mercedes 11.5m Econic (2.49mWide)

Overall Length	11.500m
Overall Width	2.490m
Overall Body Height	3.740m
Min Body Ground Clearance	0.302m
Track Width	2.490m
Lock to lock time	4.00s
Wall to Wall Turning Radius	11.250m

DATE	REV	DESCRIPTION	DRAWN	CHKD
22.04.25	P01	FIRST ISSUE	NL	EI

CIVIC ENGINEERS

civicengineers.com

PROJECT

SISTER - PLOT C

TITLE

SWEPTH PATH ANALYSIS
REFUSE VEHICLE SERVICING

DRAWING STATUS	STATUS CODE
INFORMATION	-

CE PROJECT No.	SCALE @ A1	DATE CREATED	DRAWN	CHECKED
2750-01	1:500	APR'25	NL	EI

DRAWING No.	REV
2750-CIV-00-ZZ-S-C-00008	P01

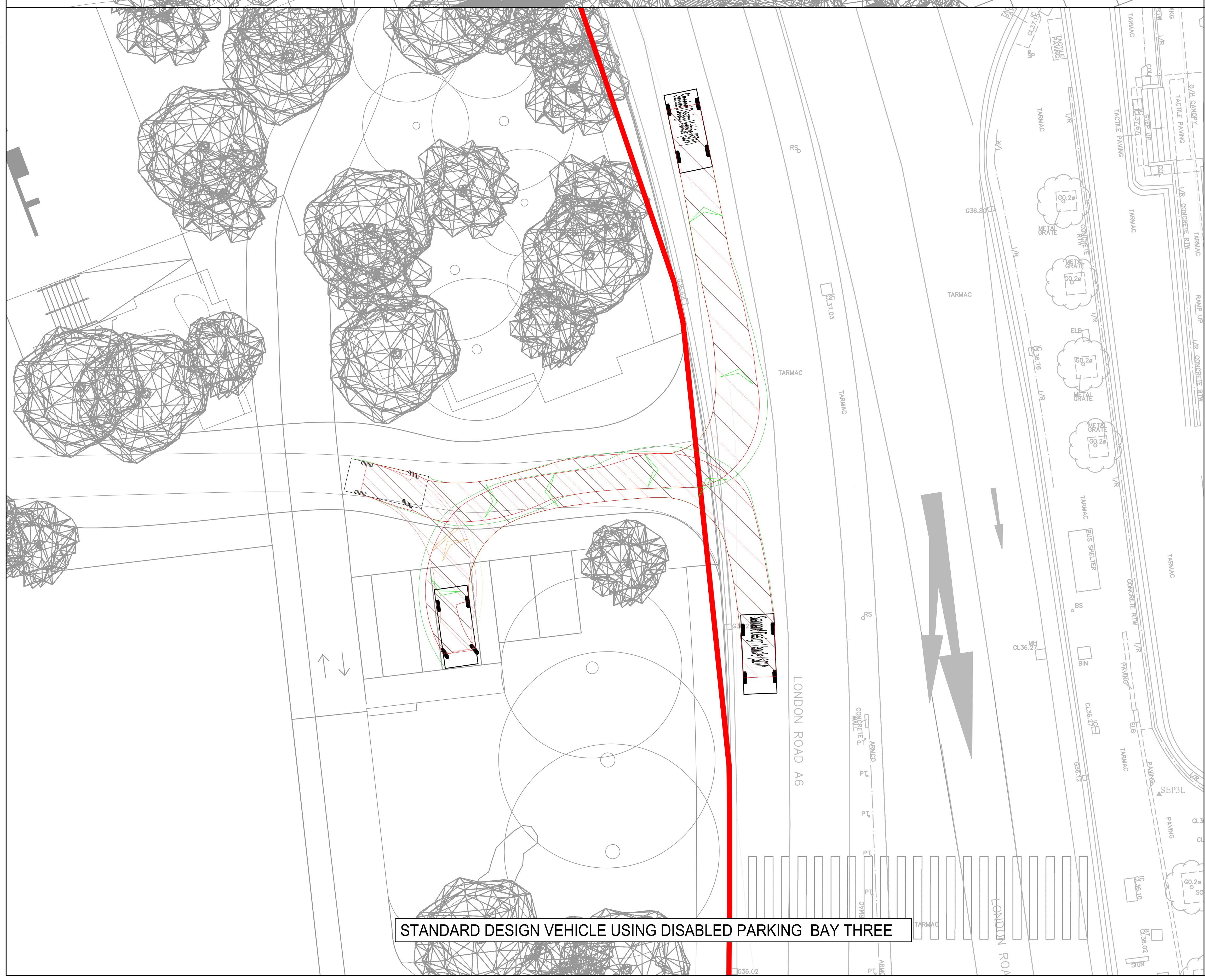
FILE LOCATION PATH: P:\PROJECTS HOT\2750-01 ID MANCHESTER - PHASE 2 PLOT C\004 BIM\SKETCHES\2025 SISTER\25.04.14 - REFUSE VEHICLE TRACKING\2750-CIV-00-ZZ-S-C-00008_SWEPT PATH ANALYSIS REFUSE VEHICLES CAR PARK.DWG



STANDARD DESIGN VEHICLE USING DISABLED PARKING BAY ONE



STANDARD DESIGN VEHICLE USING DISABLED PARKING BAY TWO



STANDARD DESIGN VEHICLE USING DISABLED PARKING BAY THREE

FILE LOCATION PATH: P:\PROJECTS HOT\2750-01 ID MANCHESTER - PHASE 2 PLOT C\004 BIM\SKETCHES\2025 SISTER\25.04.14 - REFUSE VEHICLE TRACKING\2750-CIV-00-ZZ-S-C-00009_SWEPT PATH ANALYSIS SDV DISABLED BAYS.DWG

STANDARD NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S AND ENGINEER'S DRAWINGS AND THE SPECIFICATIONS.
2. THIS DRAWING SHOULD NOT BE SCALED.
3. ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE.
4. ALL DISCREPANCIES SHOULD BE REPORTED TO C.A./E.A. PRIOR TO THE COMMENCEMENT OF WORKS.

© CIVIC ENGINEERS LIMITED

KEY:

RED LINE BOUNARY

FRONT MOVEMENT

BODY ENVELOPE

CHASSIS ENVELOPE

REAR MOVEMENT

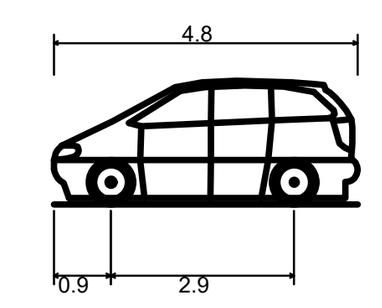
BODY ENVELOPE

CHASSIS ENVELOPE

NOTES:

THE SWEPT PATH ANALYSIS IS BASED ON THE SITE LANDSCAPE PLOT C MASTERPLAN MODEL, REFERENCING DRAWING 2024_09_05_SLA_IDM_WIP, PROVIDED BY SLA ON 15.04.25.

THE VEHICLE MOVEMENT ENVELOPES SHOWN ARE GENERATED USING AUTODESK VEHICLE TRACKING SOFTWARE AND ARE INDICATIVE ONLY. THE ENVELOPES SHOWN DO NOT MAKE ALLOWANCE FOR DRIVER ABILITY, GRADIENTS AND ALTERNATIVE VEHICLE SPECIFICATIONS.



Standard Design Vehicle (SDV)	
Overall Length	4.800m
Overall Width	2.000m
Overall Body Height	1.950m
Min Body Ground Clearance	0.100m
Track Width	2.000m
Lock to lock time	4.00s
Wall to Wall Turning Radius	6.000m

DATE	REV	DESCRIPTION	DRAWN	CHKD
22.04.25	P01	FIRST ISSUE	NL	EI

CIVIC ENGINEERS

civicengineers.com

PROJECT

SISTER - PLOT C

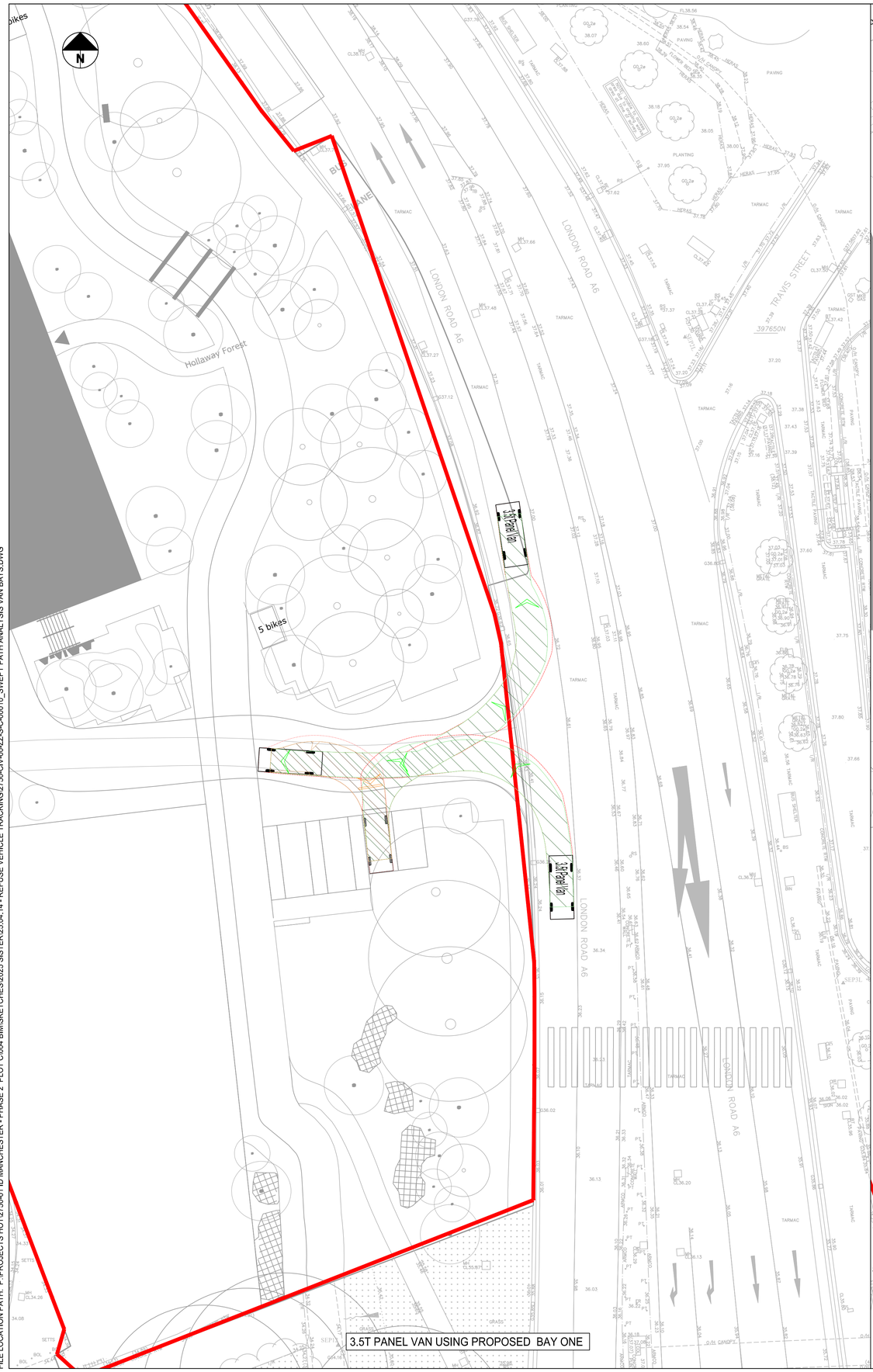
TITLE

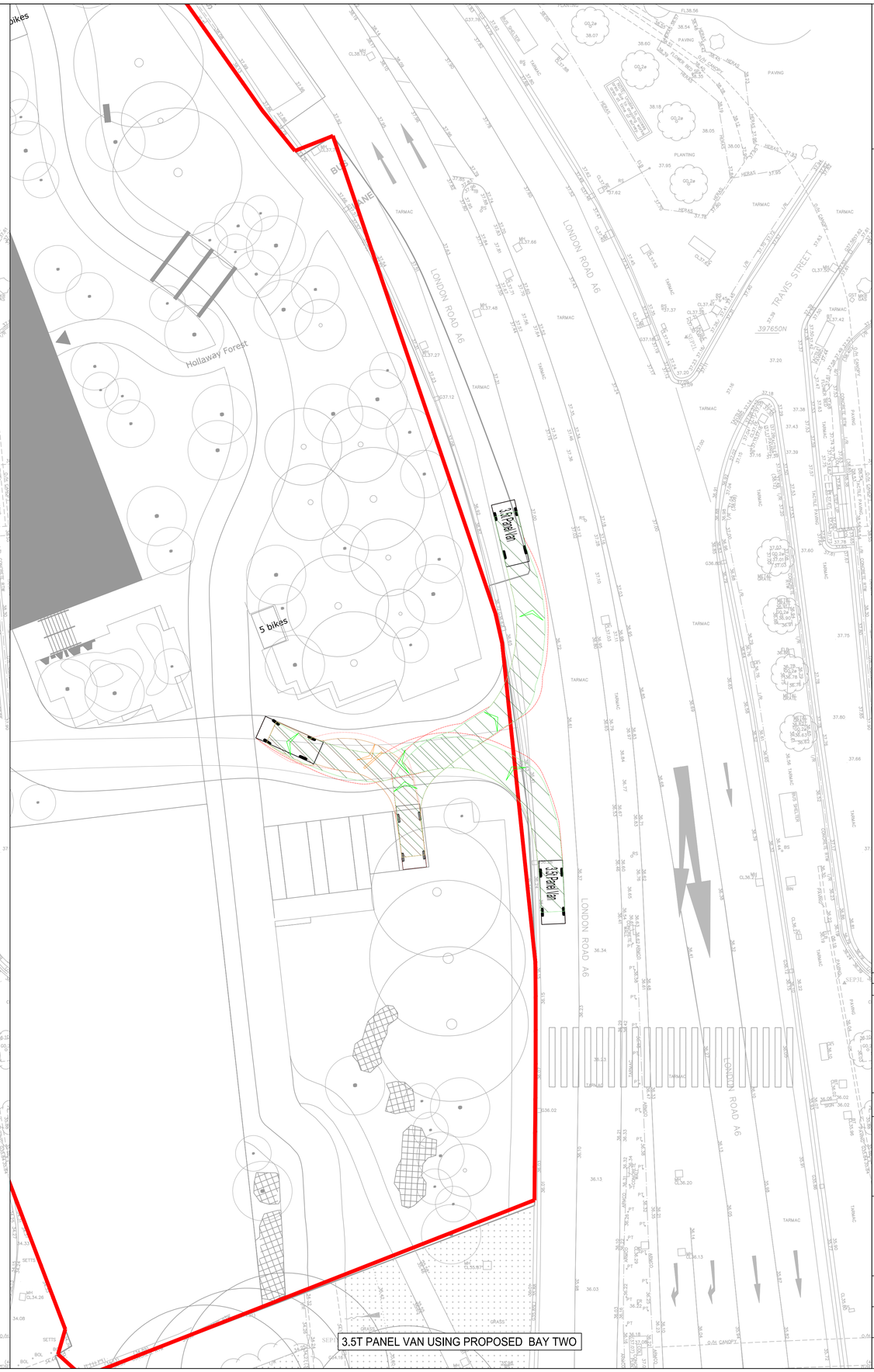
SWEPTH PATH ANALYSIS
SDV USING PROPOSED DISABLED PARKING BAYS

DRAWING STATUS	STATUS CODE
INFORMATION	-

CE PROJECT No.	SCALE @ A1	DATE CREATED	DRAWN	CHECKED
2750-01	1:200	APR'25	NL	EI

DRAWING No.	REV
2750-CIV-00-ZZ-S-C-00009	P01





STANDARD NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S AND ENGINEER'S DRAWINGS AND THE SPECIFICATIONS.
2. THIS DRAWING SHOULD NOT BE SCALED.
3. ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE.
4. ALL DISCREPANCIES SHOULD BE REPORTED TO C.A./E.A. PRIOR TO THE COMMENCEMENT OF WORKS.

© CIVIC ENGINEERS LIMITED

KEY:

RED LINE BOUNARY

FRONT MOVEMENT

BODY ENVELOPE

CHASSIS ENVELOPE

REAR MOVEMENT

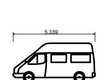
BODY ENVELOPE

CHASSIS ENVELOPE

NOTES:

THE SWEPT PATH ANALYSIS IS BASED ON THE SITE LANDSCAPE PLOT C MASTERPLAN MODEL, REFERENCING DRAWING 2024_09_05_SLA_IDM_WIP, PROVIDED BY SLA ON 15.04.25.

THE VEHICLE MOVEMENT ENVELOPES SHOWN ARE GENERATED USING AUTODESK VEHICLE TRACKING SOFTWARE AND ARE INDICATIVE ONLY. THE ENVELOPES SHOWN DO NOT MAKE ALLOWANCE FOR DRIVER ABILITY, GRADIENTS AND ALTERNATIVE VEHICLE SPECIFICATIONS.



3.5t Panel Van	
Overall Length	5.339m
Overall Width	1.986m
Overall Body Height	2.565m
Min Body Ground Clearance	0.338m
Track Width	1.986m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	6.400m

DATE	REV	DESCRIPTION	DRAWN	CHKD
22.04.25	P01	ISSUED FOR INFORMATION	NL	EI

CIVIC ENGINEERS

civicengineers.com

PROJECT

SISTER - PLOT C

TITLE

SWEPTH PATH ANALYSIS
3.5T PANEL VAN USING BAYS

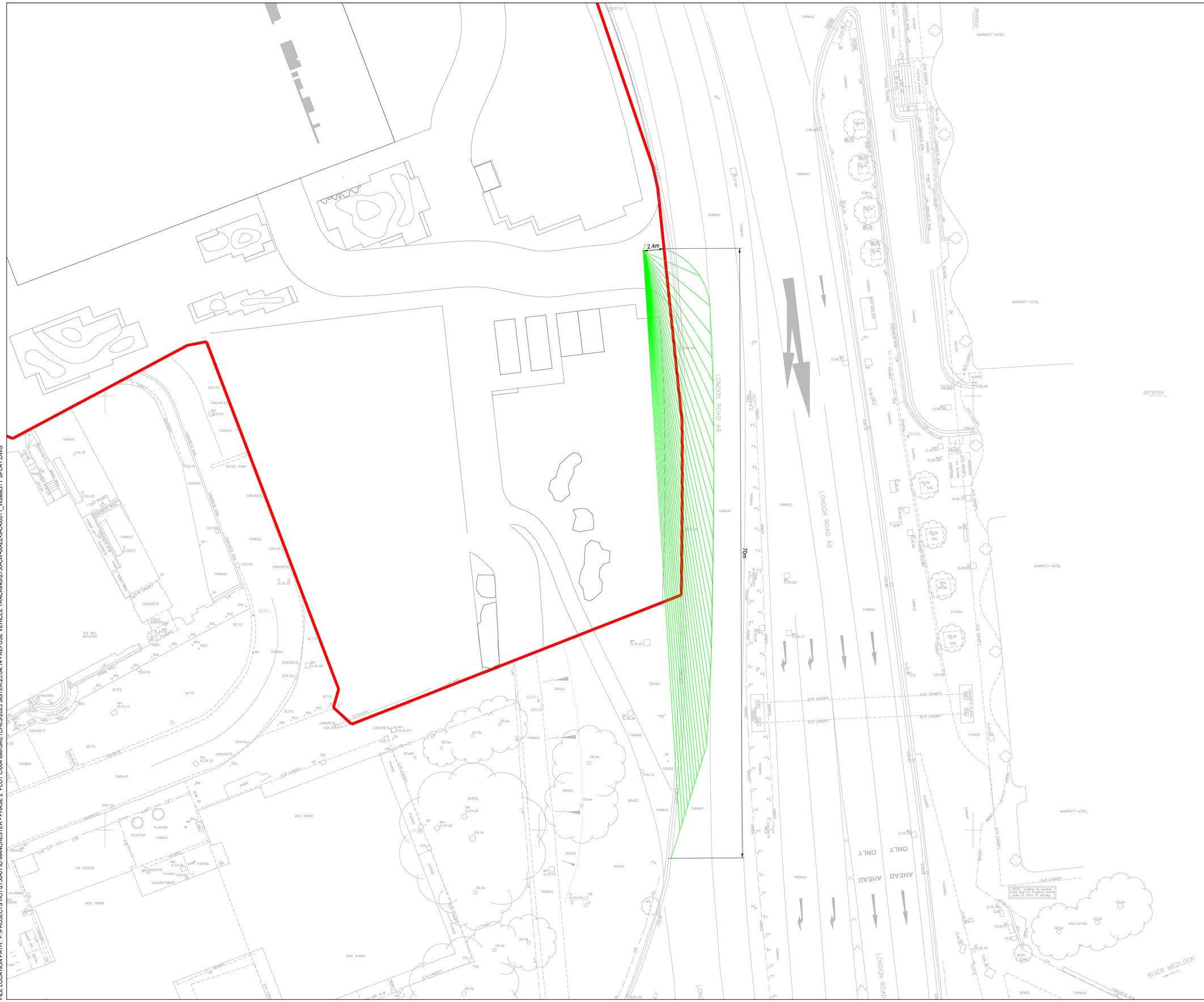
DRAWING STATUS	STATUS CODE
INFORMATION	-

CE PROJECT No.	SCALE @ A1	DATE CREATED	DRAWN	CHECKED
2750-01	1:200	APR 25	NL	EI

DRAWING No.	REV
2750-CIV-00-ZZ-S-C-00010	P01

FILE LOCATION PATH: P:\PROJECTS HOT\2750-01 ID MANCHESTER - PHASE 2 PLOT C\004 BIM\SKETCHES\2025 SISTER\25.04.14 - REFUSE VEHICLE TRACKING\2750-CIV-00-ZZ-S-C-00010_SWEPT PATH

FILE LOCATION PATH: P:\PROJECTS HOT\2750-01 ID MANCHESTER - PHASE 2 PLOT C\004 BIM\SKETCHES\2025 SISTER\25.04.14 - REFUSE VEHICLE TRACKING\2750-CIV-00-ZZ-S-C-00011_VISIBILITY SPLAY.DWG



STANDARD NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S AND ENGINEER'S DRAWINGS AND THE SPECIFICATIONS.
2. THIS DRAWING SHOULD NOT BE SCALED.
3. ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE.
4. ALL DISCREPANCIES SHOULD BE REPORTED TO C.A./E.A. PRIOR TO THE COMMENCEMENT OF WORKS.

© CIVIC ENGINEERS LIMITED

NOTES:

THE VISIBILITY IS BASED ON THE SITE LANDSCAPE PLOT C MASTERPLAN MODEL, REFERENCING DRAWING 2024_09_05_SLA_IDM_WIP, PROVIDED BY SLA ON 15.04.25.

TOPOGRAPHICAL SURVEY LEVELS RECEIVED FROM BRUNTWOOD AUGUST 2024.

THE VISIBILITY SPLAY IS BASED ON A ROAD SPEED OF 30MPH WITH A SITE STOPPING DISTANCE OF 70m FROM DMRB TABLE 2.10 CD109 REV 1.

DATE	REV	DESCRIPTION	DRAWN	CHKD
22.04.25	P01	FIRST ISSUE	NL	EI

CIVIC ENGINEERS

civicengineers.com

PROJECT

SISTER - PLOT C

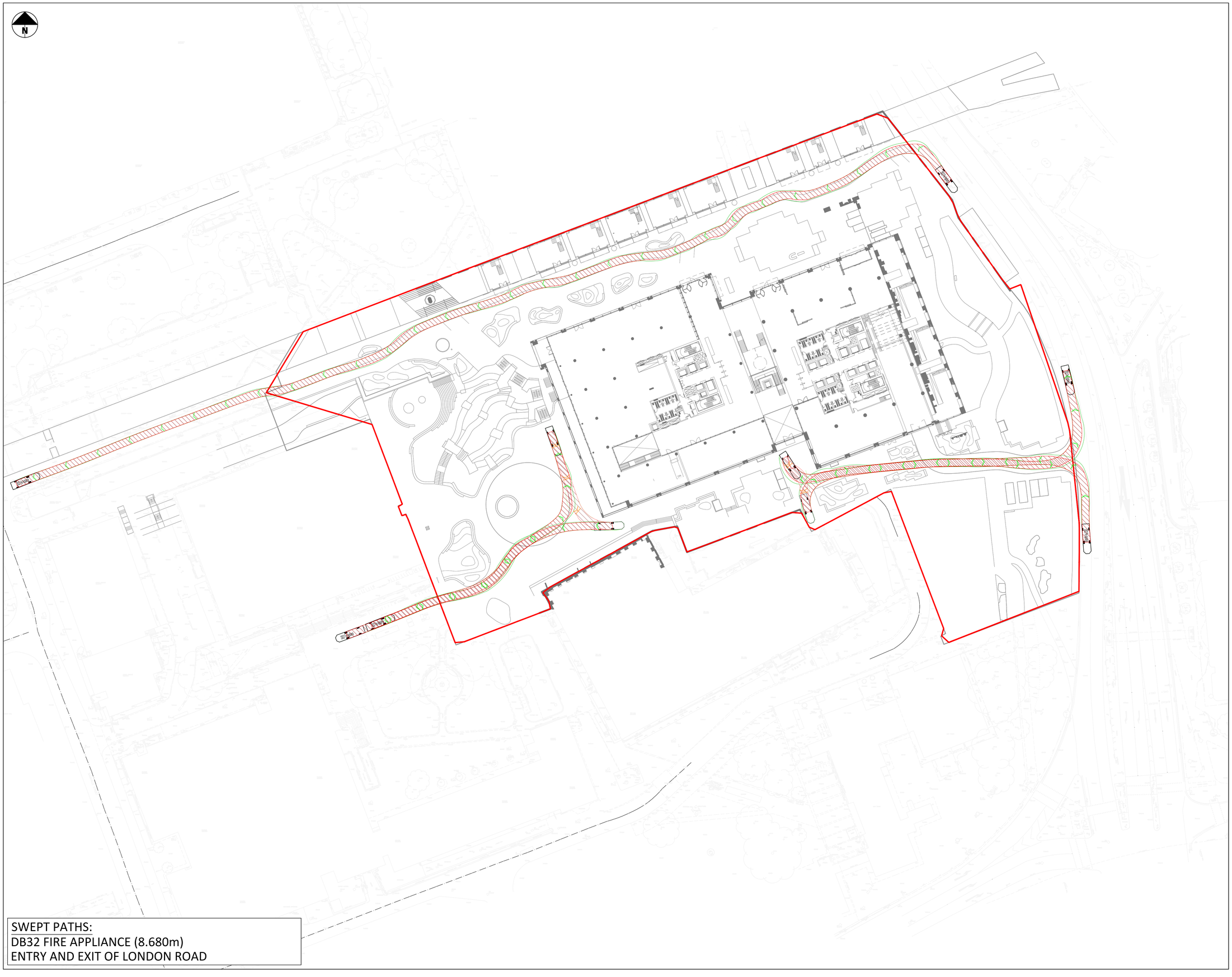
TITLE

VISIBILITY SPLAY OF PROPOSED SITE ACCESS TO LONDON ROAD

DRAWING STATUS	STATUS CODE
INFORMATION	-

CE PROJECT No.	SCALE @ A1	DATE CREATED	DRAWN	CHECKED
2750-01	1:200	APR'25	NL	EI

DRAWING No.	REV
2750-CIV-00-ZZ-S-C-00011	P01

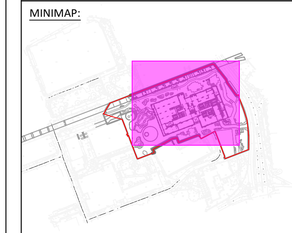


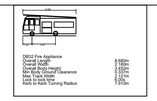
STANDARD NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S AND ENGINEER'S DRAWINGS AND THE SPECIFICATIONS.
2. THIS DRAWING SHOULD NOT BE SCALED.
3. ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE.
4. ALL DISCREPANCIES SHOULD BE REPORTED TO C.A./E.A. PRIOR TO THE COMMENCEMENT OF WORKS.

© CIVIC ENGINEERS LIMITED

MINIMAP:





KEY:

RED LINE BOUNARY

FRONT MOVEMENT

BODY ENVELOPE

CHASSIS ENVELOPE

REAR MOVEMENT

BODY ENVELOPE

CHASSIS ENVELOPE

NOTES:

THE SWEPT PATH ANALYSIS IS BASED ON THE SITE LANDSCAPE PLOT C MASTERPLAN MODEL, REFERENCING DRAWING 2024_09_05_SLA_IDM_WIP, PROVIDED BY SLA ON 15.04.25.

THE VEHICLE MOVEMENT ENVELOPES SHOWN ARE GENERATED USING AUTODESK VEHICLE TRACKING SOFTWARE AND ARE INDICATIVE ONLY. THE ENVELOPES SHOWN DO NOT MAKE ALLOWANCE FOR DRIVER ABILITY, GRADIENTS AND ALTERNATIVE VEHICLE SPECIFICATIONS.

DATE	REV	DESCRIPTION	DRAWN	CHKD
22.04.25	P01	ISSUED FOR INFORMATION	NL	EI

CIVIC ENGINEERS

civicengineers.com

PROJECT

SISTER - PLOT C

TITLE

SWEPT PATH ANALYSIS
FIRE VEHICLE

DRAWING STATUS	STATUS CODE
FOR INFORMATION	-

CE PROJECT No.	SCALE @ A1	DATE CREATED	DRAWN	CHECKED
2750-01	1:500	APR 25	NL	EI

DRAWING No.	REV
2750-CIV-00-ZZ-S-C-00012	P01

FILE LOCATION PATH: P:\PROJECTS HOT\2750-01 ID MANCHESTER - PHASE 2 PLOT C\004 BIM\SKETCHES\2025 SISTER\25.04.14 - REFUSE VEHICLE TRACKING\2750-CIV-00-ZZ-S-C-00012_SWEPT

Appendix C: Stage 1 Road Safety Audit Report

Sevenairs Consulting Ltd

SISTER Development, Manchester

Road Safety Audit Stage 1/2

April 2025



Document Control

Report Title:

SISTER Development, Manchester – Road Safety Audit Stage 1/2

Date of Site Visit

24th April 2025

Document Reference

2025-04 Manchester RSA1/2 – Revision 0

Report Prepared By:

Haydn Vernals FCIHT FIHE CMILT MSoRSA, Sevenairs Consulting Ltd

Sevenairs Consulting Ltd, 20 High Bank, Thurlstone, Sheffield, South Yorkshire, S36 9QH

Mobile: 07803 714 574
Email: haydn@sevenairs.co.uk

On behalf of

Civic Engineers Ltd. – 77 Dale Street, Manchester, M1 2HG

Highway Authority / Overseeing Organisation

Manchester City Council

© Copyright 2025 Sevenairs Consulting Limited. The concepts and information contained in this document are the property of Sevenairs Consulting. Use or copying of this document in whole or in part without the written permission constitutes an infringement of copyright.

Limitation: This report has been prepared on behalf of, and for the exclusive use of Sevenairs Consulting's Client, and is subject to, and issued in accordance with, the provisions of the contract between Sevenairs Consulting and the Client. Sevenairs Consulting accepts no liability or responsibility whatsoever for, or in respect of, any use of, or reliance upon, this report by any third party.

Document History:

Revision	Date	Description	By
0	27.04.2025	For Issue	HV

Introduction

Commissioning and Scope

This report results from a Stage 1/2 Road Safety Audit carried out at the site of a mixed use development off the A6 London Road known as the SISTER Development in Manchester. The audit was carried out at the request of Joel Sorsby, Transport Planner, Civic Engineers on behalf of the developer of the site.

The Road Safety Audit team membership was as follows:

The Audit Team	Haydn Vernals FCIHT FIHE CMILT MSoRSA Directive 2008/96/EC (Certificate of Competency), Road Safety Team Leader in accordance with GG119 Sarah Vernals BAHonsQTS NPQH, Road Safety Team Member in accordance with GG119
Audit Observers	None

The main project comprises of a mixed-use development. The wider project will see the transformation of the University's former North Campus into a 4 million sq ft innovation district providing a mix of commercial, innovation, residential, retail and leisure space.

Highway works Plot C Element include:

- Altrincham Street is to be re-developed into a pedestrian and cyclist route only.
- A service road will be provided from London Road to the south of plots C1 and C2.
- The existing access from Echo Street onto Altrincham Street will be closed to vehicle traffic.
- Altrincham Street will lead onto an indicative crossing point on London Road.

The scope of this Road Safety Audit is to review the proposed highway works.

The audit has been carried out in accordance with the principles of the National Highways document GG 119 Road Safety Audit. A formal Road Safety Audit Brief was not provided to the Audit Team. However, information regarding the site was provided via email alongside the relevant scheme documents and drawings. This was considered by the Audit Team to provide sufficient detail to undertake the appropriate stage of audit.

The audit also comprised of a desk-top study where all documents and plans provided by the Design Team were reviewed. No departures from standard have been brought to the attention of the RSA team with regard to the scheme as designed.

Site Visit Attendance

A site visit took place comprising of the RSA team on Thursday 24th April 2025 between 09:15 and 09:45 hours during which the weather was sunny and the road surface dry. Traffic conditions were light and free flowing with pedestrians and cyclists observed along the London Road and Sackville Street interfaces.

Documents Supplied

- Email proposal background
- SISC0-SLA-LA-ZZ-DR-LA-00001 – General Landscape Arrangement Plan.
- 2750-CIV-00-ZZ-S-C-00007 – Swept Path Analysis – Refuse Vehicle Service Tunnel
- 2750-CIV-00-ZZ-S-C-00008 – Swept Path Analysis – Refuse Vehicle Servicing
- 2750-CIV-00-ZZ-S-C-00009 – Swept Path Analysis – Disabled Parking
- 2750-CIV-00-ZZ-S-C-00010 – Swept Path Analysis – Deliveries 3.5T Panel Van
- 2750-CIV-00-ZZ-S-C-00011 – London Road Access – Visibility Splay
- 2750-CIV-00-ZZ-S-C-00012 – Swept Path Analysis – Fire Vehicle

Terms of Reference

The terms of reference of this Road Safety Audit are as described in the National Highways document GG119 Road Safety Audit. The Audit Team has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the designs to any other criteria. No member of the Audit Team has been directly linked to the scheme design.

Each of the auditors' responses is classified as a 'Problem' that is likely to result in a significant road safety hazard. All comments and recommendations are referenced to the detailed design drawings and the locations have been indicated on the plan at the end of the report.

Where recommendations are made, these do not comprise design decisions, and it remains the responsibility of the Design Team to incorporate any changes into the scheme and consider any interactions between design elements.

Previous Road Safety Audits

The audit team have not been made aware of any previous Road Safety Audits.

Problems Raised at this Stage 1/2 RSA

PROBLEM – A-01

Location: Fronting London Road and along Altrincham Street

Summary: Basic Design Principles – Unauthorised access may increase the risk of collisions involving pedestrians and cyclists.

At this early stage there is currently no indication of measures to prevent unauthorised access onto the footway/cycleway areas. In particular, those areas fronting London Road, along Altrincham Street and perhaps also to the southern end of the Winter Garden passage on Mill Lane. Delivery drivers, taxis and other miscellaneous users are likely to have difficulties stopping near the development and may seek to use any paved area that appears available. This may increase the risk of road users blocking routes or manoeuvring in unsuitable locations where pedestrians and cyclists have priority. This may consequentially increase the risk of collisions involving pedestrians and cyclists on these off-carriageway areas.

RECOMMENDATION

It is recommended that measures are introduced to prevent unauthorised access to the footway/cycleway areas fronting London Road and along Altrincham Street.

PROBLEM – A-02

Location: Echo Street

Summary: Basic Design Principles – Manoeuvring vehicles may increase the risk of collisions involving pedestrians or cyclists.

Access to Echo Street was not possible due to construction operations on the site to the west. The proposals indicate disabled parking on Echo Street with users expected to make a three-point turn to exit. It is likely that Echo Street will change in character with the adjacent redevelopment, making the route more attractive to pedestrians and cyclists. There is a concern here that a driver manoeuvring in this street, either using the disabled parking or making some form of delivery, may come into collision with a pedestrian or cyclist.

RECOMMENDATION

It is recommended that Echo Street is closed to vehicles other than for access to existing premises and that general access is limited to pedestrians and cyclists only.

PROBLEM – A-03

Location: London Road – At the service access

Summary: Specific Road Users – Lack of provision for users who rely on mobility aids may increase collisions involving this user group.

No provision is indicated at the service access for pedestrians with mobility needs. At this early stage, it may not be clear of the extent of works in terms of a kerbed entry or continuous footway type vehicle crossing. Without suitable provision, pedestrians with mobility needs, specifically those users with prams, wheelchairs or mobility scooters, may seek alternative locations to negotiate the kerb. This may require them to use the main carriageway. A lack of provision for users who rely on mobility aids may increase collisions involving this user group.

RECOMMENDATION

It is recommended that provision is made for pedestrians who rely on mobility aids.

PROBLEM – A-04

Location: London Road – At the service access.

Summary: Junction Visibility – Insufficient side road visibility may increase the risk of junction related collisions.

Junction visibility has been indicated on the service access. However, the drawings indicate that landscaping will be provided within the visibility envelope. It is unclear if this will be the existing planted area that is retained or a new urban woodland area with shrubs at a lower level. Insufficient side road visibility may increase the risk of junction related collisions.

RECOMMENDATION

It is recommended that the visibility envelope for the service access is kept clear of vegetation over 0.6m in height and that the underside of any tree canopy is above 2m in height.

PROBLEM – A-05

Location: London Road – Approach to Traffic Signal Controlled Crossing.

Summary: Traffic Signals – Insufficient conspicuity may increase the risk of collisions involving pedestrians on the crossing.

A new signal-controlled crossing is to be provided across London Road adjacent to the railway viaduct. It is unclear who this will be provided by but there is a concern around the proximity of a bus stop on the northbound approach to the crossing. In the indicated arrangement, any bus in the bus layby would obscure visibility to the nearside traffic signal. Insufficient conspicuity to traffic signal heads may increase the risk of collisions involving pedestrians on the crossing.

RECOMMENDATION

It is recommended that scope of provision for the traffic signal-controlled crossing is established and, if provided by this development, the bus layby is relocated outside of the visibility envelope to the traffic signals.

PROBLEM – A-06

Location: Mill Lane.

Summary: Pedestrians – Vehicle swept paths may increase the risk of collisions involving pedestrians and vehicles manoeuvring.

Vehicle swept paths have been provided. These indicate that refuse/delivery vehicles may pass close to benches and other street furniture that could be used for seating. There is a risk that seated pedestrians or users on mobility aids near seating areas could be trapped, crushed or otherwise injured by a manoeuvring vehicle. This is a particular problem at the apex of curves where the rear wheels of a larger vehicle may cut in closer than the front wheels. Vehicle swept paths may increase the risk of collisions involving pedestrians and vehicles manoeuvring.

RECOMMENDATION

It is recommended that benches and other street furniture that could be used for seating is either protected by strategically placed bollards or is located away from where pedestrians could be at risk of being trapped, crushed or otherwise injured.

Audit Team Statement

We certify that the Road Safety Audit Team have carried out their duties as far as practicable in accordance with GG119 Revision 2.

Road Safety Audit Team Leader

Haydn Vernals FCIHT FIHE CMILT MSoRSA
Directive 2008/96/EC (Certificate of Competency)

Director – Sevenairs Consulting Ltd
20 High Bank, Thurlstone, Sheffield,
South Yorkshire, S36 9QH

Signed: 

Date: 27th April 2025

Road Safety Audit Team Member

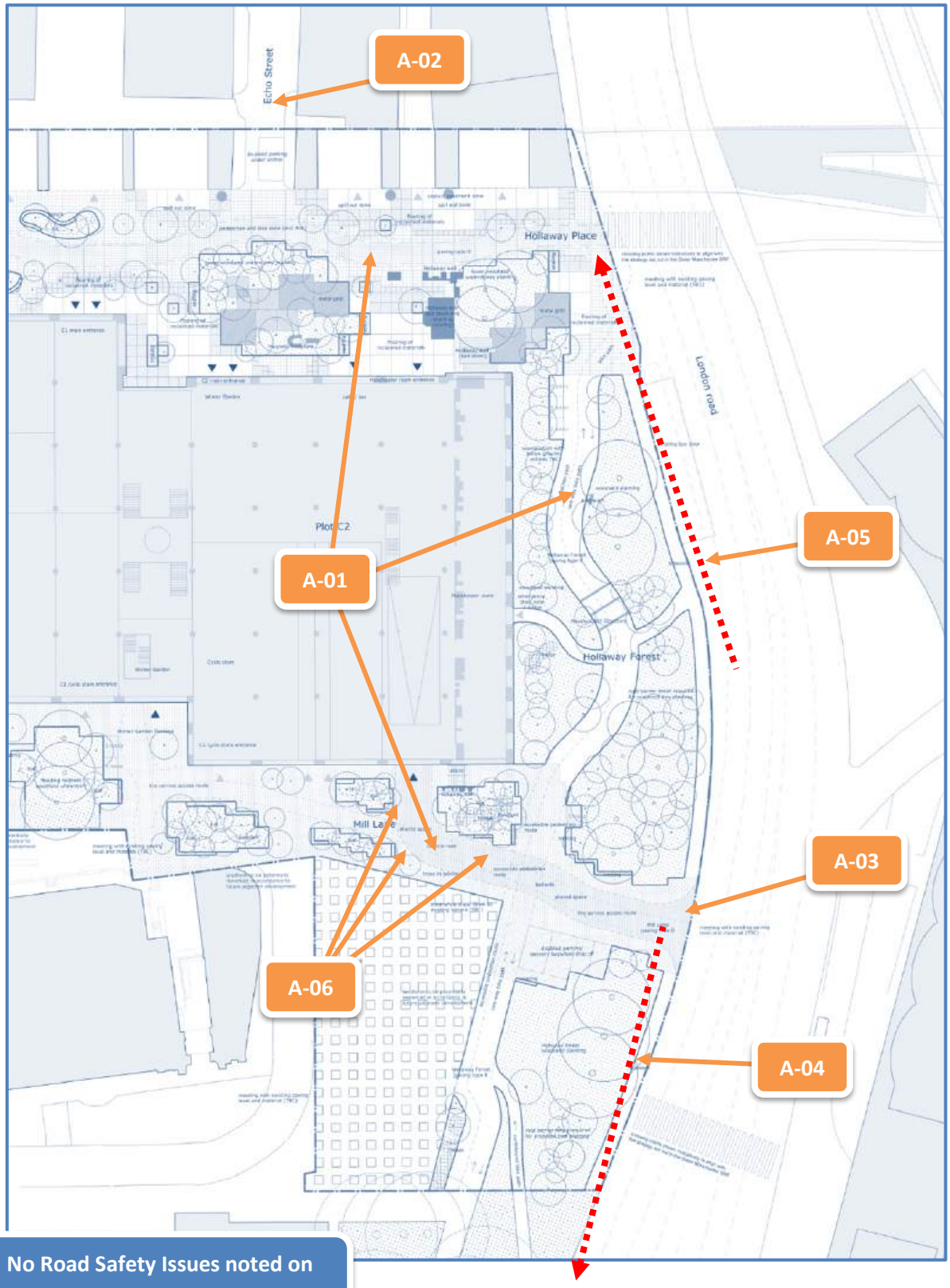
Sarah Vernals BAHonsQTS NPQH

Director – Sevenairs Consulting Ltd
20 High Bank, Thurlstone, Sheffield,
South Yorkshire, S36 9QH

Signed: 

Date: 27th April 2025

Problem Location Plan



No Road Safety Issues noted on Sackville Street at this Stage 1 RSA

Appendix D: TRICS Output

TRICS 7.11.2
Trip Rate P Gross floor area

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
Calculation Factor: 100 sqm
Count Type: TOTAL VEHICLES

	ARRIVALS			DEPARTURES			TOTALS		
Time Rang	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00-00:30									
00:30-01:00									
01:00-01:30									
01:30-02:00									
02:00-02:30									
02:30-03:00									
03:00-03:30									
03:30-04:00									
04:00-04:30									
04:30-05:00									
05:00-05:30									
05:30-06:00									
06:00-06:30									
06:30-07:00									
07:00-07:3	3	12172	0.049	3	12172	0.011	3	12172	0.06
07:30-08:0	3	12172	0.09	3	12172	0.019	3	12172	0.109
08:00-08:3	3	12172	0.142	3	12172	0.022	3	12172	0.164
08:30-09:0	3	12172	0.214	3	12172	0.06	3	12172	0.274
09:00-09:3	3	12172	0.11	3	12172	0.052	3	12172	0.162
09:30-10:0	3	12172	0.055	3	12172	0.022	3	12172	0.077
10:00-10:3	3	12172	0.055	3	12172	0.033	3	12172	0.088
10:30-11:0	3	12172	0.036	3	12172	0.038	3	12172	0.074
11:00-11:3	3	12172	0.038	3	12172	0.041	3	12172	0.079
11:30-12:0	3	12172	0.014	3	12172	0.03	3	12172	0.044
12:00-12:3	3	12172	0.025	3	12172	0.041	3	12172	0.066
12:30-13:0	3	12172	0.038	3	12172	0.044	3	12172	0.082
13:00-13:3	3	12172	0.044	3	12172	0.077	3	12172	0.121
13:30-14:0	3	12172	0.052	3	12172	0.068	3	12172	0.12
14:00-14:3	3	12172	0.041	3	12172	0.03	3	12172	0.071
14:30-15:0	3	12172	0.022	3	12172	0.03	3	12172	0.052
15:00-15:3	3	12172	0.019	3	12172	0.066	3	12172	0.085
15:30-16:0	3	12172	0.041	3	12172	0.044	3	12172	0.085
16:00-16:3	3	12172	0.027	3	12172	0.131	3	12172	0.158

16:30-17:0	3	12172	0.027	3	12172	0.104	3	12172	0.131
17:00-17:3	3	12172	0.041	3	12172	0.151	3	12172	0.192
17:30-18:0	3	12172	0.044	3	12172	0.085	3	12172	0.129
18:00-18:3	3	12172	0.019	3	12172	0.038	3	12172	0.057
18:30-19:0	3	12172	0.016	3	12172	0.03	3	12172	0.046
19:00-19:30									
19:30-20:00									
20:00-20:30									
20:30-21:00									
21:00-21:30									
21:30-22:00									
22:00-22:30									
22:30-23:00									
23:00-23:30									
23:30-24:00									
Daily Trip Rates:			1.259			1.267			2.526

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
Calculation Factor: 100 sqm
Count Type: TAXIS

			ARRIVALS			DEPARTURES			TOTALS
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Rang	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00-00:30									
00:30-01:00									
01:00-01:30									
01:30-02:00									
02:00-02:30									
02:30-03:00									
03:00-03:30									
03:30-04:00									
04:00-04:30									
04:30-05:00									
05:00-05:30									
05:30-06:00									
06:00-06:30									
06:30-07:00									
07:00-07:3	3	12172	0	3	12172	0	3	12172	0
07:30-08:0	3	12172	0	3	12172	0	3	12172	0
08:00-08:3	3	12172	0.005	3	12172	0.005	3	12172	0.01
08:30-09:0	3	12172	0.005	3	12172	0.005	3	12172	0.01
09:00-09:3	3	12172	0	3	12172	0	3	12172	0
09:30-10:0	3	12172	0	3	12172	0	3	12172	0

10:00-10:3	3	12172	0	3	12172	0	3	12172	0
10:30-11:0	3	12172	0	3	12172	0	3	12172	0
11:00-11:3	3	12172	0.003	3	12172	0.003	3	12172	0.006
11:30-12:0	3	12172	0	3	12172	0	3	12172	0
12:00-12:3	3	12172	0.003	3	12172	0.003	3	12172	0.006
12:30-13:0	3	12172	0.003	3	12172	0.003	3	12172	0.006
13:00-13:3	3	12172	0.003	3	12172	0.003	3	12172	0.006
13:30-14:0	3	12172	0	3	12172	0	3	12172	0
14:00-14:3	3	12172	0	3	12172	0	3	12172	0
14:30-15:0	3	12172	0	3	12172	0	3	12172	0
15:00-15:3	3	12172	0	3	12172	0	3	12172	0
15:30-16:0	3	12172	0	3	12172	0	3	12172	0
16:00-16:3	3	12172	0	3	12172	0	3	12172	0
16:30-17:0	3	12172	0	3	12172	0	3	12172	0
17:00-17:3	3	12172	0	3	12172	0	3	12172	0
17:30-18:0	3	12172	0.003	3	12172	0.003	3	12172	0.006
18:00-18:3	3	12172	0	3	12172	0	3	12172	0
18:30-19:0	3	12172	0	3	12172	0	3	12172	0
19:00-19:30									
19:30-20:00									
20:00-20:30									
20:30-21:00									
21:00-21:30									
21:30-22:00									
22:00-22:30									
22:30-23:00									
23:00-23:30									
23:30-24:00									
Daily Trip Rates:			0.025			0.025			0.05

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
Calculation Factor: 100 sqm
Count Type: OGVS

			ARRIVALS			DEPARTURES			TOTALS
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Rang	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00-00:30									
00:30-01:00									
01:00-01:30									
01:30-02:00									
02:00-02:30									
02:30-03:00									
03:00-03:30									

03:30-04:00									
04:00-04:30									
04:30-05:00									
05:00-05:30									
05:30-06:00									
06:00-06:30									
06:30-07:00									
07:00-07:3	3	12172	0	3	12172	0	3	12172	0
07:30-08:0	3	12172	0	3	12172	0	3	12172	0
08:00-08:3	3	12172	0.003	3	12172	0.003	3	12172	0.006
08:30-09:0	3	12172	0.005	3	12172	0.005	3	12172	0.01
09:00-09:3	3	12172	0	3	12172	0	3	12172	0
09:30-10:0	3	12172	0.003	3	12172	0.003	3	12172	0.006
10:00-10:3	3	12172	0.003	3	12172	0.003	3	12172	0.006
10:30-11:0	3	12172	0	3	12172	0	3	12172	0
11:00-11:3	3	12172	0	3	12172	0	3	12172	0
11:30-12:0	3	12172	0	3	12172	0	3	12172	0
12:00-12:3	3	12172	0	3	12172	0	3	12172	0
12:30-13:0	3	12172	0	3	12172	0	3	12172	0
13:00-13:3	3	12172	0	3	12172	0	3	12172	0
13:30-14:0	3	12172	0.005	3	12172	0.005	3	12172	0.01
14:00-14:3	3	12172	0	3	12172	0	3	12172	0
14:30-15:0	3	12172	0	3	12172	0	3	12172	0
15:00-15:3	3	12172	0	3	12172	0	3	12172	0
15:30-16:0	3	12172	0	3	12172	0	3	12172	0
16:00-16:3	3	12172	0.003	3	12172	0.003	3	12172	0.006
16:30-17:0	3	12172	0	3	12172	0	3	12172	0
17:00-17:3	3	12172	0	3	12172	0	3	12172	0
17:30-18:0	3	12172	0	3	12172	0	3	12172	0
18:00-18:3	3	12172	0	3	12172	0	3	12172	0
18:30-19:0	3	12172	0	3	12172	0	3	12172	0
19:00-19:30									
19:30-20:00									
20:00-20:30									
20:30-21:00									
21:00-21:30									
21:30-22:00									
22:00-22:30									
22:30-23:00									
23:00-23:30									
23:30-24:00									
Daily Trip Rates:			0.022			0.022			0.044

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

Calculation Factor: 100 sqm
Count Type: CYCLISTS

			ARRIVALS			DEPARTURES			TOTALS
Time Rang	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00-00:30									
00:30-01:00									
01:00-01:30									
01:30-02:00									
02:00-02:30									
02:30-03:00									
03:00-03:30									
03:30-04:00									
04:00-04:30									
04:30-05:00									
05:00-05:30									
05:30-06:00									
06:00-06:30									
06:30-07:00									
07:00-07:3	3	12172	0	3	12172	0	3	12172	0
07:30-08:0	3	12172	0.019	3	12172	0	3	12172	0.019
08:00-08:3	3	12172	0.008	3	12172	0.003	3	12172	0.011
08:30-09:0	3	12172	0.014	3	12172	0	3	12172	0.014
09:00-09:3	3	12172	0.005	3	12172	0	3	12172	0.005
09:30-10:0	3	12172	0.005	3	12172	0	3	12172	0.005
10:00-10:3	3	12172	0.003	3	12172	0	3	12172	0.003
10:30-11:0	3	12172	0.003	3	12172	0	3	12172	0.003
11:00-11:3	3	12172	0.003	3	12172	0	3	12172	0.003
11:30-12:0	3	12172	0	3	12172	0	3	12172	0
12:00-12:3	3	12172	0	3	12172	0	3	12172	0
12:30-13:0	3	12172	0	3	12172	0	3	12172	0
13:00-13:3	3	12172	0.003	3	12172	0.005	3	12172	0.008
13:30-14:0	3	12172	0	3	12172	0	3	12172	0
14:00-14:3	3	12172	0	3	12172	0.003	3	12172	0.003
14:30-15:0	3	12172	0	3	12172	0	3	12172	0
15:00-15:3	3	12172	0	3	12172	0	3	12172	0
15:30-16:0	3	12172	0.003	3	12172	0.008	3	12172	0.011
16:00-16:3	3	12172	0	3	12172	0.008	3	12172	0.008
16:30-17:0	3	12172	0	3	12172	0.011	3	12172	0.011
17:00-17:3	3	12172	0	3	12172	0.019	3	12172	0.019
17:30-18:0	3	12172	0	3	12172	0.005	3	12172	0.005
18:00-18:3	3	12172	0	3	12172	0.003	3	12172	0.003
18:30-19:0	3	12172	0	3	12172	0	3	12172	0

19:00-19:30									
19:30-20:00									
20:00-20:30									
20:30-21:00									
21:00-21:30									
21:30-22:00									
22:00-22:30									
22:30-23:00									
23:00-23:30									
23:30-24:00									
Daily Trip Rates:			0.066			0.065			0.131

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
Calculation Factor: 100 sqm
Count Type: CARS

			ARRIVALS			DEPARTURES			TOTALS
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Rang	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00-00:30									
00:30-01:00									
01:00-01:30									
01:30-02:00									
02:00-02:30									
02:30-03:00									
03:00-03:30									
03:30-04:00									
04:00-04:30									
04:30-05:00									
05:00-05:30									
05:30-06:00									
06:00-06:30									
06:30-07:00									
07:00-07:3	3	12172	0.049	3	12172	0.011	3	12172	0.06
07:30-08:0	3	12172	0.082	3	12172	0.016	3	12172	0.098
08:00-08:3	3	12172	0.129	3	12172	0.011	3	12172	0.14
08:30-09:0	3	12172	0.189	3	12172	0.041	3	12172	0.23
09:00-09:3	3	12172	0.099	3	12172	0.047	3	12172	0.146
09:30-10:0	3	12172	0.047	3	12172	0.014	3	12172	0.061
10:00-10:3	3	12172	0.038	3	12172	0.025	3	12172	0.063
10:30-11:0	3	12172	0.027	3	12172	0.027	3	12172	0.054
11:00-11:3	3	12172	0.014	3	12172	0.019	3	12172	0.033
11:30-12:0	3	12172	0.014	3	12172	0.022	3	12172	0.036
12:00-12:3	3	12172	0.022	3	12172	0.036	3	12172	0.058

12:30-13:0	3	12172	0.033	3	12172	0.036	3	12172	0.069
13:00-13:3	3	12172	0.036	3	12172	0.071	3	12172	0.107
13:30-14:0	3	12172	0.041	3	12172	0.052	3	12172	0.093
14:00-14:3	3	12172	0.036	3	12172	0.03	3	12172	0.066
14:30-15:0	3	12172	0.016	3	12172	0.027	3	12172	0.043
15:00-15:3	3	12172	0.019	3	12172	0.058	3	12172	0.077
15:30-16:0	3	12172	0.033	3	12172	0.041	3	12172	0.074
16:00-16:3	3	12172	0.025	3	12172	0.123	3	12172	0.148
16:30-17:0	3	12172	0.027	3	12172	0.099	3	12172	0.126
17:00-17:3	3	12172	0.038	3	12172	0.145	3	12172	0.183
17:30-18:0	3	12172	0.038	3	12172	0.074	3	12172	0.112
18:00-18:3	3	12172	0.016	3	12172	0.038	3	12172	0.054
18:30-19:0	3	12172	0.011	3	12172	0.025	3	12172	0.036
19:00-19:30									
19:30-20:00									
20:00-20:30									
20:30-21:00									
21:00-21:30									
21:30-22:00									
22:00-22:30									
22:30-23:00									
23:00-23:30									
23:30-24:00									
Daily Trip Rates:			1.079			1.088			2.167

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
Calculation Factor: 100 sqm
Count Type: LGVS

			ARRIVALS			DEPARTURES			TOTALS
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Rang	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00-00:30									
00:30-01:00									
01:00-01:30									
01:30-02:00									
02:00-02:30									
02:30-03:00									
03:00-03:30									
03:30-04:00									
04:00-04:30									
04:30-05:00									
05:00-05:30									
05:30-06:00									

06:00-06:30									
06:30-07:00									
07:00-07:3	3	12172	0	3	12172	0	3	12172	0
07:30-08:0	3	12172	0.005	3	12172	0.003	3	12172	0.008
08:00-08:3	3	12172	0.003	3	12172	0.003	3	12172	0.006
08:30-09:0	3	12172	0.014	3	12172	0.008	3	12172	0.022
09:00-09:3	3	12172	0.005	3	12172	0.005	3	12172	0.01
09:30-10:0	3	12172	0.005	3	12172	0.005	3	12172	0.01
10:00-10:3	3	12172	0.014	3	12172	0.005	3	12172	0.019
10:30-11:0	3	12172	0.008	3	12172	0.011	3	12172	0.019
11:00-11:3	3	12172	0.019	3	12172	0.019	3	12172	0.038
11:30-12:0	3	12172	0	3	12172	0.008	3	12172	0.008
12:00-12:3	3	12172	0	3	12172	0.003	3	12172	0.003
12:30-13:0	3	12172	0.003	3	12172	0.005	3	12172	0.008
13:00-13:3	3	12172	0.005	3	12172	0.003	3	12172	0.008
13:30-14:0	3	12172	0.005	3	12172	0.011	3	12172	0.016
14:00-14:3	3	12172	0.005	3	12172	0	3	12172	0.005
14:30-15:0	3	12172	0.005	3	12172	0.003	3	12172	0.008
15:00-15:3	3	12172	0	3	12172	0.008	3	12172	0.008
15:30-16:0	3	12172	0.008	3	12172	0.003	3	12172	0.011
16:00-16:3	3	12172	0	3	12172	0.003	3	12172	0.003
16:30-17:0	3	12172	0	3	12172	0.003	3	12172	0.003
17:00-17:3	3	12172	0.003	3	12172	0.003	3	12172	0.006
17:30-18:0	3	12172	0.003	3	12172	0.003	3	12172	0.006
18:00-18:3	3	12172	0.003	3	12172	0	3	12172	0.003
18:30-19:0	3	12172	0.005	3	12172	0.005	3	12172	0.01
19:00-19:30									
19:30-20:00									
20:00-20:30									
20:30-21:00									
21:00-21:30									
21:30-22:00									
22:00-22:30									
22:30-23:00									
23:00-23:30									
23:30-24:00									
Daily Trip Rates:			0.118			0.12			0.238

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
Calculation Factor: 100 sqm
Count Type: MOTOR CYCLES

	ARRIVALS			DEPARTURES			TOTALS		
No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	

Time Rang	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00-00:30									
00:30-01:00									
01:00-01:30									
01:30-02:00									
02:00-02:30									
02:30-03:00									
03:00-03:30									
03:30-04:00									
04:00-04:30									
04:30-05:00									
05:00-05:30									
05:30-06:00									
06:00-06:30									
06:30-07:00									
07:00-07:3	3	12172	0	3	12172	0	3	12172	0
07:30-08:0	3	12172	0.003	3	12172	0	3	12172	0.003
08:00-08:3	3	12172	0.003	3	12172	0	3	12172	0.003
08:30-09:0	3	12172	0	3	12172	0	3	12172	0
09:00-09:3	3	12172	0.005	3	12172	0	3	12172	0.005
09:30-10:0	3	12172	0	3	12172	0	3	12172	0
10:00-10:3	3	12172	0	3	12172	0	3	12172	0
10:30-11:0	3	12172	0	3	12172	0	3	12172	0
11:00-11:3	3	12172	0.003	3	12172	0	3	12172	0.003
11:30-12:0	3	12172	0	3	12172	0	3	12172	0
12:00-12:3	3	12172	0	3	12172	0	3	12172	0
12:30-13:0	3	12172	0	3	12172	0	3	12172	0
13:00-13:3	3	12172	0	3	12172	0	3	12172	0
13:30-14:0	3	12172	0	3	12172	0	3	12172	0
14:00-14:3	3	12172	0	3	12172	0	3	12172	0
14:30-15:0	3	12172	0	3	12172	0	3	12172	0
15:00-15:3	3	12172	0	3	12172	0	3	12172	0
15:30-16:0	3	12172	0	3	12172	0	3	12172	0
16:00-16:3	3	12172	0	3	12172	0.003	3	12172	0.003
16:30-17:0	3	12172	0	3	12172	0.003	3	12172	0.003
17:00-17:3	3	12172	0	3	12172	0.003	3	12172	0.003
17:30-18:0	3	12172	0	3	12172	0.005	3	12172	0.005
18:00-18:3	3	12172	0	3	12172	0	3	12172	0
18:30-19:0	3	12172	0	3	12172	0	3	12172	0
19:00-19:30									
19:30-20:00									
20:00-20:30									
20:30-21:00									
21:00-21:30									

21:30-22:00			
22:00-22:30			
22:30-23:00			
23:00-23:30			
23:30-24:00			
Daily Trip Rates:	0.014	0.014	0.028

Calculation Reference: AUDIT-758701-240708-0702

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : B - RESTAURANTS
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

03	SOUTH WEST		
	DC	DORSET	1 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
05	EAST MIDLANDS		
	DY	DERBY	1 days
	LN	LINCOLNSHIRE	1 days
06	WEST MIDLANDS		
	SH	SHROPSHIRE	2 days
	WM	WEST MIDLANDS	1 days
12	CONNAUGHT		
	GA	GALWAY	1 days
13	MUNSTER		
	WA	WATERFORD	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:	110 to 1300 (units: sqm)
Range Selected by User:	75 to 2400 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/16 to 23/06/23

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

Selected survey days:

Monday	1 days
Tuesday	2 days
Wednesday	1 days
Thursday	3 days
Friday	2 days

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

Selected survey types:

Manual count	9 days
Directional ATC Count	0 days

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

Selected Locations:

Town Centre	7
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:

Development Zone	1
Built-Up Zone	3
High Street	5

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	7 days - Selected
Servicing vehicles Excluded	2 days - Selected

Secondary Filtering selection:

Use Class:

E(b)	9 days

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

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

15,001 to 20,000	2 days
20,001 to 25,000	4 days
25,001 to 50,000	3 days

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

Population within 5 miles:

25,001 to 50,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	3 days
125,001 to 250,000	2 days
250,001 to 500,000	2 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	5 days
1.1 to 1.5	3 days

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

Travel Plan:

No	9 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	9 days

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

LIST OF SITES relevant to selection parameters

1 CA-06-B-02 WILDWOOD CAMBRIDGESHIRE
BRIDGE STREET
CAMBRIDGE

Town Centre
High Street
Total Gross floor area: 370 sqm
Survey date: FRIDAY *23/06/23* *Survey Type: MANUAL*

2 DC-06-B-02 PREZZO DORSET
HIGH WEST STREET
DORCHESTER

Town Centre
High Street
Total Gross floor area: 525 sqm
Survey date: FRIDAY *16/09/16* *Survey Type: MANUAL*

3 DY-06-B-04 FRENCH RESTAURANT DERBY
FRIAR GATE
DERBY

Town Centre
High Street
Total Gross floor area: 180 sqm
Survey date: WEDNESDAY *25/09/19* *Survey Type: MANUAL*

4 GA-06-B-01 PIZZA RESTAURANT GALWAY
MIDDLE STREET
GALWAY

Town Centre
Built-Up Zone
Total Gross floor area: 1300 sqm
Survey date: MONDAY *27/05/19* *Survey Type: MANUAL*

5 LN-06-B-01 PREZZO LINCOLNSHIRE
BRAYFORD WHARF NORTH
LINCOLN
BRAYFORD WHARF
Edge of Town Centre
Development Zone
Total Gross floor area: 1136 sqm
Survey date: TUESDAY *10/10/17* *Survey Type: MANUAL*

6 SH-06-B-01 THE BEEFY BOYS SHROPSHIRE
HIGH STREET
SHREWSBURY

Town Centre
High Street
Total Gross floor area: 110 sqm
Survey date: THURSDAY *15/06/23* *Survey Type: MANUAL*

7 SH-06-B-02 ASK ITALIAN SHROPSHIRE
HIGH STREET
SHREWSBURY

Town Centre
High Street
Total Gross floor area: 402 sqm
Survey date: TUESDAY *20/06/23* *Survey Type: MANUAL*

8 WA-06-B-01 EUROPEAN & INDIAN REST. WATERFORD
MERCHANTS QUAY
WATERFORD

Town Centre
Built-Up Zone
Total Gross floor area: 365 sqm
Survey date: THURSDAY *09/03/23* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 WM-06-B-05 AKBARS WEST MIDLANDS
THE BUTTS
COVENTRY

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 600 sqm
Survey date: THURSDAY *17/11/16* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS
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): 3.90

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	525	0.190	1	525	0.000	1	525	0.190
11:00 - 12:00	7	575	0.547	7	575	0.050	7	575	0.597
12:00 - 13:00	7	575	1.268	7	575	0.323	7	575	1.591
13:00 - 14:00	7	575	1.815	7	575	1.193	7	575	3.008
14:00 - 15:00	7	575	0.920	7	575	1.143	7	575	2.063
15:00 - 16:00	7	575	0.522	7	575	0.696	7	575	1.218
16:00 - 17:00	9	554	0.261	9	554	0.361	9	554	0.622
17:00 - 18:00	9	554	1.163	9	554	0.561	9	554	1.724
18:00 - 19:00	9	554	2.245	9	554	1.504	9	554	3.749
19:00 - 20:00	9	554	2.025	9	554	1.864	9	554	3.889
20:00 - 21:00	9	554	0.902	9	554	1.764	9	554	2.666
21:00 - 22:00	9	554	0.301	9	554	1.323	9	554	1.624
22:00 - 23:00	7	639	0.067	7	639	0.894	7	639	0.961
23:00 - 24:00	4	657	0.038	4	657	0.305	4	657	0.343
Total Rates:			12.264			11.981			24.245

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

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

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

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

Parameter summary

Trip rate parameter range selected:	110 - 1300 (units: sqm)
Survey date date range:	01/01/16 - 23/06/23
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS
MULTI-MODAL TAXIS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	525	0.000	1	525	0.000	1	525	0.000
11:00 - 12:00	7	575	0.000	7	575	0.000	7	575	0.000
12:00 - 13:00	7	575	0.124	7	575	0.124	7	575	0.248
13:00 - 14:00	7	575	0.099	7	575	0.099	7	575	0.198
14:00 - 15:00	7	575	0.124	7	575	0.124	7	575	0.248
15:00 - 16:00	7	575	0.025	7	575	0.025	7	575	0.050
16:00 - 17:00	9	554	0.020	9	554	0.020	9	554	0.040
17:00 - 18:00	9	554	0.140	9	554	0.100	9	554	0.240
18:00 - 19:00	9	554	0.381	9	554	0.381	9	554	0.762
19:00 - 20:00	9	554	0.301	9	554	0.341	9	554	0.642
20:00 - 21:00	9	554	0.080	9	554	0.080	9	554	0.160
21:00 - 22:00	9	554	0.040	9	554	0.040	9	554	0.080
22:00 - 23:00	7	639	0.000	7	639	0.000	7	639	0.000
23:00 - 24:00	4	657	0.000	4	657	0.000	4	657	0.000
Total Rates:			1.334			1.334			2.668

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

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS
MULTI-MODAL CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	525	0.000	1	525	0.000	1	525	0.000
11:00 - 12:00	7	575	0.025	7	575	0.000	7	575	0.025
12:00 - 13:00	7	575	0.025	7	575	0.000	7	575	0.025
13:00 - 14:00	7	575	0.075	7	575	0.000	7	575	0.075
14:00 - 15:00	7	575	0.050	7	575	0.099	7	575	0.149
15:00 - 16:00	7	575	0.000	7	575	0.000	7	575	0.000
16:00 - 17:00	9	554	0.000	9	554	0.040	9	554	0.040
17:00 - 18:00	9	554	0.000	9	554	0.000	9	554	0.000
18:00 - 19:00	9	554	0.040	9	554	0.020	9	554	0.060
19:00 - 20:00	9	554	0.020	9	554	0.060	9	554	0.080
20:00 - 21:00	9	554	0.040	9	554	0.020	9	554	0.060
21:00 - 22:00	9	554	0.000	9	554	0.020	9	554	0.020
22:00 - 23:00	7	639	0.000	7	639	0.000	7	639	0.000
23:00 - 24:00	4	657	0.000	4	657	0.000	4	657	0.000
Total Rates:			0.275			0.259			0.534

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

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS
MULTI-MODAL VEHICLE OCCUPANTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	525	0.190	1	525	0.000	1	525	0.190
11:00 - 12:00	7	575	0.746	7	575	0.050	7	575	0.796
12:00 - 13:00	7	575	2.262	7	575	0.447	7	575	2.709
13:00 - 14:00	7	575	3.356	7	575	2.237	7	575	5.593
14:00 - 15:00	7	575	1.839	7	575	2.337	7	575	4.176
15:00 - 16:00	7	575	0.895	7	575	1.367	7	575	2.262
16:00 - 17:00	9	554	0.481	9	554	0.581	9	554	1.062
17:00 - 18:00	9	554	2.326	9	554	1.022	9	554	3.348
18:00 - 19:00	9	554	4.451	9	554	2.767	9	554	7.218
19:00 - 20:00	9	554	3.809	9	554	3.809	9	554	7.618
20:00 - 21:00	9	554	1.684	9	554	3.368	9	554	5.052
21:00 - 22:00	9	554	0.501	9	554	2.205	9	554	2.706
22:00 - 23:00	7	639	0.089	7	639	1.676	7	639	1.765
23:00 - 24:00	4	657	0.076	4	657	0.495	4	657	0.571
Total Rates:			22.705			22.361			45.066

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

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS
MULTI-MODAL PEDESTRIANS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	525	0.381	1	525	0.000	1	525	0.381
11:00 - 12:00	7	575	0.323	7	575	0.224	7	575	0.547
12:00 - 13:00	7	575	2.113	7	575	0.671	7	575	2.784
13:00 - 14:00	7	575	2.038	7	575	1.566	7	575	3.604
14:00 - 15:00	7	575	1.591	7	575	2.585	7	575	4.176
15:00 - 16:00	7	575	1.516	7	575	2.237	7	575	3.753
16:00 - 17:00	9	554	1.363	9	554	1.423	9	554	2.786
17:00 - 18:00	9	554	1.704	9	554	1.083	9	554	2.787
18:00 - 19:00	9	554	2.326	9	554	1.363	9	554	3.689
19:00 - 20:00	9	554	2.706	9	554	2.085	9	554	4.791
20:00 - 21:00	9	554	1.604	9	554	1.423	9	554	3.027
21:00 - 22:00	9	554	0.381	9	554	1.704	9	554	2.085
22:00 - 23:00	7	639	0.134	7	639	1.519	7	639	1.653
23:00 - 24:00	4	657	0.038	4	657	0.114	4	657	0.152
Total Rates:			18.218			17.997			36.215

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

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS
MULTI-MODAL BUS/TRAM PASSENGERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	525	0.190	1	525	0.000	1	525	0.190
11:00 - 12:00	7	575	0.199	7	575	0.025	7	575	0.224
12:00 - 13:00	7	575	0.696	7	575	0.149	7	575	0.845
13:00 - 14:00	7	575	0.497	7	575	0.398	7	575	0.895
14:00 - 15:00	7	575	0.646	7	575	0.597	7	575	1.243
15:00 - 16:00	7	575	0.373	7	575	0.373	7	575	0.746
16:00 - 17:00	9	554	0.180	9	554	0.281	9	554	0.461
17:00 - 18:00	9	554	0.481	9	554	0.301	9	554	0.782
18:00 - 19:00	9	554	0.942	9	554	0.601	9	554	1.543
19:00 - 20:00	9	554	0.982	9	554	0.742	9	554	1.724
20:00 - 21:00	9	554	0.601	9	554	0.722	9	554	1.323
21:00 - 22:00	9	554	0.241	9	554	0.982	9	554	1.223
22:00 - 23:00	7	639	0.022	7	639	0.559	7	639	0.581
23:00 - 24:00	4	657	0.000	4	657	0.076	4	657	0.076
Total Rates:			6.050			5.806			11.856

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

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS
MULTI-MODAL TOTAL RAIL PASSENGERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	525	0.000	1	525	0.000	1	525	0.000
11:00 - 12:00	7	575	0.025	7	575	0.000	7	575	0.025
12:00 - 13:00	7	575	0.000	7	575	0.000	7	575	0.000
13:00 - 14:00	7	575	0.099	7	575	0.000	7	575	0.099
14:00 - 15:00	7	575	0.025	7	575	0.124	7	575	0.149
15:00 - 16:00	7	575	0.000	7	575	0.000	7	575	0.000
16:00 - 17:00	9	554	0.000	9	554	0.000	9	554	0.000
17:00 - 18:00	9	554	0.000	9	554	0.040	9	554	0.040
18:00 - 19:00	9	554	0.100	9	554	0.000	9	554	0.100
19:00 - 20:00	9	554	0.140	9	554	0.080	9	554	0.220
20:00 - 21:00	9	554	0.080	9	554	0.040	9	554	0.120
21:00 - 22:00	9	554	0.000	9	554	0.100	9	554	0.100
22:00 - 23:00	7	639	0.000	7	639	0.067	7	639	0.067
23:00 - 24:00	4	657	0.000	4	657	0.076	4	657	0.076
Total Rates:			0.469			0.527			0.996

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

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	525	0.190	1	525	0.000	1	525	0.190
11:00 - 12:00	7	575	0.224	7	575	0.025	7	575	0.249
12:00 - 13:00	7	575	0.696	7	575	0.149	7	575	0.845
13:00 - 14:00	7	575	0.597	7	575	0.398	7	575	0.995
14:00 - 15:00	7	575	0.671	7	575	0.721	7	575	1.392
15:00 - 16:00	7	575	0.373	7	575	0.373	7	575	0.746
16:00 - 17:00	9	554	0.180	9	554	0.281	9	554	0.461
17:00 - 18:00	9	554	0.481	9	554	0.341	9	554	0.822
18:00 - 19:00	9	554	1.043	9	554	0.601	9	554	1.644
19:00 - 20:00	9	554	1.123	9	554	0.822	9	554	1.945
20:00 - 21:00	9	554	0.682	9	554	0.762	9	554	1.444
21:00 - 22:00	9	554	0.241	9	554	1.083	9	554	1.324
22:00 - 23:00	7	639	0.022	7	639	0.626	7	639	0.648
23:00 - 24:00	4	657	0.000	4	657	0.152	4	657	0.152
Total Rates:			6.523			6.334			12.857

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 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS
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): 3.90

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	525	0.762	1	525	0.000	1	525	0.762
11:00 - 12:00	7	575	1.317	7	575	0.298	7	575	1.615
12:00 - 13:00	7	575	5.096	7	575	1.268	7	575	6.364
13:00 - 14:00	7	575	6.065	7	575	4.201	7	575	10.266
14:00 - 15:00	7	575	4.151	7	575	5.742	7	575	9.893
15:00 - 16:00	7	575	2.784	7	575	3.977	7	575	6.761
16:00 - 17:00	9	554	2.025	9	554	2.326	9	554	4.351
17:00 - 18:00	9	554	4.511	9	554	2.446	9	554	6.957
18:00 - 19:00	9	554	7.859	9	554	4.751	9	554	12.610
19:00 - 20:00	9	554	7.658	9	554	6.776	9	554	14.434
20:00 - 21:00	9	554	4.010	9	554	5.573	9	554	9.583
21:00 - 22:00	9	554	1.123	9	554	5.012	9	554	6.135
22:00 - 23:00	7	639	0.246	7	639	3.820	7	639	4.066
23:00 - 24:00	4	657	0.114	4	657	0.762	4	657	0.876
Total Rates:			47.721			46.952			94.673

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

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS
MULTI-MODAL CARS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	525	0.190	1	525	0.000	1	525	0.190
11:00 - 12:00	7	575	0.547	7	575	0.050	7	575	0.597
12:00 - 13:00	7	575	1.094	7	575	0.199	7	575	1.293
13:00 - 14:00	7	575	1.641	7	575	1.069	7	575	2.710
14:00 - 15:00	7	575	0.721	7	575	0.945	7	575	1.666
15:00 - 16:00	7	575	0.472	7	575	0.621	7	575	1.093
16:00 - 17:00	9	554	0.241	9	554	0.341	9	554	0.582
17:00 - 18:00	9	554	1.002	9	554	0.481	9	554	1.483
18:00 - 19:00	9	554	1.764	9	554	1.143	9	554	2.907
19:00 - 20:00	9	554	1.744	9	554	1.524	9	554	3.268
20:00 - 21:00	9	554	0.822	9	554	1.624	9	554	2.446
21:00 - 22:00	9	554	0.261	9	554	1.283	9	554	1.544
22:00 - 23:00	7	639	0.067	7	639	0.827	7	639	0.894
23:00 - 24:00	4	657	0.038	4	657	0.267	4	657	0.305
Total Rates:			10.604			10.374			20.978

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

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS
MULTI-MODAL LGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	525	0.000	1	525	0.000	1	525	0.000
11:00 - 12:00	7	575	0.000	7	575	0.000	7	575	0.000
12:00 - 13:00	7	575	0.050	7	575	0.025	7	575	0.075
13:00 - 14:00	7	575	0.050	7	575	0.025	7	575	0.075
14:00 - 15:00	7	575	0.075	7	575	0.050	7	575	0.125
15:00 - 16:00	7	575	0.025	7	575	0.050	7	575	0.075
16:00 - 17:00	9	554	0.000	9	554	0.000	9	554	0.000
17:00 - 18:00	9	554	0.040	9	554	0.000	9	554	0.040
18:00 - 19:00	9	554	0.020	9	554	0.000	9	554	0.020
19:00 - 20:00	9	554	0.000	9	554	0.020	9	554	0.020
20:00 - 21:00	9	554	0.000	9	554	0.020	9	554	0.020
21:00 - 22:00	9	554	0.000	9	554	0.000	9	554	0.000
22:00 - 23:00	7	639	0.000	7	639	0.045	7	639	0.045
23:00 - 24:00	4	657	0.000	4	657	0.038	4	657	0.038
Total Rates:			0.260			0.273			0.533

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

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/B - RESTAURANTS
MULTI-MODAL MOTOR CYCLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	525	0.000	1	525	0.000	1	525	0.000
11:00 - 12:00	7	575	0.000	7	575	0.000	7	575	0.000
12:00 - 13:00	7	575	0.025	7	575	0.000	7	575	0.025
13:00 - 14:00	7	575	0.025	7	575	0.000	7	575	0.025
14:00 - 15:00	7	575	0.000	7	575	0.025	7	575	0.025
15:00 - 16:00	7	575	0.000	7	575	0.000	7	575	0.000
16:00 - 17:00	9	554	0.000	9	554	0.000	9	554	0.000
17:00 - 18:00	9	554	0.000	9	554	0.000	9	554	0.000
18:00 - 19:00	9	554	0.040	9	554	0.000	9	554	0.040
19:00 - 20:00	9	554	0.000	9	554	0.000	9	554	0.000
20:00 - 21:00	9	554	0.000	9	554	0.040	9	554	0.040
21:00 - 22:00	9	554	0.000	9	554	0.000	9	554	0.000
22:00 - 23:00	7	639	0.000	7	639	0.022	7	639	0.022
23:00 - 24:00	4	657	0.000	4	657	0.000	4	657	0.000
Total Rates:			0.090			0.087			0.177

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.*

Civic Engineers Dale Street Manchester Licence No: 758701

Calculation Reference: AUDIT-758701-240708-0727

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : K - CAFE
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

04	EAST ANGLIA		
	NF	NORFOLK	1 days
05	EAST MIDLANDS		
	LN	LINCOLNSHIRE	1 days
08	NORTH WEST		
	GM	GREATER MANCHESTER	2 days
14	LEINSTER		
	WC	WICKLOW	1 days
	WX	WEXFORD	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: 38 to 320 (units: sqm)
Range Selected by User: 38 to 320 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/16 to 20/09/23

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

Selected survey days:

Tuesday	3 days
Wednesday	2 days
Thursday	1 days

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

Selected survey types:

Manual count	6 days
Directional ATC Count	0 days

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

Selected Locations:

Town Centre	6

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

Selected Location Sub Categories:

Built-Up Zone	4
High Street	1
No Sub Category	1

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	6 days - Selected
Servicing vehicles Excluded	X days - Selected

Secondary Filtering selection:

Use Class:

E(b)	6 days

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

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

5,001 to 10,000	2 days
15,001 to 20,000	1 days
20,001 to 25,000	1 days
25,001 to 50,000	1 days
50,001 to 100,000	1 days

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

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	1 days
50,001 to 75,000	1 days
125,001 to 250,000	1 days
500,001 or More	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	3 days

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

Travel Plan:

No	6 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	6 days

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

LIST OF SITES relevant to selection parameters

1 GM-06-K-01 CAFÉ GREATER MANCHESTER
DEANSGATE
MANCHESTER

Town Centre
Built-Up Zone
Total Gross floor area: 200 sqm
Survey date: TUESDAY *19/04/22* *Survey Type: MANUAL*

2 GM-06-K-02 CAFÉ GREATER MANCHESTER
DEANSGATE
MANCHESTER

Town Centre
Built-Up Zone
Total Gross floor area: 38 sqm
Survey date: WEDNESDAY *20/09/23* *Survey Type: MANUAL*

3 LN-06-K-01 CAFÉ & TEA ROOM LINCOLNSHIRE
RED LION SQUARE
STAMFORD

Town Centre
Built-Up Zone
Total Gross floor area: 190 sqm
Survey date: TUESDAY *12/10/21* *Survey Type: MANUAL*

4 NF-06-K-01 CAFÉ NORFOLK
SAINT GILES STREET
NORWICH

Town Centre
Built-Up Zone
Total Gross floor area: 82 sqm
Survey date: TUESDAY *20/09/22* *Survey Type: MANUAL*

5 WC-06-K-01 CAFÉ WICKLOW
FITZWILLIAM SQUARE
WICKLOW

Town Centre
High Street
Total Gross floor area: 320 sqm
Survey date: WEDNESDAY *16/11/22* *Survey Type: MANUAL*

6 WX-06-K-01 CAFÉ WEXFORD
MALLIN STREET
WEXFORD

Town Centre
No Sub Category
Total Gross floor area: 60 sqm
Survey date: THURSDAY *20/04/23* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/K - CAFE
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): 3.79

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	38	2.632	1	38	0.000	1	38	2.632
07:00 - 08:00	2	179	1.955	2	179	1.397	2	179	3.352
08:00 - 09:00	5	166	1.446	5	166	0.843	5	166	2.289
09:00 - 10:00	6	148	3.820	6	148	2.584	6	148	6.404
10:00 - 11:00	6	148	4.045	6	148	4.607	6	148	8.652
11:00 - 12:00	6	148	3.933	6	148	3.820	6	148	7.753
12:00 - 13:00	6	148	4.831	6	148	4.944	6	148	9.775
13:00 - 14:00	6	148	4.831	6	148	4.607	6	148	9.438
14:00 - 15:00	6	148	3.708	6	148	4.157	6	148	7.865
15:00 - 16:00	6	148	2.697	6	148	3.034	6	148	5.731
16:00 - 17:00	5	162	2.104	5	162	2.228	5	162	4.332
17:00 - 18:00	4	155	1.456	4	155	1.942	4	155	3.398
18:00 - 19:00	1	38	7.895	1	38	7.895	1	38	15.790
19:00 - 20:00	1	38	5.263	1	38	5.263	1	38	10.526
20:00 - 21:00	1	38	0.000	1	38	0.000	1	38	0.000
21:00 - 22:00	1	38	0.000	1	38	5.263	1	38	5.263
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			50.616			52.584			103.200

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

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

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

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

Parameter summary

Trip rate parameter range selected:	38 - 320 (units: sqm)
Survey date date range:	01/01/16 - 20/09/23
Number of weekdays (Monday-Friday):	6
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/K - CAFE
MULTI-MODAL TAXIS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	38	0.000	1	38	0.000	1	38	0.000
07:00 - 08:00	2	179	0.000	2	179	0.000	2	179	0.000
08:00 - 09:00	5	166	0.120	5	166	0.120	5	166	0.240
09:00 - 10:00	6	148	0.000	6	148	0.000	6	148	0.000
10:00 - 11:00	6	148	0.112	6	148	0.112	6	148	0.224
11:00 - 12:00	6	148	0.225	6	148	0.225	6	148	0.450
12:00 - 13:00	6	148	0.225	6	148	0.225	6	148	0.450
13:00 - 14:00	6	148	0.112	6	148	0.112	6	148	0.224
14:00 - 15:00	6	148	0.112	6	148	0.112	6	148	0.224
15:00 - 16:00	6	148	0.000	6	148	0.000	6	148	0.000
16:00 - 17:00	5	162	0.000	5	162	0.000	5	162	0.000
17:00 - 18:00	4	155	0.000	4	155	0.000	4	155	0.000
18:00 - 19:00	1	38	0.000	1	38	0.000	1	38	0.000
19:00 - 20:00	1	38	0.000	1	38	0.000	1	38	0.000
20:00 - 21:00	1	38	0.000	1	38	0.000	1	38	0.000
21:00 - 22:00	1	38	0.000	1	38	0.000	1	38	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.906			0.906			1.812

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

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/K - CAFE
MULTI-MODAL OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	38	0.000	1	38	0.000	1	38	0.000
07:00 - 08:00	2	179	0.279	2	179	0.279	2	179	0.558
08:00 - 09:00	5	166	0.000	5	166	0.000	5	166	0.000
09:00 - 10:00	6	148	0.112	6	148	0.112	6	148	0.224
10:00 - 11:00	6	148	0.000	6	148	0.000	6	148	0.000
11:00 - 12:00	6	148	0.000	6	148	0.000	6	148	0.000
12:00 - 13:00	6	148	0.000	6	148	0.000	6	148	0.000
13:00 - 14:00	6	148	0.000	6	148	0.000	6	148	0.000
14:00 - 15:00	6	148	0.112	6	148	0.112	6	148	0.224
15:00 - 16:00	6	148	0.000	6	148	0.000	6	148	0.000
16:00 - 17:00	5	162	0.000	5	162	0.000	5	162	0.000
17:00 - 18:00	4	155	0.000	4	155	0.000	4	155	0.000
18:00 - 19:00	1	38	0.000	1	38	0.000	1	38	0.000
19:00 - 20:00	1	38	0.000	1	38	0.000	1	38	0.000
20:00 - 21:00	1	38	0.000	1	38	0.000	1	38	0.000
21:00 - 22:00	1	38	0.000	1	38	0.000	1	38	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.503			0.503			1.006

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.

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/K - CAFE
MULTI-MODAL CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	38	0.000	1	38	0.000	1	38	0.000
07:00 - 08:00	2	179	0.279	2	179	0.279	2	179	0.558
08:00 - 09:00	5	166	0.120	5	166	0.120	5	166	0.240
09:00 - 10:00	6	148	0.337	6	148	0.225	6	148	0.562
10:00 - 11:00	6	148	0.000	6	148	0.112	6	148	0.112
11:00 - 12:00	6	148	0.449	6	148	0.225	6	148	0.674
12:00 - 13:00	6	148	0.674	6	148	0.562	6	148	1.236
13:00 - 14:00	6	148	0.337	6	148	0.449	6	148	0.786
14:00 - 15:00	6	148	0.225	6	148	0.337	6	148	0.562
15:00 - 16:00	6	148	0.000	6	148	0.000	6	148	0.000
16:00 - 17:00	5	162	0.124	5	162	0.248	5	162	0.372
17:00 - 18:00	4	155	0.162	4	155	0.000	4	155	0.162
18:00 - 19:00	1	38	0.000	1	38	2.632	1	38	2.632
19:00 - 20:00	1	38	0.000	1	38	0.000	1	38	0.000
20:00 - 21:00	1	38	0.000	1	38	0.000	1	38	0.000
21:00 - 22:00	1	38	0.000	1	38	0.000	1	38	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.707			5.189			7.896

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

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/K - CAFE
MULTI-MODAL VEHICLE OCCUPANTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	38	2.632	1	38	0.000	1	38	2.632
07:00 - 08:00	2	179	0.838	2	179	0.559	2	179	1.397
08:00 - 09:00	5	166	1.928	5	166	0.723	5	166	2.651
09:00 - 10:00	6	148	4.719	6	148	3.034	6	148	7.753
10:00 - 11:00	6	148	5.393	6	148	5.955	6	148	11.348
11:00 - 12:00	6	148	5.056	6	148	4.944	6	148	10.000
12:00 - 13:00	6	148	6.180	6	148	6.292	6	148	12.472
13:00 - 14:00	6	148	7.079	6	148	6.966	6	148	14.045
14:00 - 15:00	6	148	4.719	6	148	5.730	6	148	10.449
15:00 - 16:00	6	148	3.146	6	148	3.596	6	148	6.742
16:00 - 17:00	5	162	2.228	5	162	2.351	5	162	4.579
17:00 - 18:00	4	155	1.456	4	155	2.104	4	155	3.560
18:00 - 19:00	1	38	7.895	1	38	7.895	1	38	15.790
19:00 - 20:00	1	38	5.263	1	38	5.263	1	38	10.526
20:00 - 21:00	1	38	0.000	1	38	0.000	1	38	0.000
21:00 - 22:00	1	38	0.000	1	38	5.263	1	38	5.263
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			58.532			60.675			119.207

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

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/K - CAFE
MULTI-MODAL PEDESTRIANS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	38	0.000	1	38	0.000	1	38	0.000
07:00 - 08:00	2	179	2.793	2	179	1.955	2	179	4.748
08:00 - 09:00	5	166	1.687	5	166	1.446	5	166	3.133
09:00 - 10:00	6	148	5.843	6	148	4.157	6	148	10.000
10:00 - 11:00	6	148	7.865	6	148	7.303	6	148	15.168
11:00 - 12:00	6	148	7.303	6	148	7.640	6	148	14.943
12:00 - 13:00	6	148	9.888	6	148	8.315	6	148	18.203
13:00 - 14:00	6	148	10.112	6	148	11.573	6	148	21.685
14:00 - 15:00	6	148	6.854	6	148	7.528	6	148	14.382
15:00 - 16:00	6	148	5.506	6	148	6.517	6	148	12.023
16:00 - 17:00	5	162	4.084	5	162	5.569	5	162	9.653
17:00 - 18:00	4	155	3.074	4	155	3.398	4	155	6.472
18:00 - 19:00	1	38	28.947	1	38	34.211	1	38	63.158
19:00 - 20:00	1	38	21.053	1	38	18.421	1	38	39.474
20:00 - 21:00	1	38	10.526	1	38	10.526	1	38	21.052
21:00 - 22:00	1	38	0.000	1	38	0.000	1	38	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			125.535			128.559			254.094

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

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/K - CAFE
MULTI-MODAL BUS/TRAM PASSENGERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	38	0.000	1	38	0.000	1	38	0.000
07:00 - 08:00	2	179	0.559	2	179	0.838	2	179	1.397
08:00 - 09:00	5	166	1.084	5	166	0.602	5	166	1.686
09:00 - 10:00	6	148	1.910	6	148	0.674	6	148	2.584
10:00 - 11:00	6	148	2.022	6	148	1.798	6	148	3.820
11:00 - 12:00	6	148	2.022	6	148	2.135	6	148	4.157
12:00 - 13:00	6	148	2.135	6	148	2.022	6	148	4.157
13:00 - 14:00	6	148	1.573	6	148	2.472	6	148	4.045
14:00 - 15:00	6	148	0.787	6	148	1.124	6	148	1.911
15:00 - 16:00	6	148	1.124	6	148	0.674	6	148	1.798
16:00 - 17:00	5	162	0.743	5	162	1.114	5	162	1.857
17:00 - 18:00	4	155	0.809	4	155	1.133	4	155	1.942
18:00 - 19:00	1	38	7.895	1	38	5.263	1	38	13.158
19:00 - 20:00	1	38	7.895	1	38	7.895	1	38	15.790
20:00 - 21:00	1	38	2.632	1	38	5.263	1	38	7.895
21:00 - 22:00	1	38	0.000	1	38	0.000	1	38	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			33.190			33.007			66.197

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

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/K - CAFE
MULTI-MODAL TOTAL RAIL PASSENGERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	38	0.000	1	38	0.000	1	38	0.000
07:00 - 08:00	2	179	0.559	2	179	0.000	2	179	0.559
08:00 - 09:00	5	166	0.000	5	166	0.361	5	166	0.361
09:00 - 10:00	6	148	0.225	6	148	0.449	6	148	0.674
10:00 - 11:00	6	148	0.225	6	148	0.112	6	148	0.337
11:00 - 12:00	6	148	0.562	6	148	0.225	6	148	0.787
12:00 - 13:00	6	148	0.449	6	148	0.225	6	148	0.674
13:00 - 14:00	6	148	0.337	6	148	0.112	6	148	0.449
14:00 - 15:00	6	148	0.337	6	148	0.112	6	148	0.449
15:00 - 16:00	6	148	0.225	6	148	0.337	6	148	0.562
16:00 - 17:00	5	162	0.495	5	162	0.000	5	162	0.495
17:00 - 18:00	4	155	0.000	4	155	0.485	4	155	0.485
18:00 - 19:00	1	38	0.000	1	38	7.895	1	38	7.895
19:00 - 20:00	1	38	0.000	1	38	5.263	1	38	5.263
20:00 - 21:00	1	38	0.000	1	38	0.000	1	38	0.000
21:00 - 22:00	1	38	0.000	1	38	0.000	1	38	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.414			15.576			18.990

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

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/K - CAFE
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	38	0.000	1	38	0.000	1	38	0.000
07:00 - 08:00	2	179	1.117	2	179	0.838	2	179	1.955
08:00 - 09:00	5	166	1.084	5	166	0.964	5	166	2.048
09:00 - 10:00	6	148	2.135	6	148	1.124	6	148	3.259
10:00 - 11:00	6	148	2.247	6	148	1.910	6	148	4.157
11:00 - 12:00	6	148	2.584	6	148	2.360	6	148	4.944
12:00 - 13:00	6	148	2.584	6	148	2.247	6	148	4.831
13:00 - 14:00	6	148	1.910	6	148	2.584	6	148	4.494
14:00 - 15:00	6	148	1.124	6	148	1.236	6	148	2.360
15:00 - 16:00	6	148	1.348	6	148	1.011	6	148	2.359
16:00 - 17:00	5	162	1.238	5	162	1.114	5	162	2.352
17:00 - 18:00	4	155	0.809	4	155	1.618	4	155	2.427
18:00 - 19:00	1	38	7.895	1	38	13.158	1	38	21.053
19:00 - 20:00	1	38	7.895	1	38	13.158	1	38	21.053
20:00 - 21:00	1	38	2.632	1	38	5.263	1	38	7.895
21:00 - 22:00	1	38	0.000	1	38	0.000	1	38	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			36.602			48.585			85.187

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

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/K - CAFE
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): 3.79

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	38	2.632	1	38	0.000	1	38	2.632
07:00 - 08:00	2	179	5.028	2	179	3.631	2	179	8.659
08:00 - 09:00	5	166	4.819	5	166	3.253	5	166	8.072
09:00 - 10:00	6	148	13.034	6	148	8.539	6	148	21.573
10:00 - 11:00	6	148	15.506	6	148	15.281	6	148	30.787
11:00 - 12:00	6	148	15.393	6	148	15.169	6	148	30.562
12:00 - 13:00	6	148	19.326	6	148	17.416	6	148	36.742
13:00 - 14:00	6	148	19.438	6	148	21.573	6	148	41.011
14:00 - 15:00	6	148	12.921	6	148	14.831	6	148	27.752
15:00 - 16:00	6	148	10.000	6	148	11.124	6	148	21.124
16:00 - 17:00	5	162	7.673	5	162	9.282	5	162	16.955
17:00 - 18:00	4	155	5.502	4	155	7.120	4	155	12.622
18:00 - 19:00	1	38	44.737	1	38	57.895	1	38	102.632
19:00 - 20:00	1	38	34.211	1	38	36.842	1	38	71.053
20:00 - 21:00	1	38	13.158	1	38	15.789	1	38	28.947
21:00 - 22:00	1	38	0.000	1	38	5.263	1	38	5.263
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			223.378			243.008			466.386

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

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/K - CAFE
MULTI-MODAL CARS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	38	2.632	1	38	0.000	1	38	2.632
07:00 - 08:00	2	179	0.559	2	179	0.279	2	179	0.838
08:00 - 09:00	5	166	1.325	5	166	0.602	5	166	1.927
09:00 - 10:00	6	148	3.034	6	148	2.022	6	148	5.056
10:00 - 11:00	6	148	3.708	6	148	4.157	6	148	7.865
11:00 - 12:00	6	148	3.708	6	148	3.483	6	148	7.191
12:00 - 13:00	6	148	4.270	6	148	4.382	6	148	8.652
13:00 - 14:00	6	148	4.607	6	148	4.494	6	148	9.101
14:00 - 15:00	6	148	3.258	6	148	3.596	6	148	6.854
15:00 - 16:00	6	148	2.584	6	148	3.034	6	148	5.618
16:00 - 17:00	5	162	2.104	5	162	2.104	5	162	4.208
17:00 - 18:00	4	155	1.456	4	155	1.942	4	155	3.398
18:00 - 19:00	1	38	5.263	1	38	5.263	1	38	10.526
19:00 - 20:00	1	38	2.632	1	38	2.632	1	38	5.264
20:00 - 21:00	1	38	0.000	1	38	0.000	1	38	0.000
21:00 - 22:00	1	38	0.000	1	38	5.263	1	38	5.263
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			41.140			43.253			84.393

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

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/K - CAFE
MULTI-MODAL LGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	38	0.000	1	38	0.000	1	38	0.000
07:00 - 08:00	2	179	1.117	2	179	0.838	2	179	1.955
08:00 - 09:00	5	166	0.000	5	166	0.120	5	166	0.120
09:00 - 10:00	6	148	0.337	6	148	0.225	6	148	0.562
10:00 - 11:00	6	148	0.000	6	148	0.112	6	148	0.112
11:00 - 12:00	6	148	0.000	6	148	0.000	6	148	0.000
12:00 - 13:00	6	148	0.000	6	148	0.000	6	148	0.000
13:00 - 14:00	6	148	0.000	6	148	0.000	6	148	0.000
14:00 - 15:00	6	148	0.000	6	148	0.000	6	148	0.000
15:00 - 16:00	6	148	0.000	6	148	0.000	6	148	0.000
16:00 - 17:00	5	162	0.000	5	162	0.000	5	162	0.000
17:00 - 18:00	4	155	0.000	4	155	0.000	4	155	0.000
18:00 - 19:00	1	38	0.000	1	38	0.000	1	38	0.000
19:00 - 20:00	1	38	0.000	1	38	0.000	1	38	0.000
20:00 - 21:00	1	38	0.000	1	38	0.000	1	38	0.000
21:00 - 22:00	1	38	0.000	1	38	0.000	1	38	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.454			1.295			2.749

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

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/K - CAFE
MULTI-MODAL MOTOR CYCLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	38	0.000	1	38	0.000	1	38	0.000
07:00 - 08:00	2	179	0.000	2	179	0.000	2	179	0.000
08:00 - 09:00	5	166	0.000	5	166	0.000	5	166	0.000
09:00 - 10:00	6	148	0.337	6	148	0.225	6	148	0.562
10:00 - 11:00	6	148	0.225	6	148	0.225	6	148	0.450
11:00 - 12:00	6	148	0.000	6	148	0.112	6	148	0.112
12:00 - 13:00	6	148	0.337	6	148	0.337	6	148	0.674
13:00 - 14:00	6	148	0.112	6	148	0.000	6	148	0.112
14:00 - 15:00	6	148	0.225	6	148	0.337	6	148	0.562
15:00 - 16:00	6	148	0.112	6	148	0.000	6	148	0.112
16:00 - 17:00	5	162	0.000	5	162	0.124	5	162	0.124
17:00 - 18:00	4	155	0.000	4	155	0.000	4	155	0.000
18:00 - 19:00	1	38	2.632	1	38	2.632	1	38	5.264
19:00 - 20:00	1	38	2.632	1	38	2.632	1	38	5.264
20:00 - 21:00	1	38	0.000	1	38	0.000	1	38	0.000
21:00 - 22:00	1	38	0.000	1	38	0.000	1	38	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			6.612			6.624			13.236

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

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/K - CAFE
MULTI-MODAL Servicing Vehicles
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	38	0.000	1	38	0.000	1	38	0.000
07:00 - 08:00	2	179	1.397	2	179	1.117	2	179	2.514
08:00 - 09:00	5	166	0.000	5	166	0.120	5	166	0.120
09:00 - 10:00	6	148	0.674	6	148	0.449	6	148	1.123
10:00 - 11:00	6	148	0.225	6	148	0.337	6	148	0.562
11:00 - 12:00	6	148	0.000	6	148	0.112	6	148	0.112
12:00 - 13:00	6	148	0.449	6	148	0.449	6	148	0.898
13:00 - 14:00	6	148	0.112	6	148	0.000	6	148	0.112
14:00 - 15:00	6	148	0.225	6	148	0.337	6	148	0.562
15:00 - 16:00	6	148	0.112	6	148	0.000	6	148	0.112
16:00 - 17:00	5	162	0.000	5	162	0.124	5	162	0.124
17:00 - 18:00	4	155	0.000	4	155	0.000	4	155	0.000
18:00 - 19:00	1	38	2.632	1	38	2.632	1	38	5.264
19:00 - 20:00	1	38	2.632	1	38	2.632	1	38	5.264
20:00 - 21:00	1	38	0.000	1	38	0.000	1	38	0.000
21:00 - 22:00	1	38	0.000	1	38	0.000	1	38	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			8.458			8.309			16.767

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.*

Civic Engineers Dale Street Manchester Licence No: 758701

Calculation Reference: AUDIT-758701-250218-0239

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
Category : K - FITNESS CLUB (PRIVATE)
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	BH	BRIGHTON & HOVE	1 days
	HF	HERTFORDSHIRE	1 days
03	SOUTH WEST		
	BR	BRISTOL CITY	1 days
	WL	WILTSHIRE	1 days
04	EAST ANGLIA		
	PB	PETERBOROUGH	1 days
05	EAST MIDLANDS		
	LE	LEICESTERSHIRE	1 days
	LN	LINCOLNSHIRE	1 days
	NM	WEST NORTHAMPTONSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	LS	LEEDS	1 days
	NY	NORTH YORKSHIRE	1 days
08	NORTH WEST		
	MS	MERSEYSIDE	1 days
09	NORTH		
	TW	TYNE & WEAR	3 days
10	WALES		
	NW	NEWPORT	1 days
11	SCOTLAND		
	EB	CITY OF EDINBURGH	1 days
	GC	GLASGOW CITY	1 days
12	CONNAUGHT		
	GA	GALWAY	1 days
13	MUNSTER		
	WA	WATERFORD	1 days
17	ULSTER (NORTHERN IRELAND)		
	AN	ANTRIM	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:	Site area
Actual Range:	0.02 to 4.04 (units: hect)
Range Selected by User:	0.02 to 9.10 (units: hect)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/16 to 27/04/24

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

Selected survey days:

Monday	2 days
Tuesday	1 days
Wednesday	4 days
Thursday	3 days
Friday	1 days
Saturday	6 days
Sunday	3 days

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

Selected survey types:

Manual count	20 days
Directional ATC Count	0 days

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

Selected Locations:

Town Centre	3
Edge of Town Centre	1
Suburban Area (PPS6 Out of Centre)	5
Edge of Town	7
Neighbourhood Centre (PPS6 Local Centre)	4

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

Selected Location Sub Categories:

Industrial Zone	2
Commercial Zone	3
Development Zone	1
Residential Zone	4
Retail Zone	3
Built-Up Zone	2
Village	1
No Sub Category	4

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	4 days - Selected
Servicing vehicles Excluded	17 days - Selected

Secondary Filtering selection:

Use Class:

n/a	3 days
E(d)	17 days

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

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	3 days
5,001 to 10,000	4 days
10,001 to 15,000	2 days
15,001 to 20,000	2 days
20,001 to 25,000	3 days
25,001 to 50,000	6 days

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

Population within 5 miles:

5,001 to 25,000	2 days
25,001 to 50,000	1 days
50,001 to 75,000	3 days
125,001 to 250,000	5 days
250,001 to 500,000	6 days
500,001 or More	3 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	9 days
1.1 to 1.5	10 days
1.6 to 2.0	1 days

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

Travel Plan:

No	20 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	20 days

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

LIST OF SITES relevant to selection parameters

1 AN-07-K-01 VIRGIN ACTIVE ANTRIM
BELFAST ROAD
BELFAST
HOLYWOOD
Edge of Town
No Sub Category
Total Site area: 1.94 hect
Survey date: WEDNESDAY 12/10/16 *Survey Type: MANUAL*

2 BH-07-K-01 CORAL FITNESS BRIGHTON & HOVE
ORCHARD ROAD
BRIGHTON
HOVE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Site area: 0.39 hect
Survey date: WEDNESDAY 27/09/17 *Survey Type: MANUAL*

3 BR-07-K-01 ANYTIME FITNESS BRISTOL CITY
QUEENS ROAD
BRISTOL

Town Centre
Built-Up Zone
Total Site area: 0.25 hect
Survey date: SUNDAY 14/11/21 *Survey Type: MANUAL*

4 EB-07-K-01 DAVID LLOYD CLUB CITY OF EDINBURGH
GLASGOW ROAD
EDINBURGH
GYLE
Edge of Town
Residential Zone
Total Site area: 4.04 hect
Survey date: SATURDAY 19/03/16 *Survey Type: MANUAL*

5 GA-07-K-01 KINGFISHER CLUB GALWAY
RENMORE AVENUE
GALWAY
RENMORE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Site area: 0.42 hect
Survey date: THURSDAY 07/09/23 *Survey Type: MANUAL*

6 GC-07-K-01 DAVID LLOYD GLASGOW CITY
NETHERTON ROAD
GLASGOW
ANNIESLAND
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total Site area: 2.50 hect
Survey date: MONDAY 24/04/23 *Survey Type: MANUAL*

7 HF-07-K-01 LEANERLIFE FITNESS HERTFORDSHIRE
LONDON ROAD
STEVENAGE

Edge of Town
Retail Zone
Total Site area: 0.07 hect
Survey date: MONDAY 13/11/23 *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

8 LE-07-K-02 DAVID LLOYD LEICESTERSHIRE
KING EDWARD AVENUE
NARBOROUGH

Neighbourhood Centre (PPS6 Local Centre)
Village
Total Site area: 2.36 hect
Survey date: SATURDAY *27/04/24* *Survey Type: MANUAL*

9 LN-07-K-02 HEALTH AND FITNESS CLUB LINCOLNSHIRE
DYSART ROAD
GRANTHAM

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Site area: 0.40 hect
Survey date: WEDNESDAY *17/04/24* *Survey Type: MANUAL*

10 LS-07-K-02 PURE GYM LEEDS
ELMFIELD WAY
LEEDS
BRAMLEY
Neighbourhood Centre (PPS6 Local Centre)
No Sub Category
Total Site area: 1.78 hect
Survey date: THURSDAY *14/03/19* *Survey Type: MANUAL*

11 MS-07-K-02 DAVID LLOYD MERSEYSIDE
ARBOUR LANE
LIVERPOOL
KIRKBY
Neighbourhood Centre (PPS6 Local Centre)
No Sub Category
Total Site area: 2.68 hect
Survey date: SUNDAY *24/09/23* *Survey Type: MANUAL*

12 NM-07-K-01 PUMP GYM WEST NORTHAMPTONSHIRE
GLADSTONE ROAD
NORTHAMPTON
KINGSFIELD BUS. CENTRE
Edge of Town
Commercial Zone
Total Site area: 0.52 hect
Survey date: WEDNESDAY *23/11/16* *Survey Type: MANUAL*

13 NW-07-K-01 PRIVATE HEALTH CLUB NEWPORT
ENTERPRISE WAY
NEWPORT

Suburban Area (PPS6 Out of Centre)
Commercial Zone
Total Site area: 0.89 hect
Survey date: SUNDAY *26/11/23* *Survey Type: MANUAL*

14 NY-07-K-01 FITNESS CLUB NORTH YORKSHIRE
RIVER VIEW ROAD
RIPON

Edge of Town
No Sub Category
Total Site area: 0.13 hect
Survey date: TUESDAY *27/09/16* *Survey Type: MANUAL*

15 PB-07-K-02 THE FITNESS ZONE PETERBOROUGH
WENTWORTH STREET
PETERBOROUGH

Town Centre
Built-Up Zone
Total Site area: 0.04 hect
Survey date: SATURDAY *15/10/16* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

16 TW-07-K-01 DW SPORTS FITNESS TYNE & WEAR
TIMBER BEACH ROAD
SUNDERLAND
CASTLETOWN
Suburban Area (PPS6 Out of Centre)
Development Zone
Total Site area: 0.50 hect
Survey date: THURSDAY 06/04/17 Survey Type: MANUAL

17 TW-07-K-02 THE GYM GROUP TYNE & WEAR
CROSSGATE
SOUTH SHIELDS

Edge of Town Centre
Commercial Zone
Total Site area: 0.21 hect
Survey date: SATURDAY 09/09/23 Survey Type: MANUAL

18 TW-07-K-03 FITNESS CLUB TYNE & WEAR
HIGH BRIDGE
NEWCASTLE UPON TYNE

Town Centre
Retail Zone
Total Site area: 0.02 hect
Survey date: FRIDAY 08/09/23 Survey Type: MANUAL

19 WA-07-K-01 GOLDSTONE FITNESS WATERFORD
KILBARRY ROAD
WATERFORD
KILBARRY
Edge of Town
Industrial Zone
Total Site area: 0.15 hect
Survey date: SATURDAY 11/03/23 Survey Type: MANUAL

20 WL-07-K-01 PURE GYM WILTSHIRE
SOUTHAMPTON ROAD
SALISBURY
BOURNE RETAIL PARK
Edge of Town
Retail Zone
Total Site area: 0.21 hect
Survey date: SATURDAY 19/11/22 Survey Type: MANUAL

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

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)
TOTAL VEHICLES
Calculation factor: 1 hect
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	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	2	1.28	7.004	2	1.28	0.389	2	1.28	7.393
06:00 - 07:00	16	0.98	20.140	16	0.98	5.210	16	0.98	25.350
07:00 - 08:00	20	0.97	18.154	20	0.97	12.308	20	0.97	30.462
08:00 - 09:00	20	0.97	32.718	20	0.97	18.205	20	0.97	50.923
09:00 - 10:00	20	0.97	44.718	20	0.97	22.462	20	0.97	67.180
10:00 - 11:00	20	0.97	34.103	20	0.97	35.026	20	0.97	69.129
11:00 - 12:00	20	0.97	26.359	20	0.97	35.333	20	0.97	61.692
12:00 - 13:00	20	0.97	24.718	20	0.97	33.641	20	0.97	58.359
13:00 - 14:00	20	0.97	20.974	20	0.97	27.795	20	0.97	48.769
14:00 - 15:00	20	0.97	20.821	20	0.97	22.410	20	0.97	43.231
15:00 - 16:00	20	0.97	24.154	20	0.97	21.282	20	0.97	45.436
16:00 - 17:00	20	0.97	28.308	20	0.97	23.179	20	0.97	51.487
17:00 - 18:00	19	1.02	34.173	19	1.02	29.034	19	1.02	63.207
18:00 - 19:00	19	1.02	29.908	19	1.02	32.734	19	1.02	62.642
19:00 - 20:00	19	1.02	23.587	19	1.02	32.477	19	1.02	56.064
20:00 - 21:00	18	1.07	13.154	18	1.07	29.570	18	1.07	42.724
21:00 - 22:00	16	1.15	4.891	16	1.15	16.685	16	1.15	21.576
22:00 - 23:00	7	0.56	1.519	7	0.56	15.949	7	0.56	17.468
23:00 - 24:00									
Total Rates:			409.403			413.689			823.092

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

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

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

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

Parameter summary

Trip rate parameter range selected:	0.02 to 4.04 (units: hect)
Survey date date range:	01/01/16 - 27/04/24
Number of weekdays (Monday-Friday):	12
Number of Saturdays:	6
Number of Sundays:	3
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.

Appendix E: Hourly Operational Trips

Sister Plot C

VEHICLE TRIP GENERATION - HOURLY

TRIP RATES

HOUR	TAXI ARRIVAL TRIP RATES				OGV ARRIVAL TRIP RATES				LGV ARRIVAL TRIP RATES			
	06K Cafes	06B Restaurants	07K Gyms	02A Office	06K Cafes	06B Restaurants	07K Gyms	02A Office	06K Cafes	06B Restaurants	07K Gyms	02A Office
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00			0.389				0.389				0.389	
06:00-07:00	0		0.064		0		0.064		0		0.572	
07:00-08:00	0		0.103	0	0.279		0.051	0	1.117		0.462	0.005
08:00-09:00	0.12		0.103	0.01	0		0.051	0.008	0		1.128	0.017
09:00-10:00	0		0.205	0	0.112		0.051	0.003	0.337		1.333	0.01
10:00-11:00	0.112	0	0.205	0	0		0.051	0.003	0	0	0.974	0.022
11:00-12:00	0.225	0	0.308	0.003	0		0.103	0	0	0	0.769	0.019
12:00-13:00	0.225	0.124	0.462	0.006	0		0	0	0	0.05	0.923	0.003
13:00-14:00	0.112	0.099	0.564	0.003	0		0.051	0.005	0	0.05	0.872	0.01
14:00-15:00	0.112	0.124	0.256	0	0.112		0.051	0	0	0.075	0.718	0.01
15:00-16:00	0	0.025	0.154	0	0		0	0	0	0.025	1.026	0.008
16:00-17:00	0	0.02	0.256	0	0		0.051	0.003	0	0	1.026	0
17:00-18:00	0	0.14	0.257	0.003	0		0	0	0	0.04	0.719	0.006
18:00-19:00	0	0.381	0.103	0	0		0	0	0	0.02	0.822	0.008
19:00-20:00	0	0.301	0.206	0	0		0	0	0	0	0.719	0
20:00-21:00	0	0.08	0.259	0	0		0.052	0	0	0	0.155	0
21:00-22:00	0	0.04	0.054	0	0		0	0	0	0	0.109	0
22:00-23:00	0	0	0	0	0		0	0	0	0	0	0
23:00-24:00	0	0	0	0	0		0	0	0	0	0	0
						No data						

TRIPS

HOUR	TAXI ARRIVALS					OGV ARRIVALS					LGV ARRIVALS				
	06K Cafes	06B Restaurants	07K Gyms	02A Office	Total	06K Cafes	06B Restaurants	07K Gyms	02A Office	Total	06K Cafes	06B Restaurants	07K Gyms	02A Office	Total
00:00-01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00-02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00-03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00-04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00-05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00-06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00-07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00-08:00	0	0	0	0	0	0	0	0	0	0	29	0	0	3	32
08:00-09:00	3	0	0	7	10	0	0	0	5	5	0	0	0	12	12
09:00-10:00	0	0	0	0	0	0	0	0	2	2	9	0	1	7	16
10:00-11:00	3	0	0	0	3	0	0	0	2	2	0	0	0	15	15
11:00-12:00	6	0	0	2	8	0	0	0	0	0	0	0	0	13	13
12:00-13:00	6	2	0	4	12	0	0	0	0	0	0	1	0	2	3
13:00-14:00	3	1	0	2	6	0	0	0	3	3	0	1	0	7	8
14:00-15:00	3	2	0	0	5	0	0	0	0	0	0	1	0	7	8
15:00-16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	5	6
16:00-17:00	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0
17:00-18:00	0	2	0	2	4	0	0	0	0	0	0	1	0	4	5
18:00-19:00	0	5	0	0	5	0	0	0	0	0	0	0	0	5	6
19:00-20:00	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0
20:00-21:00	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
21:00-22:00	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
22:00-23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00-24:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAX PER HOUR					12	0	0	0	5	5	29	1	1	15	32
SUM OVER DAY					60	0	0	0	15	15	38	3	5	80	126
Average 08:00-20:00					5	0	0	0	1	1	1	0	0	6	8

TOTAL AT SURFACE LEVEL / LGV BAYS IN SERVICE TUNNEL

HOUR	TOTAL AT SURFACE LEVEL - ARRIVALS				TOTAL AT SURFACE LEVEL - MINUTES IN USE						LGV BAYS IN SE	
	TAXI SETTING DOWN	TAXI PICKING UP	LGV	TOTAL	TAXI SETTING DOWN	TAXI PICKING UP	LGV	LOADING BAY MINUTE REQUIREMENT PER HOUR	LOADING BAY PROVISION (MINUTES)	DEMAND/CAPACITY	LGV ARRIVALS TO SERVICE TUNNEL	LGV BAYS MINUTES IN USE
00:00-01:00	0	0	0	0	0	0	0	0	120	0%	0	0
01:00-02:00	0	0	0	0	0	0	0	0	120	0%	0	0
02:00-03:00	0	0	0	0	0	0	0	0	120	0%	0	0
03:00-04:00	0	0	0	0	0	0	0	0	120	0%	0	0
04:00-05:00	0	0	0	0	0	0	0	0	120	0%	0	0
05:00-06:00	0	0	0	0	0	0	1	1	120	1%	0	1
06:00-07:00	0	0	0	0	0	0	1	1	120	1%	0	1
07:00-08:00	0	0	16	16	0	0	162	162	120	135%	16	162
08:00-09:00	5	5	6	16	10	25	60	95	120	79%	6	60
09:00-10:00	0	0	8	8	0	0	80	80	120	67%	8	80
10:00-11:00	1	1	8	11	3	7	77	87	120	73%	8	77
11:00-12:00	4	4	7	15	8	20	66	94	120	78%	7	66
12:00-13:00	6	6	2	13	12	29	15	56	120	47%	2	15
13:00-14:00	3	3	4	10	6	16	39	62	120	51%	4	39
14:00-15:00	2	2	4	9	5	12	40	57	120	47%	4	40
15:00-16:00	0	0	3	3	0	1	31	32	120	27%	3	31
16:00-17:00	0	0	0	1	0	1	2	3	120	3%	0	2
17:00-18:00	2	2	2	6	4	10	24	38	120	32%	2	24
18:00-19:00	3	3	3	8	5	13	30	48	120	40%	3	30
19:00-20:00	2	2	0	4	4	10	1	16	120	13%	0	1
20:00-21:00	1	1	0	1	1	3	0	4	120	4%	0	0
21:00-22:00	0	0	0	1	1	1	0	2	120	2%	0	0
22:00-23:00	0	0	0	0	0	0	0	0	120	0%	0	0
23:00-24:00	0	0	0	0	0	0	0	0	120	0%	0	0
MAX PER HOUR	6	6	16	16	12	29	162	162	120	135%	16	162
Average 08:00-20:00	2	2	4	9	5	12	39	56	120	46%	4	39

Parameters

50%	taxi dropping off
50%	taxi picking up
50%	LGV surface level
50%	LGV service tunnel
100%	OGV service tunnel
2	min taxi drop off
5	min taxi pick up
10	min LGV load/unload
30	min OGV servicing
60	mins in hour
2	Loading bays on Mill Lane

CIVIC

civicengineers.com

thriving
together