Greggs Bakery / Twickenham

Outline Delivery & Servicing Plan

Prepared by Velocity

05 August 2022

FORMER GREGGS FACTORY, TWICKENHAM
RESIDENTIAL & INDUSTRIAL
OUTLINE DELIVERY AND SERVICING PLAN

PROJECT NO. 3760 / 3760/1180 DOC NO. D004

DATE: JULY 2022

VERSION: 1.3

CLIENT: LONDON SQUARE DEVELOPMENTS LTD

Velocity Transport Planning Ltd

www.velocity-tp.com

VELOCITY
Transport Planning

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1 INTRODUCTION

1.1 INTRODUCTION

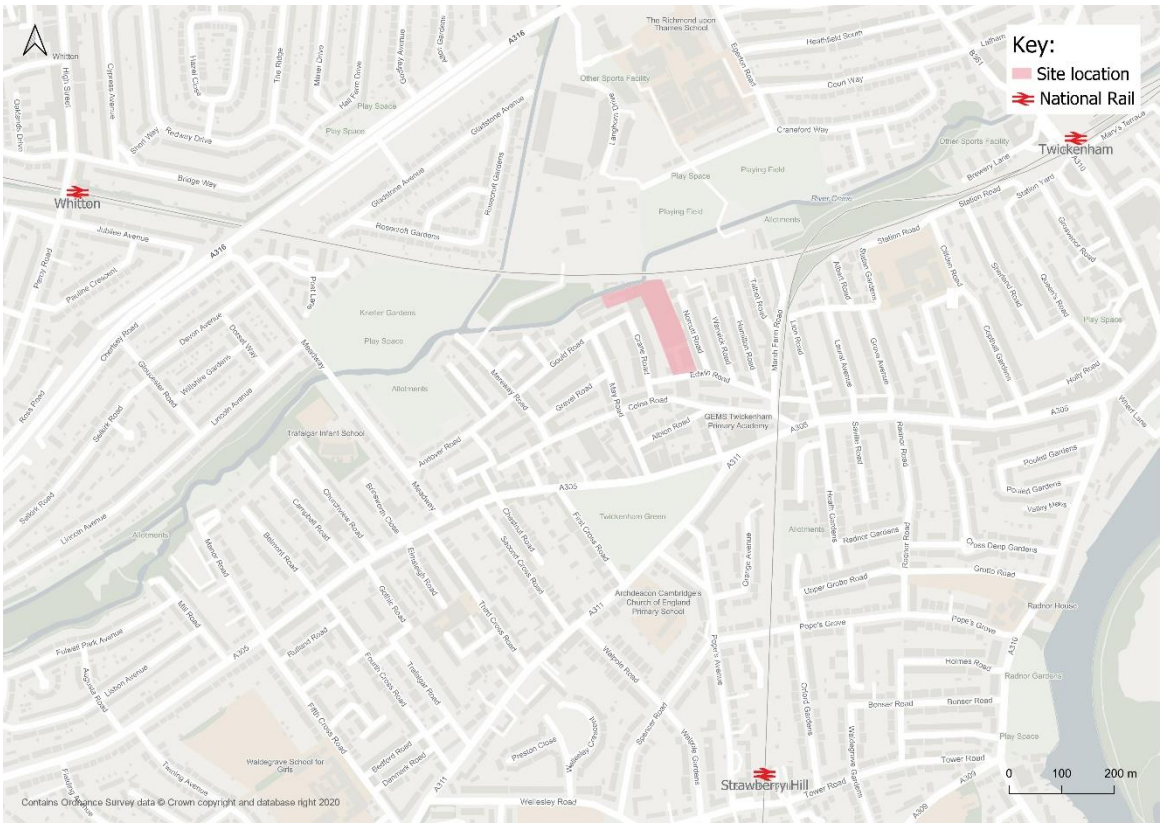
1.1.1 Velocity Transport Planning has prepared this outline Delivery and Servicing Velocity plan (DSP) to accompany a detailed planning application for the redevelopment of the former Greggs Bakery Site and No.2 Gould Road, Twickenham, TW2 6RT (`the site`), located within the administrative boundary of the London Borough of Richmond upon Thames (LBRuT).

1.1.2 This outline DSP accompanies the Transport Assessment (TA), also submitted as part of the application. An operational/detailed DSP would be expected to be secured by planning condition.

1.2 SITE LOCATION

1.2.1 **Figure 1-1** illustrates the location of the site. The existing Site comprises the former Greggs Bakery Site in Twickenham and no.2 Gould Road, within the London Borough of Richmond Upon Thames. The Site is L shaped and is bound by the River Crane to the north and railway line beyond, residential properties on Norcutt Road to the east, Edwin Road to the south, residential properties on Crane Road to the west and further residential properties on Crane Road/ Gould Road and at Crane Mews to the north west.

Figure 1-1: Site location and local context



1.2.2 The surrounding area is predominantly residential in character comprising rows of terraced streets. Crane Mews to the west comprises as mixed-use building of small commercial units and residential. To the south of the Site there is a small workshop in light industrial use.

1.2.3 Lockcorp House on Norcutt Road to the east of the Site comprises an office building which has been the subject of various applications and have resulted in planning permission being granted for residential use. The most recently received approval for 15 affordable flats (mix of one, two and three bedroom units). Norcutt Road comprises mews type properties with small rear gardens with adjoin the Site. Craneford Way Depot to the north of the Site beyond the River Crane and railway line comprises a large, underdeveloped waste Site.

1.2.4 The north of the Site is adjacent to the River Crane. The river and land beyond to the north of the Site is designated as Metropolitan Open Land (MOL). The Hamilton Road Conservation Area is located to the east of the Site with the boundary running between the back gardens of the properties on the east side of Norcutt Road.

1.2.5 Twickenham Railway Station, operated by Southwestern Railway, provides a number of services to and from London Waterloo and destinations in the southwest. In addition, several bus services are accessible within 550m walk of the site along Heath Road.

1.2.6 The site has a PTAL of 2, indicating a poor level of public transport accessibility. As a result of the site being situated within an Outer London area with lower-than-average accessibility to public transport services, higher maximum car parking standards apply, as set out in the London Plan (March 2021).

1.2.7 The site and its surrounding road network are situated within Controlled Parking Zone (CPZ) WT (West Twickenham), which restricts parking from Monday to Saturday between 08:30 to 18:30.

1.3 EXISTING SITE USE

1.3.1 The existing Site comprises the former Greggs Bakery Site in Twickenham and no.2 Gould Road, within the London Borough of Richmond Upon Thames. The Site is L shaped and is bound by the River Crane to the north and railway line beyond, residential properties on Norcutt Road to the east, Edwin Road to the south, residential properties on Crane Road to the west and further residential properties on Crane Road/ Gould Road and at Crane Mews to the north west.

1.3.2 There are a range of buildings covering the majority of the Site which comprises an area of 1.1ha. The majority of the Greggs Bakery Site is covered by a single storey industrial shed alongside large extract equipment. There are also a number of associated two and three storey commercial buildings across the remainder of the Site which have developed in a piecemeal way over time. The existing buildings have reached the end of their life cycle. The application site also includes no. 2 Gould Road, a two-storey end of terrace house.

1.3.3 Due to the current plot coverage, the total floorspace across the Site is 9,051 sqm existing Greggs industrial GIA and 75 sqm existing residential house GIA. The existing structures are built up to the boundaries with the gardens of the properties at Norcutt Road and Crane Road.

1.3.4 The Site is highly constrained and is accessed via Edwin Road to the South and via Gould Road at the north of the Site. There is a small yard to the south of the Site accessed from Edwin Road which is where HGVs access the Site. A limited amount of car parking associated with the existing bakery is located within the Site accessed off Gould Road to the north of the Site. Staff from Greggs Bakery were previously able to park on

the surrounding streets prior to parking restrictions associated with to the introduction of the 'West Twickenham CPZ' which came into force in May 2018.

1.3.5 The existing use of the site is for industrial purposes and includes ancillary office floorspace associated with the bakery operations that previously operated from the Site. The bakery operation is now redundant, and Greggs ceased the bakery use on the Site in 2018. Greggs have been unable to sell the facility despite a marketing exercise which commenced in February 2018.

1.3.6 Greggs operated on the Site since the acquisition in 1994. Agents for Greggs have advised that throughout this period it has proven problematic from an operational and asset management perspective. The buildings gave rise to an unsustainable maintenance cost resulting in the business beginning a search for alternative premises in the late 1990s as the Site was considered unfit for purpose. The business operated from the Site, unsatisfactorily and inefficiently, maintaining a difficult relationship with neighbouring residents. Alternative premises were identified in Enfield and the Bakery production and distribution has now relocated outside of the Borough to a purpose-built facility which is more operationally efficient than the Bakery premises at Gould Road.

1.4 PROPOSED DEVELOPMENT

1.4.1 The description of the proposed development is as follows:

> *'Demolition of existing buildings (with retention of a single dwelling) and redevelopment of the site to provide up to 97 residential units, 883 sqm industrial floorspace (Use Class E) and 117 sqm commercial floorspace with associated hard and soft landscaping, car parking and highways works and other associated works'*

1.4.2 The development quantum is summarised in **Table 1-1** and **Table 1-2**.

Table 1-1: Proposed Development Accommodation Schedule

DWELLING TYPE	NO. OF UNITS
1-bedroom	33
2-bedroom	33
3-bedroom	31
Total	**97**

Table 1-2: Proposed Employment Floorspace

EMPLOYMENT USE CLASS	FLOOR AREA (GIA)
E (g)(iii)	883sqm
E (c) or (g)	117sqm

1.4.3 In summary, the proposed development is seeking detailed planning permission for:

- Demolition of existing industrial buildings across the Site with the retention of an existing two storey end of terrace dwelling house on Gould Road.
- Redevelopment of the Greggs Bakery Site through the provision of a variety of buildings ranging from 2 – 5 storeys, comprising delivery of mews housing, apartment buildings to the north of the Site fronting the River Crane and the delivery of an employment building fronting Edwin Road.

- Delivery of 97 x residential units (Use Class C3) (33 x 1 bed, 33 x 2 bed, 31 x 3 bed) including 20 Affordable Housing units (equating to 20% of residential provision by unit or 19% by habitable room).
- Provision of 883 sqm of commercial floorspace (Use Class E) designed for light industrial usage.
- Provision of 117 sqm of employment floorspace (Use Class E) designed for affordable workspace.
- Creation of new street within the site.
- Car parking provision on site including 83 residential spaces, 18 employment and 1 public on-street car club parking space.
- 202 residential cycle parking spaces and 12 employment spaces.
- 4 loading bays for the industrial.

1.5 SCOPE OF PLAN

1.5.1 This outline DSP has been prepared to set out the principles associated with servicing of the proposed development and establish management measures that will be implemented in order to ensure that the activity associated with deliveries, servicing and refuse collection does not adversely impact the operation of the local highway network or inconvenience of local residents.

1.5.2 The outline DSP aims to ensure that servicing at the proposed development can be carried out sustainably and efficiently. The aspiration is to achieve wider benefits for the local highway network, including contributing towards a reduction in congestion, the associated environmental impact and improving road safety conditions.

1.5.3 This outline DSP is submitted with the planning application and should be read in conjunction with the supporting TA. An operational/detailed Delivery and Servicing Plan may be secured by the s106 agreement.

1.6 DOCUMENT STRUCTURE

1.6.1 The remainder of this outline DSP is structured as follows:

- **Section 2** – reviews relevant transport planning policy;
- **Section 3** – reviews the local highway network including loading and parking restrictions;
- **Section 4** - provides the aims and objectives of the DSP;
- **Section 5** – provides the forecast servicing;
- **Section 6** – summarises the servicing access and provision; and
- **Section 7** – details the management measures of this DSP.

2 PLANNING POLICY

2.1.1 Relevant local and regional planning policies and guidance have been reviewed to provide context for deliveries and servicing in relation to the development proposals.

2.2 LONDON PLAN (2021)

2.2.1 The London Plan (March 2021) is part of the statutory development plan which aims to ensure that London's transport is easy, safe, and convenient for everyone and actively encourages walking and cycling.

2.2.2 The London Plan (March 2021) sets out the need to provide DSPs (Policy D4 Assessing and mitigating transport impacts; Policy T7 Deliveries, servicing and construction).

2.2.3 Policy T7 (f) (Freight and servicing) notes that development proposals should facilitate sustainable freight and servicing, including providing adequate space for servicing and deliveries off-street. Delivery and servicing plans will be required and should be developed in accordance with Transport for London guidance and in a way that reflects the scale and complexities of developments.

2.2.4 Part A of Policy T7 states that development plans and development proposals should facilitate sustainable freight movement by rail, waterways and road.

2.2.5 Part G of Policy T7 highlights that developments should be designed and managed to receive deliveries outside of peak hours and in the evening or night-time. Appropriate facilities are required to minimise additional freight trips arising from missed deliveries and thus facilitate efficient online retailing.

2.2.6 Section 10 of the London Plan (March 2021) includes the following:

- *10.7.5 Delivery and Servicing Plans should demonstrate how the requirements of the site are met, including addressing missed deliveries. Appropriate measures include large letter or parcel boxes and concierges accepting deliveries. Car-free developments should consider the facilitation of home deliveries in a way that does not compromise the benefits of creating low-car or car-free environments.*
- *10.7.6 Construction Logistics and Delivery and Servicing Plans should be developed in line with TfL guidance and adopt the latest standards around safety and environmental performance of vehicles to ensure freight is safe, clean and efficient. To make the plans effective, they should be monitored and managed throughout the construction and operational phases of the Proposed Development."*

2.2.7 Part F of Policy T6 highlights that adequate provision should be made for efficient deliveries and servicing and emergency access.

2.3 TFL DELIVERY AND SERVICING PLANS GUIDANCE

2.3.1 Transport for London ("TfL") requires DSPs to be submitted as part of all referable planning applications, to minimise the impact of freight movements on the transport network. TfL provides online guidance on its freight portal, including "Delivery and Servicing Plans: Making freight work for you". TfL notes on the online portal:

"A DSP provides a framework for ensuring servicing freight activity is as effective and efficient as possible... DSPs consist of a range of tools, actions and interventions aimed at reducing and re-timing deliveries, redefining building operations and ensuring procurement activities account for vehicle movement and emissions."

2.3.2 TfL guidance identifies the following strategies to manage delivery and servicing effectively:

Managing Deliveries

- *Inform suppliers of the delivery location and where loading and unloading should take place.*
- *Implement a delivery booking system to manage the timing of arrivals and minimise peak demands and congestion on-site. Suppliers should be made aware of the system. Each delivery should have a specific time slot; however, the regular time slots should have some spare capacity to accommodate unexpected deliveries.*
- *Move deliveries outside of peak or normal working hours. In some circumstances, it may be possible to work with suppliers to undertake deliveries at quieter times, particularly if staff are available to receive goods on-site 24/7.*
- *Reduce the time spent on-site by suppliers by giving defined delivery times to manage loading and unloading durations and locating delivery areas near loading bays.*
- *Ensure loading bays are kept free of staff parking or other unintended uses, such as waste storage.*

Reviewing Supply Chain Operations

- *Reduce delivery, servicing and collection frequencies by consulting with suppliers and consolidating delivery streams.*
- *Use the procurement process to ensure freight vehicles are safe and lawful and operated efficiently.*
- *Reduce or consolidate the number of suppliers, such as suppliers delivering similar products.*
- *Minimise the number of courier/specialist delivery times on same-day orders to consolidate deliveries onto fewer vehicles.*
- *Review waste management processes to minimise the number of collections.*

Working with Suppliers

- *Promote the use of low or no emission vehicles/modes. Bicycles and motorcycles can be suitable for smaller items. The use of electric and hybrid freight vehicles will reduce carbon emissions.*
- *Promote the use of legal loading locations.*
- *Encourage best practice scheme membership amongst suppliers, such as TfL's Freight Operator Recognition Scheme (FORS), which helps suppliers become safer, greener and more efficient.*

2.4 TFL DELIVERY AND SERVICING PLAN GUIDANCE (DECEMBER 2020)

2.4.1 TfL's Delivery and Servicing Plan Guidance (issued in December 2020) assists with planning for safe, clear and efficient fright in London.

2.4.2 The guidance states the following:

- *A DSP is usually secured by means of a section 106 obligation or similar planning condition once planning permission is granted to a developer by the local authority.*
- *The DSP should cover deliveries and servicing made to the business(es) at the site, and the personal deliveries made to its employees or tenants/occupiers.*
- *The DSP should be a live document that is updated over time to reflect changes.*

2.4.3 There are benefits in terms of cost savings to the business, improved neighbour relations and reduced environmental impact of site occupiers where a DSP is effectively implemented:

- *save time and money; for example, a delivery booking system can free up space and employees' time;*
- *contribute to Corporate Social Responsibility; for example, out-of-peak delivery hours can reduce local congestion, and cleaner and more efficient deliveries help to achieve carbon reduction targets; and*
- *improve everyone's safety, for example, by providing adequate off-street loading bays.*

2.5 LBRUT - LOCAL PLAN (2018)

2.5.1 The LBRuT's Local Plan sets out the strategic framework for the borough from 2018 to 2033. The Local Plan contains the strategic vision and objectives for the borough, as well as the policies and site allocations that will guide the future development of the borough.

2.5.2 Chapter 11 of the Local Plan pertains specifically to Transport; Policy LP45 *"Parking Standards and Servicing*" states that

> *"New development which involves freight movements and has servicing needs will be required to demonstrate through the submission of a Delivery and Servicing Plan and Construction and Logistics Plan that it creates no severe impacts on the efficient and safe operation of the road network and no material harm to the living conditions of nearby residents."*

2.6 LBRUT - DRAFT TRANSPORT SUPPLEMENTARY PLANNING DOCUMENT (SPD) (2020)

2.6.1 LBRuT is working on updating existing and new SDPs, which provide further details on the implementation of policies and/or site allocations for key development sites as contained within the adopted Local Plan.

2.6.2 The Draft Transport SPD provides further detailed guidance to support the adopted Local Plan policies, to promote safe and sustainable transport choices.

2.6.3 LBRuT Draft Transport SPD states deliveries should be developed in accordance with the Local Plan and TfL's guidance and submitted alongside the planning application.

3 LOCAL HIGHWAY NETWORK

3.1.1 There are currently two vehicular access points to the site: one from Edwin Road to the south and one to the north from the corner of Gould Road and Crane Road. The former was primarily used to accommodate larger operational HGVs associated with the site's former industrial use, and the latter was generally used for employee and visitor parking.

3.1.2 The local highway network and parking and loading restrictions are shown in **Figure 3-1** and **Figure 3-2**.

Figure 3-1: Existing Road Layout – Edwin Road

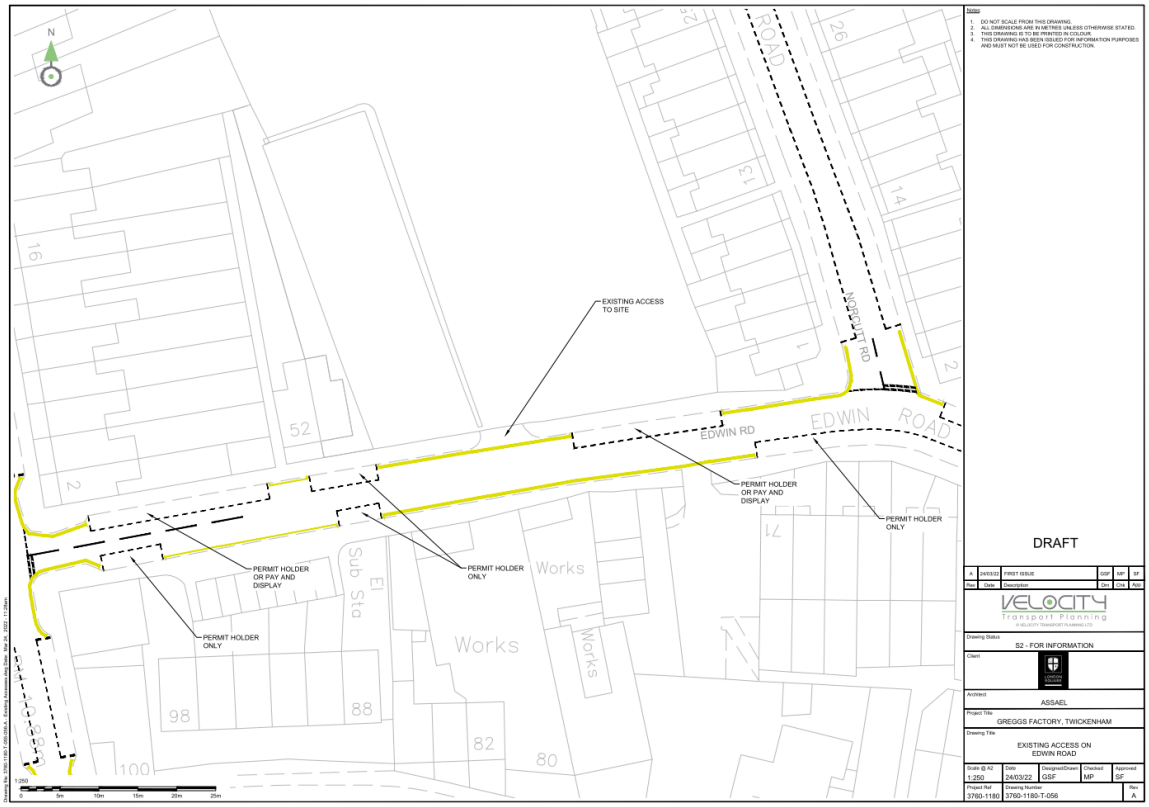


Figure 3-2: Existing Road Layout – Crane Road/Gould Road

EDWIN ROAD

3.1.3 Edwin Road is a narrow two-way residential road which forms a priority junction with Colne Road to the east and Crane Road to the west of its junction with Norcutt Road. A low railway bridge located near Marsh Farm Road provides a through route for pedestrians and cyclists only, connecting to a Tesco Express food convenience store, and the western extent of the High Street.

3.1.4 Edwin Road is marked with double yellow lines at junctions and in front of industrial and commercial properties and is otherwise marked with a mixture or permit holder only and permit or pay by phone parking bays. On the northern footway, marked bays are indicated to allow vehicles to partially park on the pavement.

3.1.5 Footways are present on both sides of the road; however, the effective width of the footways is reduced due to vehicles partially parking on pavements, and the presence of street furniture.

CRANE ROAD

3.1.6 Crane Road is a two-way residential road which is approximately 160m in length. It provides access to the proposed site at its northern end and forms a junction with Colne Road at its southern end.

3.1.7 It has residential properties on both sides which do not have off-street parking, but on-street permit holders only parking is provided the length of Crane Road.

GOULD ROAD

3.1.8 Gould Road is a two-way residential road which provides access to the proposed site at its eastern end and forms a junction with Mereway Road and Andover Road at its western end.

3.1.9 It has residential properties on both sides which do not have off-street parking, but on-street permit holders only parking is provided the length of Gould Road.

COLNE ROAD – SCHOOL STREET

3.1.10 In September 2021 The School Street scheme was approved and made permanent for Twickenham Primary Academy for part of Colne Road between the junction of March Farm Road and Albion Road.

3.1.11 School Streets do not operate during school holidays or at weekends and the signs will be closed when not operational for holidays and half term breaks.

3.1.12 Th operating hours for Colne Road are Monday to Friday 08:20 to 09:00 and 15:30 to 16:15.

3.1.13 People walking, scooting, using wheelchairs, mobility scooters and cycles (including adapted cycles) are not restricted. All other motor vehicles are restricted during the operating times displayed on the signs, subject to exemptions.

3.1.14 The following motorised vehicles are automatically exempt:

- Emergency vehicles
- Council waste trucks serving properties within the School Street zone
- Postal service vehicles serving post boxes within the School Street zone
- Statutory undertakers (such as water and gas companies) attending emergency works within the School Street zone
- School buses serving the school or properties within the School Street zone
- Public transport and taxis (Hackney Carriage) serving properties within the School Street zone

3.1.15 The following vehicles are also exempt, but they must apply for exemption using LBRuTs online exemption form or contact LBRuT:

- Residents and businesses within the School Street zone
- Blue badge holders (when their destination is within the School Street zone)
- Carers and healthcare workers serving properties within the School Street zone
- Private hire taxis serving properties within the School Street zone
- Tradespeople/service providers serving properties within the School Street

Delivery vehicles serving properties within the School Street

4 AIMS AND OBJECTIVES

4.1.1 The main aim of this DSP is to minimise the site's impact on the local highway network, by:

- Ensuring adequate arrangements are made for deliveries and servicing and to protect the amenity of existing and future occupiers, and
- Encouraging out of hours/off-peak servicing
- Assist in the management of refuse, delivery and servicing activities at the development by involving the efficiency of these activities and reducing the impact of the development on the local road network.

4.1.2 The intended benefits of the DSP are as follows:

- For the occupier and supply chain – reduced operating costs and improved reliability of deliveries;
- For site users and the local community – reduced risk of accidents;
- For the local community and wider environment – reduced CO2 emissions.

4.1.3 The nature of the development and the low number of delivery and servicing trips (as set out in the following section – Section 5), means that it is not necessary for the DSP to provide specific targets and formal monitoring.

5 SERVICING DEMAND

5.1.1 This section outlines the estimated quantity of service and delivery vehicle movements associated with each of the proposed land uses.

5.2 DELIVERY AND SERVICING TRIPS

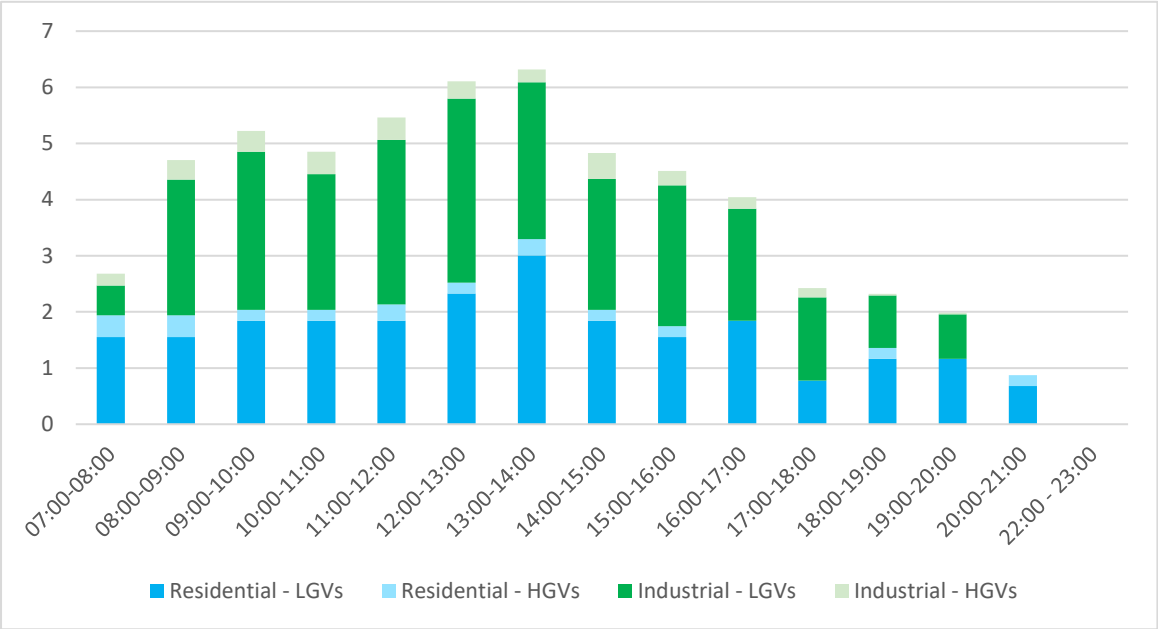
5.2.1 The TRICS database has been used to forecast servicing demands. Full details of the comparable sites selected to forecast the residential and employment delivery and servicing demand are included in Section 5 of the Transport Assessment.

5.2.2 Daily servicing trip generation rates are set out within **Table 5-1** and a daily profile of the exacted servicing demands at the proposed development is provided in **Figure 5-1.**

Table 5-1: Delivery and servicing trip rates for the residential and employment uses – Two-way

HOUR	RESIDENTIAL - TRIP RATES PER DWELLING		INDUSTRIAL TRIP RATES PER 100 SQM		COMMERCIAL TRIP RATES PER 100 SQM	
	LGV	HGV	LGV	HGV	LGV	HGV
07:00-08:00	0.016	0.004	0.016	0.016	0.022	0.004
08:00-09:00	0.016	0.004	0.022	0.022	0.019	0.004
09:00-10:00	0.019	0.002	0.019	0.019	0.013	0.005
10:00-11:00	0.019	0.002	0.013	0.013	0.042	0.004
11:00-12:00	0.019	0.003	0.042	0.042	0.025	0.001
12:00-13:00	0.024	0.002	0.025	0.025	0.028	0
13:00-14:00	0.031	0.003	0.028	0.028	0.016	0
14:00-15:00	0.019	0.002	0.016	0.016	0.018	0
15:00-16:00	0.016	0.002	0.018	0.018	0.014	0
16:00-17:00	0.019	0.000	0.014	0.014	0.025	0
17:00-18:00	0.008	0.000	0.025	0.025	0.008	0
18:00-19:00	0.012	0.002	0.008	0.008	0.004	0

Figure 5-1: Proposed development - forecast servicing demand



5.2.3 On average, a total of 56 LGV and eight HGV two-way vehicles movements per day are expected to be generated by the residential units and light industrial unit, with up to seven two-way movements (four vehicles) in a given hour.

5.2.4 The additional employment use on the site is expected to generate one delivery per day.

5.2.5 TfL's *Kerbside Loading Guidance*[1] provides average loading times by land use, based on detailed surveys at four locations (Kingsland, Acton, Camden and Stratford). The site provides the following land uses:

- C3 Residential –14:15 mm:ss
- Class E – 12:36 mm:ss

5.2.6 Based on the dwell times above, it is unlikely that multiple delivery and servicing vehicles will load/unload on-site at any one time. To further reduce the risk of vehicles waiting on the site's surrounding highway network, delivery and servicing vehicle movements will be managed through the implementation of a delivery booking system to manage vehicle arrival times for the industrial use.

5.2.7 Occasional deliveries of white goods and furniture, for example, or indeed removals lorries may add an additional HGV onto the local network.

[1] Transport for London's Kerbside Loading Guidance, January 2017

6 SERVICING ACCESS

6.1.1 The servicing access strategy for the scheme is set out within **Figure 6-1.**

Figure 6-1: Proposed delivery and servicing access strategy

6.1.2 The proposed internal road will enable all refuse collection, residential deliveries and maintenance vehicles to deliver and collect on-site. The access route for servicing vehicles is shown in **Figure 6-1.**

6.1.1 The northern access on Gould Road/Crane Road, will form the primary access to the residential units. The access will lead into the on-site car parking and landscaping area for residents only. All vehicles would enter and exit the residential scheme from the Crane Road access, except refuse vehicles who would continue through the employment area and egress onto Edwin Road.

6.1.2 The proposal provides separate access points to the employment building and car parking via Edwin Road and to the residential area via Crane Road. It is proposed to provide a two-way internal route through the residential area with a turning head at the southern end of the route (as shown in green in **Figure 6-1**).

6.1.3 A swept path analysis exercise has been undertaken and shows the delivery and refuse collection vehicles accessing, manoeuvring and egressing the site. The complete set of vehicle tracking drawings is included in **Appendix A**.

7 MANAGEMENT AND MEASURES

7.1.1 This section outlines the measures proposed to achieve the objectives of this DSP. These measures will be in place from first occupation of the site.

7.2 MANAGEMENT

7.2.1 The employment aspect of the development will be managed by on-site staff.

7.2.2 The on-site staff will have overall responsibility for the day-to-day management of deliveries, servicing, and refuse, and will be on hand to receive deliveries. This will help minimise the time spent by vehicles on street and avoid failed deliveries.

7.2.3 Staff will:

- Make suppliers/delivery companies aware of the locations where deliveries should be undertaken.
- Encourage drivers to switch off vehicle engines whilst goods are being loaded/unloaded.
- Ensure that refuse containers are returned to the refuse storage following refuse collection.

7.3 SCHEDULING AND SUPPLIER CHOICES

7.3.1 Various deliveries will be required to the site which may be able to be grouped to limit the number of total deliveries. Staff will:

- Use a limited number of suppliers into order to group items / parcels together
- Schedule deliveries outside of the peak hours during quieter times of the day.
- Reschedule any missed deliveries outside of the peak hours and advise employees to book any personal deliveries outside of the peak hours where possible.
- Select low emissions deliveries (electric vans or cargo bikes) where the suppliers offer this choice.

7.4 REVISING MODE

7.4.1 Revising the travel mode to more sustainable forms of transport can reduce the impact of servicing through reduced emissions and noise.

7.4.2 There are growing trends for customers to be able to pick the type of vehicles (i.e., to opt for an electric vehicle or e-bike) to make deliveries. Retailers including Sainsburys offer booking slots that reduce the carbon footprint of your delivery, by informing customers using a green van icon where a delivery is already taking place in the area. Staff will be encouraged to choose low emissions delivery vehicles through the procurement process.

APPENDIX A

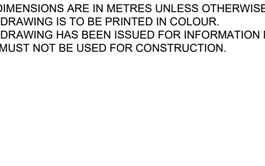
SWEPT PATH DRAWINGS

1:500

0 10m 20m 30m 40m 50m

Notes:

1. DO NOT SCALE FROM THIS DRAWING.
2. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
3. THIS DRAWING IS TO BE PRINTED IN COLOUR.
4. THIS DRAWING HAS BEEN ISSUED FOR INFORMATION PURPOSES AND MUST NOT BE USED FOR CONSTRUCTION.



Richmond RCV	
Overall Length	10.400m
Overall Width	2.500m
Overall Body Height	3.742m
Min Body Ground Clearance	0.295m
Track Width	2.450m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.350m

Rev	Date	Description	Drn	Chk	App
D	20/07/22	UPDATED GA LAYOUT	GSF	MP	SF
C	06/04/22	UPDATED GA LAYOUT	GSF	MP	SF
B	28/03/22	SWEPT PATHS REVISED	GSF	MP	SF
A	10/03/22	FIRST ISSUE	GSF	MP	SF

VELOCITY
Transport Planning

Drawing Status
S2 - FOR INFORMATION

Client
LONDON SQUARE

Architect
ASSAEL

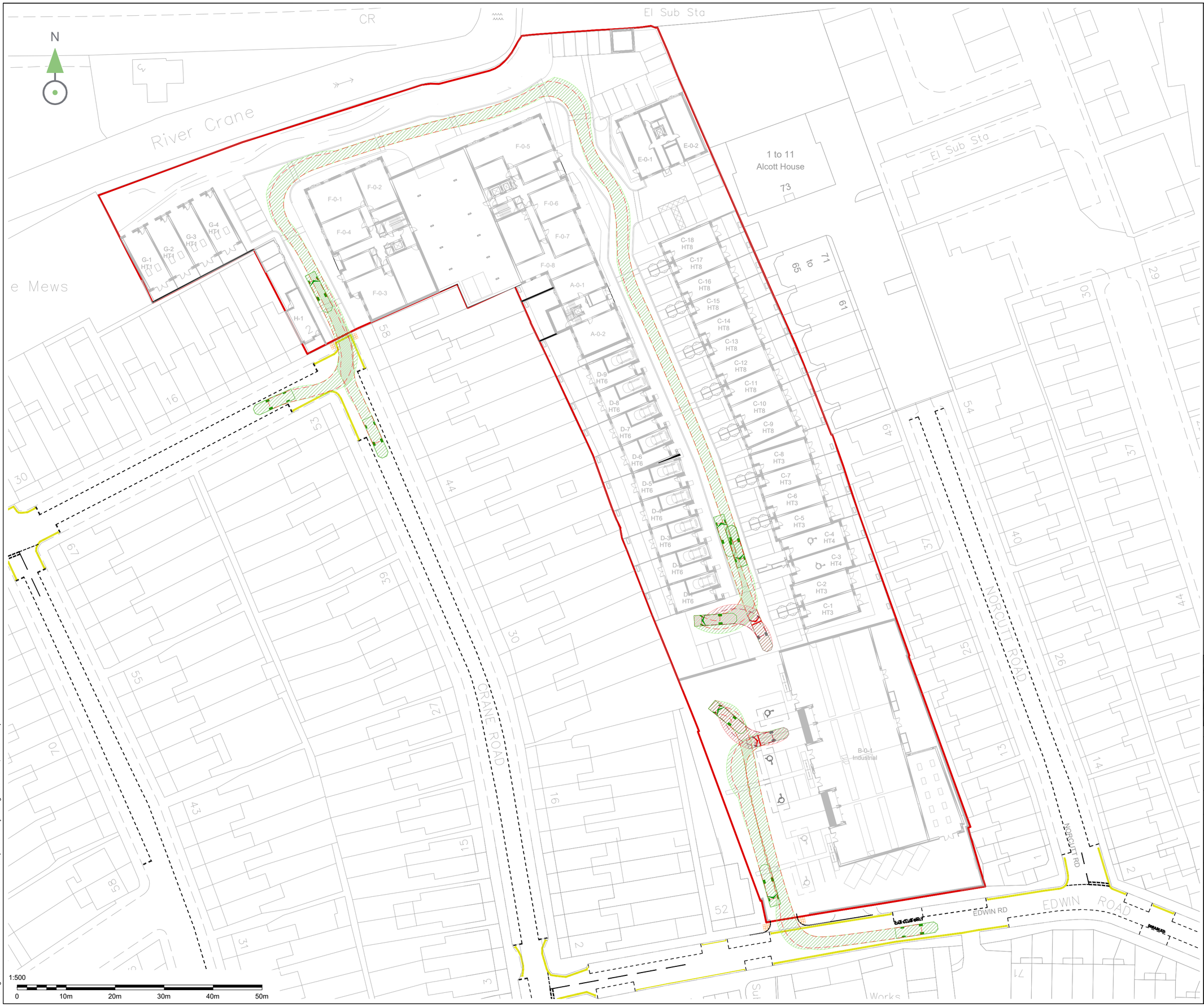
Project Title
GREGGS FACTORY, TWICKENHAM

Drawing Title
RESIDENTIAL & INDUSTRIAL SCHEME
GROUND FLOOR PLAN
SWEPT PATH ANALYSIS - RICHMOND RCV

Scale @ A2	Date	Designed/Drawn	Checked	Approved
1:500	10/03/22	GSF	MP	SF

Project Ref	Drawing Number	Rev
3760-1180	3760-1180-T-044	D

Drawing file: 3760-1180-T-044-048-D - Resi+Ind - Swept Path Analysis.dwg Date: Jul 20, 2022 - 3:23pm



1:500

0 10m 20m 30m 40m 50m

Notes:

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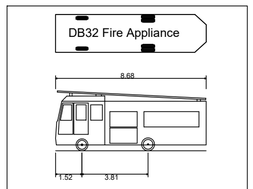
4. THIS DRAWING HAS BEEN ISSUED FOR INFORMATION PURPOSES AND MUST NOT BE USED FOR CONSTRUCTION.



DB32 Fire Appliance

Overall Length	8.680m
Overall Width	2.180m
Overall Body Height	3.452m
Min Body Ground Clearance	0.337m
Max Track Width	2.121m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	7.910m

Rev	Date	Description	Drn	Chk	App
D	20/07/22	UPDATED GA LAYOUT	GSF	MP	SF
C	06/04/22	UPDATED GA LAYOUT	GSF	MP	SF
B	28/03/22	SWEPT PATHS REVISED	GSF	MP	SF
A	10/03/22	FIRST ISSUE	GSF	MP	SF

VELOCITY Transport Planning

Drawing Status
S2 - FOR INFORMATION

Client
LONDON SQUARE

Architect
ASSAEL

Project Title
GREGGS FACTORY, TWICKENHAM

Drawing Title
RESIDENTIAL & INDUSTRIAL SCHEME
GROUND FLOOR PLAN
SWEPT PATH ANALYSIS - FIRE APPLIANCE

Scale @ A2	Date	Designed/Drawn	Checked	Approved
1:500	10/03/22	GSF	MP	SF

Project Ref	Drawing Number	Rev
3760-1180	3760-1180-T-045	D

Drawing file: 3760-1180-T-044-048-D - Resi+Ind - Swept Path Analysis.dwg Date: Jul 20, 2022 - 3:24pm

Notes:

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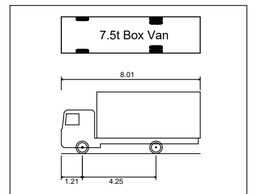

7.5t Box Van	
Overall Length	8.010m
Overall Width	2.100m
Overall Body Height	3.556m
Min Body Ground Clearance	0.351m
Track Width	2.064m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	7.400m

Rev	Date	Description	Drn	Chk	App
D	20/07/22	UPDATED GA LAYOUT	GSF	MP	SF
C	06/04/22	UPDATED GA LAYOUT	GSF	MP	SF
B	28/03/22	SWEPT PATHS REVISED	GSF	MP	SF
A	10/03/22	FIRST ISSUE	GSF	MP	SF

VELOCITY Transport Planning

Drawing Status: S2 - FOR INFORMATION

Client: LONDON SQUARE

Architect: ASSAEL

Project Title: GREGGS FACTORY, TWICKENHAM

Drawing Title: RESIDENTIAL & INDUSTRIAL SCHEME
GROUND FLOOR PLAN
SWEPT PATH ANALYSIS - 7.5T BOX VAN

Scale @ A2	Date	Designed/Drawn	Checked	Approved
1:500	10/03/22	GSF	MP	SF

Project Ref	Drawing Number	Rev
3760-1180	3760-1180-T-046	D

Drawing file: 3760-1180-T-044-048-D - Res+Ind - Swept Path Analysis.dwg Date: Jul 20, 2022 - 3:25pm

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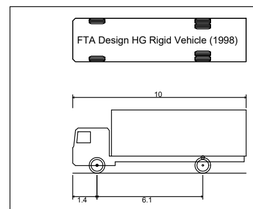

FTA Design HG Rigid Vehicle (1998)	
Overall Length	10.000m
Overall Width	2.500m
Overall Body Height	3.645m
Min Body Ground Clearance	0.440m
Track Width	2.470m
Lock to lock time	3.00s
Kerb to Kerb Turning Radius	11.000m

Rev	Date	Description	Drn	Chk	App
D	20/07/22	UPDATED GA LAYOUT	GSF	MP	SF
C	06/04/22	UPDATED GA LAYOUT	GSF	MP	SF
B	28/03/22	SWEPT PATHS REVISED	GSF	MP	SF
A	10/03/22	FIRST ISSUE	GSF	MP	SF

VELOCITY Transport Planning

Drawing Status
S2 - FOR INFORMATION

Client
LONDON SQUARE

Architect
ASSAEL

Project Title
GREGGS FACTORY, TWICKENHAM

Drawing Title
RESIDENTIAL & INDUSTRIAL SCHEME
GROUND FLOOR PLAN
SWEPT PATH ANALYSIS - 10m RIGID

Scale @ A2	Date	Designed/Drawn	Checked	Approved
1:500	10/03/22	GSF	MP	SF

Project Ref	Drawing Number	Rev
3760-1180	3760-1180-T-047	D

1:500
0 10m 20m 30m 40m 50m

Drawing file: 3760-1180-T-044-046-D - Resi+Ind - Swept Path Analysis.dwg Date: Jul 20, 2022 - 3:25pm

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Medium Sized Car	
Overall Length	4.319m
Overall Width	1.686m
Overall Body Height	1.466m
Min Body Ground Clearance	0.228m
Max Track Width	1.591m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	5.042m

Rev	Date	Description	Drn	Chk	App
D	20/07/22	UPDATED GA LAYOUT	GSF	MP	SF
C	06/04/22	UPDATED GA LAYOUT	GSF	MP	SF
B	28/03/22	SWEPT PATHS REVISED	GSF	MP	SF
A	10/03/22	FIRST ISSUE	GSF	MP	SF

Drawing Status: S2 - FOR INFORMATION

Client: LONDON SQUARE

Architect: ASSAEL

Project Title: GREGGS FACTORY, TWICKENHAM

Drawing Title: RESIDENTIAL & INDUSTRIAL SCHEME
GROUND FLOOR PLAN
SWEPT PATH ANALYSIS - MEDIUM CAR

Scale @ A2	Date	Designed/Drawn	Checked	Approved
1:500	10/03/22	GSF	MP	SF

Project Ref	Drawing Number	Rev
3760-1180	3760-1180-T-048	D

Drawing file: 3760-1180-T-044-048-D - Resi+Ind - Swept Path Analysis.dwg Date: Jul 20, 2022 - 3:26pm

N

EDWIN RD

22

18

SL

Warehouse

4 6

Posts

Posts

EDWIN ROAD

PEDESTRIAN
RIGHT OF WAY
UNDER RAILWAY

MARSH FARM RD

35

11 to 33

6

7

3 5

Works

Works

9.1m

6

4

2

COLNE RD

35 to 4

180

1:250

0 5m 10m 15m 20m 25m

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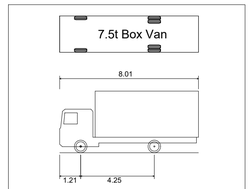


7.5t Box Van	
Overall Length	8.010m
Overall Width	2.100m
Overall Body Height	3.556m
Min Body Ground Clearance	0.351m
Track Width	2.064m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	7.400m

Rev	Date	Description	Drn	Chk	App
A	27/05/22	FIRST ISSUE	TC	MP	SF

VELOCITY
Transport Planning

Drawing Status
S2 - FOR INFORMATION

Client
LONDON SQUARE

Architect
ASSAEL

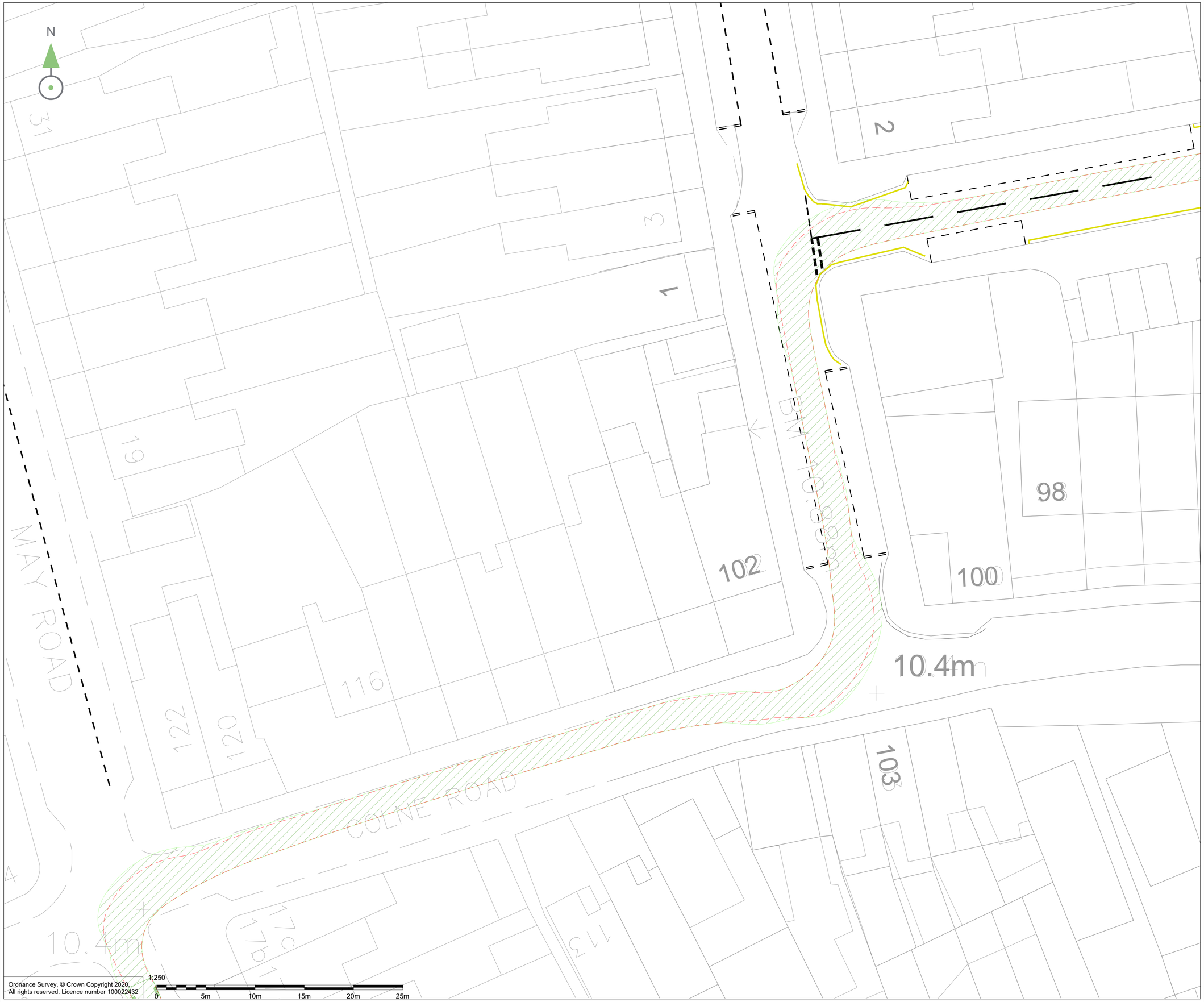
Project Title
GREGGS TWICKENHAM

Drawing Title
SWEPT PATH ANALYSIS OF A 7.5t BOX VAN THE COLNE ROAD/MARSH FARM LANE/EDWIN ROAD

Scale @ A2	Date	Designed/Drawn	Checked	Approved
1:200	27/05/22	TC	MP	SF

Project Ref	Drawing Number	Rev
3760-1180	3760-1180-T-121	A

Drawing file: 3760-1180-T-121-122-A - Swept paths - HGVs.dwg Date: Jun 15, 2022 - 10:03pm



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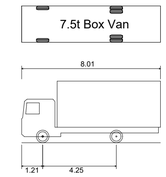

7.5t Box Van	
Overall Length	8.010m
Overall Width	2.100m
Overall Body Height	3.556m
Min Body Ground Clearance	0.351m
Track Width	2.064m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	7.400m

Rev	Date	Description	Drn	Chk	App
A	27/05/22	FIRST ISSUE	TC	MP	SF

VELOCITY Transport Planning

Drawing Status
S2 - FOR INFORMATION

Client
LONDON SQUARE

Architect
ASSAEL

Project Title
GREGGS TWICKENHAM

Drawing Title
SWEPT PATH ANALYSIS OF A 7.5t BOX VAN
MAY ROAD/COLNE ROAD/CRANE ROAD

Scale @ A2	Date	Designed/Drawn	Checked	Approved
1:200	27/05/22	TC	MP	SF

Project Ref	Drawing Number	Rev
3760-1180	3760-1180-T-122	A

Drawing file: 3760-1180-T-121-122-A - Swept paths - HGVs.dwg Date: Jun 15, 2022 - 10:03pm