# **REPORT**

# 14 Blackburn Road, West Hampstead

Delivery and Servicing Management Plan

Client: Hampstead Asset Management Ltd and Fifth

State

Reference: PC5881-RHD-ZZ-XX-RP-R-0003

Status: S3/P02

Date: 10 April 2025





#### HASKONINGDHV UK LTD.

2nd Floor 15 Bermondsey Square London **SE1 3UN United Kingdom** 

Mobility & Infrastructure VAT registration number: 792428892

Email: info@uk.rhdhv.com Website: royalhaskoningdhv.com

Document title: 14 Blackburn Road, West Hampstead Subtitle: Delivery and Servicing Management Plan

Reference: PC5881-RHD-ZZ-XX-RP-R-0003

Your reference PC5881 S3/P02 Status: Date: 10 April 2025 Blackburn Road Project name:

PC5881 Project number: Yusuf Ali Author(s):

Drafted by: Yusuf Ali

Checked by: AF

Date: 11/02/2025

Approved by: AW

Date: 11/02/2025

Classification: Project related

Unless otherwise agreed with the Client, no part of this document may be reproduced or made public or used for any purpose other than that for which the document was produced. HaskoningDHV UK Ltd. accepts no responsibility or liability whatsoever for this document other than towards the Client.

Please note: this document contains personal data of employees of HaskoningDHV UK Ltd.. Before publication or any other way of disclosing, this report needs to be anonymized, unless anonymisation of this document is prohibited by legislation.



# **Table of Contents**

1	Introduction	1
1.1	Preface	1
1.2	Existing Site	2
1.3	Background	2
1.4	Development Proposals	3
1.5	Guidance	4
1.6	Document Purpose and Objectives	4
1.7	Document Structure	4
2	Site Context	6
2.1	Preface	6
2.2	The Site	6
2.3	Local Highway Context	6
2.4	Existing Vehicular Access	7
2.5	Existing Site Pedestrian Access	7
2.6	Local Waiting, Parking and Loading Restrictions	7
3	Proposed Delivery, Servicing and Waste Arrangements	9
3.1	Preface	9
3.2	Delivery and Servicing on-Site Provision	9
3.3	Proposed Arrangements for Deliveries and Collections	10
3.4	Waste Storage	12
3.5	Refuse Collection	17
4	Delivery and Servicing Trip Attraction	19
4.1	Overview	19
4.2	TRICS Trip Attraction Methodology	19
4.3	Purpose Built Student Accommodation (PBSA)	19
4.4	Affordable Residential Development	20
4.5	PBSA Cafe	21
4.6	Showroom Servicing Trips	22
4.7	Servicing Trip Generation Summary	24
5	Proposed Qualitative Measures	27
5.1	DSP Objectives	27
5.2	DSP Measures	28



6	Integration with Travel Plan	31
6.1	Introduction	31
6.2	Travel Plan Incorporation	3′
6.3	Travel Setting and Reporting	31
6.4	Monitoring	3′
7	Summary and Conclusions	32
Tabl	e of Tables	
Table	3-1: Residential Waste Arisings	14
Table	3-2: PBSA Waste Arisings	16
Table	3-3: PBSA Cafe Use - Waste Storage Estimates	16
Table	3-4: Show room and Ancillary Office - Waste Storage Estimates	17
Table	4-1: PBSA service vehicle trip attraction rates (vehicle trips per unit)	19
Table	4-2: PBSA use servicing trips (192 units)	20
Table	4-3: Residential servicing trip attraction rates (service vehicle trips per unit)	20
Table	4-4: Residential use servicing trips (35 units)	21
Table	4-5: Café Use Service Vehicle Trip Attraction Rates (Vehicle Trips per 100 sqm.)	21
Table	4-6: Café Use Service Vehicle Trip Attraction (145 sqm)	22
Table	4-7: Builders Merchant Vehicle Trip Rates	23
Table	4-8: Builders Merchant Vehicle Trips and Vehicle accumulation	23
Table	4-9: Proposed Showroom Vehicle Trips and Vehicle accumulation	24
Table	6-1: Data Collection Problems and Solutions	31
Tabl	e of Figures	
Insert	1-1: Site location	2
Insert	3-1: Proposed Layby on Blackburn Road	Ş
Insert	3-2: Proposed showroom service area, ground floor level	10
Insert	3.3 Proposed Site Servicing Strategy	11
Insert	3-4: Residential refuse store	13
Insert	3-5: PBSA refuse store	15
Insert	4-1: Service Vehicle Demand – Private Flats, Trend	26



# **Appendices**

Appendix DSP1 – Architectural Plan of Proposed Development

Appendix DSP2 – TRICS Servicing Trip Rates

Appendix DSP3 - Vehicle Swept Paths



#### Introduction 1

#### 1.1 **Preface**

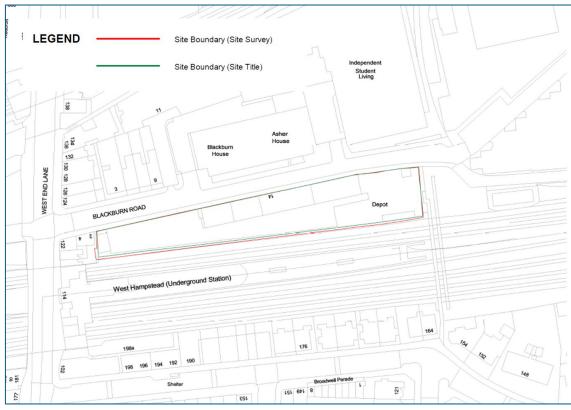
- 1.1.1 This Delivery and Servicing Plan (DSP) has been prepared by Integrated Transport Planning (ITP, the UK-based transport consultancy of Royal HaskoningDHV (RHDHV)), on behalf of Hampstead Asset Management Ltd and Fifth State in association with a development at 14 Blackburn Road, West Hampstead, NW6 1RZ (the 'Site'). London Borough of Camden (LBC) are the local highway and planning authority.
- 1.1.2 The Site is located in West Hamstead, within LBC. The Site is currently occupied by a builders' merchants (Builder Depot Limited 'BDL') - a family owned and run business that has traded from the site for more than 20 years. The Site forms part of the O2 Masterplan Site, which has been granted outline planning consent [planning reference 2022/0528/P].
- 1.1.3 The planning application that forms the topic of this TA proposes the following:

"Demolition and redevelopment of the Site for a mixed-use development comprising purpose built student accommodation (Sui Generis), affordable housing (Use Class C3), lower ground and ground floor flexible commercial/business space comprising of showrooms, retail and ancillary offices (Use Class E/Sui Generis) and a café/PBSA amenity space (Use Class E/Sui Generis) and associated works including service yard, cycle parking, hard and soft landscaping, amenity spaces and plant." (the 'Proposed Development')

1.1.4 The Proposed Development Site's location plan is detailed in **Insert 1.1.** 



Insert 1.1: Site location



# 1.2 Existing Site

- 1.2.1 The Site is situated between Blackburn Road and West Hampstead Station. The Site is bordered to the north by Blackburn Road and to the west by B510 West End Lane. To the south of the Site are railway lines serving the Jubilee Line Underground service operated by Transport for London (TfL). To the east of the Site is a shared footway/cycleway which connects commercial units to the west.
- 1.2.2 The Site area is approximately 0.24 hectares and is currently occupied by showrooms and external yard space comprising 1600sqm (GEA) and 640sqm GIA internal space for the showrooms only.
- 1.2.3 The Site is highly accessible by public transport and achieves a Public Transport Accessibility Level (PTAL) of 6b at its western extent and 6a at its eastern extent. A 6a/b PTAL rating represents the highest level of accessibility, as defined by Transport for London (TfL).

# 1.3 Background

1.3.1 A pre-application meeting was held with LBC in November 2024. Comments were received on 16<sup>th</sup> December 2024 in response to the pre-application submission (Ref: 2024/1441/PRE) for the Proposed Development at the site. At the time of the pre-application response, the proposals were as follows:

'A mixed-use development comprising 199 student homes; 37 x affordable C3 self-contained housing and 1,850 sqm commercial space; active ground-floor commercial units along Blackburn Road with café fronting public realm; on-site service yard for delivery/servicing vehicles;



development of public realm at foot of Granny Dripping Steps leading into O2 Masterplan site; outline proposals for TfL-owned land on the corner of West End Lane and Blackburn Road, creating a new step-free West Hampstead Station.'

- 1.3.2 The proposals remain largely the same, with no significant changes to the overall scheme. The comments provided by LBC officers cover all transport-related matters. This DSP has been prepared in response to the officers' comments, particularly regarding delivery and servicing. The relevant comments section 9 of the response (provided in full in **Annex A**) are summarised below:
- 1.3.3 The Proposed Development is expected to generate 19 daily servicing trips, with eight attributed to the commercial unit. These will be accommodated on-site, with sufficient space for three loading bays. All vehicles will be able to enter and exit the servicing yard in forward gear, which is considered acceptable.
- 1.3.4 Servicing for the residential, student accommodation, and café uses is proposed to take place from Blackburn Road. Existing commercial premises along Blackburn Road already utilise double yellow lines for servicing. An increase in servicing activity outside the site's frontage could obstruct traffic flows, particularly if multiple servicing vehicles stop on either side of Blackburn Road.
- 1.3.5 LBC expressed interest in exploring the idea of a loading bay in more detail. Further information on the exact location, potential displacement or relocation of parking bays, and swept path analysis should be provided as part of the application.
- 1.3.6 A detailed DSP would be secured through a legal agreement if planning permission is granted. This would ensure that operational impacts associated with delivery and servicing movements are effectively mitigated.
- 1.3.7 This DSP has been prepared to address these comments and ensure the Proposed Development aligns with LBC's requirements.

### 1.4 Development Proposals

- 1.4.1 The Proposed Development that forms the subject of this application seeks to provide the following:
  - 192 student rooms,
  - 35 affordable homes (C3),
  - 1,619 sqm of ground floor commercial floorspace to provide a new and enhanced business space that could include provision for the operation of the existing Site operator, and
  - Ground floor café space
- 1.4.2 The proposed commercial element of the Proposed Development will **not** operate as a traditional Builder's Merchants but will take the form of a builders retail store/showroom, which forms a more compatible use with the surrounding land use while allowing the local business to continue to operate at the Site.
- 1.4.3 The Proposed Development includes an on-site service yard, which will serve delivery and servicing activity associated with the proposed commercial showroom. All other uses, including the PBSA, residential units, and café, will be serviced on-street. An on-street loading bay on



Blackburn Road is also proposed to facilitate servicing for these uses. The arrangements for servicing, including operational details and mitigation measures, are set out in this report.

#### 1.5 Guidance

- 1.5.1 This DSP has been produced with reference to:
  - The New London Plan (2021)
  - The London Freight Plan
  - TfL guidance on DSPs
  - The LBC's Local Plan (2027)
  - LBC Planning Guidance Transport (Supplementary Planning Document) (2021)
  - Department for Transport (DfT) guidance on Delivery Plans.

#### 1.6 **Document Purpose and Objectives**

- 1.6.1 DSPs ensure that servicing activities at a development site are carried out effectively and efficiently. These plans propose various tools, actions, and interventions to reduce the number of servicing movements and manage the timing and frequency of these activities at the Site.
- 1.6.2 TfL guidance states that a DSP can help organisations:
  - Manage deliveries to reduce the number of trips, particularly during the morning peak hours, therefore reducing congestion.
  - Identify where safe and legal loading can take place to reduce the potential risk of accidents.
  - Commission delivery companies who can demonstrate their commitment to best practice and allow the site to achieve environmental goals, including reducing CO2 emissions.
  - Save money by reducing the unit cost of travel through consolidation.
- 1.6.3 This DSP should be read in conjunction with the Transport Assessment (TA) report that forms part of this application.

#### 1.7 **Document Structure**

- 1.7.1 Following this introduction, this DSP is structured as follows:
  - Section 2 describes the Site within the context of the local and strategic road network.
  - Section 3 provides a summary of servicing arrangements for the Proposed Development.
  - Section 4 presents an estimate of the level of servicing activity that the Proposed Development will generate.
  - Section 5 presents a number of qualitative measures that the developer could introduce to mitigate the impacts of servicing and deliveries.
  - Section 6 details a future strategy for integrating the DSP into the Site's Travel Plan (TP).
  - Section 7 provides a summary and conclusion.





## 2 Site Context

#### 2.1 Preface

2.1.1 This section of the DSP provides an overview of the existing Site, the general locality, and the surrounding highway network to establish a baseline context.

#### 2.2 The Site

- 2.2.1 The site is located in West Hampstead, to the northeast of West Hampstead station and is occupied by a builders' merchants (Builder Depot Limited 'BDL') a family owned and run business that has traded from the site for more than 20 years. The existing Site operates with approximately 40 employees.
- 2.2.2 The Site is situated on land between Blackburn Road and West Hampstead Station. It is bordered to the north by Blackburn Road and to the west by B510 West End Lane. To the south, the Site is adjacent to railway lines that service the Jubilee line of TfL. To the east, a shared footway and cycleway connect to commercial units to the west.
- 2.2.3 The existing Site is access for all modes is from Blackburn Road.
- 2.2.4 The Site is highly accessible by public transport and achieves a Public Transport Accessibility Level (PTAL) of 6b at the western extent of the Site and 6a at the eastern extent of the Site. This represents the highest level of accessibility, as defined by Transport for London TfL.

## 2.3 Local Highway Context

#### Blackburn Road

- 2.3.1 Blackburn Road extends for approximately 170m along the northern border of the Site, between West End Lane and Billy Fury Way. Blackburn Road is a two-way road formed of one lane of traffic in each direction.
- 2.3.2 To the west Blackburn Road connects to West End Lane via a simple priority junction. At the eastern extent of Blackburn Road, a cycle way and pedestrian route continue to the east, connecting into Homebase, but there is no through-route for vehicles. There is a turning head in the west for motor vehicles.
- 2.3.3 Blackburn Road is subject to a 20mph speed limit throughout, and benefits from street lighting throughout. There are footways on both sides of Blackburn Road, which connect into Billy Fury Way to the east. Billy Fury Way is a pedestrian-only route which connects Blackburn Road to Finchley Road & Frognal Station north-east of the Site. The route takes the form of a narrow alleyway and has street lighting throughout.

#### West En Lane / B510

2.3.4 West End Lane extends for approximately 1.7km, between the A5 to the south and Mill Lane to the north. West End Lane is a two-way road, and, in the vicinity of the Site, is formed of one lane of traffic in each direction.



2.3.5 West End Lane is subject to a 20mph speed limit and has street lighting and wide footways on both sides of the carriageway.

#### Strategic Road Network

- 2.3.6 The A41 is accessible from the Site with less than a 1 km drive, approximately 950 m (4 minutes) to the northeast. The A41 is part of the Transport for London (TfL) Road Network and runs between Baker Street station in the south and Bicester in the north, passing through Watford and Aylesbury.
- 2.3.7 Additional connections to the Strategic Road Network are available from the A41. The North Circular Road is accessible via the Brent Cross Flyover, a 13-minute drive (4.4 km) from the Site. This road serves as a ring road around Central London, connecting Chiswick to Woolwich via Tottenham.
- 2.3.8 The M1 motorway can be accessed via junction 1 of the North Circular Road, approximately 15 minutes (5.1 km) from the Site. The M1 runs north from London to Leeds, passing through Milton Keynes, Leicester, Nottingham, and Sheffield. Additionally, the M25 can be reached via junction 21A of the North Orbital Road, a 30-minute drive (28 km) from the Site. The M25 encircles Greater London, providing access to the city's suburbs.

### 2.4 Existing Vehicular Access

2.4.1 The site has vehicular access from Blackburn Road, leading to the existing builders' merchant yard.

# 2.5 Existing Site Pedestrian Access

2.5.1 Pedestrian access to the existing Site is also taken from Blackburn Road.

### 2.6 Local Waiting, Parking and Loading Restrictions

- 2.6.1 The Site is in LBC's Controlled Parking Zone (CPZ) CA-R(A), which restricts parking Monday through Friday between 08:30 and 18:30.
- 2.6.2 The area surrounding the Site is also covered by existing CPZs, including the remainder of the Masterplan area. To the north of the Site is CA-P(b), to the west is CA-R (b) and to the east is CA-Q. These CPZs have the following restricted hours:
  - CA-P(b): Monday to Saturday 08:30 18:30,
  - CA-R(b): Monday to Saturday 08:30 22:00, and
  - CA-Q: Monday to Friday 08:30 18:30.
- 2.6.3 Blackburn Road features double yellow lines along most of its length, indicating waiting restrictions. However, these restrictions permit loading activities. To the west of the road, marked parking bays accommodate up to eight vehicles, alongside a designated car club space, motorbike parking, and Sheffield stands providing capacity for up to 10 bicycles.
- 2.6.4 Notably, there are no kerb markings observed in vicinity of the Site, indicating that there are no



'no loading' restrictions in place. In this regard, the LBC online guidance states the following:

"Loading or unloading can take place on single or double yellow lines without kerb markings, for an unlimited time before 11am and after the end of controlled hours, or 6.30pm (whichever is earlier).

After 11am and until the end of controlled hours or 6.30pm, whichever is earlier:

- heavy goods vehicles over 3.5 tonnes can load or unload for up to 40 minutes
- cars and light goods vehicles for up to 20 minutes"
- 2.6.5 In respect of the above, it is noted that there is some 60m length of kerbside area to the west and 25m of such to the east of the proposed site access discussed in the following section.
- 2.6.6 Further to the above, the LBC guidance states that "any vehicle may load or unload for up to 20 minutes within a resident permit bay or paid for parking bay. The use of dedicated bays such as car club, disabled, electric charging, market trader and doctor should be avoided."



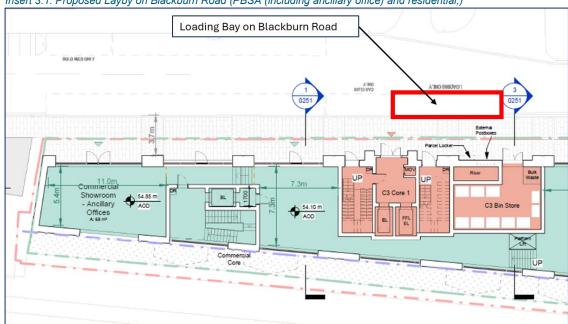
# 3 Proposed Delivery, Servicing and Waste Arrangements

#### 3.1 Preface

3.1.1 This Section of the DSP describes the delivery, servicing, and waste arrangements for the Proposed Development and considers waste storage and refuse collection arrangements. Architectural plans of the Proposed Development are provided in **Appendix DSP1**.

### 3.2 Delivery and Servicing on-Site Provision

- 3.2.1 The parameters established as part of the outline consent for the O2 Masterplan proposed kerbside (on-street) loading/unloading for the Proposed Development parcel on Blackburn Road (the Site). Similarly, the consented O2 Masterplan proposed on-street refuse collection at Blackburn Road.
- 3.2.2 In seeking to improve on the parameters established as part of the consented O2 Masterplan, the Proposed Development incorporates on-site servicing facilities. The proposed on-site servicing area incorporates two loading bays and provides sufficient clearance for an additional servicing vehicle to be able to wait within the Site, away from the public highway, as necessary, while affording suitable clearance for vehicles to egress the loading bay.
- 3.2.3 In addition to the above, the Proposed Development proposes provision of an on-street loading bay on Blackburn Road at the western end of the Site.
- 3.2.4 The location, orientation, and access arrangements for the servicing provision outlined above are detailed in the following sections. The Proposed Development's proposed service areas are illustrated in **Insert 3.1** and **Insert 3.2**.



Insert 3.1: Proposed Layby on Blackburn Road (PBSA (including ancillary office) and residential,)



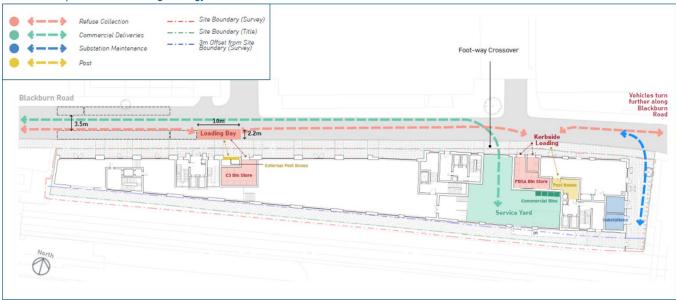
Insert 3.2: Proposed showroom service area, ground floor level Access to Service yard from Blackburn Road 6.7m UP Service Yard UP Dock Leveler AOD 21.4m **Loading Bays** 

#### 3.3 **Proposed Arrangements for Deliveries and Collections**

- 3.3.1 A detailed description of proposed arrangements for deliveries and collections is provided below, with an overview of such summarised by use as follows:
  - PBSA, Café and C3 residential use: Collection and deliveries to be carried out via the proposed on-street loading bay and existing kerbside areas (double yellow waiting restrictions) adjacent to the Site.
  - Commercial use: Collection and deliveries to be carried out via the proposed on-site Service Yard.
- 3.3.2 The proposed servicing strategy at the Site is indicated in **Insert 3.3.**



Insert 3.3 Proposed Site Servicing Strategy



#### **PBSA** and Residential Elements

- 3.3.3 It is anticipated that the majority of typical deliveries and collections associated with the PBSA and C3 residential use would be parcel and food deliveries. To this end, it is expected that most delivery/collection vehicles attending the Site would be small vans and other Light Goods Vehicles (LGVs). It is envisaged that such vehicles would use the proposed on-street loading bay or kerbside area in adjacency of the Blackburn Road frontage of the Site (marked with double yellow lines, which permit loading activities) to load/unload. Smaller vehicles can also utilise the pay-and-display parking bays if required.
- 3.3.4 In line with the typical daily activity associated with PBSA and residential uses, LGV dwell times are expected to be short, typically ranging between 2 and 10 minutes.

#### **Commercial Use**

- 3.3.5 It is noted that the proposed commercial use at ground level is will no longer operate as a traditional Builder's Merchants but will take the form of showroom spaces.
- 3.3.6 It is anticipated that the proposed commercial use would be serviced by light vans, with fewer and smaller vehicles than the builder's merchant use that currently operates at the Site.
- 3.3.7 The proposed service yard would accommodate all servicing activity related to the proposed commercial use. The loading bays provided within the on-site service yard have been designed to accommodate light vans, with typical access/egress manoeuvres being modelled using a 4.6-tonne panel van design vehicle.
- 3.3.8 The proposed service yard has been designed to accommodate infrequent access by larger goods vehicles. As presented in the TA report, swept path analysis indicates that a 7.5t box van can enter and exit the service yard when the two proposed loading bays are occupied.



#### Café Use

3.3.9 It is proposed that vehicles servicing the café ancillary to the PBSA use would utilise the dedicated loading bay or the double yellow lines on Blackburn Road.

#### 3.4 **Waste Storage**

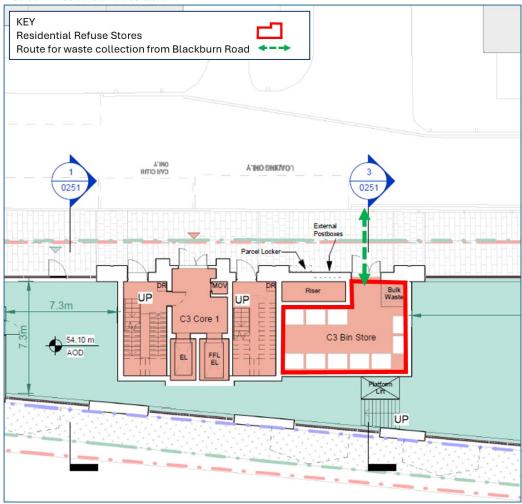
3.4.1 The Proposed Development has been developed to incorporate dedicated waste storage facilities for the proposed uses that comprise the Proposed Development. The waste storage and associated collection regime for each proposed use is described below.

### Residential Development - Waste Storage

- Waste storage for the residential component of the Proposed Development is located at ground 3.4.2 floor level. A dedicated storage area with external access directly from Blackburn Road has been provided to facilitate efficient waste management.
- 3.4.3 Refuse collection will be carried out from Blackburn Road, where a refuse collection vehicle will park adjacent to the proposed bin store. Operatives will manually move the bins to the vehicle, with the bin store positioned within an acceptable drag distance of 10m as per LBC waste collection guidance. The location of the residential refuse store is highlighted at Insert 3.4.



Insert 3.4: Residential refuse store



- 3.4.4 The waste storage areas have been designed to accommodate the anticipated residential waste arisings, based on a weekly waste collection service. The design aligns with the requirements set out in the Borough's document, *Waste Storage and Arrangements for Residential and Commercial Units (a supporting document for planning guidance CPG1: Design, Storage, and Collection of Recycling and Waste).*
- 3.4.5 This guidance specifies a weekly refuse generation rate of 238 litres per unit, comprising:
  - 120 litres of general waste,
  - 140 litres of mixed recycling, and
  - 23 litres of food waste.
- 3.4.6 **Table 3.1** provides a summary of the waste storage requirements for the residential element of the Proposed Development.



Table 3-1: Residential Waste Arisings

		Total		Weekly Collection⁺	
Proposed Development	No. Units	Waste Arisings (litres)	Residual Waste: No. 1280 litre eurobins	Recycling: No. 1280 litre eurobins	Food Waste: 500 litre Food Bin
1-bedroom	8	2264			
2-bedroom	15	4245	4	4	2
3-bedroom	12	3396	4	4	2
Total	35	9905			

3.4.7 As outlined in Table 3.1, the residential component of the Proposed Development is expected to generate 9905 litres of waste per week. To accommodate this, eight 1280 litre Euro bins and two 500 litre food waste bins will be required. This provision is reflected in the site plan shown in **Insert 3.4**, which is also provided in **Annex B** for further reference.

### PBSA - Waste Storage

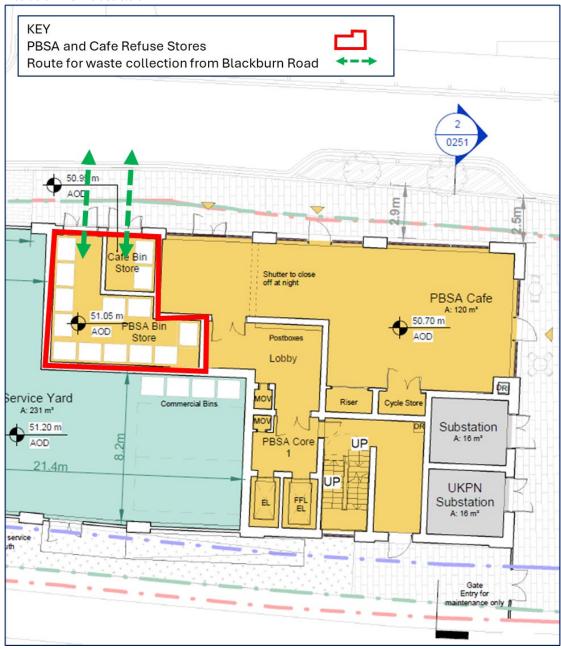
3.4.8 The Site's PBSA Waste storage is also proposed at ground level. The store would be directly accessible on-street from Blackburn Road. The PBSA waste store is highlighted in Insert 3.5.

10 April 2025

PC5881-RHD-ZZ-XX-RP-R-0003



Insert 3.5: PBSA refuse store



- 3.4.9 Waste arisings for the Proposed Development's PBSA units have been calculated using a potential waste generation rate of 70 litres per bedroom per week (reference residential accommodation waste generation contained within 'Waste Management in Buildings', BS5906:2005).
- 3.4.10 A registered private waste carrier would collect Waste for the PBSA units, operating a 'paid for' service.
- 3.4.11 The waste storage areas have been designed to accommodate waste arisings based on a twice-weekly collection service; However, the operator will have the flexibility to arrange more frequent collections if necessary.



3.4.12 The calculation of waste arisings for the student accommodation is provided in **Table 3.2**.

Table 3-2: PBSA Waste Arisings

				Recycling	Residual	Twice Week	ly Collection
Proposed Development	No. Units	Total No. Bedrooms	Total Waste Arisings (litres)	Storage Requirement (50% of total)	Waste Storage Requirement (50% of total)	Recycling: No. 1100 litre Eurobins	Residual Waste: No. 1100 litre Eurobins
PBSA Unit	192	192	13440	6720	6720	3	3

Note: Calculation caters for 50% of waste arisings to be mixed recyclables and 75% to be residual waste – 125% total provision PBSA Unit waste generation estimate has been based on that of a 1-bedroom residential unit and is considered to be robust in context of the relative small size and individual occupancy of the PBSA Unit.

3.4.13 It is assumed that waste storage would be split between mixed recyclables and residential waste, assuming a 50%/50% split between the two waste streams. This split can be subject to adjustment over time. The assessment estimates a requirement for 6 Eurobins to support the PBSA Proposed Development, based on a twice weekly collection service.

#### PBSA Cafe Use - Waste Storage

- 3.4.14 The PBSA café, along with the co-working amenity space, will have waste storage facilities at ground floor level, adjacent to the main PBSA bin store, indicated in Insert **3.5**. Waste management for the café will be coordinated with the PBSA's, ensuring efficient refuse storage and collection. Refuse collection vehicles will stop on Blackburn Road at the same location used for PBSA collections.
- 3.4.15 To estimate the waste storage requirements for the café, reference has been made to the 'restaurant' use category outlined in Waste Management in Buildings (BS5906:2005). While the café is expected to generate lower volumes of waste than a full-service restaurant, the 'restaurant' category provides a robust estimate for waste generation. The calculations are based on the proposed café floor area of 97.4 sqm. Table 3-4 below presents a summary of the Café waste storage requirements.

Table 3-3: PBSA Cafe Use - Waste Storage Estimates

			- ·	Residual	Twice Week	y Collection
Proposed Development	Area (sqm.)	Total Waste Arisings (litres)	Recycling Storage Requirement (50% of total)	Waste Storage Requirement (50% of total)	Recycling: No. 1100 litre Eurobins	Residual Waste: No. 1100 litre Eurobins
Cafe*	145	3265	1632	1632	1	1
*Cafe use has been based on BS5906 standards for 'Restaurant'. It has been assumed that one seat equates to 0.67 covers						

\*Cafe use has been based on BS5906 standards for 'Restaurant', It has been assumed that one seat equates to 0.67 covers

3.4.16 Table 3.3 suggests that 2 Eurobins will be required to serve the proposed café. The Eurobins necessary for café use are accommodated within the PBSA refuse store indicated at **Insert 3-4**.

### Showroom and Ancillary Office- Waste Storage

3.4.17 The showroom will store waste in bins located in the service yard to manage the waste generated



by the showroom and the office areas. The placement of the waste bins is illustrated in Insert 3.6. A private waste collection company will pick up the waste from Blackburn Road.

3.4.18 Waste generation estimates for the showroom and ancillary offices have been calculated based on expected usage patterns and operational activities. Using the proposed floor space of 1,619sqm, the anticipated waste amounts are provided in Table 3 - 4 below. The number of bins required is based on a twice weekly collection schedule to ensure effective waste management.

Table 3-4: Show room and Ancillary Office - Waste Storage Estimates

				Residual	Twice Week	y Collection
Proposed Development	Area (sqm.)	Total Waste Arisings (litres)	Recycling Storage Requirement (50% of total)	Waste Storage Requirement (50% of total)	Recycling: No. 1100 litre Eurobins	Residual Waste: No. 1100 litre Eurobins
Showroom	1619	9714	4857	4857	3	3

<sup>\*</sup>Calculation based on 10l or waste arising per 1 sqm, per week. Commercial use has been based on BS5906 standards for Department Store, should 'Office' or 'Food Production' be in place, refuse storage requirements may increase.

3.4.19 Table 3-4 indicates that the proposed showroom would require three Eurobins for recycling and three Eurobins for residual waste, based on twice weekly collection.

6.7m 51.05 m UP Service Yard 51.20 m Dock AOD 21.4m ping of ground for se yard access to south Commercial bin stores

Insert 3.6 Showroom and Ancillary Office Waste Storage

#### 3.5 **Refuse Collection**

#### PBSA and Residential Refuse Collection

As outlined above, the parameters established as part of the outline consent for the O2 Masterplan 3.5.1



proposed on-street refuse collection at Blackburn Road. Accordingly, it is proposed that refuse collection for the proposed PBSA, Café and residential uses are carried out on-street via the Blackburn Road frontage of the Site.

- 3.5.2 Refuse collection will be carried out from Blackburn Road, where a refuse collection vehicle will park adjacent to the proposed bin store, as indicated in the Site servicing strategy in **Insert 3.3**. Operatives will manually move the bins to the vehicle, with the bin store positioned within an acceptable drag distance of 10m as per LBC waste collection guidance.
- 3.5.3 There is an existing student accommodation site, operated by iQ, on Blackburn Road to the east of the Site, and the LBC planning application resources have been interrogated to understand the refuse collection strategy at this operational development. It is understood that refuse collection takes place from within the Site, with vehicles exiting onto the carriageway via Asher House. It is proposed that the refuse collection for the residential and student aspects of the Proposed Development would be undertaken by the same refuse vehicles which service the iQ student development, therefore reducing the need for additional refuse vehicles accessing Blackburn Road.
- 3.5.4 In the instance that refuse collection on Blackburn Road is required by separate vehicles to those that service the iQ student development, refuse collection would take place from Blackburn Road and refuse vehicles would turn as indicated in Swept Path Analysis included in **Appendix DSP3** of this report.

#### **Commercial Refuse Collection**

3.5.5 The proposed service yard provides opportunity for private refuse collection services to serve the proposed commercial use at ground floor level.

18



# 4 Delivery and Servicing Trip Attraction

#### 4.1 Overview

4.1.1 An assessment of service vehicle trip attraction has been undertaken in association with the Proposed Development. This provides a basis for considering measures to manage and where possible reduce the number of trips associated with the Proposed Development as part of this DSP.

# 4.2 TRICS Trip Attraction Methodology

- 4.2.1 The TRICS database has been used to assess potential service vehicle trip generation for the Proposed Development. A breakdown of the servicing trip generation is presented in **Appendix DSP2**.
- 4.2.2 This trip generation exercise uses the following land uses to estimate the number of service trips which are anticipated to be generated by the Proposed Development:

Student accommodation: 192 unitsAffordable residential units: 35 units

PBSA Café: 145 sqmShowroom: 1,619 sqm

# 4.3 Purpose Built Student Accommodation (PBSA)

4.3.1 The TRICS database is referenced to establish servicing trip rates for the proposed PBSA. TRICS has been interrogated for servicing vehicle trip rates for student accommodation sites located in Greater London. The trip rates for service vehicles have been extracted from the same TRICS output presented in the accompanying TA and are presented in **Table 4.1** below. TRICS servicing trip rates are understood to include OGV and LGV data, however, the TRICS output for the available London sites produced LGV trip rates and no OGVs. Therefore, it is expected that LGVs will primarily service the proposed PBSA use.

Table 4-1: PBSA service vehicle trip attraction rates (vehicle trips per unit)

Time Period	Arrivals	Departures	Two-way
07:00-08:00	0.001	0.001	0.002
08:00-09:00	0.001	0.001	0.002
09:00-10:00	0	0	0
10:00-11:00	0.002	0.001	0.003
11:00-12:00	0.002	0.002	0.004
12:00-13:00	0.001	0.001	0.002
13:00-14:00	0.002	0.001	0.003
14:00-15:00	0.002	0.003	0.005
15:00-16:00	0.002	0.002	0.004
16:00-17:00	0.002	0.002	0.004
17:00-18:00	0.001	0.001	0.002
18:00-19:00	0	0	0
19:00-20:00	0.001	0.001	0.002
20:00-21:00	0.001	0.001	0.002



Time Period	Arrivals	Departures	Two-way
Total	0.018	0.017	0.035

4.3.2 The proposed number of PBSA units (192 units) has been applied to the trip rates presented in **Table 4-1** to derive the following estimates of servicing vehicle trips generation (**Table 4-2**).

Table 4-2: PBSA use servicing trips (192 units)

Time Period	Arrivals	Departures	Two-way
07:00-08:00	0	0	0
08:00-09:00	0	0	0
09:00-10:00	0	0	0
10:00-11:00	0	0	1
11:00-12:00	0	0	1
12:00-13:00	0	0	0
13:00-14:00	0	0	1
14:00-15:00	0	1	1
15:00-16:00	0	0	1
16:00-17:00	0	0	1
17:00-18:00	0	0	0
18:00-19:00	0	0	0
19:00-20:00	0	0	0
20:00-21:00	0	0	0
Total	3	3	7

4.3.3 The assessment of vehicle trips related to the PBSA estimates that 3 service vehicle arrivals and 3 departures will occur between 07:00 and 21:00. It is expected that all these vehicles will be LGVs.

# 4.4 Affordable Residential Development

4.4.1 The service vehicle demand for the proposed affordable residential units has been assessed based on the 'flats privately owned' category in TRICS for sites in London. The trip rates for service vehicles have been extracted from the same TRICS output presented in the accompanying and are presented in Table 4.3 below. The servicing trips in Table 4.3 are comprised of OGV and LGV trips but are predominantly LGV trips.

Table 4-3: Residential servicing trip attraction rates (service vehicle trips per unit)

Time Period	Arrivals	Departures	Two-way
07:00-08:00	0	0	0
08:00-09:00	0.008	0	0.008
09:00-10:00	0.016	0	0.016
10:00-11:00	0.016	0.008	0.024
11:00-12:00	0.024	0.032	0.056
12:00-13:00	0.016	0.016	0.032
13:00-14:00	0.008	0.016	0.024
14:00-15:00	0.016	0.008	0.024
15:00-16:00	0	0.008	0.008
16:00-17:00	0	0.008	0.008



Time Period	Arrivals	Departures	Two-way
17:00-18:00	0	0	0
18:00-19:00	0.008	0.008	0.016
Total	0.112	0.104	0.216

4.4.2 The proposed number of residential units (35 units) has been applied to the trip rates presented in **Table 4-3** to derive the following estimates of servicing vehicle trips generation (**Table 4-4**).

Table 4-4: Residential use servicing trips (35 units)

Time Period	Arrivals	Departures	Two-way
07:00-08:00	0	0	0
08:00-09:00	0	0	0
09:00-10:00	1	0	1
10:00-11:00	1	0	1
11:00-12:00	1	1	2
12:00-13:00	1	1	1
13:00-14:00	0	1	1
14:00-15:00	1	0	1
15:00-16:00	0	0	0
16:00-17:00	0	0	0
17:00-18:00	0	0	0
18:00-19:00	0	0	1
Total	4	4	8

4.4.3 The assessment of service vehicle trips related to the residential units estimates that 4 service vehicle arrivals and 4 departures will occur between 07:00 and 19:00. Of these, a small proportion are expected to be larger than an LGV. As with the PBSA units, a degree of consolidation is anticipated which would reduce the single service vehicle trips to the Site.

#### 4.5 PBSA Cafe

4.5.1 Service vehicle trips for the PBSA café have been generated using trip rates from TRICS. The servicing trip attraction rates are based on the TRICS category '06—Hotel, Food & Drink K—Café' for sites in London. The TRICs trip rates are detailed in **Table 4-5**. The café's service vehicle trip rates do not include vehicles larger than an LGV.

Table 4-5: Café Use Service Vehicle Trip Attraction Rates (Vehicle Trips per 100 sqm.)

Time Period	Arrivals	Departures	Two-way
07:00-08:00	0	0	0
08:00-09:00	0	0	0
09:00-10:00	0	0	0
10:00-11:00	0.42	0.42	0.84
11:00-12:00	0.84	0.42	1.26
12:00-13:00	0	0.42	0.42
13:00-14:00	0	0	0
14:00-15:00	0	0	0
15:00-16:00	0	0	0



Time Period	Arrivals	Departures	Two-way
16:00-17:00	0	0	0
17:00-18:00	0	0	0
18:00-19:00	0	0	0
Total	1.26	1.26	2.52

4.5.2 **Table 4-6** provide the anticipated number of servicing trips for the PBSA café based on the proposed floor area.

Table 4-6: Café Use Service Vehicle Trip Attraction (145 sqm)

Time Period	Arrivals	Departures	Two-way
07:00-08:00	0	0	0
08:00-09:00	0	0	0
09:00-10:00	0	0	0
10:00-11:00	1	1	1
11:00-12:00	1	1	2
12:00-13:00	0	1	1
13:00-14:00	0	0	0
14:00-15:00	0	0	0
15:00-16:00	0	0	0
16:00-17:00	0	0	0
17:00-18:00	0	0	0
18:00-19:00	0	0	0
Total	2	2	4

4.5.3 The café servicing assessment estimates 2 service vehicle arrivals and 2 departures daily between 07:00 and 19:00. These vehicles are all expected to be no larger than an LGV.

# 4.6 Showroom Servicing Trips

- 4.6.1 The Proposed Development includes a showroom that will function primarily as a display space for customers to view items before placing orders. As customer collections are not expected onsite, servicing movements for this element will be limited to scheduled movements of stocked goods.
- 4.6.2 The servicing demand assessment is based on data extracted from TRICS using the land use category 01 RETAIL L BUILDER'S MERCHANTS. This data has been adjusted to reflect the site's capacity of two service vehicle loading bays.
- 4.6.3 Due to the limited number of builder's merchant sites in TRICS within Greater London, the search parameters were extended to include sites across England. The specific sites used for this assessment are detailed in the TRICS output provided in **Appendix DSP2**. The total vehicles category of trip rates has been used as the basis for generating servicing trips. No private car trips are expected as there is no on-site car parking spaces. TRICS selection criteria was used to provide trip rates for the proposed showroom:

Land Use: 01 - Retail

• Category: L – Builders Merchants

Gross Floor Area: 5,000 to 6,275 sqm



Location Types: Edge of Town, Suburban Area, Industrial Zone

Survey Types: Multi modal surveys only

• Location: England including, Greater London sites

4.6.4 The resulting trip rates and expected service vehicle movements are presented in **Table 4-7**.

Table 4-7: Builders Merchant Vehicle Trip Rates

Time Period	Arr.	Dep.	Two-way
07:00-08:00	0.375	0.036	0.411
08:00-09:00	0.35	0.219	0.569
09:00-10:00	0.658	0.539	1.197
10:00-11:00	0.735	0.747	1.482
11:00-12:00	0.64	0.604	1.244
12:00-13:00	0.681	0.575	1.256
13:00-14:00	0.527	0.604	1.131
14:00-15:00	0.527	0.658	1.185
15:00-16:00	0.468	0.468	0.936
16:00-17:00	0.439	0.427	0.866
17:00-18:00	0.296	0.421	0.717
18:00-19:00	0.148	0.255	0.403
Daily Trip Rates:	5.844	5.553	11.397

4.6.5 The trip rates in **Table 4.7** have been applied to the proposed floor area of 1,619 sqm. **Table 4.8** shows the resulting hourly and daily vehicle trips and accumulation.

Table 4-8: Builders Merchant Vehicle Trips and Vehicle accumulation

Time Period	Arr.	Dep.	Two-way	Acc.
07:00-08:00	6	1	7	5
08:00-09:00	6	4	9	8
09:00-10:00	11	9	19	9
10:00-11:00	12	12	24	9
11:00-12:00	10	10	20	10
12:00-13:00	11	9	20	11
13:00-14:00	8	10	18	10
14:00-15:00	8	11	19	8
15:00-16:00	7	7	15	8
16:00-17:00	7	7	14	8
17:00-18:00	5	7	11	6
18:00-19:00	2	4	6	5
Daily	94	88	182	-

\*inconsistencies in summation are due to rounding of increments



4.6.6 Table 4-8 shows the vehicle trip rate profile for a builders' merchant based on the proposed floor area of 1,619 sqm. The peak vehicle accumulation is 11 vehicles, occurring between 12:00-13:00. The Proposed Development incorporates two service bays in the service yard, which means the maximum vehicle accumulation is limited to two vehicles. Consequently, the total proposed vehicle trips have been adjusted on a pro rata basis based on this constraint, which is commensurate with the difference in nature of the proposed showroom use, compared to that of the traditional builder's merchant's sites extracted from TRICS. Table 4-9 shows the resulting hourly and daily profile adjusted to reflect the proposed showroom use and the two service bay limitation.

Table 4-9: Proposed Showroom Vehicle Trips and Vehicle accumulation

Time Period	Arr.	Dep.	Two-way	Acc.
07:00-08:00	1	0	1	1
08:00-09:00	1	1	2	1
09:00-10:00	2	2	3	2
10:00-11:00	2	2	4	2
11:00-12:00	2	2	4	2
12:00-13:00	2	2	4	2
13:00-14:00	2	2	3	2
14:00-15:00	2	2	3	1
15:00-16:00	1	1	3	1
16:00-17:00	1	1	3	2
17:00-18:00	1	1	2	1
18:00-19:00	0	1	1	1
Daily	16	16	33	-

<sup>\*</sup>inconsistencies in summation are due to rounding of increments

4.6.7 **Table 4-9** suggests that the proposed showroom will generate four and two two-way service vehicle trips during the AM (08:00-09:00) and PM (17:00-18:00) peak periods, respectively. Additionally, 33 two-way daily service vehicle trips are expected during a typical 12-hour daytime period of 07:00-19:00.

# 4.7 Servicing Trip Generation Summary

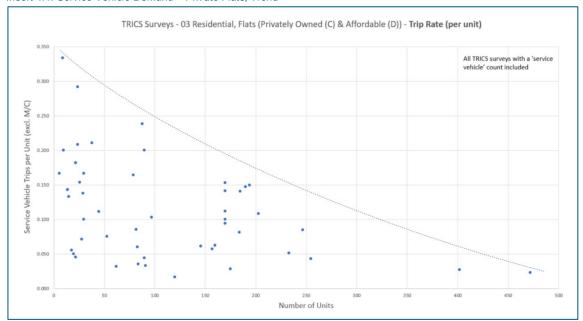
- 4.7.1 In summary, it is anticipated that the Proposed Development will generate the following service vehicle trip attraction over the course of a typical day (07:00-19:00).
  - Proposed PBSA: 3 arrivals and 3 departures
  - Proposed residential: 4 arrivals and 4 departures
  - Proposed PBSA café: 2 arrivals and 2 departures
  - Proposed showroom: 16 arrivals and 16 departures
  - TOTAL Proposed: 25 arrivals and 25 departures
- 4.7.2 When assessing service vehicle demand for each land use individually, there is a potential for overestimating total trip numbers. This is because some services, such as waste collection, postal deliveries, and home-delivery services—especially relevant to residential and PBSA land uses—are likely to serve multiple land uses or site occupiers in a single trip rather than making separate visits to each.



4.7.3 Research indicates that larger residential developments tend to generate significantly fewer service vehicle trips compared to smaller sites. This is largely due to the efficiency of single delivery vehicles serving multiple units in one trip. A review of TRICS data for private flatted developments (as shown in Insert 4-1 below) reveals a clear trend: as development size increases, service vehicle trips per unit decrease, consistent across all recorded TRICS sites with service vehicle trip rates.



Insert 4.1: Service Vehicle Demand – Private Flats, Trend



4.7.4 As outlined in **Section 5**, this DSP includes measures to reduce the total number of service vehicle trips to the site and implements a scheduling system to manage and stagger servicing trips throughout the day.



# 5 Proposed Qualitative Measures

# 5.1 DSP Objectives

5.1.1 The TfL best practice guidance document states that "the most important information to include in the DSP is the list of measures that will be taken at the site to meet the Plan's objectives." In this case, DSP Objectives can be set with reference to planning policy contained within policy T7 of the London Plan (2021).

#### London Plan, Policy T7 'Delivery, Servicing and Construction'

- 5.1.2 London Plan Policy T7 encourages the use of sustainable modes of travel and the promotion of deliveries at different times of day and night to help reduce the impact of road congestion on air quality and reduce conflict with other road users.
- 5.1.3 The policy states that "development proposals should facilitate safe, clean, and efficient deliveries and servicing. Provision of adequate space for servicing, storage and deliveries should be made off-street, with on-street loading bays only used where this is not possible."
- 5.1.4 The London Plan continues, "where loading in the carriageway is unavoidable and the impacts can be made acceptable, it should be designed to minimise the impact on people walking or cycling and other road users. Improved on-site storage can also reduce the need for deliveries during peak hours."
- 5.1.5 The above referenced policy continues by stating that "developments should be designed and managed so that deliveries can be received outside of peak hours and in the evening or nighttime. Appropriate facilities are required to minimise additional freight trips arising from missed deliveries and thus facilitate efficient online retailing."
- 5.1.6 Based on Policy T7 of the London Plan and the desire of the site's occupier to minimise trips, this DSP will adopt the following objectives.

#### 5.1.7 DSP Objectives

- To minimise the impact of delivery and servicing movements associated with the Proposed Development, both on and off-site.
- 5.1.8 To do this, the DSP will seek to:
  - Reduce the volume of delivery and service vehicle movements accessing the site, with a
    focus on reducing those trips occurring in and around peak times of travel demand (08:00 to
    09:00 and 17:00 to 18:00 on weekdays)
  - Promote the use of low and zero-emission modes of travel, including electric vehicles and cargo bicycles.



#### 5.2 DSP Measures

- 5.2.1 A series of measures have been developed to meet the objectives of this DSP. These are categorised as either 'hard' measures which are incorporated into the Proposed Development or 'soft' measures which are adaptable to the volume and timing of trips once the Site is operational.
- 5.2.2 'Hard' measures associated with the Proposed Development are:
  - Provision of on-site waste storage area that is adequate for the needs of the proposed uses
  - The provision of an on-street delivery layby on Blackburn Road that is conveniently located for access to the Proposed Development.
  - The provision of a dedicated on-site service yard and servicing bays accessed from Blackburn Road, designed for both delivery and collection requirements associated with the proposed showroom.
  - The provision of visitor cycle parking at ground floor level on Blackburn Road that could be used by cargo bikes or other cycles used for the purpose of a delivery.
- 5.2.3 Alongside these 'hard' measures, it is anticipated that the property manager could implement the following soft measures:

#### **Timing of Deliveries**

- 5.2.4 With reference to TfL's 'retiming' initiative<sup>1</sup>, TfL state that "more than 90% of London's freight is transported by road. In the morning peak (07:00-10:00)". TfL goes on to say that "HGVs and vans make up around 35% of all road-based NOx emissions in Greater London. Congestion is a major contributor and using off-peak times when roads are less congested can reduce the environmental impacts of freight."
- 5.2.5 TfL also identifies that delivery and servicing trips undertaken outside of the traditional peaks hours of travel demand reduce the ability for a delivery vehicle to be involved in an incident with a vulnerable road user (a pedestrian or cyclist).
- 5.2.6 At the site, delivery and service vehicle trips that take place in the early morning could include those associated with residential and commercial waste collection and the delivery of food and drink supplies to PBSA cafe. In the evening, movements to and from the site could include home shopping trips, these generally take place at pre-booked time slots, when residents are at home. Postal and parcel deliveries are likely to be undertaken throughout the day, away from peak times of operation on the local highway.
- 5.2.7 To support Policy T7 of the London Plan, the on-site management team would monitor the timing of delivery and servicing arrivals with regular suppliers and determine which deliveries can reasonably be undertaken outside of peak hours of travel demand. Where practical, in particular with consideration of the proposed commercial and employment uses at the Site, the operation of a booking schedule would be considered to manage arrivals and departures of planned deliveries and collections, to facilitate efficient use of the available servicing capacity provided by the Proposed Development.

10 April 2025

<sup>&</sup>lt;sup>1</sup> https://tfl.gov.uk/info-for/deliveries-in-london/delivering-efficiently/retiming-deliveries?cid=retime



#### Congestion

- 5.2.8 Most of the servicing and delivery trips associated with the non-showroom uses will use the proposed layby on Blackburn Road and the show room related trips will use the on-site service yard. Therefore, there is a very low likelihood of congestion occurring on the highway network surrounding the Site.
- 5.2.9 To further mitigate the possibility of congestion through supplier unload/load times, required staff could be ready to receive goods. This reduces the potential load/unload times, supporting short stays in the layby on Blackburn Road.
- 5.2.10 If congestion in and around Blackburn Road is regularly observed, then the Property Manager could liaise with regular suppliers and encourage them to adjust their anticipated time of arrival.

#### **Quiet Deliveries**

- 5.2.11 With particular consideration to 'out of hours' or 'unsocial hour' deliveries/collections, it is proposed that the Property Manager and their staff make themselves aware of TfL's 'Code of Practice for quieter deliveries'2.
- 5.2.12 If issues arise, the site's management team can consider the creation of a Noise Management Plan (NMP). A NMP should contain:
  - Information about the potential noise impact of any activity on residents; and
  - a mechanism to review the likely sources of noise and consider how to address them.

#### **Encouraging Best Practice Amongst Suppliers**

- 5.2.13 As part of the DSP, the Property Manager or their staff should make their regular suppliers, aware of best practice schemes such as TfL's Freight Operator Recognition Scheme (FORS)3. FORS helps suppliers across London to be safer, greener and more efficient. Organisations need to fulfil certain criteria to gain membership.
- 5.2.14 The site's management team can investigate whether deliveries and collections associated with the site can be undertaken using smaller vehicles with lower emissions, such as e-cargo bikes and electric or hybrid vehicles.

#### Safe Load Strategy

- 5.2.15 It is recommended that the layby off Blackburn Road and the dedicated on-site service yard (for showroom only) are identified for service and delivery vehicles with regular suppliers. This will ensure service vehicle loading does not unduly obstruct the highway or create hazards to pedestrians by blocking visibility.
- 5.2.16 It will be important to ensure that all suppliers are aware of the appropriate access point and area from which they will be servicing the Proposed Development. It is therefore essential that, where possible, a communications channel is created between the suppliers and the Site Management team, through which this information can be sent.

<sup>&</sup>lt;sup>2</sup> TfL Code of Practice for Quieter Deliveries (May 2018)

<sup>3</sup> https://www.fors-online.org.uk/cms/



#### Consolidation and Back-Loading

- 5.2.17 Consolidation involves transporting several part loads in one vehicle to minimize the number of required journeys or utilising back-loading to make use of spare capacity on return legs. This can be coordinated between different commercial organisations aiming to reduce their delivery vehicles' impact and gain economic benefits by lowering the unit cost of transportation. Reducing vehicle movements also decreases associated emissions and traffic congestion, which is likely to be supported by surrounding residents.
- 5.2.18 To enhance this process, an effective communication strategy is essential. Administrators should notify other departments or organisations when they are about to place a specific order, allowing them to share the delivery where possible. This collaborative approach ensures that opportunities for consolidation are maximised, leading to greater efficiency and environmental benefits.
- 5.2.19 Part of the Site Management team's role will be to liaise with the occupier of the proposed showroom and managers of the PBSA areas, to encourage communication between administrators who are responsible for ordering goods that are common across the site's commercial units. They will also need to identify which goods generate a return demand and strengthen potential for back-loading by liaising with suppliers.
- 5.2.20 Where opportunities exist, regular suppliers to the site's residential Proposed Development could be encouraged to back-load goods or packaging, reducing waste generation and service vehicle trip attraction.

10 April 2025

PC5881-RHD-ZZ-XX-RP-R-0003



# 6 Integration with Travel Plan

#### 6.1 Introduction

6.1.1 This section details the future strategy in terms of integrating the DSP with the Framework Workplace TPs, in place for the site.

# 6.2 Travel Plan Incorporation

- 6.2.1 TP surveys will need to be conducted after occupation of the Proposed Development and repeated through the life of the TP. The purpose of the survey is to establish the travel patterns for site occupiers, enabling measures to be proposed which encourage sustainable modes of travel.
- 6.2.2 In order to support this DSP, TP monitoring should include a review of service vehicle travel patterns. Associated surveys could include:
  - The number of deliveries to the Site.
  - The classification of the Delivery/ Servicing Vehicle (DSV).
  - The arrival time of the DSV.
  - The length of stay of the DSV.
  - The purpose of the trip including item description.
  - The use that was being serviced.
  - Whether the supply company is a member of any best practice scheme, such as FORS.
- 6.2.3 TfL guidance details the problems that are typical of the data collection process, many of which are likely to be experienced at this Site. These are presented in **Table 6-1**.

Table 6-1: Data Collection Problems and Solutions

Problem	Solution
No central receiving points – goods are received on an ad-hoc or individual basis	Ask staff to record details of the deliveries they receive and collate all of the information at the end of the survey period
Staff unwilling to accurately or diligently record information on the nature of all delivery and servicing activities.	Early engagement of staff to help them understand the advantages of freight relates activity. Implement a dedicated data collection process for a specified period of time.
Lack of resources to collate the information coming from disparate parts of the organisation/ development.	Early engagement with senior management to promote the benefits of a DSP

# 6.3 Travel Setting and Reporting

6.3.1 Subsequent targets in terms of trip reduction, time of arrivals, and consolidating similar trips could be based on the results of this survey and set out in the site's TP update.

# 6.4 Monitoring

6.4.1 The TPC will carry out subsequent monitoring of the success of the DSP by undertaking update surveys in co-ordination with the wider TP monitoring.

### Project related



## 7 Summary and Conclusions

- 7.1.1 This Delivery and Servicing and Operational Waste Plan (DSP) has been prepared by Integrated Transport Planning (ITP, the UK-based transport consultancy of Royal HaskoningDHV (RHDHV)), on behalf of Hampstead Asset Management Ltd and Fifth State in association proposed mixed-use development at 14 Blackburn Road, West Hampstead, NW6 1RZ. London Borough of Camden's (LBC) are the local planning and highway authority.
- 7.1.2 The Proposed Development comprises 192 Purpose-Built Student Accommodation (PBSA) units, 35 Affordable Residential units, a PBSA Café, and a commercial showroom with ancillary office space.
- 7.1.3 This DSP has been prepared with reference to the Transport for London (TfL) best practice document 'Delivery and Servicing Plan Guidance Planning for Safe, Clean and Efficient freight in London' (December 2020).
- 7.1.4 The following key points of access are defined for delivery and servicing activity:
  - A proposed loading bay on Blackburn Road, designated for residential and PBSA use, to facilitate efficient on-street servicing.
  - A dedicated on-site service yard, accessible from Blackburn Road, designed for the showroom's delivery and collection requirements.
- 7.1.5 This DSP has also presented the waste storage arrangements for the uses that comprise the Proposed Development that have been informed by waste generation estimates and proposed waste collection regimes.
- 7.1.6 A servicing trip generation exercise has been carried out to derive an estimate of typical daily servicing trips associated with the uses proposed at the Site. This exercise estimates:
  - Proposed PBSA: 3 arrivals and 3 departures
  - Proposed residential: 4 arrivals and 4 departures
  - Proposed PBSA café: 2 arrivals and 2 departures
  - Proposed showroom: 16 arrivals and 16 departures
- 7.1.7 The Proposed Development at 14 Blackburn Road, West Hampstead, is anticipated to generate a total of **25 service vehicles per day**, which will be mitigated through the strategic utilisation of a proposed loading bay on Blackburn Road to minimize on-street congestion, efficient operation of the dedicated on-site service yard for showroom servicing, and implementation of supplementary measures (as detailed in **Section 5**) aimed at reducing peak hour trips, promoting low/zero-emission transportation, and fostering best practices among suppliers.
- 7.1.8 The following objectives have been set within this DSP.

### Project related



### **DSP Objectives**

• To minimise the impact of delivery and servicing movements associated with the Proposed Development, both on and off-site.

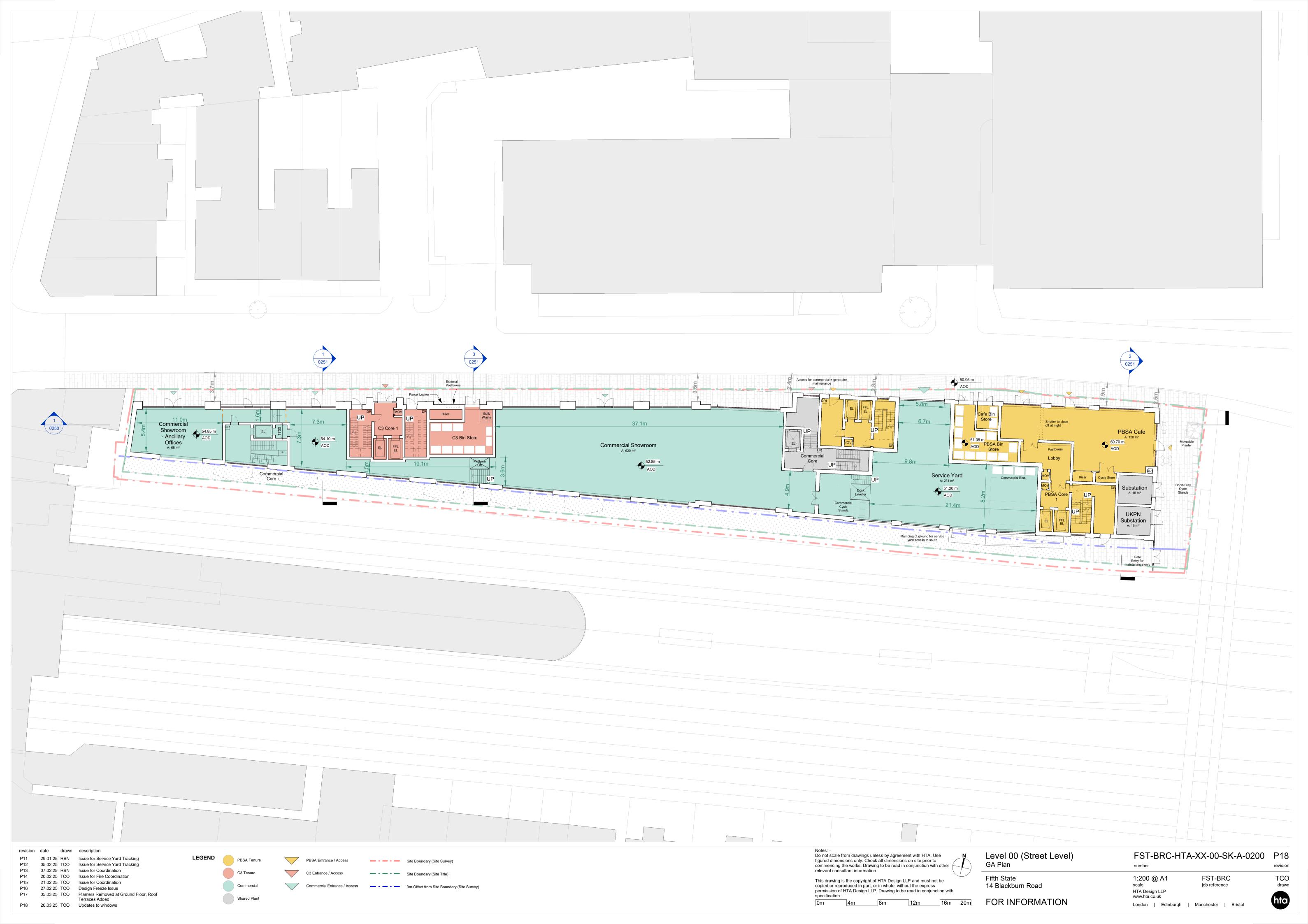
### To do this, the DSP will seek to:

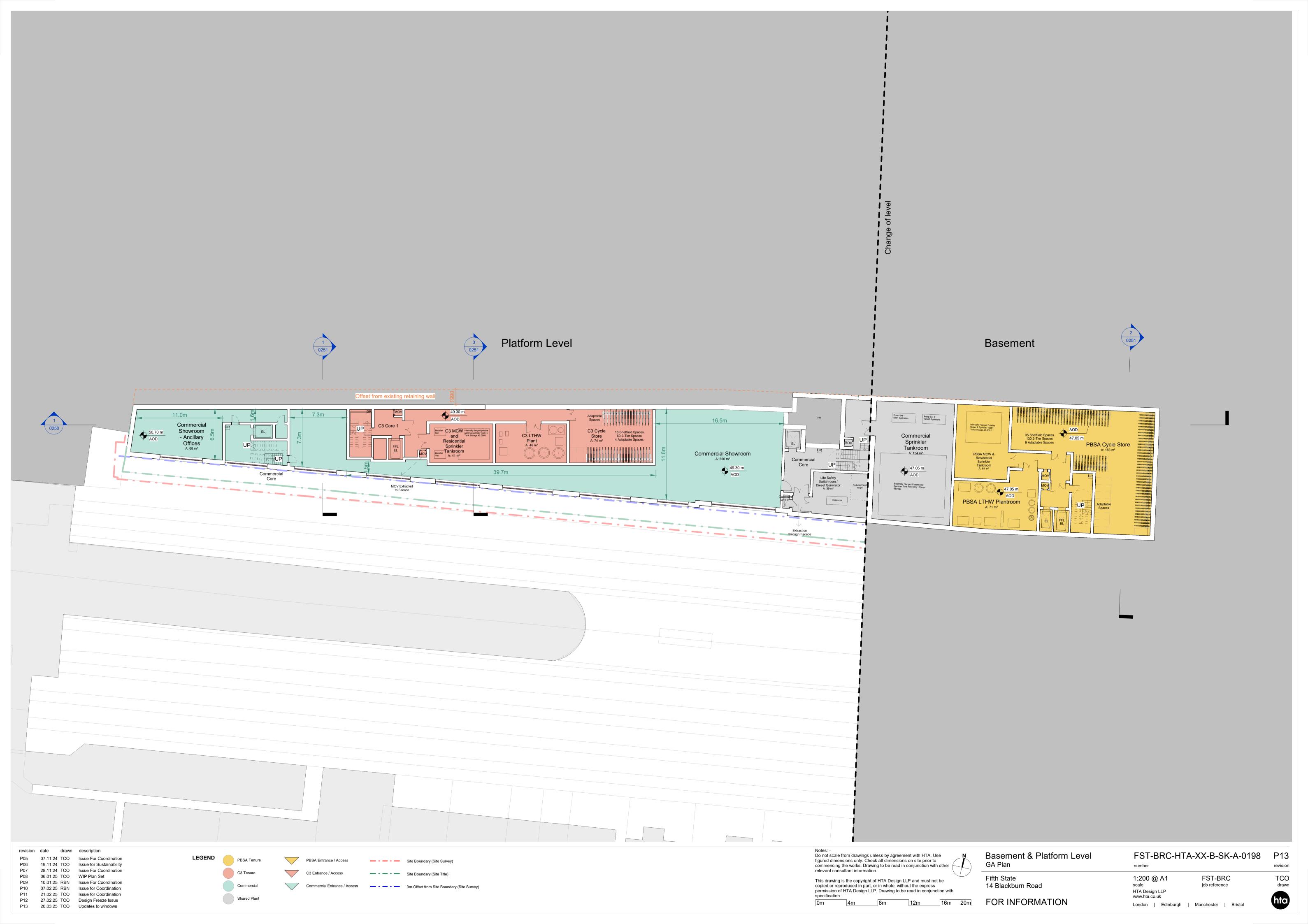
- Reduce the volume of delivery and service vehicle movements accessing the site, with a focus on reducing those trips occurring in and around peak times of travel demand (08:00 to 09:00 and 17:00 to 18:00 on weekdays)
- Promote the use of low- and zero-emission modes of travel, including electric vehicles and cargo bicycles.
- 7.1.9 Measures would be adopted to ensure that the DSP's objectives are met. These include 'hard' measures associated with the site's layout, and 'soft' measures that can be adopted and implemented by the property manager.
- 7.1.10 Targets will be established following initial baseline surveys carried out as part of the TP. Monitoring of the DSP will be undertaken by the TPC, and if targets are not being met, then the Property Manager can consider the introduction of additional measures to support the DSP in meeting the associated objectives.

PC5881-RHD-ZZ-XX-RP-R-0003



# **Appendix DSP1 – Architectural Plan of Proposed Scheme**







# **Appendix DSP2 – TRICS Servicing Trip Rates**

TRICS 7.11.4

Trip Rate Parameter: Number of residents

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use 03 - RESIDENTIAL

Category G - STUDENT ACCOMMODATION

MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

1 GREATER LONDON

CN CAMDEN 1 days
KI KINGSTON 2 days
LB LAMBETH 1 days

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

Primary Filtering selection:

Parameter: Number of residents
Actual Range: 200 to 1100 (units: )
Range Selected by User: 100 to 1100 (units: )

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/16 to 25/06/21

Selected survey days:

Tuesday 2 days Wednesday 2 days This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count 4 days
Directional ATC Count 0 days

Selected Locations:

 Town Centre
 1

 Edge of Town Centre
 3

 Suburban Area (PPS6 Out of Centre)
 0

 Edge of Town
 0

 Neighbourhood Centre (PPS6 Local Centre)
 0

 Free Standing (PPS6 Out of Town)
 0

 Not Known
 0

Selected Location Sub Categories:

0 Industrial Zone Commercial Zone 0 Development Zone 0 Residential Zone 1 Retail Zone 3 Built-Up Zone Village 0 Out of Town 0 High Street 0 No Sub Category

Secondary Filtering selection:

Use Class:

C3 4 days

Population within 500m Range:

All Surveys Included

Population within 1 mile:

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

Population within 5 miles:

250,001 to 500,000 2 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:

 0.5 or Less
 1 days

 0.6 to 1.0
 3 days

Travel Plan:

No 4 days

PTAL Rating:

4 Good 1 days
6a Excellent 2 days
6b (High) Excellent 1 days
This data displays the number of selected surveys with PTAL Ratings.

#### LIST OF SITES relevant to selection parameters

1 CN-03-G-0 STUDENT F CAMDEN SAINT PANCRAS WAY

SAINT PANCKAS WAT

KING'S CROSS Edge of Town Centre Built-Up Zone

Total Number of reside 57

Survey date TUESDAY 14/11/2017 Survey Type: MANUAL

2 KI-03-G-01 STUDENT F KINGSTON

PENRHYN ROAD

KINGSTON UPON THAMES Edge of Town Centre Built-Up Zone

Total Number of reside 200

Survey date WEDNESD/ 12/06/2019 Survey Type: MANUAL

MANUAL

3 KI-03-G-02 STUDENT F KINGSTON

CAMBRIDGE ROAD
NORBITON
KINGSTON UPON THAMES
Edge of Town Centre
Residential Zone

Total Number of reside 300

Survey date WEDNESD/ 26/06/2019 Survey Type:

4 LB-03-G-02 STUDENT F LAMBETH

WESTMINSTER BRIDGE RD

LAMBETH Town Centre Built-Up Zone

Total Number of reside 1100

Survey date TUESDAY 27/11/2018 Survey Type: MANUAL

Manually Deselected Sites

Site Ref Reason for Deselection

HM-03-G-02 covid

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION

Calculation Factor: 1 RESIDE Count Type: TOTAL VEHICLES

			ARRIV	ALS			DEPARTUR	RES			TOTALS
	No.	Ave.	Trip	No.	Ave		Trip	No.	Ave.		Trip
Time Range	Days	RESIDI	E Rate	Days	RES	SIDE	Rate	Days	RESID	E	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		3	624	0.001	3	624	0.001	Į.	3	624	0.002
08:00-09:00		3	624	0.001	3	624	0.002	2	3	624	0.003
09:00-10:00		3	624	0.001	3	624	0.001	Į.	3	624	0.002
10:00-11:00		3	624	0.003	3	624	0.003	3	3	624	0.006
11:00-12:00		3	624	0.004	3	624	0.005	i	3	624	0.009
12:00-13:00		3	624	0.003	3	624	0.003	3	3	624	0.006
13:00-14:00		3	624	0.005	3	624	0.004	ı	3	624	0.009
14:00-15:00		3	624	0.004	3	624	0.005	i	3	624	0.009

15:00-16:00	3	624	0.005	3	624	0.005	3	624	0.01
16:00-17:00	3	624	0.003	3	624	0.003	3	624	0.006
17:00-18:00	3	624	0.002	3	624	0.002	3	624	0.004
18:00-19:00	3	624	0.003	3	624	0.003	3	624	0.006
19:00-20:00	3	624	0.003	3	624	0.003	3	624	0.006
20:00-21:00	3	624	0.005	3	624	0.005	3	624	0.01
21:00-22:00									
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			0.043			0.045			0.088

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION

Calculation Factor: 1 RESIDE

Count Type: TAXIS

			ARRIVA	ALS			DEPARTURE	S		TOTALS
	No.	Ave.	Trip	No.	Ave.	T	rip	No.	Ave.	Trip
Time Range	Days	RESIDE	Rate	Days	RESII	DE F	Rate	Days	RESIDE	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		3 6	24	0	3	624	0	3	624	. 0
08:00-09:00		3 6	24	0	3	624	0	3	624	. 0
09:00-10:00		3 6	24	0	3	624	0	3	624	0
10:00-11:00		3 6	24	0.001	3	624	0.001	3	624	0.002
11:00-12:00		3 6	24	0.002	3	624	0.002	3	624	0.004
12:00-13:00		3 6	24	0.002	3	624	0.002	3	624	0.004
13:00-14:00		3 6	24	0.002	3	624	0.002	3	624	0.004
14:00-15:00		3 6	24	0.001	3	624	0.001	3	624	0.002
15:00-16:00		3 6	24	0.002	3	624	0.002	3	624	0.004
16:00-17:00		3 6	24	0.001	3	624	0.001	3	624	0.002
17:00-18:00		3 6	24	0.002	3	624	0.002	3	624	0.004
18:00-19:00		3 6	24	0.003	3	624	0.003	3	624	0.006
19:00-20:00		3 6	24	0.002	3	624	0.002	3	624	0.004
20:00-21:00		3 6	24	0.004	3	624	0.004	3	624	800.0
21:00-22:00										
22:00-23:00										
23:00-24:00										
Daily Trip Rates:				0.022			0.022			0.044

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION

Calculation Factor: 1 RESIDE

Count Type: OGVS

			ARRIV	/ALS		[	DEPARTUR	ES			TOTALS
	No.	Ave.	Trip	No.	Ave.	1	Ггір	No.	Ave	).	Trip
Time Range	Days	RESIDE	Rate	Days	RESIDI	F	Rate	Days	RE	SIDE	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		3 6	24	0.001	3	624	0.001		3	624	0.002
08:00-09:00		3 6	24	0	3	624	0		3	624	0
09:00-10:00		3 6	24	0	3	624	0		3	624	0
10:00-11:00		3 6	24	0	3	624	0		3	624	0
11:00-12:00		3 6	24	0	3	624	0		3	624	0
12:00-13:00		3 6	24	0	3	624	0		3	624	0
13:00-14:00		3 6	24	0	3	624	0		3	624	0
14:00-15:00		3 6	24	0	3	624	0		3	624	0
15:00-16:00		3 6	24	0	3	624	0		3	624	0
16:00-17:00		3 6	24	0	3	624	0		3	624	0
17:00-18:00		3 6	24	0	3	624	0		3	624	0
18:00-19:00		3 6	24	0	3	624	0		3	624	0
19:00-20:00		3 6	24	0	3	624	0		3	624	0
20:00-21:00		3 6	24	0	3	624	0		3	624	0
21:00-22:00											
22:00-23:00											
23:00-24:00											
Daily Trip Rates:				0.001			0.001				0.002

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION Calculation Factor: 1 RESIDE

Count Type: CYCLISTS

ARRIVALS DEPARTURES TOTALS

	No.	Ave.	Trip	No.	A	ve.	Trip	No.	Ave.		Trip
Time Range	Days	RESIDE	Rate	Days	R	ESIDE	Rate	Days	RESI	DE	Rate
00:00-01:00											
01:00-02:00											
02:00-03:00											
03:00-04:00											
04:00-05:00											
05:00-06:00											
06:00-07:00											
07:00-08:00		4 5	43	0	4	543	0		4	543	0
08:00-09:00		4 5	43	0.001	4	543	0.002		4	543	0.003
09:00-10:00		4 5	43	0.001	4	543	0.004		4	543	0.005
10:00-11:00		4 5	43	0	4	543	0.002		4	543	0.002
11:00-12:00		4 5	43	0.001	4	543	0.004		4	543	0.005
12:00-13:00		4 5	43	0.001	4	543	0.001		4	543	0.002
13:00-14:00		4 5	43	0.002	4	543	0		4	543	0.002
14:00-15:00		4 5	43	0.002	4	543	0.001		4	543	0.003
15:00-16:00		4 5	43	0.003	4	543	0.001		4	543	0.004
16:00-17:00		4 5	43	0.002	4	543	0		4	543	0.002
17:00-18:00		4 5	43	0.002	4	543	0		4	543	0.002
18:00-19:00		4 5	43	0.004	4	543	0.002		4	543	0.006
19:00-20:00		4 5	43	0.001	4	543	0		4	543	0.001
20:00-21:00		4 5	43	0.001	4	543	0.001		4	543	0.002
21:00-22:00											
22:00-23:00											
23:00-24:00											
Daily Trip Rates:				0.021			0.018				0.039

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION Calculation Factor: 1 RESIDE

Count Type: VEHICLE OCCUPANTS

			ARRIV	ALS			DEPARTUR	RES			TOTALS
	No.	Ave.	Trip	No.	Ave.	T	Ггір	No.	Ave.		Trip
Time Range	Days	RESIDE	Rate	Days	RESID	E F	Rate	Days	RESI	DE	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		3 6	24	0.001	3	624	0.001		3	624	0.002
08:00-09:00		3 6	24	0.001	3	624	0.002	!	3	624	0.003
09:00-10:00		3 6	24	0.001	3	624	0.001		3	624	0.002
10:00-11:00		3 6	24	0.002	3	624	0.003		3	624	0.005
11:00-12:00		3 6	24	0.004	3	624	0.006	i	3	624	0.01
12:00-13:00		3 6	24	0.003	3	624	0.001		3	624	0.004
13:00-14:00		3 6	24	0.004	3	624	0.004		3	624	0.008
14:00-15:00		3 6	24	0.004	3	624	0.006	i	3	624	0.01
15:00-16:00		3 6	24	0.006	3	624	0.004	ļ.	3	624	0.01
16:00-17:00		3 6	24	0.002	3	624	0.002	!	3	624	0.004
17:00-18:00		3 6	24	0.002	3	624	0.001		3	624	0.003
18:00-19:00		3 6	24	0.003	3	624	0.001		3	624	0.004
19:00-20:00		3 6	24	0.003	3	624	0.001		3	624	0.004
20:00-21:00		3 6	24	0.005	3	624	0.002	!	3	624	0.007
21:00-22:00											
22:00-23:00											
23:00-24:00											
Daily Trip Rates:				0.041			0.035	i			0.076

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION Calculation Factor: 1 RESIDE

Count Type: PEDESTRIANS

			ARRIVA				DEPARTU				TOTALS
	No.	Ave.	Trip	No.	Ave		Trip	No.	Ave.		Trip
Time Range	Days	RESIDE	Rate	Days	RES	IDE	Rate	Days	RESID	ÞΕ	Rate
00:00-01:00											
01:00-02:00											
02:00-03:00											
03:00-04:00											
04:00-05:00											
05:00-06:00											
06:00-07:00											
07:00-08:00		4 54	3	0.005	4	543	0.012	2	4	543	0.017
08:00-09:00		4 54	.3	0.005	4	543	0.042	2	4	543	0.047
09:00-10:00		4 54	3	0.006	4	543	0.033	3	4	543	0.039
10:00-11:00		4 54	3	0.01	4	543	0.03	5	4	543	0.045
11:00-12:00		4 54	.3	0.014	4	543	0.02	7	4	543	0.041
12:00-13:00		4 54	3	0.02	4	543	0.029	9	4	543	0.049
13:00-14:00		4 54	3	0.023	4	543	0.036	3	4	543	0.059

14:00-15:00	4	543	0.019	4	543	0.028	4	543	0.047
15:00-16:00	4	543	0.033	4	543	0.021	4	543	0.054
16:00-17:00	4	543	0.031	4	543	0.019	4	543	0.05
17:00-18:00	4	543	0.035	4	543	0.023	4	543	0.058
18:00-19:00	4	543	0.034	4	543	0.018	4	543	0.052
19:00-20:00	4	543	0.024	4	543	0.012	4	543	0.036
20:00-21:00	4	543	0.028	4	543	0.009	4	543	0.037
21:00-22:00									
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			0.287			0.344			0.631

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION Calculation Factor: 1 RESIDE
Count Type: BUS/TRAM PASSENGERS

			ARRI	VALS			DEPARTUR	RES		Т	OTALS
	No.	Ave.	Trip	No.	Ave	·. ·	Trip	No.	Ave.	Т	rip
Time Range	Days	RESID	E Rate	Days	RES	SIDE	Rate	Days	RESIDI	E F	Rate
00:00-01:00											
01:00-02:00											
02:00-03:00											
03:00-04:00											
04:00-05:00											
05:00-06:00											
06:00-07:00											
07:00-08:00		4	543	0.001	4	543	0.008		4	543	0.009
08:00-09:00		4	543	0.003	4	543	0.023		4	543	0.026
09:00-10:00		4	543	0.004	4	543	0.024		4	543	0.028
10:00-11:00		4	543	0.006	4	543	0.023		4	543	0.029
11:00-12:00		4	543	0.01	4	543	0.015		4	543	0.025
12:00-13:00		4	543	0.006	4	543	0.018		4	543	0.024
13:00-14:00		4	543	0.01	4	543	0.012		4	543	0.022
14:00-15:00		4	543	0.007	4	543	0.012		4	543	0.019
15:00-16:00		4	543	0.013	4	543	0.007		4	543	0.02
16:00-17:00		4	543	0.013	4	543	0.006		4	543	0.019
17:00-18:00		4	543	0.023	4	543	0.007		4	543	0.03
18:00-19:00		4	543	0.017	4	543	0.007		4	543	0.024
19:00-20:00		4	543	0.015	4	543	0.005		4	543	0.02
20:00-21:00		4	543	0.018	4	543	0.001		4	543	0.019
21:00-22:00											
22:00-23:00											
23:00-24:00											
Daily Trip Rates:				0.146			0.168				0.314

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION

Calculation Factor: 1 RESIDE
Count Type: TOTAL RAIL PASSENGERS

No. Ave. Trip No. Ave. Trip No. Ave. Trip Time Range Days RESIDE Rate Days RESIDE Rate Days RESIDE Rate 00:00-01:00	
•	
00:00-01:00	
01:00-02:00	
02:00-03:00	
03:00-04:00	
04:00-05:00	
05:00-06:00	
06:00-07:00	
07:00-08:00 4 543 0.004 4 543 0.008 4 543 0.0	012
08:00-09:00 4 543 0.001 4 543 0.016 4 543 0.0	017
09:00-10:00 4 543 0.006 4 543 0.013 4 543 0.0	019
10:00-11:00 4 543 0.009 4 543 0.016 4 543 0.0	025
11:00-12:00 4 543 0.007 4 543 0.008 4 543 0.0	015
12:00-13:00 4 543 0.01 4 543 0.007 4 543 0.0	017
13:00-14:00 4 543 0.009 4 543 0.011 4 543 0	0.02
14:00-15:00 4 543 0.008 4 543 0.01 4 543 0.0	018
15:00-16:00 4 543 0.006 4 543 0.007 4 543 0.0	013
16:00-17:00 4 543 0.014 4 543 0.006 4 543 0	0.02
17:00-18:00 4 543 0.012 4 543 0.008 4 543 0	0.02
18:00-19:00 4 543 0.013 4 543 0.006 4 543 0.0	019
19:00-20:00 4 543 0.008 4 543 0.003 4 543 0.0	011
20:00-21:00 4 543 0.016 4 543 0.005 4 543 0.0	021
21:00-22:00	
22:00-23:00	
23:00-24:00	
Daily Trip Rates: 0.123 0.124 0.2	247

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION

Calculation Factor: 1 RESIDE
Count Type: PUBLIC TRANSPORT USERS

			ARRIV	ALS		[	DEPARTUR	ES			TOTALS
	No.	Ave.	Trip	No.	Ave.	1	Ггір	No.	Ave.		Trip
Time Range	Days	RESIDE	Rate	Days	RESID	DE F	Rate	Days	RESI	DE	Rate
00:00-01:00											
01:00-02:00											
02:00-03:00											
03:00-04:00											
04:00-05:00											
05:00-06:00											
06:00-07:00											
07:00-08:00		4 54	13	0.005	4	543	0.016		4	543	0.021
08:00-09:00		4 54	13	0.004	4	543	0.039		4	543	0.043
09:00-10:00		4 54	13	0.009	4	543	0.038		4	543	0.047
10:00-11:00		4 54	13	0.015	4	543	0.039		4	543	0.054
11:00-12:00		4 54	13	0.017	4	543	0.023		4	543	0.04
12:00-13:00		4 54	13	0.016	4	543	0.025		4	543	0.041
13:00-14:00		4 54	13	0.019	4	543	0.023		4	543	0.042
14:00-15:00		4 54	13	0.015	4	543	0.023		4	543	0.038
15:00-16:00		4 54	13	0.019	4	543	0.015		4	543	0.034
16:00-17:00		4 54	13	0.027	4	543	0.012		4	543	0.039
17:00-18:00		4 54	13	0.034	4	543	0.015		4	543	0.049
18:00-19:00		4 54	13	0.03	4	543	0.013		4	543	0.043
19:00-20:00		4 54	13	0.023	4	543	0.007		4	543	0.03
20:00-21:00		4 54	13	0.034	4	543	0.006		4	543	0.04
21:00-22:00											
22:00-23:00											
23:00-24:00											
Daily Trip Rates:				0.267			0.294				0.561

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION Calculation Factor: 1 RESIDE Count Type: TOTAL PEOPLE

			ARRIV	ALS			DI	EPARTUR	RES			TOTALS
	No.	Ave.	Trip	١	No.	Ave.	Tr	ip	No.	Ave.		Trip
Time Range	Days	RESIDE	Rate		Days	RESIDI	E Ra	ate	Days	RESI	DE	Rate
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00												
06:00-07:00												
07:00-08:00		4 5	43	0.011	4	1	543	0.029	)	4	543	0.04
08:00-09:00		4 5	43	0.011	4	1	543	0.084		4	543	0.095
09:00-10:00		4 5	13	0.017	4	1	543	0.075		4	543	0.092
10:00-11:00		4 5	43	0.027	4	1	543	0.079	)	4	543	0.106
11:00-12:00		4 5	43	0.036	4	1	543	0.059	)	4	543	0.095
12:00-13:00		4 5	43	0.039	4	1	543	0.056		4	543	0.095
13:00-14:00		4 5	43	0.048	4	1	543	0.063		4	543	0.111
14:00-15:00		4 5	43	0.039	4	1	543	0.057		4	543	0.096
15:00-16:00		4 5	13	0.06	4	1	543	0.041		4	543	0.101
16:00-17:00		4 5	43	0.062	4	1	543	0.033		4	543	0.095
17:00-18:00		4 5	43	0.073	4	1	543	0.039	)	4	543	0.112
18:00-19:00		4 5	13	0.07	4	1	543	0.034		4	543	0.104
19:00-20:00		4 5	13	0.052	4	1	543	0.02		4	543	0.072
20:00-21:00		4 5	43	0.068	4	1	543	0.018		4	543	0.086
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:				0.613				0.687				1.3

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION

Calculation Factor: 1 RESIDE
Count Type: CARS

	No.	Ave.	ARRIVALS Trip	No.	Ave.	DEPARTUR Trip	ES No.	Ave.	TOTALS Trip
Time Bands			-			-			-
Time Range	Days	RESIDE	Rate	Days	RESIDE	Rate	Days	RESIDE	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		3 62	4	0	3 62	4 0	3	624	0
08:00-09:00		3 62	4 0.00	1	3 62	4 0.001	. 3	624	0.002
09:00-10:00		3 62	4 0.00	1	3 62	4 0.001	. 3	624	0.002
10:00-11:00		3 62	4 0.00	1	3 62	4 0.001	. 3	3 624	0.002
11:00-12:00		3 62	4 0.00	1	3 62	4 0.001	. 3	3 624	0.002
12:00-13:00		3 62	4	0	3 62	4 0	3	624	0

13:00-14:00	3	624	0.001	3	624	0	3	624	0.001
14:00-15:00	3	624	0.001	3	624	0.001	3	624	0.002
15:00-16:00	3	624	0.001	3	624	0.001	3	624	0.002
16:00-17:00	3	624	0.001	3	624	0.001	3	624	0.002
17:00-18:00	3	624	0	3	624	0	3	624	0
18:00-19:00	3	624	0.001	3	624	0.001	3	624	0.002
19:00-20:00	3	624	0	3	624	0	3	624	0
20:00-21:00	3	624	0	3	624	0	3	624	0
21:00-22:00									
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			0.009			0.008			0.017

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION

Calculation Factor: 1 RESIDE

Count Type: LGVS

			ARRIV	ALS			DEPARTUR	ES			TOTALS
	No.	Ave.	Trip	No.	Ave.		Trip	No.	Ave.		Trip
Time Range	Days	RESIDE	Rate	Days	RESID	E	Rate	Days	RESI	DE	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		3 62	24	0.001	3	624	0.001		3	624	0.002
08:00-09:00		3 62	24	0.001	3	624	0.001		3	624	0.002
09:00-10:00		3 62	24	0	3	624	0		3	624	0
10:00-11:00		3 62	24	0.002	3	624	0.001		3	624	0.003
11:00-12:00		3 62	24	0.002	3	624	0.002		3	624	0.004
12:00-13:00		3 62	24	0.001	3	624	0.001		3	624	0.002
13:00-14:00		3 62	24	0.002	3	624	0.001		3	624	0.003
14:00-15:00		3 62	24	0.002	3	624	0.003		3	624	0.005
15:00-16:00		3 62	24	0.002	3	624	0.002		3	624	0.004
16:00-17:00		3 62	24	0.001	3	624	0.001		3	624	0.002
17:00-18:00		3 62	24	0.001	3	624	0.001		3	624	0.002
18:00-19:00		3 62	24	0	3	624	0		3	624	0
19:00-20:00		3 62	24	0.001	3	624	0.001		3	624	0.002
20:00-21:00		3 62	24	0.001	3	624	0.001		3	624	0.002
21:00-22:00											
22:00-23:00											
23:00-24:00											
Daily Trip Rates:				0.017			0.016				0.033

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION

Calculation Factor: 1 RESIDE
Count Type: MOTOR CYCLES

			ARRIVALS	3		DEPARTUR	RES		TOTALS
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	RESIDE	Rate	Days	RESIDE	Rate	Days	RESIDE	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		3 62	4	0	3 62	4 (	)	3 62	24 0
08:00-09:00		3 62	4	0	3 62	4 (	)	3 62	24 0
09:00-10:00		3 62	4	0	3 62	4 (	)	3 62	24 0
10:00-11:00		3 62	4	0	3 62	4 (	)	3 62	24 0
11:00-12:00		3 62	4	0	3 62	4 (	)	3 62	24 0
12:00-13:00		3 62	4	0	3 62	4 (	)	3 62	24 0
13:00-14:00		3 62	4 (	0.001	3 62	4 0.001	L	3 62	24 0.002
14:00-15:00		3 62	4 (	0.001	3 62	4 0.001		3 62	24 0.002
15:00-16:00		3 62	4	0	3 62	4 (	)	3 62	24 0
16:00-17:00		3 62	4	0	3 62	4 (	)	3 62	24 0
17:00-18:00		3 62	4	0	3 62	4 (	)	3 62	24 0
18:00-19:00		3 62	4	0	3 62	4 (	)	3 62	24 0
19:00-20:00		3 62	4	0	3 62	4 (	)	3 62	24 0
20:00-21:00		3 62	4	0	3 62	4 (	)	3 62	24 0
21:00-22:00									
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			(	0.002		0.002	2		0.004

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION Calculation Factor: 1 RESIDE

Count Type: UNDERGROUND PASSENGERS

			ARRIV	ALS			DEPARTUR	RES			TOTALS
	No.	Ave.	Trip	No.		Ave.	Trip	No.	Ave.		Trip
Time Range	Days	RESIDE	Rate	Days		RESIDE	Rate	Days	RESID	DE	Rate
00:00-01:00											
01:00-02:00											
02:00-03:00											
03:00-04:00											
04:00-05:00											
05:00-06:00											
06:00-07:00											
07:00-08:00		4 5	43	0.001	4	543	0.005		4	543	0.006
08:00-09:00		4 5	43	0.001	4	543	0.012		4	543	0.013
09:00-10:00		4 5	43	0.003	4	543	0.011		4	543	0.014
10:00-11:00		4 5	43	0.006	4	543	0.011		4	543	0.017
11:00-12:00		4 5	43	0.006	4	543	0.006		4	543	0.012
12:00-13:00		4 5	43	0.006	4	543	0.006		4	543	0.012
13:00-14:00		4 5	43	0.006	4	543	0.008		4	543	0.014
14:00-15:00		4 5	43	0.006	4	543	0.007		4	543	0.013
15:00-16:00		4 5	43	0.005	4	543	0.005		4	543	0.01
16:00-17:00		4 5	43	0.012	4	543	0.002		4	543	0.014
17:00-18:00		4 5	43	0.01	4	543	0.007		4	543	0.017
18:00-19:00		4 5	43	0.012	4	543	0.005		4	543	0.017
19:00-20:00		4 5	43	0.006	4	543	0.002		4	543	0.008
20:00-21:00		4 5	43	0.012	4	543	0.002		4	543	0.014
21:00-22:00											
22:00-23:00											
23:00-24:00											
Daily Trip Rates:				0.092			0.089	)			0.181

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION

Calculation Factor: 1 RESIDE Count Type: OVERGROUND PASSENGERS

			ARRIVALS				DEPARTURE	ES		TOTALS
	No.	Ave.	Trip	No.	Ave.		Trip	No.	Ave.	Trip
Time Range	Days	RESIDE	Rate	Days	RES	DE	Rate	Days	RESIDE	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		3 62	.4	0	3	624	0	;	624	0
08:00-09:00		3 62	.4	0	3	624	0	;	624	0
09:00-10:00		3 62	.4	0	3	624	0	;	624	0
10:00-11:00		3 62	.4	0	3	624	0	;	624	0
11:00-12:00		3 62	.4	0	3	624	0	;	624	0
12:00-13:00		3 62	.4	0	3	624	0	;	624	0
13:00-14:00		3 62	.4 0.	001	3	624	0.001	;	3 624	0.002
14:00-15:00		3 62	.4 0.	002	3	624	0.001	;	3 624	0.003
15:00-16:00		3 62	.4	0	3	624	0	;	624	0
16:00-17:00		3 62	.4	0	3	624	0	;	624	0
17:00-18:00		3 62	.4	0	3	624	0	;	624	0
18:00-19:00		3 62	.4	0	3	624	0	;	624	0
19:00-20:00		3 62	.4	0	3	624	0.001	;	3 624	0.001
20:00-21:00		3 62	.4	0	3	624	0	;	3 624	0
21:00-22:00										
22:00-23:00										
23:00-24:00										
Daily Trip Rates:			0.	003			0.003			0.006

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION Calculation Factor: 1 RESIDE
Count Type: NATIONAL RAIL PASSENGERS

			ARRIVA	LS			DEPARTUR	RES		TOTALS	
	No.	Ave.	Trip	No.		Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	RESIDE	Rate	Days		RESIDE	Rate	Days	RESIDE	Rate	
00:00-01:00											
01:00-02:00											
02:00-03:00											
03:00-04:00											
04:00-05:00											
05:00-06:00											
06:00-07:00											
07:00-08:00		4 54	13	0.003	4	543	0.003	3	4 5	0.00	6
08:00-09:00		4 54	13	0	4	543	0.004	1	4 5	543 0.00	4
09:00-10:00		4 54	13	0.003	4	543	0.002	2	4 5	0.00	5
10:00-11:00		4 54	13	0.003	4	543	0.005	5	4 5	0.00	8
11:00-12:00		4 54	13	0.002	4	543	0.002	2	4 5	543 0.00	4

12:00-13:00	4	543	0.003	4	543	0.001	4	543	0.004
13:00-14:00	4	543	0.002	4	543	0.002	4	543	0.004
14:00-15:00	4	543	0.001	4	543	0.002	4	543	0.003
15:00-16:00	4	543	0.001	4	543	0.002	4	543	0.003
16:00-17:00	4	543	0.002	4	543	0.004	4	543	0.006
17:00-18:00	4	543	0.001	4	543	0	4	543	0.001
18:00-19:00	4	543	0	4	543	0.001	4	543	0.001
19:00-20:00	4	543	0.002	4	543	0	4	543	0.002
20:00-21:00	4	543	0.004	4	543	0.002	4	543	0.006
21:00-22:00									
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			0.027			0.03			0.057

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION Calculation Factor: 1 RESIDE Count Type: BUS PASSENGERS

			ARRI	VALS			DEPARTU	RES		TOTALS
	No.	Ave.	Trip	No.		Ave.	Trip	No.	Ave.	Trip
Time Range	Days	RESIDI	E Rate	Days		RESIDE	Rate	Days	RESIDE	Rate
00:00-01:00										
01:00-02:00										
02:00-03:00										
03:00-04:00										
04:00-05:00										
05:00-06:00										
06:00-07:00										
07:00-08:00		4	543	0.001	4	543	0.008	3	4 5	0.009
08:00-09:00		4	543	0.003	4	543	0.023	3	4 5	43 0.026
09:00-10:00		4	543	0.004	4	543	0.024	1	4 5	43 0.028
10:00-11:00		4	543	0.006	4	543	0.023	3	4 5	0.029
11:00-12:00		4	543	0.01	4	543	0.015	5	4 5	43 0.025
12:00-13:00		4	543	0.006	4	543	0.018	3	4 5	0.024
13:00-14:00		4	543	0.01	4	543	0.012	2	4 5	0.022
14:00-15:00		4	543	0.007	4	543	0.012	2	4 5	43 0.019
15:00-16:00		4	543	0.013	4	543	0.007	7	4 5	43 0.02
16:00-17:00		4	543	0.013	4	543	0.006	3	4 5	43 0.019
17:00-18:00		4	543	0.023	4	543	0.007	7	4 5	43 0.03
18:00-19:00		4	543	0.017	4	543	0.007	7	4 5	43 0.024
19:00-20:00		4	543	0.015	4	543	0.005	5	4 5	0.02
20:00-21:00		4	543	0.018	4	543	0.001	1	4 5	43 0.019
21:00-22:00										
22:00-23:00										
23:00-24:00										
Daily Trip Rates:				0.146			0.168	3		0.314

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION

Calculation Factor: 1 RESIDE
Count Type: SERVICING VEHICLES

			ARRIV	ALS			DEPARTUR	ES		TOTALS
	No.	Ave.	Trip	No.		Ave.	Trip	No.	Ave.	Trip
Time Range	Days	RESIDE	Rate	Days		RESIDE	Rate	Days	RESIDE	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		3 62	4	0.001	3	62	4 0.001	. 3	624	0.002
08:00-09:00		3 62	4	0.001	3	62	4 0.001	. 3	624	0.002
09:00-10:00		3 62	4	0	3	62	4 0	3	624	0
10:00-11:00		3 62	4	0.002	3	62	4 0.001	. 3	624	0.003
11:00-12:00		3 62	4	0.002	3	62	4 0.002	3	624	0.004
12:00-13:00		3 62	4	0.001	3	62	4 0.001	. 3	624	0.002
13:00-14:00		3 62	4	0.002	3	62	4 0.001	. 3	624	0.003
14:00-15:00		3 62	4	0.002	3	62	4 0.003	3	624	0.005
15:00-16:00		3 62	4	0.002	3	62	4 0.002	3	624	0.004
16:00-17:00		3 62	4	0.002	3	62	4 0.002	3	624	0.004
17:00-18:00		3 62	4	0.001	3	62	4 0.001	. 3	624	0.002
18:00-19:00		3 62	4	0	3	62	4 0	3	624	0
19:00-20:00		3 62	4	0.001	3	62	4 0.001	. 3	624	0.002
20:00-21:00		3 62	4	0.001	3	62	4 0.001	. 3	624	0.002
21:00-22:00										
22:00-23:00										
23:00-24:00										
Daily Trip Rates:				0.018			0.017			0.035

### Parameter summary

Trip rate parameter range selected: 200 - 1100 (units: )
Survey date date range: 01/01/16 - 25/06/21
Number of weekdays (Monday-Friday): 4
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 1
Surveys manually removed from selection: 1

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.

TRICS 7.11.4

Trip Rate Parameter: No of Dwellings

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use 03 - RESIDENTIAL

C - FLATS PRIVATELY OWNED Category

MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

1 GREATER LONDON

ISLINGTON 2 days IS WF WALTHAM FOREST 1 days

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

Primary Filtering selection:

No of Dwellings Parameter: Actual Range: 14 to 97 (units: ) Range Selected by User: 6 to 150 (units: )

Public Transport Provision:

Include all surveys

Date Range: 01/01/16 to 05/09/24

Selected survey days:

Monday 1 days Tuesday 1 days Wednesday 1 days

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

Selected survey types:

3 days Manual count

Directional ATC Count 0 days

Selected Locations:

Town Centre Edge of Town Centre Suburban Area (PPS6 Out c 0 Edge of Town 0 Neighbourhood Centre (PP 0 Free Standing (PPS6 Out of 0 Not Known 0

Selected Location Sub Categories:

Industrial Zone 0 Commercial Zone 0 Development Zone 0 Residential Zone 2 0 Retail Zone Built-Up Zone 1 Village 0 Out of Town 0 High Street 0 No Sub Category

Secondary Filtering selection:

Use Class:

3 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:

50,001 to 100,000 2 days 100.001 or More 1 days

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

Population within 5 miles:

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: 0.5 or Less 2 days 0.6 to 1.0 1 days

Travel Plan:

No 3 days

MANUAL

PTAL Rating:

5 Very Good 1 days 6a Excellent 2 days

LIST OF SITES relevant to selection parameters

1 IS-03-C-05 BLOCK OF FLATS ISLINGTON

LEVER STREET

FINSBURY
Edge of Town Centre
Built-Up Zone
Total No of Dwellings:

 Total No of Dwellings:
 15

 Survey date:
 WEDNESDAY
 29/06/2016 Survey Type:

2 IS-03-C-06 BLOCK OF FLATS ISLINGTON

CALEDONIAN ROAD

HOLLOWAY
Edge of Town Centre
Residential Zone

Total No of Dwellings: 14

Survey date: MONDAY 27/06/2016 Survey Type: MANUAL

3 WF-03-C-01 BLOCKS OF FLATS WALTHAM FOREST

ERSKINE ROAD

WALTHAMSTOW Edge of Town Centre Residential Zone

Total No of Dwellings: 97

Survey date: TUESDAY 05/11/2019 Survey Type: MANUAL

Manually Deselected Sites

Site Ref Reason for Deselection BE-03-C-01 low ptal BM-03-C-02 low ptal BM-03-C-03 low ptal BN-03-C-01 low ptal BN-03-C-03 low ptal BT-03-C-03 low ptal EN-03-C-03 low ptal HO-03-C-03 low ptal HO-03-C-05 low ptal KI-03-C-03 low ptal TH-03-C-04 low ptal WF-03-C-02 low ptal WF-03-C-03 low ptal WF-03-C-04 low ptal WF-03-C-05 low ptal WF-03-C-06 low ptal

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

Calculation Factor: 1 DWELLS
Count Type: TOTAL VEHICLES

ARRIVALS DEPARTURES TOTALS Trip No. Trip Trip Time Range Days **DWELLS** Rate Days **DWELLS** Rate Days **DWELLS** 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 0.032 07:00-08:00 0.016 0.016 42 3 42 3 42 3 08:00-09:00 3 42 0.008 3 42 0.04 3 42 0.048 09:00-10:00 0.016 42 0.016 3 42 3 42 0 10:00-11:00 3 42 42 0.024 3 42 0.064 0.04 3 11:00-12:00 42 42 0.048 42 0.088 3 0.04 3 3 0.032 12:00-13:00 3 42 0.016 42 0.016 42 3 3 42 13:00-14:00 3 0.032 3 42 0.016 3 42 0.048 14:00-15:00 3 42 0.016 3 42 0.04 3 42 0.056 15:00-16:00 3 42 0.024 3 42 0.024 3 42 0.048 16:00-17:00 42 0.048 42 0.048 42 0.096 3 3 3 17:00-18:00 3 42 0.024 3 42 0.024 3 42 0.048 18:00-19:00 3 42 0.024 3 42 0.048 3 42 0.072 19:00-20:00 42 0.048 42 0.024 3 42 0.072 20:00-21:00 3 42 0.024 3 42 0.032 3 42 0.056 21:00-22:00 22:00-23:00 23:00-24:00 0.776 Daily Trip Rates: 0.376 0.4

$$\label{thm:continuous} \begin{split} & \text{TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED} \\ & \text{Calculation Factor:} \quad & \text{1 DWELLS} \end{split}$$

Count Type: OGVS

			ARRIVALS				EPARTURES			TOTALS
	No.	Ave.	Trip	No.	Ave		rip No			Trip
Time Range	Days	DWELLS	Rate	Days	DW	ELLS R	ate Da	ys DV	VELLS	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		3	42	0	3	42	0	3	42	0
08:00-09:00		3	42	0	3	42	0	3	42	0
09:00-10:00		3	42	0	3	42	0	3	42	0
10:00-11:00		3	42	0.008	3	42	0	3	42	0.008
11:00-12:00		3	42	0.016	3	42	0.024	3	42	0.04
12:00-13:00		3	42	0.008	3	42	0	3	42	0.008
13:00-14:00		3	42	0	3	42	0.008	3	42	0.008
14:00-15:00		3	42	0.016	3	42	0.016	3	42	0.032
15:00-16:00		3	42	0	3	42	0	3	42	0
16:00-17:00		3	42	0	3	42	0	3	42	0
17:00-18:00		3	42	0	3	42	0	3	42	0
18:00-19:00		3	42	0	3	42	0	3	42	0
19:00-20:00		3	42	0	3	42	0	3	42	0
20:00-21:00		3	42	0	3	42	0	3	42	0
21:00-22:00										
22:00-23:00										
23:00-24:00										
Daily Trip Rates:				0.048			0.048			0.096

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED Calculation Factor: 1 DWELLS
Count Type: TOTAL PEOPLE

			ARRIVALS			D	EPARTUR	ES		Т	TOTALS
	No.	Ave.	Trip	No.	Ave	. т	rip	No.	Ave.	Т	Trip
Time Range	Days	DWELLS	Rate	Days	DW	ELLS R	ate	Days	DWELL:	3 F	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		3	42	0.04	3	42	0.214		3	42	0.254
08:00-09:00		3	42	0.063	3	42	0.659		3	42	0.722
09:00-10:00		3	42	0.111	3	42	0.381		3	42	0.492
10:00-11:00		3	42	0.19	3	42	0.222		3	42	0.412
11:00-12:00		3	42	0.19	3	42	0.214		3	42	0.404
12:00-13:00		3	42	0.119	3	42	0.087		3	42	0.206
13:00-14:00		3	42	0.135	3	42	0.159		3	42	0.294
14:00-15:00		3	42	0.135	3	42	0.143		3	42	0.278
15:00-16:00		3	42	0.437	3	42	0.19		3	42	0.627
16:00-17:00		3	42	0.405	3	42	0.286		3	42	0.691
17:00-18:00		3	42	0.437	3	42	0.278		3	42	0.715
18:00-19:00		3	42	0.556	3	42	0.381		3	42	0.937
19:00-20:00		3	42	0.468	3	42	0.167		3	42	0.635
20:00-21:00		3	42	0.214	3	42	0.103		3	42	0.317
21:00-22:00											
22:00-23:00											
23:00-24:00											
Daily Trip Rates:				3.5			3.484				6.984

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED Calculation Factor: 1 DWELLS Count Type: CARS

	No.	Ave.	ARRIVALS Trip	No.	Ave.		DEPARTUR Trip	ES No.	Ave.	TOTALS Trip
Time Range	Days	DWELLS	Rate	Days			Rate	Days	DWELLS	Rate
00:00-01:00	Dayo	511220	nato	Dayo	5		riato	Dujo	D.112220	riaco
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		3	42	0.008	3	42	0.008	3	42	0.016
08:00-09:00		3	42	0	3	42	0.04	3	42	0.04
09:00-10:00		3	42	0	3	42	0	3	42	2 0
10:00-11:00		3	42	0.008	3	42	0.008	3	42	0.016
11:00-12:00		3	42	0.016	3	42	0.016	3	42	0.032
12:00-13:00		3	42	0.008	3	42	0	3	42	0.008
13:00-14:00		3	42	0.024	3	42	0	3	3 42	0.024

#### Residential Trip Generation

14:00-15:00	3	42	0	3	42	0.024	3	42	0.024
15:00-16:00	3	42	0.024	3	42	0.016	3	42	0.04
16:00-17:00	3	42	0.04	3	42	0.032	3	42	0.072
17:00-18:00	3	42	0.024	3	42	0.024	3	42	0.048
18:00-19:00	3	42	0.008	3	42	0.032	3	42	0.04
19:00-20:00	3	42	0.04	3	42	0.016	3	42	0.056
20:00-21:00	3	42	0.016	3	42	0.024	3	42	0.04
21:00-22:00									
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			0.216			0.24			0.456

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

Calculation Factor: 1 DWELLS

Count Type: LGVS

			ARRIVALS				DEPARTURES					
	No.	Ave.	Trip	No.	Ave		Ггір	No.	Ave.	Trip		
Time Range	Days	DWELLS	Rate	Days	DW	ELLS I	Rate	Days	DWELLS	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		3	42	0	3	42	0	3	3 42	0		
08:00-09:00		3	42	0.008	3	42	0	3	3 42	0.008		
09:00-10:00		3	42	0.016	3	42	0	3	3 42	0.016		
10:00-11:00		3	42	0.016	3	42	0.008	3	3 42	0.024		
11:00-12:00		3	42	0.008	3	42	0.008	3	3 42	0.016		
12:00-13:00		3	42	0	3	42	0.016	3	3 42	0.016		
13:00-14:00		3	42	0.008	3	42	0.008	3	3 42	0.016		
14:00-15:00		3	42	0	3	42	0	3	3 42	0		
15:00-16:00		3	42	0	3	42	0.008	3	3 42	0.008		
16:00-17:00		3	42	0	3	42	0.008	3	3 42	0.008		
17:00-18:00		3	42	0	3	42	0	3	3 42	0		
18:00-19:00		3	42	0.008	3	42	0.008	3	3 42	0.016		
19:00-20:00		3	42	0.008	3	42	0.008	3	3 42	0.016		
20:00-21:00		3	42	0	3	42	0	3	3 42	0		
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:				0.072			0.072			0.144		

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

Calculation Factor: 1 DWELLS
Count Type: SERVICING VEHICLES

			ARRIVALS			D	EPARTURES			TOTALS
	No.	Ave.	Trip	No.	Ave	. Ті	rip No.	Av	е.	Trip
Time Range	Days	DWELLS	Rate	Days	DW	ELLS R	ate Day	rs DV	VELLS	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		3	42	0	3	42	0	3	42	0
08:00-09:00		3	42	0.008	3	42	0	3	42	0.008
09:00-10:00		3	42	0.016	3	42	0	3	42	0.016
10:00-11:00		3	42	0.016	3	42	0.008	3	42	0.024
11:00-12:00		3	42	0.024	3	42	0.032	3	42	0.056
12:00-13:00		3	42	0.016	3	42	0.016	3	42	0.032
13:00-14:00		3	42	0.008	3	42	0.016	3	42	0.024
14:00-15:00		3	42	0.016	3	42	0.008	3	42	0.024
15:00-16:00		3	42	0	3	42	0.008	3	42	0.008
16:00-17:00		3	42	0	3	42	0.008	3	42	0.008
17:00-18:00		3	42	0	3	42	0	3	42	0
18:00-19:00		3	42	0.008	3	42	0.008	3	42	0.016
19:00-20:00		3	42	0.008	3	42	0.008	3	42	0.016
20:00-21:00		3	42	0	3	42	0	3	42	0
21:00-22:00										
22:00-23:00										
23:00-24:00										
Daily Trip Rates:				0.12			0.112			0.232

Parameter summary

TRICS 7.11.4

Trip Rate Parami Gross floor area

TRIP RATE CALCULATION SELECTION PARAMETERS:

01 - RETAIL Category L - BUILDER'S MULTI-MODAL TOTAL PEOPLE L - BUILDER'S MERCHANTS

Selected regions and areas:

SOUTH EAST

KC KENT 1 days WEST MIDLANDS EST MIDLAN 1 days

wo RCESTERSF 1 days

This section displays the number of survey days per TRICS  $^{\!\circ}$  sub-region in the selected set

Primary Filtering selection:

Gross floor area Parameter: Actual Range: 5000 to 6275 (units: sqm) Range Selected | 5000 to 6275 (units: sqm)

Public Transport Provision:

Include all surveys Selection by:

Date Range: 01/01/08 to 19/10/11

Selected survey days:

Monday 2 days Wednesday 1 days

Selected survey types:

Manual count 3 days Directional ATC 0 days

Selected Locations:

Town Centre Edge of Town Ce 0 Suburban Area ( 1 Edge of Town Neighbourhood Free Standing (P 0 Not Known 0

Selected Location Sub Categories:

Industrial Zone CommercialZor 0 Development Zo 0 Residential Zone Retail Zone 0 Built-Up Zone 0 Village 0 Out of Town High Street No Sub Category 0

Secondary Filtering selection:

Use Class:

3 days E(a)

Population within 500m Range: All Surveys Included

Population within 1 mile:

10,001 to 15,000 1 days 15,001 to 20,000 1 days 25.001 to 50.000 1 davs

Population within 5 miles:

1 days 50,001 to 75,00 100,001 to 125,0 1 days 500,001 or More 1 days

Car ownership within 5 miles:

0.6 to 1.0 1.1 to 1.5 1 days

Petrol filling station:

Excluded from  ${\bf c}$ 3 days Travel Plan:

No 3 days

PTAL Rating:

No PTAL Present 3 days

LIST OF SITES relevant to selection parameters

AVIS PERKII KENT 1 KC-01-L-01

ENTERPRISE WAY WESTWOOD MARGATE Edge of Town Industrial Zone

Total Gross floor area: 6275 sqm Survey date: MONDAY 07/12/2009 Survey Type: MANUAL

WM-01-L-02 SELCO VEST MIDLANDS

CHARLOTTE ROAD STIRCHLEY BIRMINGHAM

Suburban Area (PPS6 Out of Centre)

Residential Zone

5600 Total Gross floor area: sqm WEDNESDA' 19/10/2011 Survey date: Survey Type:

WO-01-L-02 JEWSON ORCESTERSHIRE

NAVIGATION ROAD

WORCESTER Edge of Town Industrial Zone

Total Gross floor area: 5000

sqm MONDAY 15/06/2009 Survey Type: MANUAL Survey date:

TRIP RATE for Land Use 01 - RETAIL/L - BUILDER'S MERCHANTS

Calculation Factor: 100 sqm

Estimated TRIP rate value per 1600 SQM shown in Estimated column

Count Type: TOTAL VEHICLES

	ARRIVALS					DEPARTURES					TOTALS	
	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated
Time Range	Days	GFA	Rate	Trip Rate	Days	GFA	Rate	Trip Rate	Days	GFA	Rate	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	1	5600	0	0	1	5600	0	0	1	5600	0	0
06:00-07:00	1	5600	0.375	6	1	5600	0.036	1	1	5600	0.411	7
07:00-08:00	3	5625	0.35	6	3	5625	0.219	4	3	5625	0.569	9
08:00-09:00	3	5625	0.658	11	3	5625	0.539	9	3	5625	1.197	19
09:00-10:00	3	5625	0.735	12	3	5625	0.747	12	3	5625	1.482	24
10:00-11:00	3	5625	0.64	10	3	5625	0.604	10	3	5625	1.244	20
11:00-12:00	3	5625	0.681	11	3	5625	0.575	9	3	5625	1.256	20
12:00-13:00	3	5625	0.527	8	3	5625	0.604	10	3	5625	1.131	18
13:00-14:00	3	5625	0.527	8	3	5625	0.658	11	3	5625	1.185	19
14:00-15:00	3	5625	0.468	7	3	5625	0.468	7	3	5625	0.936	15
15:00-16:00	3	5625	0.439	7	3	5625	0.427	7	3	5625	0.866	14
16:00-17:00	3	5625	0.296	5	3	5625	0.421	7	3	5625	0.717	11
17:00-18:00	3	5625	0.148	2	3	5625	0.255	4	3	5625	0.403	6
18:00-19:00	2	5300	0.245	4	2	5300	0.255	4	2	5300	0.5	8
19:00-20:00	1	5600	0.214	3	1	5600	0.357	6	1	5600	0.571	9
20:00-21:00	1	5600	0	0	1	5600	0.036	1	1	5600	0.036	1
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:			6.303				6.201				12.504	

MANUAL

TRIP RATE for Land Use 01 - RETAIL/L - BUILDER'S MERCHANTS

Calculation Factor: 100 sqm
Estimated TRIP rate value per 1600 SQM shown in Estimated column

Count Type: TAXIS

			ARRIVALS		DEPARTURES						TOTALS	
	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated
Time Range	Days	GFA	Rate	Trip Rate	Days	GFA	Rate	Trip Rate	Days	GFA	Rate	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	1	5600	0	0	1	5600	0	0	1	5600	0	0
06:00-07:00	1	5600	0	0	1	5600	0	0	1	5600	0	0
07:00-08:00	3	5625	0	0	3	5625	0	0	3	5625	0	0
08:00-09:00	3	5625	0	0	3	5625	0	0	3	5625	0	0
09:00-10:00	3	5625	0	0	3	5625	0	0	3	5625	0	0
10:00-11:00	3	5625	0.006	0.095	3	5625	0.006	0.095	3	5625	0.012	0.19
11:00-12:00	3	5625	0	0	3	5625	0	0	3	5625	0	0
12:00-13:00	3	5625	0	0	3	5625	0	0	3	5625	0	0

No.	Ave.	ARRIVALS Trip	Estimated	No.	D Ave.	EPARTUR Trip	ES Estimated	No.	Ave.	TOTALS Trip	Estimate
per 1600 SQM	shown in Estimat	ed column									
sqm											
L - RETAIL/L - B	UILDER'S MERCH	ANTS									
		0.006				0.006				0.012	
1	5600	0	0	1	5600	0	0	1	5600	0	0
1	5600	0	0	1	5600	0	0	1	5600	0	0
2	5300	0	0	2	5300	0	0	2	5300	0	0
3	5625	0	0	3	5625	0	0	3	5625	0	0
3	5625	0	0	3	5625	0	0	3	5625	0	0
3	5625	0	0	3	5625	0	0	3	5625	0	0
3	5625	0	0	3	5625	0	0	3	5625	0	0
3	5625	0	0	3	5625	0	0	3	5625	0	0
	3 3 3 2 1 1 1- RETAIL/L - B	3 5625 3 5625 3 5625 2 5300 1 5600 1 5600	3 5625 0 3 5625 0 3 5625 0 3 5625 0 2 5300 0 1 5600 0 1 5600 0 0.006	3 5625 0 0 0 3 5625 0 0 0 3 5625 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 5625 0 0 3 3 5625 0 0 3 3 5625 0 0 3 3 5625 0 0 3 2 5300 0 0 2 1 5600 0 0 1 1 5600 0 0 1  0.006	3 5625 0 0 3 5625 3 5625 0 0 3 5625 3 5625 0 0 3 5625 2 5300 0 0 2 5300 1 5600 0 0 1 5600 1 5600 0 0 1 5600	3 5625 0 0 3 5625 0 3 5625 0 3 5625 0 3 5625 0 3 5625 0 3 5625 0 0 3 5625 0 0 3 5625 0 0 3 5625 0 0 0 3 5625 0 0 0 0 2 5300 0 0 0 2 5300 0 0 1 5600 0 1 5600 0	3 5625 0 0 3 5625 0 0 0 3 5625 0 0 0 3 5625 0 0 0 3 5625 0 0 0 3 5625 0 0 0 3 5625 0 0 0 3 5625 0 0 0 3 5625 0 0 0 3 5625 0 0 0 0 3 5625 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 5625 0 0 3 5625 0 0 3 3 5625 0 0 3 3 3 5625 0 0 3 3 3 5625 0 0 3 3 3 5625 0 0 3 3 3 5625 0 0 3 3 3 5625 0 0 3 3 3 5625 0 0 3 3 5625 0 0 3 3 5625 0 0 3 3 5625 0 0 3 3 5625 0 0 0 3 2 5300 0 0 0 2 5300 0 0 0 2 1 1 5600 0 0 1 1 5600 0 0 1 1 1 5600 0 0 1 1 1 5600 0 0 0 1 1 1 5600 0 0 0 1 1 1 5600 0 0 0 1 1 1 5600 0 0 0 1 1 1 5600 0 0 0 1 1 1 5600 0 0 0 1 1 1 5600 0 0 0 1 1 1 5600 0 0 0 1 1 1 5600 0 0 0 1 1 1 5600 0 0 0 1 1 1 5600 0 0 0 1 1 1 1 1 5600 0 0 0 1 1 1 1 1 5600 0 0 0 1 1 1 1 1 5600 0 0 0 1 1 1 1 1 5600 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 5625 0 0 3 5625 0 0 3 5625 3 0 3 5625 3 5625 0 0 3 5625 3 5625 0 0 3 5625 3 5625 0 0 3 5625 3 5625 0 0 3 5625 0 0 3 5625 3 5625 0 0 3 5625 0 0 3 5625 2 5300 0 0 2 5300 0 0 2 5300 1 5600 0 0 1 5600 0 0 1 5600 1 5600 0 0 1 5600 0 0 1 5600 1 5600 0 0 0 1 5600 0 0 1 5600 0 0 1 5600 0 0 1 5600 0 0 1 5600 0 0 0 1 5600 0 0 0 1 5600 0 0 0 1 5600 0 0 0 1 5600 0 0 0 1 5600 0 0 0 1 5600 0 0 0 1 5600 0 0 0 1 5600 0 0 0 1 5600 0 0 0 1 5600 0 0 0 1 5600 0 0 0 1 5600 0 0 0 0 1 5600 0 0 0 0 1 5600 0 0 0 0 1 5600 0 0 0 0 1 5600 0 0 0 0 1 5600 0 0 0 0 1 5600 0 0 0 0 1 5600 0 0 0 0 1 5600 0 0 0 0 1 5600 0 0 0 0 1 5600 0 0 0 0 1 5600 0 0 0 0 0 1 5600 0 0 0 0 0 1 5600 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 5625 0 0 3 5625 0 0 3 5625 0 0 3 5625 0 3 5625 0 3 5625 0 3 5625 0 3 5625 0 3 5625 0 3 5625 0 3 5625 0 0 3 5625 0 3 5625 0 0 3 5625 0 0 3 5625 0 0 3 5625 0 0 0 3 5625 0 0 0 3 5625 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

	ARRIVALS				ı	DEPARTUR	ES			TOTALS		
	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated
Time Range	Days	GFA	Rate	Trip Rate	Days	GFA	Rate	Trip Rate	Days	GFA	Rate	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	1	5600	0	0	1	5600	0	0	1	5600	0	0
06:00-07:00	1	5600	0	0	1	5600	0	0	1	5600	0	0
07:00-08:00	3	5625	0.018	0.284	3	5625	0.03	0.474	3	5625	0.048	0.758
08:00-09:00	3	5625	0.053	0.853	3	5625	0.041	0.664	3	5625	0.094	1.517
09:00-10:00	3	5625	0.071	1.138	3	5625	0.059	0.948	3	5625	0.13	2.086
10:00-11:00	3	5625	0.065	1.043	3	5625	0.071	1.138	3	5625	0.136	2.181
11:00-12:00	3	5625	0.089	1.422	3	5625	0.047	0.759	3	5625	0.136	2.181
12:00-13:00	3	5625	0.047	0.759	3	5625	0.077	1.233	3	5625	0.124	1.992
13:00-14:00	3	5625	0.03	0.474	3	5625	0.036	0.569	3	5625	0.066	1.043
14:00-15:00	3	5625	0.024	0.379	3	5625	0.024	0.379	3	5625	0.048	0.758
15:00-16:00	3	5625	0.03	0.474	3	5625	0.024	0.379	3	5625	0.054	0.853
16:00-17:00	3	5625	0.041	0.664	3	5625	0.036	0.569	3	5625	0.077	1.233
17:00-18:00	3	5625	0.006	0.095	3	5625	0.024	0.379	3	5625	0.03	0.474
18:00-19:00	2	5300	0	0	2	5300	0.009	0.151	2	5300	0.009	0.151
19:00-20:00	1	5600	0	0	1	5600	0	0	1	5600	0	0
20:00-21:00	1	5600	0	0	1	5600	0	0	1	5600	0	0
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:			0.474				0.478				0.952	

TRIP RATE for Land Use 01 - RETAIL/L - BUILDER'S MERCHANTS
Calculation Factor: 100 sqm
Estimated TRIP rate value per 1600 SQM shown in Estimated column
Count Type: PSVS

		ARRIVALS					DEPARTURES					
	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated
Time Range	Days	GFA	Rate	Trip Rate	Days	GFA	Rate	Trip Rate	Days	GFA	Rate	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	1	5600	0	0	1	5600	0	0	1	5600	0	0
06:00-07:00	1	5600	0	0	1	5600	0	0	1	5600	0	0
07:00-08:00	3	5625	0	0	3	5625	0	0	3	5625	0	0
08:00-09:00	3	5625	0	0	3	5625	0	0	3	5625	0	0
09:00-10:00	3	5625	0	0	3	5625	0	0	3	5625	0	0
10:00-11:00	3	5625	0	0	3	5625	0	0	3	5625	0	0
11:00-12:00	3	5625	0.006	0.095	3	5625	0.006	0.095	3	5625	0.012	0.19
12:00-13:00	3	5625	0	0	3	5625	0	0	3	5625	0	0
13:00-14:00	3	5625	0	0	3	5625	0	0	3	5625	0	0
14:00-15:00	3	5625	0	0	3	5625	0	0	3	5625	0	0
15:00-16:00	3	5625	0	0	3	5625	0	0	3	5625	0	0
16:00-17:00	3	5625	0	0	3	5625	0	0	3	5625	0	0
17:00-18:00	3	5625	0	0	3	5625	0	0	3	5625	0	0
18:00-19:00	2	5300	0	0	2	5300	0	0	2	5300	0	0
19:00-20:00	1	5600	0	0	1	5600	0	0	1	5600	0	0
20:00-21:00	1	5600	0	0	1	5600	0	0	1	5600	0	0
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:			0.006				0.006				0.012	

TRIP RATE for Land Use 01 - RETAIL/L - BUILDER'S MERCHANTS
Calculation Factor: 100 sqm
Estimated TRIP rate value per 1600 SQM shown in Estimated column
Count Type: CYCLISTS

	ARRIVALS				DEPARTURES						TOTALS	
	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated
Time Range 00:00-01:00 01:00-02:00 02:00-03:00	Days	GFA	Rate	Trip Rate	Days	GFA	Rate	Trip Rate	Days	GFA	Rate	Trip Rate
03:00-04:00												

04:00-05:00												
05:00-06:00	1	5600	0	0	1	5600	0	0	1	5600	0	0
06:00-07:00	1	5600	0	0	1	5600	0	0	1	5600	0	0
07:00-08:00	3	5625	0.006	0.095	3	5625	0.006	0.095	3	5625	0.012	0.19
08:00-09:00	3	5625	0	0	3	5625	0	0	3	5625	0	0
09:00-10:00	3	5625	0	0	3	5625	0	0	3	5625	0	0
10:00-11:00	3	5625	0	0	3	5625	0	0	3	5625	0	0
11:00-12:00	3	5625	0	0	3	5625	0	0	3	5625	0	0
12:00-13:00	3	5625	0	0	3	5625	0	0	3	5625	0	0
13:00-14:00	3	5625	0.012	0.19	3	5625	0.006	0.095	3	5625	0.018	0.285
14:00-15:00	3	5625	0	0	3	5625	0.006	0.095	3	5625	0.006	0.095
15:00-16:00	3	5625	0	0	3	5625	0	0	3	5625	0	0
16:00-17:00	3	5625	0	0	3	5625	0	0	3	5625	0	0
17:00-18:00	3	5625	0	0	3	5625	0	0	3	5625	0	0
18:00-19:00	2	5300	0	0	2	5300	0	0	2	5300	0	0
19:00-20:00	1	5600	0	0	1	5600	0	0	1	5600	0	0
20:00-21:00	1	5600	0	0	1	5600	0	0	1	5600	0	0
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:			0.018				0.018				0.036	

TRIP RATE for Land Use 01 - RETAIL/L - BUILDER'S MERCHANTS

Calculation Factor: 100 sqm
Estimated TRIP rate value per 1600 SQM shown in Estimated column
Count Type: VEHICLE OCCUPANTS

		ARRIVALS					DEPARTURES					
	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated
Time Range	Days	GFA	Rate	Trip Rate	Days	GFA	Rate	Trip Rate	Days	GFA	Rate	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	1	5600	0	0	1	5600	0	0	1	5600	0	0
06:00-07:00	1	5600	0.446	7.143	1	5600	0.036	0.571	1	5600	0.482	7.714
07:00-08:00	3	5625	0.474	7.585	3	5625	0.279	4.456	3	5625	0.753	12.041
08:00-09:00	3	5625	0.859	13.748	3	5625	0.658	10.524	3	5625	1.517	24.272
09:00-10:00	3	5625	0.913	14.601	3	5625	0.924	14.791	3	5625	1.837	29.392
10:00-11:00	3	5625	0.764	12.231	3	5625	0.723	11.567	3	5625	1.487	23.798
11:00-12:00	3	5625	0.764	12.231	3	5625	0.664	10.619	3	5625	1.428	22.85
12:00-13:00	3	5625	0.628	10.05	3	5625	0.729	11.662	3	5625	1.357	21.712
13:00-14:00	3	5625	0.646	10.335	3	5625	0.776	12.421	3	5625	1.422	22.756
14:00-15:00	3	5625	0.545	8.723	3	5625	0.557	8.913	3	5625	1.102	17.636
15:00-16:00	3	5625	0.527	8.439	3	5625	0.533	8.533	3	5625	1.06	16.972
16:00-17:00	3	5625	0.356	5.689	3	5625	0.521	8.344	3	5625	0.877	14.033
17:00-18:00	3	5625	0.172	2.75	3	5625	0.284	4.551	3	5625	0.456	7.301
18:00-19:00	2	5300	0.292	4.679	2	5300	0.349	5.585	2	5300	0.641	10.264
19:00-20:00	1	5600	0.214	3.429	1	5600	0.482	7.714	1	5600	0.696	11.143
20:00-21:00	1	5600	0	0	1	5600	0.054	0.857	1	5600	0.054	0.857
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:			7.6				7.569				15.169	

TRIP RATE for Land Use 01 - RETAIL/L - BUILDER'S MERCHANTS
Calculation Factor: 100 sqm
Estimated TRIP rate value per 1600 SQM shown in Estimated column
Count Type: PEDESTRIANS

	ARRIVALS				ı	DEPARTURI	TOTALS					
	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated
Time Range	Days	GFA	Rate	Trip Rate	Days	GFA	Rate	Trip Rate	Days	GFA	Rate	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	1	5600	0	0	1	5600	0	0	1	5600	0	0
06:00-07:00	1	5600	0.018	0.286	1	5600	0	0	1	5600	0.018	0.286
07:00-08:00	3	5625	0.024	0.379	3	5625	0	0	3	5625	0.024	0.379
08:00-09:00	3	5625	0	0	3	5625	0	0	3	5625	0	0
09:00-10:00	3	5625	0.018	0.284	3	5625	0.012	0.19	3	5625	0.03	0.474
10:00-11:00	3	5625	0.012	0.19	3	5625	0.006	0.095	3	5625	0.018	0.285
11:00-12:00	3	5625	0.018	0.284	3	5625	0.012	0.19	3	5625	0.03	0.474
12:00-13:00	3	5625	0.024	0.379	3	5625	0.018	0.284	3	5625	0.042	0.663
13:00-14:00	3	5625	0.006	0.095	3	5625	0.012	0.19	3	5625	0.018	0.285
14:00-15:00	3	5625	0.012	0.19	3	5625	0.018	0.284	3	5625	0.03	0.474
15:00-16:00	3	5625	0.018	0.284	3	5625	0.012	0.19	3	5625	0.03	0.474
16:00-17:00	3	5625	0	0	3	5625	0.024	0.379	3	5625	0.024	0.379
17:00-18:00	3	5625	0.006	0.095	3	5625	0.018	0.284	3	5625	0.024	0.379
18:00-19:00	2	5300	0	0	2	5300	0.009	0.151	2	5300	0.009	0.151
19:00-20:00	1	5600	0	0	1	5600	0	0	1	5600	0	0
20:00-21:00	1	5600	0	0	1	5600	0.018	0.286	1	5600	0.018	0.286
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:			0.156				0.159				0.315	

TRIP RATE for Land Use 01 - RETAIL/L - BUILDER'S MERCHANTS

Calculation Factor: 100 sqm

Estimated TRIP rate value per 1600 SQM shown in Estimated column

### Count Type: PUBLIC TRANSPORT USERS

	ARRIVALS					DEPARTURI	TOTALS					
	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated
Time Range	Days	GFA	Rate	Trip Rate	Days	GFA	Rate	Trip Rate	Days	GFA	Rate	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	1	5600	0	0	1	5600	0	0	1	5600	0	0
06:00-07:00	1	5600	0	0	1	5600	0	0	1	5600	0	0
07:00-08:00	3	5625	0.012	0.19	3	5625	0	0	3	5625	0.012	0.19
08:00-09:00	3	5625	0.036	0.569	3	5625	0.006	0.095	3	5625	0.042	0.664
09:00-10:00	3	5625	0.012	0.19	3	5625	0.006	0.095	3	5625	0.018	0.285
10:00-11:00	3	5625	0	0	3	5625	0.006	0.095	3	5625	0.006	0.095
11:00-12:00	3	5625	0.006	0.095	3	5625	0.018	0.284	3	5625	0.024	0.379
12:00-13:00	3	5625	0.006	0.095	3	5625	0	0	3	5625	0.006	0.095
13:00-14:00	3	5625	0.006	0.095	3	5625	0.006	0.095	3	5625	0.012	0.19
14:00-15:00	3	5625	0.006	0.095	3	5625	0.006	0.095	3	5625	0.012	0.19
15:00-16:00	3	5625	0	0	3	5625	0	0	3	5625	0	0
16:00-17:00	3	5625	0	0	3	5625	0.012	0.19	3	5625	0.012	0.19
17:00-18:00	3	5625	0	0	3	5625	0.006	0.095	3	5625	0.006	0.095
18:00-19:00	2	5300	0	0	2	5300	0	0	2	5300	0	0
19:00-20:00	1	5600	0	0	1	5600	0	0	1	5600	0	0
20:00-21:00	1	5600	0	0	1	5600	0.054	0.857	1	5600	0.054	0.857
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:			0.084				0.12				0.204	

TRIP RATE for Land Use 01 - RETAIL/L - BUILDER'S MERCHANTS
Calculation Factor: 100 Sqm
Estimated TRIP rate value per 1600 SQM shown in Estimated column
Count Type: TOTAL PEOPLE

	ARRIVALS			DEPARTURES					TOTALS			
	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated
Time Range	Days	GFA	Rate	Trip Rate	Days	GFA	Rate	Trip Rate	Days	GFA	Rate	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	1	5600	0	0	1	5600	0	0	1	5600	0	0
06:00-07:00	1	5600	0.464	7.429	1	5600	0.036	0.571	1	5600	0.5	8
07:00-08:00	3	5625	0.516	8.249	3	5625	0.284	4.551	3	5625	8.0	12.8
08:00-09:00	3	5625	0.895	14.317	3	5625	0.664	10.619	3	5625	1.559	24.936
09:00-10:00	3	5625	0.942	15.076	3	5625	0.942	15.076	3	5625	1.884	30.152
10:00-11:00	3	5625	0.776	12.421	3	5625	0.735	11.757	3	5625	1.511	24.178
11:00-12:00	3	5625	0.788	12.61	3	5625	0.693	11.093	3	5625	1.481	23.703
12:00-13:00	3	5625	0.658	10.524	3	5625	0.747	11.947	3	5625	1.405	22.471
13:00-14:00	3	5625	0.67	10.714	3	5625	0.8	12.8	3	5625	1.47	23.514
14:00-15:00	3	5625	0.563	9.007	3	5625	0.587	9.387	3	5625	1.15	18.394
15:00-16:00	3	5625	0.545	8.723	3	5625	0.545	8.723	3	5625	1.09	17.446
16:00-17:00	3	5625	0.356	5.689	3	5625	0.557	8.913	3	5625	0.913	14.602
17:00-18:00	3	5625	0.178	2.844	3	5625	0.308	4.93	3	5625	0.486	7.774
18:00-19:00	2	5300	0.292	4.679	2	5300	0.358	5.736	2	5300	0.65	10.415
19:00-20:00	1	5600	0.214	3.429	1	5600	0.482	7.714	1	5600	0.696	11.143
20:00-21:00	1	5600	0	0	1	5600	0.125	2	1	5600	0.125	2
21:00-22:00												
22:00-23:00												
23:00-24:00												
Daily Trip Rates:			7.857				7.863				15.72	
. , ,												



# **Appendix DSP3 – Vehicle Swept Paths**

