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HIGHWAYS AND INFRASTRUCTURE
TRAFFIC AND TRANSPORTATION

100 Gray's Inn Road, London

Delivery and Service Plan

Lawnmist Limited

September 2022

Delivery and Service Plan

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1 INTRODUCTION

1.1 Proposed Development

1.1.1 This Delivery and Servicing Plan (DSP) has been prepared by Norman Rourke Pryme on behalf of Lawnmist Limited to support a planning application for the redevelopment of an existing building at 88 and 100 Gray's Inn Road as well as 127 Clerkenwell Road. It is currently predominately office space with commercial offerings on the ground floor.

1.1.2 The site is situated at 100 Gray's Inn Road and has frontages on both Clerkenwell Road and Gray's Inn Road. The site location is shown in its strategic context in Figure 1.1 and in its local context in Figure 1.2.

1.2 Overview

1.2.1 This Delivery and Servicing Pan has been prepared in accordance with relevant advice and guidance. It demonstrates that the site accords with national, regional and local transport policies.

1.3 Structure of Report

1.3.1 This DSP is set out as follows:

- Chapter 2 provides a summary of relevant national and local policy and design guidance;
- The existing transport and highway conditions surrounding the site are described in Chapter 3;
- Chapter 4 describes the business operation and management of servicing;
- Chapter 5 considers tools and techniques to be employed; and
- Chapter 6 describes the implementation and monitoring of the Service Management Plan.

1.4 Limitations

1.4.1 The information, views and conclusions drawn concerning the site are based, in part, on information supplied to NRP by other parties. NRP has proceeded in good faith on the assumption that this information is accurate. NRP accepts no liability for any inaccurate conclusions, assumptions or actions taken resulting from any inaccurate information supplied to NRP from others.

2 RELEVANT POLICY AND GUIDANCE

2.1 Introduction

2.1.1 This chapter describes the travel planning policy and guidance relevant to the proposed site that has been referred to in the development of this Residential Travel Plan as follows:

- National Planning Policy Framework (2021);
- The London Plan 2021– Policy T7 Deliveries, Servicing and Construction;
- Freight and Servicing Action Plan (2019);
- Delivery and Servicing Plan Guidance; and
- London Ultra / Low Emissions Zone / Congestion Charge.

2.2 National Planning Policy Framework (2021)

2.2.1 The National Planning Policy Framework (NPPF) was first published in March 2012 and replaced the previous national planning policies that were set out in the various Planning Policy Guidance Notes and Statements. Regarding transport, the NPPF replaced policy contained within PPG13 (Transport).

2.2.2 The NPPF was revised in February 2019 to include reforms previously announced through the Housing White Paper, the planning for the right homes in the right places consultation and the draft revised National Planning Policy Framework consultation.

2.2.3 The NPPF has been revised again in July 2021 to focus more on '*well-designed, beautiful and safe places.*' The document supports walking and cycling and wants to ensure that all large-scale development is supported by the necessary and required infrastructure and facilities to provide a genuine choice of transport modes, aiming to promote sustainable transport, whilst still recognising that opportunities vary between rural and urban areas.

2.2.4 The NPPF sets out a presumption in favour of sustainable development that recognises the importance of transport policies in facilitating sustainable development.

2.2.5 Paragraphs 104 and 105 set out the transport issues that should be considered at the earliest stages of planning:

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

- *the potential impacts of development on transport networks can be addressed;*
- *opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;*
- *opportunities to promote walking, cycling and public transport use are identified and pursued;*
- *the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and*
- *patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places.*

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

2.2.8 Paragraph 110 sets out the transport requirements for allocations or applications:

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

- appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;
- safe and suitable access to the site can be achieved for all users; and
- any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree."

2.2.10 Paragraphs 111 and 112 state that developments should not be prevented on highways grounds unless the cumulative impacts are severe:

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

2.2.12 *Within this context, applications for development should:*

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

2.2.13 Paragraph 113 states the requirement for significant developments to produce Travel Plans and Transport Statements or Transport Assessments:

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

2.3 The London Plan 2021 – Policy T7 Deliveries, servicing and construction

2.3.1 The London Plan provides the spatial development strategy for Greater London. Policy T7 relates to freight and the need for London to have an efficient distribution network to service its people and businesses that improves road safety, minimises impacts on congestion and any adverse environmental impacts.

2.3.2 Strategies such as the use of safer vehicles, sustainable last-mile schemes and the provision of rapid electric charging points for freight vehicles, are suggested.

2.3.3 At the strategic level the Mayor will work with all relevant partners to improve freight distribution. The Mayor supports the development of corridors to bypass London, especially for rail or water freight, to relieve congestion within London.

2.4 London Freight and Servicing Action Plan

2.4.1 The Mayor of London and Transport for London (TfL) have prepared the Freight and Servicing Action Plan to transform how deliveries are made in London, reducing road danger and helping to clean up London's toxic air.

2.4.2 The Strategy provides clarity on future polices and sets out the actions we can now and, in the future, to support safe, clean and efficient freight operations, which are fundamental to achieving the Mayor's vision for London.

2.4.3 Through delivering the Strategy, the Mayor aims to cut the number of lorries and vans entering central London by 10 percent in the morning peak, by 2026.

2.4.4 A key part of the Plan is to offer more 'click and collect' points at Tube stations, with TfL launching a bid for space in the stations to open more parcel lockers across the transport network. TfL will make land available for micro-distribution centres in key locations to support sustainable 'last mile' deliveries in neighbourhoods, including by bike. It is also envisaged that businesses will work will TfL to encourage then to offer 'green' delivery slots, which enable shoppers to choose a delivery window when drivers are already in their area.

2.4.5 The actions set out within the Plan explain how collaboration is required between boroughs, businesses and the freight and servicing industry whilst road space is reallocated to walking, cycling and public transport and new regulations are introduced to make vehicles safer and cleaner.

2.4.6 The integrated transport authority will also work with partners in other cities, nationally and internationally, through groups such as the Urban Transport Group to share ideas, solutions and sharing best practise. This helps to drive innovations as well as achieving consistency.

2.5 Managing Freight Effectively: Delivery and Servicing Plans

2.5.1 TfL provide additional guidance on the production of Delivery and Servicing Plans within their document entitled Managing Freight Effectively. The document identifies that the plan needs to be tailored to the specific requirements of the building, but outputs can include:

- A plan identifying where safe and legal loading can take place;
- An agreement for occupants to use freight operators who can demonstrate their commitment to following best practice – for example, FORS members. Visit www.tfl.gov.uk/fors for more details; and
- Proactive management of deliveries to reduce the number of unnecessary journeys and increase the use of more sustainable modes, where possible.

2.5.2 The guidance also identifies some of the most effective tools and techniques to minimise the impact of freight activity on London's roads.

2.6 The London Low Emissions Zone

2.6.1 The Low Emissions Zone (LEZ) is a scheme that aims to improve air quality in the city by setting and enforcing strict emissions standards for HGVs, LGVs, coaches, motorises caravans and other vehicle except private cars, and deterring the use of the most polluting vehicles by freight operators. The London LEZ is a "first" for the UK and is one of the largest schemes of its type in the world.

2.6.2 The LEZ initially came into force on 4 February 2008 for lorries over 12 tonnes. Subsequently, most types of goods vehicles have been included and tougher emissions standards were introduced in 2012. Cars and motorcycles are not affected.

2.6.3 The LEZ operates 24 hours a day, 7 days a week, every day of the year including weekends and

2.6.4 public holidays, with a daily charge of £200 being applicable for lorries, buses and coaches; and £100 for heavy vans and minibuses which do not meet the required standards. Penalty Charge Notices of up to £1000 can be issued for non-payment of the daily charge.

2.6.5 The LEZ is enforced through fixed and mobile cameras which read your vehicle registration number plate as you drive within the LEZ and check it against a database of vehicles which meet the LEZ emissions standards, or are either exempt or registered for a 100% discount, or if the LEZ daily charge has been paid.

2.6.6 The introduction of the new emissions standards for HGVs, large vans and minibuses sets a model for improving air quality in London.

2.6.7 In March 2021, the Mayor announced that the London-wide Low Emissions Zone (LEZ) would be tightened for heavy vehicles to match the emissions standards of the central London Ultra Low Emissions Zone (ULEZ). HGV's, buses and coaches must now meet stricter standards or pay a daily charge of up to £300.

2.7 The London Ultra Low Emissions Zone

2.7.1 The Ultra-Low Emissions Zone (ULEZ) operates 24 hours a day, midnight to midnight, every day of the year, except Christmas Day. It is a fee based on European emissions standards for cars, motorbikes and some vans and charged to the most polluting vehicles travelling through the Central London Zone.

2.7.2 The money raised from the ULEZ is reinvested into the transport network and improving the air quality in London.

2.7.3 From 25 October 2021, the ULEZ is expanding from just central London to create a single, larger zone up to, nut not including the North Circular Road (A406) and the South Circular Road (A205).

2.8 The London Congestion Charge

2.8.1 The Congestion Charge is a daily charge if you drive within the Zone 0700 to 2200, every day except Christmas Day. If the vehicle does not meet the ULEZ standards, that charge must also be paid.

2.9 Delivery and Service Management Plans

2.9.1 A Service Management Plan (SMP) or Delivery and Service Plan (DSP) provides a framework to make sure that servicing activity to and from a building is working effectively for an organisation.

2.9.2 The SMP should:

- Manage deliveries and reduce the number of delivery and servicing trips;
- Identify and promote areas where loading should take place; and
- Select appropriate delivery companies.

2.9.3 The SMP has numerous benefits including saving time and money, improving reliability, improving safety and reducing an organisation's impact on the environment. A SMP is unique to the building it is prepared for.

3 TRANSPORT AND HIGHWAY CONDITIONS

3.1 Introduction

3.1.1 This section considers the various existing servicing facilities and restrictions on roads surrounding the site which inform the servicing strategy for the site.

3.2 Description of Highway Network

3.2.1 There are no loading at any time restrictions in place on Clerkenwell Road and Gray's Inn Road within the vicinity of the site.

3.2.2 As part of the active travel and safety improvements that have been implemented by LB Camden, the works have included the relocation of all loading and parking provision from Gray's Inn Road to nearby side roads. In short, this means that no business will be able to carry out loading or services directly from Gray's Inn Road.

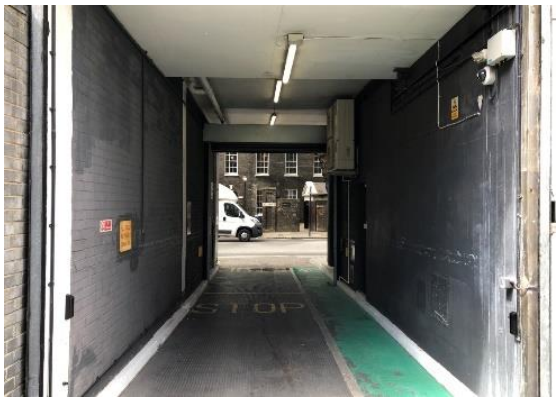
3.2.3 To accommodate this, new sections of single yellow line are being provided on all adjacent side roads, close to the junctions with Gray's Inn Road. Cars cannot park on these lines during the controlled parking zone hours (Monday to Friday: 08:30-18:30, Saturday: 08:30- 13:30, Sunday: No controlled hours). During these times, this space will be available for businesses to use to carry out loading and servicing.

3.2.4 The cycle improvements along Gray's Inn Road requires the removal of the bus stop adjacent to the site access, so this will not be a conflict at this location, in the future.

3.2.5 The LB Camden's Gray's Inn Road Delivery Guide is contained at Appendix A.

3.3 Discussion of Existing Servicing Arrangement

3.3.1 There is an existing loading/serving yard contained within the site, with vehicular access via Gray's Inn Road, adjacent to the 100 Gray's Inn Road pedestrian entrance.



3.3.2 This yard is for the exclusive use of the ground floor retail.

3.3.3 The loading /servicing yard contains:

- one business waste bin.
- four car parking spaces that are used for both parking and contractors / services, when required.
- Cycle storage with space for 19 cycles.

3.3.4 There is also an underground car park provided onsite which is limited to large cars due to its 1.9 metre max headroom. There is a total of 14 car parking spaces, but only 10 are currently available for car parking due to storage units occupying the remaining four spaces. It is understood that a maximum of three spaces were occupied on a typical (pre-covid) day. Cycle storage for 53 bicycles is also provided.

Waste Collection

3.3.5 Waste and recycling is collected on Monday and Thursday between 0800 and 0900 using LB Camden's waste collection service (Veolia). The bins are wheeled from the service yard and it is collected on-street.

3.3.6 It is proposed that this arrangement remains unchanged.

Ground Floor Retail

3.3.7 Cash vehicles park outside on the road as they are exempt from any parking / loading restrictions.

Pret a Manger

3.3.8 There is a residential restriction in place for Pret a Manger, which does not allow deliveries between the hours of 2200 and 0700. It is understood that three weekly deliveries take place on a Sunday, Tuesday and Thursday evening between the hours of 1800 and 2130. These deliveries take place on-street and do not use the servicing yard. A 12-metre-long refrigerated HGV is used to deliver.

Superdrug

3.3.9 The shop has recently closed, however during its time of operation a large panel van (8-9 metre truck) was used for deliveries to Superdrug. On a Sunday night / early Monday morning. The vans stopped on Clerkenwell Road, outside the store.

Tossed

3.3.10 It is understood that Tossed receives a variety of deliveries, approximately two to four a day, Monday to Friday. Vehicles include large panel vans and transit vans, all of which deliver on-street.

3.4 Discussion of Proposed Arrangement

3.4.1 The redevelopment proposals incorporate a vehicle turntable within the basement of the site to ensure that any servicing and delivery vehicles can enter and leave the site in forward gear, which overcomes the issue of requiring vehicles to reverse into the site.

3.4.2 There is a primary motor, gears and chain driven mechanism, backed up by independent gears and a chain mechanism that can take over in the event of a primary motor failure. Twin drive units independent of each other will be installed so that if a drive fault should occur, the second drive could be implemented.

3.4.3 Reliability of the equipment will be backed up with regular maintenance programmes / serving intervals, depending on the usage, which will be determined upon occupation.

3.4.4 There is also a further fallback option whereby the turntable can be manually rotated in the event of a total failure. Vehicles would therefore always exit the service yard in a forward gear on to Gray's Inn Road.

3.4.5 To assure the highway authority that the turntable will not be required to reverse vehicles onto Gray's Inn Road, and to ensure all drivers are aware of the arrangements in place, the following assurances will be put in place / followed at all times:

- All visitors to the site require pre-booking and will receive guidance on how to enter the service yard access before arriving and that a turntable is provided within the service yard to facilitate turning within the site;
- Signs could be placed on the entry to and exit from the service yard to advise that vehicles must enter in forward gear (NO REVERSING sign); and
- All vehicles to the site, particularly new visitors to the premises, should be marshalled into the service yard to ensure they approach in forward gear.

4 SERVICES, DELIVERIES AND LOADING ARRANGEMENTS

4.1 Introduction

4.1.1 This chapter considers the proposed development addressing the following matters:

- The existing nature and use of the site and any existing access arrangements;
- The development proposals and the proposed layout;
- The proposed access arrangements; and
- The proposed car and cycle parking arrangements.

4.2 Traffic Generation associated with Servicing and Deliveries

4.2.1 The existing site comprises 9,174sq.m GIA office space and 468sq.m GIA retail space.

4.2.2 The multi-modal two-way trip rates that have been extracted from the TRICS database and the estimated number of trips that could be attracted to the office element of the current development are summarised in Table 4.1.

4.2.3 The full TRICS report is contained at Appendix B.

Table 4.1: Number of Trips – Existing Office Use (9,174sq.m)

Mode	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
	Arrivals	Departures	Totals	Arrivals	Departures	Totals
LGVs / Servicing	2	1	3	0	1	1
OGVs	1	0	1	0	0	0

4.2.4 Table 4.1 shows that the office element of the proposed development is currently attracting up to four two-way LGV / servicing trips in the AM peak (0800 to 0900) and up to one two-way trips in the afternoon peak period (1700 to 1800).

4.2.5 There is one 'Pret a Manger' site located in Waterloo Road, Lambeth contained within the 'Café' subcategory of the 'Hotel, food and drink' category in the TRICS database (site reference: PLB-06-K-01). This site also has a PTAL rating of 6b and is therefore considered representative of the extant use. The Multimodal trips associated with this development are shown in Table 4.2.

Table 4.2: Number of Trips – Existing Retail (using 'Pret a Manger' trip rates)

Mode	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
	Arrivals	Departures	Totals	Arrivals	Departures	Totals
LGVs / Servicing	0	0	0	0	0	0
OGVs	0	0	0	0	0	0

4.2.6 The number of trips associated with an existing Pret a Manger are shown in Table 4.2 and are considered the most representative and therefore appropriate for these calculations. Table 4.2 shows that there could be zero two-way LGV / servicing vehicle trips in either the AM or PM peak periods.

4.2.7 Table 4.3 shows the number of two-way vehicle trips that the existing whole development could attract during the AM and PM peak periods.

Table 4.3: Number of Trips – Whole Development

Mode	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
	Arrivals	Departures	Totals	Arrivals	Departures	Totals
LGVs / Servicing	2	1	3	0	1	1
OGVs	1	0	1	0	0	0

4.3 Predicted Deliveries

4.3.1 The proposed floor areas comprise an increase of office space to 12,709sqm GIA of office space and a decrease of retail space to 364sqm GIA. Six residential flats are also proposed.

4.3.2 Table 4.4 shows that the office element of the proposals could attract up to four two-way LGV / servicing trips in the AM peak (0800 to 0900) and up to one two-way trips in the afternoon peak period (1700 to 1800).

Table 4.4: Number of Trips – Proposed Office Use (12,709sq.m)

Mode	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
	Arrivals	Departures	Totals	Arrivals	Departures	Totals
LGVs / Servicing	3	1	4	0	1	1
OGVs	1	1	1	0	0	0

Table 4.5: Number of Trips – Proposed Retail ('Pret a Manger' trip rates)

Mode	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
	Arrivals	Departures	Totals	Arrivals	Departures	Totals
LGVs / Servicing	0	0	0	0	0	0
OGVs	0	0	0	0	0	0

4.3.3 Table 4.5 shows that there could be zero two-way LGV / servicing vehicle trips in both the AM and PM peak periods for the retail aspect of the development.

Table 4.6: Number of Trips – Proposed Residential

Mode	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
	Arrivals	Departures	Totals	Arrivals	Departures	Totals
LGVs / Servicing	0	0	0	0	0	0
OGVs	0	0	0	0	0	0

4.3.4 Table 4.6 shows that there could be zero two-way LGV / servicing vehicle trips in both the AM and PM peak periods for the residential aspect of the development.

4.3.5 Table 4.7 shows the number of two-way vehicle trips that the whole development could attract during the AM and PM peak periods.

Table 4.7: Number of Trips – Whole Development

Mode	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
	Arrivals	Departures	Totals	Arrivals	Departures	Totals
LGVs / Servicing	3	1	4	0	1	1
OGVs	1	1	1	0	0	0

4.4 Net Change in Trips

Table 4.8: Number of Trips – Net Change in Trips – Whole Development

Mode	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
	Arrivals	Departures	Totals	Arrivals	Departures	Totals
LGVs / Servicing	+1	0	+1	0	0	0
OGVs	0	+1	+1	0	0	0

4.5 Loading arrangements

4.5.1 Deliveries and Servicing vehicles will drive into the ground floor from Gray's Inn Road and use the vehicle turntable therein. Vehicles will be able to stop here for a short period while loading and unloading and then, when the vehicle has been turned, will be able to drive back out in a forward gear.

4.5.2 A swept path analysis drawing that demonstrates a 7-metre van driving into and out of the turn table in a forward gear has been provided in Appendix C.

5 TOOLS AND TECHNIQUES

5.1 Introduction

5.1.1 This chapter describes the tools and techniques that will be used to manage the delivery and servicing at the building and to seek improvement of the sustainability of operations. The following elements are included:

- The role of a Service Management Controller;
- Identified objectives, targets and indicators; and
- Measures to be implemented.

5.2 Service Management Controller

5.2.1 A Service Management Controller (SMC) will be appointed to oversee the management, implementation, and monitoring of the Service Management Plan. The SMC will have the following duties:

- Leading on the delivery of the Service Management Plan;
- Working with suppliers to improve the sustainability of delivery and servicing;
- Being responsible for the annual Health and Safety review of the delivery and servicing operation;
- Ensuring that the Action Plan is being implemented; and
- Coordinating the monitoring and review of the Service Management Plan.

5.3 Objectives

5.3.1 A set of specific objectives have been established for the Service Management Plan. These are the high-level aims giving direction and focus and are as follows:

- To ensure that disruption caused by servicing is minimised;
- To ensure the safe operation of servicing at the site;
- To minimise the number of deliveries during the weekday AM and PM Peak hours; and
- To reduce the environmental impact of the delivery and servicing operation.

5.4 Targets

5.4.1 Corresponding targets have been identified and these represent the measurable goals which can be assessed to determine whether the specific objectives have been met. Targets come in two forms. 'Action-Type' targets are non-quantifiable targets and take the form of actions which need to be achieved. 'Aim-Type' targets provide a quantifiable result.

5.4.2 All targets should be SMART:

- Specific;
- Measurable;
- Achievable;
- Realistic; and
- Time-bound.

5.4.3 The following targets have been identified:

- For average measured delivery times to be maintained year on year;
- For a Health and Safety review of the delivery and servicing operation to be carried out annually;
- For the number of deliveries during the Weekday AM and PM Peak hour to be no more than 20% of all deliveries year on year; and
- For the CO_2 emissions associated with delivery and servicing vehicles to reduce year on year.

5.5 Indicators

5.5.1 The indicators are the elements that will be monitored to identify whether the targets have been met and the objectives achieved.

5.5.2 Target 1 will be determined from a delivery survey carried out annually for a period of one month. The arrival and departure times of each servicing and delivery vehicle will be recorded and hence the parking duration determined. This will then be averaged for all entries.

5.5.3 Target 2 will be determined from the summary of the review and identified actions.

5.5.4 Target 3 will be determined from the delivery survey carried out annually for a period of one month. The arrival times of each servicing and delivery vehicle will be recorded and hence the percentage occurring in the peak hours can be determined.

5.5.5 Target 4 will be determined from the delivery survey carried out for a period of one month. The CO_2 emissions of the delivery will be calculated as the CO_2 emission standard of the individual delivery vehicle (g/km) multiplied by the distance (km) between origin of journey (or last delivery) and the development. Emissions are summed for all vehicles recorded delivering in the particular month.

5.6 Measures

Supplier Approval

5.6.1 All suppliers will be required to complete a Supplier Questionnaire to become an Approved Supplier. This questionnaire will request information on the following:

- Environmental practices of the Supplier;
- Delivery method;
- Environmental performance of the vehicles used (including CO_2 emission rating); and
- How the environmental impact of the deliveries are minimised.

5.6.2 Questionnaire returns will be reviewed by the SMC and Supplier approval will be renewed every year.

Suppliers Map

5.6.3 All approved suppliers will be sent a map showing details of the development, its address and where loading can take place.

Vehicle Booking System

5.6.4 The arrival times of all regular deliveries will be controlled by means of a vehicle booking system. Suppliers will notify the SMC of their proposed arrival time in advance, and this will need to be approved. All visitors will receive guidance on how to enter the service yard access before arriving and that a turntable is provided to facilitate turning within the site to ensure no vehicles are reversing out of the site.

5.6.5 The SMC will ensure that the arrival time does not occur when other deliveries are taking place.

5.6.6 The SMC will seek to reduce the numbers of vehicles arriving and departing in the weekday AM and PM peak hours.

Vehicle Signs

5.6.7 'NO REVERSING' signs will be placed on the entry and exit from the service yard to advise drivers that vehicles must enter and exit the site in a forward gear.

Banksmen / Marshalled

5.6.8 All vehicles to the site, particularly new visitors should be guided / marshalled into the service yard to ensure they approach and exit in a forward gear.

Health and Safety Review of Delivery and Servicing

5.6.9 An annual review of the Health and Safety associated with the delivery and servicing operation will be carried out. This will accord with the London Business School's Health and Safety procedures.

Supply Chain Review

5.6.10 A review of supply chain operations will be carried out annually to see if less frequent visits are possible. It may be possible to purchase items in greater volumes if sufficient storage space is available.

Waste Management Review

5.6.11 A review of how waste is collected will be carried out on a regular basis.

Promotion of more sustainable modes and vehicles

5.6.12 The SMC will work with suppliers to promote the use of low emission or ultra-low emission vehicles and cycle and motorcycle deliveries. Relevant questions are to be included in the supplier questionnaire.

6 IMPLEMENTATION AND MONITORING

6.1 Action Plan

6.1.1 This DSP will be implemented in accordance with the Action Plan set out below.

Table 6.1: Action Plan

Measure	Timescale	To be implemented by	Comments
Appoint Services Management Controller	To be appointed prior to full occupation.	GIR	
Supplier Approval	Approval to be obtained prior to use of supplier	GIR	All suppliers to complete supplier approval questionnaire
Supplier Map	To be sent to supplier once approved	SMC	Could be included in contract information
Baseline Delivery Survey	Tailored survey to run continuously for a period of one month within the first three months of full occupation	SMC	Survey to be competed for each delivery and recorded by SMC
Vehicle Booking System	To be operated from first occupation	SMC	
Vehicle Signs	Installed before first occupation	GIR	
Health and Safety Review	To be carried out annually	SMC	Brief Summary to be included in travel plan monitoring report
Supply Chain Review	To be carried out annually	SMC	Brief Summary to be included in travel plan monitoring report
Waste management Review	To be carried out annually	SMC	Brief Summary to be included in travel plan monitoring report
Promotion of sustainable modes and vehicles	Ongoing	SMC	Include membership question in supplier approval questionnaire

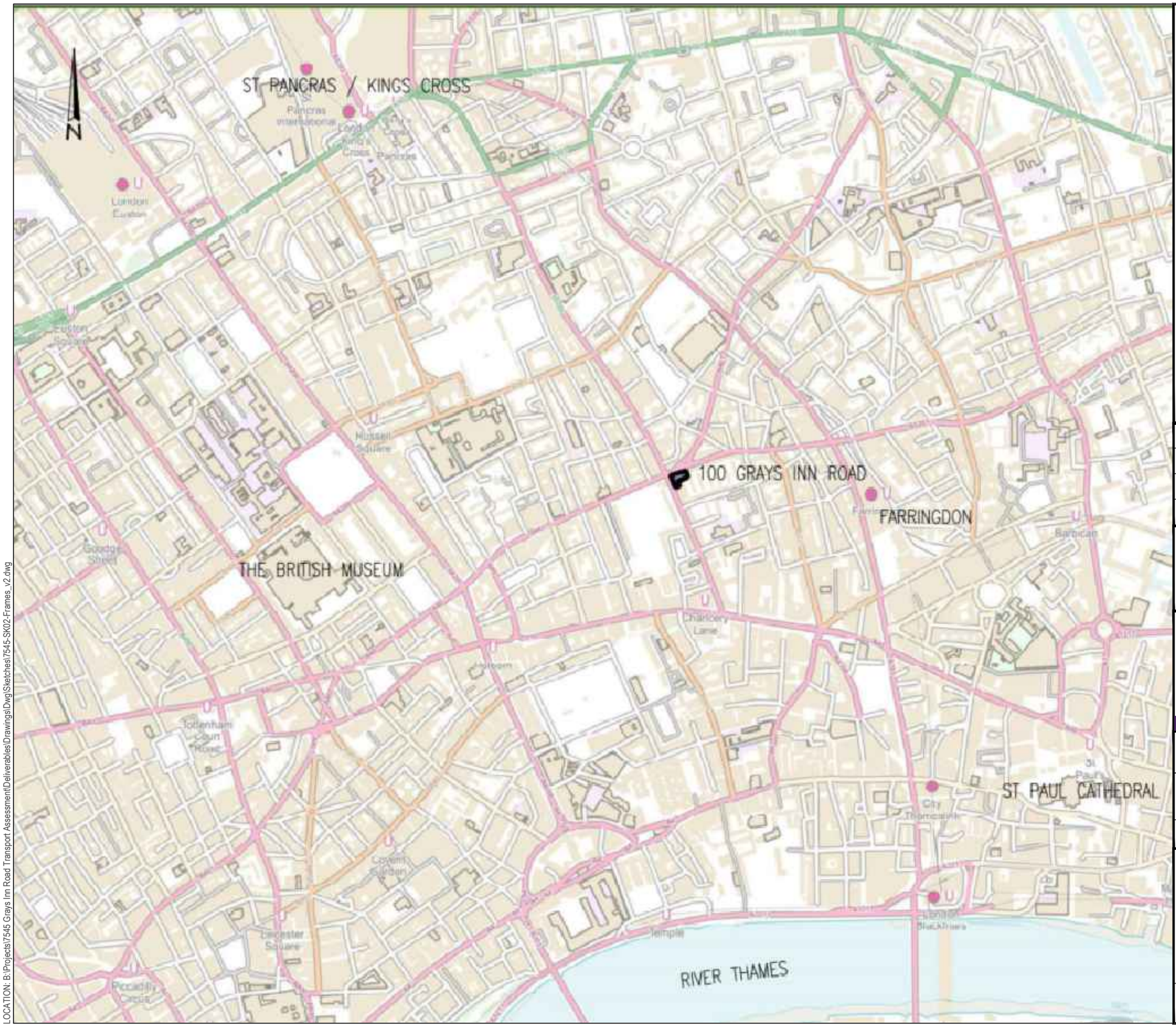
Monitoring delivery survey	Tailored survey to run continuously for a period of one month at same time of the year as baseline survey	SMC	Results of the survey and success of targets to be included in monitoring report
Appoint Services Management Controller	To be appointed prior to full occupation.	GIR	

6.2 Monitoring and Evaluation

6.2.1 The results of the monitoring and evaluation will be reported to London Borough Camden at the same monitoring intervals as the Travel Plan i.e. after years 1, 3 and 5.

6.2.2 A copy of the proposed delivery survey is included at Appendix D.

FIGURES



NOTES:

This scheme drawing has been developed as a design concept for the purposes of option testing and therefore does not represent a final design for construction.

THIS DRAWING IS ONLY APPLICABLE TO THE PROJECT STATED BELOW.
THIS DRAWING IS ONLY TO BE USED AT THE SIZE AND SCALE STATED BELOW.
ANY DISCREPANCIES ARE TO BE REPORTED TO THE DESIGNER NAMED BELOW.

REV	DATE	DRAWN	REV'D	APP'D	NOTES

DRAWING STATUS

PLANNING SUBMISSION

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CLIENT
Lawnmist Limited

PROJECT
100 GRAYS INN ROAD

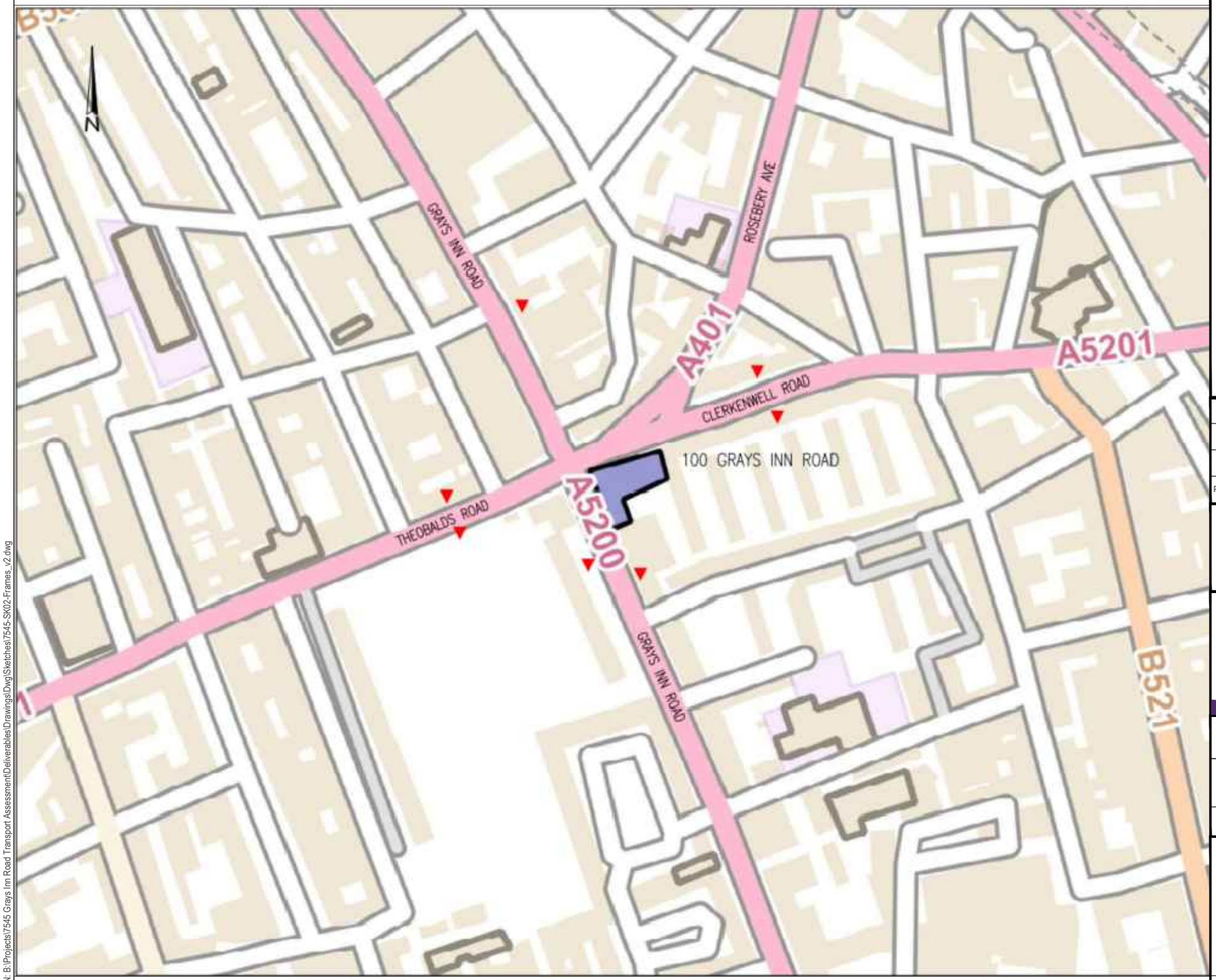
DRAWN	DESIGNED	REVIEWED	DATE	APPROVED	DATE
CWB	CWB	DAK	28.09.22	DAK	28.09.22

TITLE
SITE LOCATION PLAN - STRATEGIC CONTEXT

SCALE	DRAWING No	REV
NTS	FIGURE 1.1	1.0

A3

LOGIN NAME: MORGAN CARTER
LOCATION: B:\Projects\7545 Grays Inn Road Transport Assessment\Deliverables\Drawings\Dwg\Sketches\7545-SK02-Frames_v2.dwg



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PROJECT
100 GRAYS INN ROAD

DRAWN	DESIGNED	REVIEWED	DATE	APPROVED	DATE
CWB	CWB	DAK	28.09.22	DAK	28.09.22

TITLE
SITE LOCATION PLAN - LOCAL CONTEXT

SCALE	DRAWING No	REV
NTS	FIGURE 1.2	1.0

A3

LOGIN NAME: MORGAN CARTER
LOCATION: B:\Projects\7545 Grays Inn Road Transport Assessment\Deliverables\Drawings\Dwg\Sketches\7545-SK02-Frames_v2.dwg

APPENDICES

APPENDIX A: LB CAMDEN GRAY'S INN ROAD DELIVERY GUIDE

The Gray's Inn Road Delivery Guide

Gray's Inn Road and the adjacent side streets are being transformed, to enable crucial cycling, walking and road safety improvements along the road. This includes removing all loading and parking provision on Gray's Inn Road, and relocating these to nearby side roads.

This means that **the way loading, and servicing takes place on Gray's Inn Road is changing.**

Find out more about the scheme, here:
www.camden.gov.uk/GraysInnRoad

This guide has information to help you plan for the upcoming changes and provide you with details of where you will be able to carry out loading and servicing for your business

Within this leaflet you will find information on:

- Where loading provision is being provided, including maps
- How we are working with businesses on Gray's Inn Road to enable more sustainable loading and servicing practices
- How you can provide your feedback on the loading changes, as well as your ideas and suggestions

Where can I carry out loading and servicing?

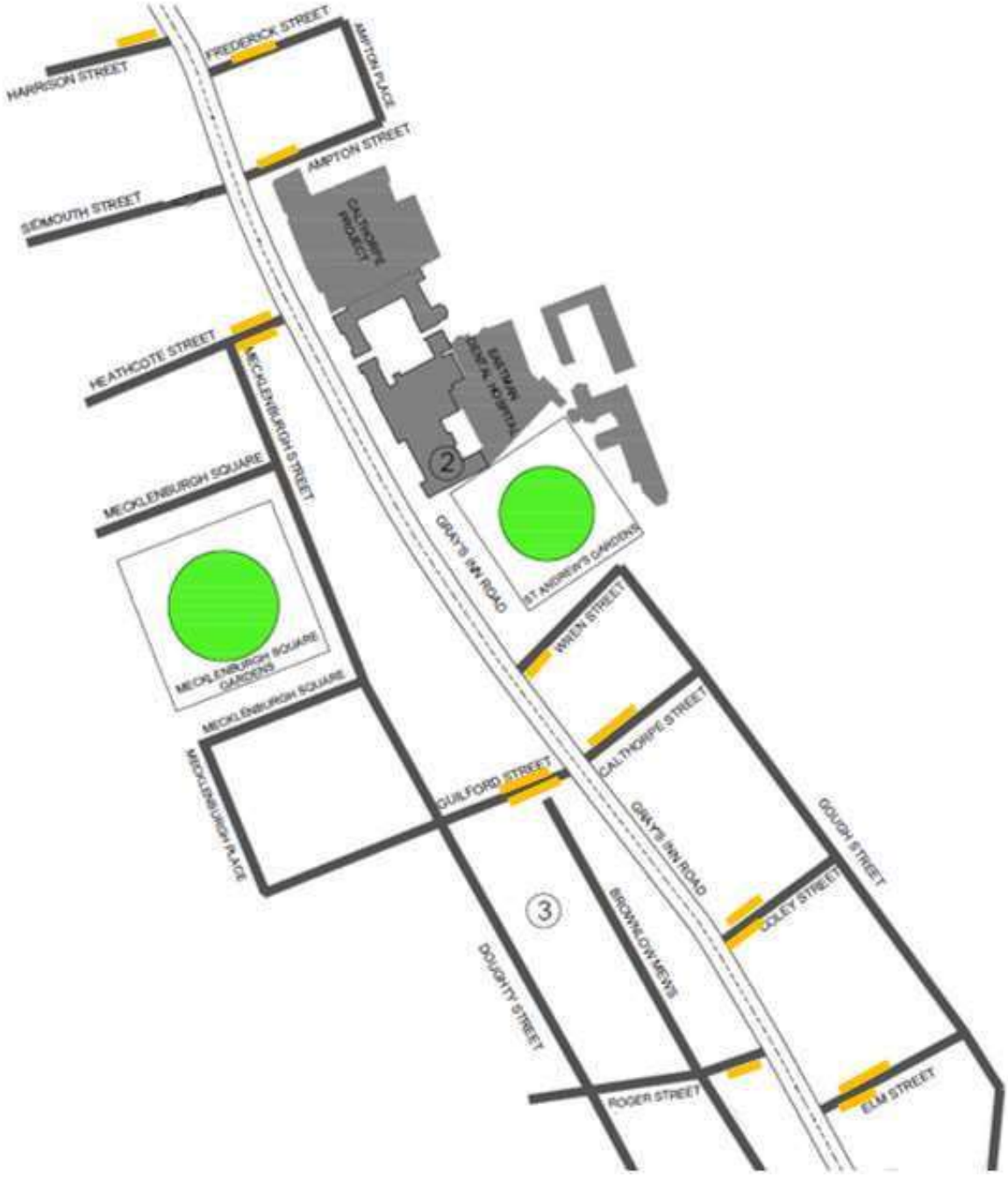
To provide safety improvements for vulnerable road users and to make visiting businesses by sustainable and active modes of transport more attractive, all existing parking and loading provision will be removed and "no loading and no waiting, at anytime" restrictions will be introduced along Gray's Inn Road.

This means that businesses will no longer be able to carry out loading and servicing directly from Gray's Inn Road and loading and servicing will be expected to take place from the nearby side roads.

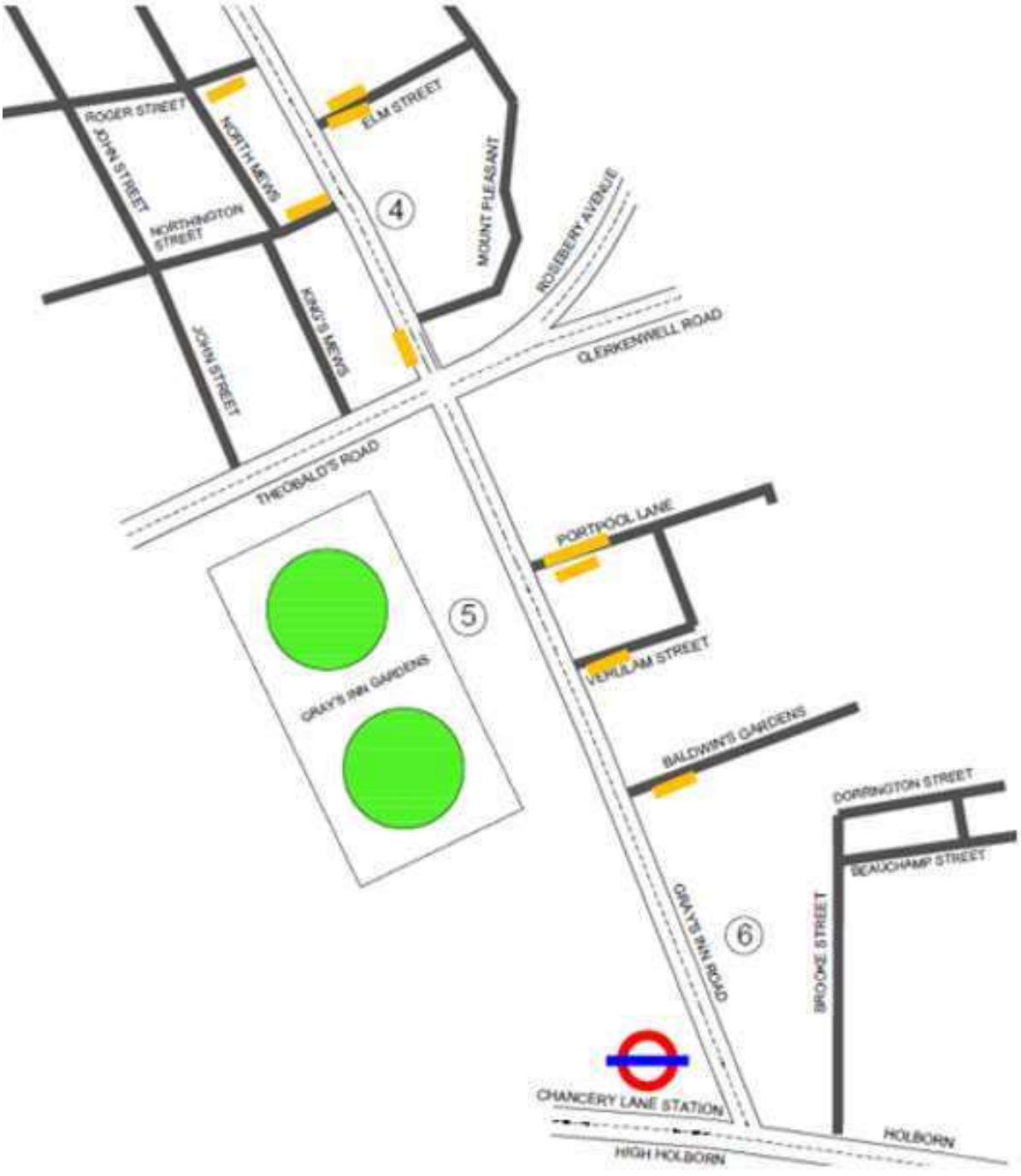
To accommodate this, new sections of single yellow line are being provided on all adjacent side roads, close to the junctions with Gray's Inn Road. Cars cannot park on these lines during the controlled parking zone hours (Monday to Friday: 08:30-18:30, Saturday: 08:30-13:30, Sunday: No controlled hours). During these times, this space will be available for businesses to use to carry out loading and servicing.

The diagrams on the next two pages provide a summary of where single yellow lines are being provided. These diagrams are not to scale and a more detailed plan of the parking and loading changes on Gray's Inn Road is provided online (see Appendices G and H), www.camden.gov.uk/GraysInnRoad

Locations of Loading Provision (shown in yellow)



Locations of Loading Provision (shown in yellow)



The programme:

September 2020

- Work began on drainage and preparatory works.

December 2020

- Major construction work commenced, including parking and loading changes.

April 2021

- Construction complete, all parking and loading changes complete.

How is the Council working with businesses?

We continue to work with businesses on Gray's Inn Road to ensure you are aware of the forthcoming changes and are able to prepare. This includes our work with the Cross River Partnership (CRP) to actively engage with local businesses to develop a Clean Air Village (CAV) for Gray's Inn Road. Through the CAV, businesses can find out more about how they explore opportunities for more sustainable and economical loading practices, such as the use of cargo bikes or using a freight consolidation hub.

We appreciate that these changes will require you to modify the way you service your businesses and would like to provide you with the support and help needed to make these important changes. If you require any further information, advice, or clarifications we invite you to get in touch by emailing safetravel@camden.gov.uk.

Helpful resources

Delivery Driver Postcards

Included in this pack are postcards you can give to delivery drivers that stop at your business, providing them with details of where they can load and unload from.

Poster

We have included a poster that you can put in your window if you wish, with details of how the wider community can learn more about the changes being made on Gray's Inn Road.

Links to TfL Guides

TfL have created a series of toolkits for local businesses, covering proven methods to make deliveries and servicing trips more efficient and cost-effective. The toolkits include guidance on waste consolidation, personal deliveries, and retiming deliveries.

You can find these guides, plus the related materials at: https://tfl.gov.uk/info-for/deliveries-in-london/delivering-efficiently

APPENDIX B: TRICS OUTPUT

Site Reference:	LB-06-K-01	Multi-Modal Site
Created:	Version: 7.6.2 05/04/19	
Latitude/Longitude:	51.50219, -0.11030	
Land Use Type:	06 - HOTEL, FOOD & DRINK/K - CAFE	
Region/Area	GREATER LONDON/LAMBETH	
Description:	PRÊT À MANGER	
Street:	WATERLOO ROAD	
District:		
Town:	WATERLOO	
Post Code:	SE1 7AA	
Planning Authority:		
Location:	Town Centre	
Location Sub Category:	Built-Up Zone	
Use Class:	Not Known	
Population within 500m:	8570	
Population within 1 Mile:	100,001 or More	
Population within 5 Miles:	500,001 or More	
Car ownership within 5 Miles:	0.5 or Less	

Public Transport Provision Summary

Day	Period	Total buses/trams within 400m	Total Trains within 1000m	Total Services
Monday-Friday	0700-1900	3875	2890	6765
Monday-Friday	0700-1000	975	750	1725
Monday-Friday	1600-1900	975	750	1725
Saturday	0700-1900	3325	2425	5750
Sunday	0700-1900	2550	1910	4460

Is site associated with a travel plan:	No
If not, are there any plans to implement a Travel Plan in the future?	No
Is survey data available before the implementation of the Travel Plan?	
Is the location of the site hilly or flat:	Flat
Urban Regeneration:	No
PTAL Rating:	6b (High) - Excellent
Covid-19 Restrictions:	No
Gross floor area	sqm
Number of Seats	
Total Employees	27
No. of developments for this Site:	1
No. of survey Days for this Site:	1

Comments

This site is located in Waterloo, a busy, built-up part of central London. It is on the ground floor of a modern building comprising of office space and other retail units. The surrounding area consists of a variety of city centre development types, and Waterloo train station is approximately 60 metres west of the site.

Bus (or tram) site accessibility

3. Is there at least 1 bus (or tram) stop within the site frontage or within 400m of the site frontage? : Yes
4. If yes to question 3, where it is necessary to cross a road between the development and the stop, is there a conveniently placed crossing facility? : Yes
5. If yes to question 3, are there at least 2 buses (or trams) per hour (per direction between 0700 and 1900) with routes serving significant areas of population within a 5 kilometre radius? (Mon-Sat): Yes
6. If yes to question 5, what are the service characteristics? (please complete the outline information below)

Destination (town/area)	Number per hour	Approx. journey time
Dulwich	12	40
Streatham Station	12	40
Plumstead Station	10	65
Streatham Hill	10	30

Rail accessibility

7. Is there at least one railway station within 1 kilometre radius of the site?: Yes
8. If yes to question 7, is pedestrian access to the station satisfactory?: Yes
9. If yes to question 7, are there at least 2 stopping trains per hour (per direction between 0700 and 1900) with routes serving stations within a 10 kilometre radius (Mon-Sat)?: Yes
10. If yes to question 9, what are the service characteristics? (please complete the outline information below)

Destination (town/area	Number per hour	Approx. journey time
Vauxhall	26	3
London Bridge	18	5
London Blackfriars	8	5
Stratford	24	20

11. Please enter general comments/views about the relevance, quality and importance of public transport services relating to this development.
The individual bus services shown are just four of the most frequent services available.
Other underground services include Bakerloo, City, Northern and Waterloo lines.

Design features encouraging non-car modes

12. Pedestrians
The site is accessible by local footpaths, with pedestrian crossings across both roads adjacent to the building.

13. Pedal cycles
Local bicycle stands are located near the site. Cycle lanes are marked on nearby Baylis Road

14. Public transport
The site is easily accessible using public transport, with Waterloo Station and local bus stops less than 200 metres away.

Design features encouraging non-car modes

Road Network Distance to Local Developments	
Year of Analysis	2018
Nearest Primary School	0.4 kilometres
Nearest Secondary School	0.5 kilometres
Nearest Local Shop/Corner Shop	0.2 kilometres
Nearest Main Supermarket	2.2 kilometres
Nearest Doctors Surgery	0.7 kilometres
Nearest Hospital with Minor Injuries/A & E	1.8 kilometres
Nearest Sports/Leisure Centre	2.1 kilometres

Census Data	
Year of Census	2011
Census Output Area/Data Zone	E00015180
Number of people employed within Census Output Area	165
Number of households within Census Output Area	162
Number of people living within Census Output Area	351
Area of Census Output Area (hectares)	20.59
Population density within Census Output Area (per hectare)	17.00

SITE PHOTO

Site reference:	LB-06-K-01	Multi-Modal survey site
Trade name:	PRÊT À MANGER	
Site area (h/a):	0.03	
Gross floor area (sqm)		
Open since	2016	
Total Employees	27	
Full Time Employees	25 92%	
Part Time Employees	2 8%	
Approximate % of total employees working standard 9-5 hours or similar	0%	
Number of Seats		
Name of nearest site	STARBUCKS	
Distance to nearest similar site	0.2 Km	

OPENING TIMES (24 Hour format)

Mon to Thurs	06:00	to	21:00
Friday	06:00	to	21:00
Saturday	07:00	to	21:00
Sunday	07:00	to	20:00

Comments

The GFA, RFA and number of seats are unknown.

Multi-Modal survey site

On-Site parking

Number of spaces

General Comments on Parking

There is no on-site parking available.

Types of servicing vehicle parking taking place

on-site (internal, within specified bays or otherwise)
No

off-site (on-street, in designated loading/servicing bays)
No

off-site (in restricted areas e.g. double yellow lines)
Yes

Off-Site parking details

Is there off-site parking available
Yes

Off-Site parking included in the counts
Yes

Free On-Street parking available nearby
No

If prepared to pay, easy to find somewhere to park off-site all day
Yes

Parking restrictions

Area subject to parking restrictions (controlled parking zone - CPZ)
Yes, Most of the Area

Permitted on-street parking for non-residents available within this CPZ
Yes, All Day

If yes, time limited for non-residents
Yes

Charges for non-residents parking if permitted
Yes, At Special Times of the Day

Average charge per hour	350
Maximum parking duration	120

Off-Street parking

Off-Street parking available	Yes, Public Off-Street Parking is Available
Approx. available spaces	1000

Parking located within a control parking zone (CPZ)
Yes

Charges for this Off-Street parking
Yes, All Day

Charge amount	350
Charge period	Hour

Park & Ride

Park & Ride Type Facility providing relevant means of accessing the site
No

Site reference: LB-06-K-01 Survey date: 27/11/18 Day of week: Tuesday
Multi-Modal survey site
Vehicles surveyed: Total vehicles
Survey type: Manual Count
AM weather: Cold and Clear
PM weather: Cold and Light Rain
Initial car park occupancy: Final car park occupancy:
BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE
Parking Capacity
Data proportions in %

Motor cars	19	Motor cycles	23	Public service	0
Light goods	14	OGV (1)	1	OGV (2)	0
				Taxis	43

Servicing Vehicles count recorded Yes

Servicing/Standard Vehicle percentages			
	Vehicles	Servicing %	Standard %
OGV (1)	2	100	0
OGV (2)	0		
Light Goods	4	100	0
Motor Car	8	0	100
Motor Cycle	10	0	100

Time	Arr 23	Dep 19	Totals 42	Parking Accum
00:00-01:00				
01:00-02:00				
02:00-03:00				
03:00-04:00				
04:00-05:00				
05:00-06:00				
06:00-07:00	1	0	1	(1)
07:00-08:00	3	2	5	(2)
08:00-09:00	4	2	6	(4)
09:00-10:00	1	0	1	(5)
10:00-11:00	1	1	2	(5)
11:00-12:00	1	1	2	(5)
12:00-13:00	0	1	1	(4)
13:00-14:00	2	0	2	(6)
14:00-15:00	1	2	3	(5)
15:00-16:00	2	3	5	(4)
16:00-17:00	2	0	2	(6)
17:00-18:00	1	1	2	(6)
18:00-19:00	0	1	1	(5)
19:00-20:00	2	2	4	(5)
20:00-21:00	2	2	4	(5)
21:00-22:00	0	1	1	(4)
22:00-23:00				
23:00-24:00				

Comments
No PSVs arrived at or departed from the site during this survey.

Site reference: LB-06-K-01 Survey date: 27/11/18 Day of week: Tuesday
Multi-Modal survey site
Vehicles surveyed: OGV

Data proportions in % OGV (1) 100 OGV (2) 0

1 occupant per OGV is assumed, and included in the vehicle occupants count

Time	Arr 1	Dep 1	Totals 2	Accumulation
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	0	0	(0)
07:00-08:00	0	0	0	(0)
08:00-09:00	0	0	0	(0)
09:00-10:00	0	0	0	(0)
10:00-11:00	0	0	0	(0)
11:00-12:00	0	0	0	(0)
12:00-13:00	0	0	0	(0)
13:00-14:00	1	0	1	(1)
14:00-15:00	0	1	1	(0)
15:00-16:00	0	0	0	(0)
16:00-17:00	0	0	0	(0)
17:00-18:00	0	0	0	(0)
18:00-19:00	0	0	0	(0)
19:00-20:00	0	0	0	(0)
20:00-21:00	0	0	0	(0)
21:00-22:00	0	0	0	(0)
22:00-23:00				
23:00-24:00				

Site reference: LB-06-K-01 Survey date: 27/11/18 Day of week: Tuesday
Multi-Modal survey site
Vehicles surveyed: Taxis

Time	Arr 9	Dep 9	Totals 18	Accumulation
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	0	0	(0)
07:00-08:00	0	0	0	(0)
08:00-09:00	2	2	4	(0)
09:00-10:00	0	0	0	(0)
10:00-11:00	1	1	2	(0)
11:00-12:00	0	0	0	(0)
12:00-13:00	0	0	0	(0)
13:00-14:00	0	0	0	(0)
14:00-15:00	0	0	0	(0)
15:00-16:00	2	2	4	(0)
16:00-17:00	0	0	0	(0)
17:00-18:00	1	1	2	(0)
18:00-19:00	0	0	0	(0)
19:00-20:00	2	2	4	(0)
20:00-21:00	1	1	2	(0)
21:00-22:00	0	0	0	(0)
22:00-23:00				
23:00-24:00				

Site reference: LB-06-K-01 Survey date: 27/11/18 Day of week: Tuesday
Multi-Modal survey site
Vehicles surveyed: Cars

Time	Arr 7	Dep 1	Totals 8	Accumulation
00:00-01:00				
01:00-02:00				
02:00-03:00				
03:00-04:00				
04:00-05:00				
05:00-06:00				
06:00-07:00	1	0	1	(1)
07:00-08:00	1	0	1	(2)
08:00-09:00	1	0	1	(3)
09:00-10:00	0	0	0	(3)
10:00-11:00	0	0	0	(3)
11:00-12:00	0	0	0	(3)
12:00-13:00	0	0	0	(3)
13:00-14:00	1	0	1	(4)
14:00-15:00	0	0	0	(4)
15:00-16:00	0	0	0	(4)
16:00-17:00	2	0	2	(6)
17:00-18:00	0	0	0	(6)
18:00-19:00	0	0	0	(6)
19:00-20:00	0	0	0	(6)
20:00-21:00	1	1	2	(6)
21:00-22:00	0	0	0	(6)
22:00-23:00				
23:00-24:00				

Site reference: LB-06-K-01 Survey date: 27/11/18 Day of week: Tuesday
Multi-Modal survey site
Vehicles surveyed: LGV

Time	Arr 2	Dep 2	Totals 4	Accumulation
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	0	0	(0)
07:00-08:00	1	1	2	(0)
08:00-09:00	0	0	0	(0)
09:00-10:00	0	0	0	(0)
10:00-11:00	0	0	0	(0)
11:00-12:00	0	0	0	(0)
12:00-13:00	0	0	0	(0)
13:00-14:00	0	0	0	(0)
14:00-15:00	1	1	2	(0)
15:00-16:00	0	0	0	(0)
16:00-17:00	0	0	0	(0)
17:00-18:00	0	0	0	(0)
18:00-19:00	0	0	0	(0)
19:00-20:00	0	0	0	(0)
20:00-21:00	0	0	0	(0)
21:00-22:00	0	0	0	(0)
22:00-23:00				
23:00-24:00				

Site reference: LB-06-K-01 Survey date: 27/11/18 Day of week: Tuesday
Multi-Modal survey site
Vehicles surveyed: Motor Cycles

Time	Arr 4	Dep 6	Totals 10	Accumulation
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	0	0	(0)
07:00-08:00	1	1	2	(0)
08:00-09:00	1	0	1	(1)
09:00-10:00	1	0	1	(2)
10:00-11:00	0	0	0	(2)
11:00-12:00	1	1	2	(2)
12:00-13:00	0	1	1	(1)
13:00-14:00	0	0	0	(1)
14:00-15:00	0	0	0	(1)
15:00-16:00	0	1	1	(0)
16:00-17:00	0	0	0	(0)
17:00-18:00	0	0	0	(0)
18:00-19:00	0	1	1	(-1)
19:00-20:00	0	0	0	(-1)
20:00-21:00	0	0	0	(-1)
21:00-22:00	0	1	1	(-2)
22:00-23:00				
23:00-24:00				

Site reference: LB-06-K-01 Survey date: 27/11/18 Day of week: Tuesday
Multi-Modal survey site
Vehicles surveyed: Cycles

Time	Arr 20	Dep 20	Totals 40	Accumulation
00:00-01:00				
01:00-02:00				
02:00-03:00				
03:00-04:00				
04:00-05:00				
05:00-06:00				
06:00-07:00	2	2	4	(0)
07:00-08:00	2	0	2	(2)
08:00-09:00	5	5	10	(2)
09:00-10:00	2	4	6	(0)
10:00-11:00	0	0	0	(0)
11:00-12:00	2	0	2	(2)
12:00-13:00	0	1	1	(1)
13:00-14:00	0	1	1	(0)
14:00-15:00	1	1	2	(0)
15:00-16:00	0	0	0	(0)
16:00-17:00	3	3	6	(0)
17:00-18:00	0	0	0	(0)
18:00-19:00	2	1	3	(1)
19:00-20:00	1	2	3	(0)
20:00-21:00	0	0	0	(0)
21:00-22:00	0	0	0	(0)
22:00-23:00				
23:00-24:00				

Site reference: LB-06-K-01 Survey date: 27/11/18 Day of week: Tuesday
Multi-Modal survey site
People Surveyed: Car/ LGV/ Motorcycle occupants

This count consists of car occupants, light goods vehicle occupants, motorcycle riders and OGV occupants
Taxi drivers and drivers of private vehicles picking up/dropping off passengers at the site are excluded from the count

Time	1	2	3	4	5	6	7	Arr 18	1	2	3	4	5	6	7	Dep 15	Totals 33	Accum
00:00-01:00																		
01:00-02:00																		
02:00-03:00																		
03:00-04:00																		
04:00-05:00																		
05:00-06:00																		
06:00-07:00	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	(1)
07:00-08:00	3	0	0	0	0	0	0	3	2	0	0	0	0	0	0	2	5	(2)
08:00-09:00	2	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2	4	(2)
09:00-10:00	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	(3)
10:00-11:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	(2)
11:00-12:00	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	2	(2)
12:00-13:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	(1)
13:00-14:00	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	(3)
14:00-15:00	1	0	0	0	0	0	0	1	2	0	0	0	0	0	0	2	3	(2)
15:00-16:00	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	3	(-1)
16:00-17:00	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	(1)
17:00-18:00	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	(3)
18:00-19:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	(2)
19:00-20:00	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	(4)
20:00-21:00	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	2	(4)
21:00-22:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	(3)
22:00-23:00																		
23:00-24:00																		

Site reference: LB-06-K-01 Survey date: 27/11/18 Day of week: Tuesday
Multi-Modal survey site
People Surveyed: Pedestrians

Time	Arr 1233	Dep 1941	Totals 3174	Accumulation
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	82	125	207	(-43)
07:00-08:00	63	218	281	(-198)
08:00-09:00	17	230	247	(-411)
09:00-10:00	75	193	268	(-529)
10:00-11:00	53	91	144	(-567)
11:00-12:00	55	94	149	(-606)
12:00-13:00	292	275	567	(-589)
13:00-14:00	211	267	478	(-645)
14:00-15:00	56	84	140	(-673)
15:00-16:00	54	62	116	(-681)
16:00-17:00	66	46	112	(-661)
17:00-18:00	74	84	158	(-671)
18:00-19:00	71	87	158	(-687)
19:00-20:00	32	52	84	(-707)
20:00-21:00	32	29	61	(-704)
21:00-22:00	0	4	4	(-708)
22:00-23:00				
23:00-24:00				

Site reference: LB-06-K-01 Survey date: 27/11/18 Day of week: Tuesday
Multi-Modal survey site
People Surveyed: Public transport Users

Time	Arr 1392	Dep 695	Totals 2087	Accumulation
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	93	40	133	(53)
07:00-08:00	202	69	271	(186)
08:00-09:00	272	30	302	(428)
09:00-10:00	195	93	288	(530)
10:00-11:00	92	35	127	(587)
11:00-12:00	84	22	106	(649)
12:00-13:00	57	41	98	(665)
13:00-14:00	45	29	74	(681)
14:00-15:00	73	44	117	(710)
15:00-16:00	40	37	77	(713)
16:00-17:00	41	43	84	(711)
17:00-18:00	52	55	107	(708)
18:00-19:00	67	59	126	(716)
19:00-20:00	51	62	113	(705)
20:00-21:00	23	26	49	(702)
21:00-22:00	5	10	15	(697)
22:00-23:00				
23:00-24:00				

Site reference: LB-06-K-01 Survey date: 27/11/18 Day of week: Tuesday
Multi-Modal survey site
People Surveyed: Bus/ Tram Passengers

Time	Arr 201	Dep 164	Totals 365	Accumulation
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	14	2	16	(12)
07:00-08:00	36	37	73	(11)
08:00-09:00	25	3	28	(33)
09:00-10:00	11	14	25	(30)
10:00-11:00	8	8	16	(30)
11:00-12:00	14	8	22	(36)
12:00-13:00	19	8	27	(47)
13:00-14:00	5	6	11	(46)
14:00-15:00	12	14	26	(44)
15:00-16:00	8	10	18	(42)
16:00-17:00	14	12	26	(44)
17:00-18:00	11	17	28	(38)
18:00-19:00	12	11	23	(39)
19:00-20:00	5	7	12	(37)
20:00-21:00	4	4	8	(37)
21:00-22:00	3	3	6	(37)
22:00-23:00				
23:00-24:00				

Site reference: LB-06-K-01 Survey date: 27/11/18 Day of week: Tuesday
Multi-Modal survey site
People Surveyed: Total Rail Passengers

Time	Arr 1191	Dep 531	Totals 1722	Accumulation
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	79	38	117	(41)
07:00-08:00	166	32	198	(175)
08:00-09:00	247	27	274	(395)
09:00-10:00	184	79	263	(500)
10:00-11:00	84	27	111	(557)
11:00-12:00	70	14	84	(613)
12:00-13:00	38	33	71	(618)
13:00-14:00	40	23	63	(635)
14:00-15:00	61	30	91	(666)
15:00-16:00	32	27	59	(671)
16:00-17:00	27	31	58	(667)
17:00-18:00	41	38	79	(670)
18:00-19:00	55	48	103	(677)
19:00-20:00	46	55	101	(668)
20:00-21:00	19	22	41	(665)
21:00-22:00	2	7	9	(660)
22:00-23:00				
23:00-24:00				

Site reference: LB-06-K-01 Survey date: 27/11/18 Day of week: Tuesday
Multi-Modal survey site
People Surveyed: Total people

Time	Arr 2663	Dep 2671	Totals 5334	Accumulation
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	178	167	345	(11)
07:00-08:00	270	289	559	(-8)
08:00-09:00	296	267	563	(21)
09:00-10:00	273	290	563	(4)
10:00-11:00	145	127	272	(22)
11:00-12:00	142	117	259	(47)
12:00-13:00	349	318	667	(78)
13:00-14:00	258	297	555	(39)
14:00-15:00	131	131	262	(39)
15:00-16:00	94	102	196	(31)
16:00-17:00	112	92	204	(51)
17:00-18:00	128	139	267	(40)
18:00-19:00	140	148	288	(32)
19:00-20:00	86	116	202	(2)
20:00-21:00	56	56	112	(2)
21:00-22:00	5	15	20	(-8)
22:00-23:00				
23:00-24:00				

Site reference: LB-06-K-01 Survey date: 27/11/18 Day of week: Tuesday
Multi-Modal survey site
People Surveyed: Underground Passengers

Time	Arr 480	Dep 300	Totals 780	Accumulation
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	19	19	(-19)
07:00-08:00	50	9	59	(22)
08:00-09:00	94	15	109	(101)
09:00-10:00	51	38	89	(114)
10:00-11:00	34	19	53	(129)
11:00-12:00	31	7	38	(153)
12:00-13:00	16	19	35	(150)
13:00-14:00	22	12	34	(160)
14:00-15:00	29	15	44	(174)
15:00-16:00	25	17	42	(182)
16:00-17:00	7	18	25	(171)
17:00-18:00	37	20	57	(188)
18:00-19:00	37	31	68	(194)
19:00-20:00	32	41	73	(185)
20:00-21:00	14	18	32	(181)
21:00-22:00	1	2	3	(180)
22:00-23:00				
23:00-24:00				

Site reference: LB-06-K-01 Survey date: 27/11/18 Day of week: Tuesday
Multi-Modal survey site
People Surveyed: National Rail Passengers

Time	Arr 711	Dep 231	Totals 942	Accumulation
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	79	19	98	(60)
07:00-08:00	116	23	139	(153)
08:00-09:00	153	12	165	(294)
09:00-10:00	133	41	174	(386)
10:00-11:00	50	8	58	(428)
11:00-12:00	39	7	46	(460)
12:00-13:00	22	14	36	(468)
13:00-14:00	18	11	29	(475)
14:00-15:00	32	15	47	(492)
15:00-16:00	7	10	17	(489)
16:00-17:00	20	13	33	(496)
17:00-18:00	4	18	22	(482)
18:00-19:00	18	17	35	(483)
19:00-20:00	14	14	28	(483)
20:00-21:00	5	4	9	(484)
21:00-22:00	1	5	6	(480)
22:00-23:00				
23:00-24:00				

Site reference: LB-06-K-01 Survey date: 27/11/18 Day of week: Tuesday
Multi-Modal survey site
People Surveyed: Bus Passengers

Time	Arr 201	Dep 164	Totals 365	Accumulation
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	14	2	16	(12)
07:00-08:00	36	37	73	(11)
08:00-09:00	25	3	28	(33)
09:00-10:00	11	14	25	(30)
10:00-11:00	8	8	16	(30)
11:00-12:00	14	8	22	(36)
12:00-13:00	19	8	27	(47)
13:00-14:00	5	6	11	(46)
14:00-15:00	12	14	26	(44)
15:00-16:00	8	10	18	(42)
16:00-17:00	14	12	26	(44)
17:00-18:00	11	17	28	(38)
18:00-19:00	12	11	23	(39)
19:00-20:00	5	7	12	(37)
20:00-21:00	4	4	8	(37)
21:00-22:00	3	3	6	(37)
22:00-23:00				
23:00-24:00				

Site reference: LB-06-K-01 Survey date: 27/11/18 Day of week: Tuesday
Multi-Modal survey site
Vehicles surveyed: Servicing Vehicles

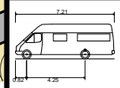
	INBOUND						OUTBOUND					
Time	Car 0	LGV 2	MOTC 0	OGV1 1	OGV2 0	Total 3	Car 0	LGV 2	MOTC 0	OGV1 1	OGV2 0	Total 3
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00												
06:00-07:00	0	0	0	0	0	0	0	0	0	0	0	0
07:00-08:00	0	1	0	0	0	1	0	1	0	0	0	1
08:00-09:00	0	0	0	0	0	0	0	0	0	0	0	0
09:00-10:00	0	0	0	0	0	0	0	0	0	0	0	0
10:00-11:00	0	0	0	0	0	0	0	0	0	0	0	0
11:00-12:00	0	0	0	0	0	0	0	0	0	0	0	0
12:00-13:00	0	0	0	0	0	0	0	0	0	0	0	0
13:00-14:00	0	0	0	1	0	1	0	0	0	0	0	0
14:00-15:00	0	1	0	0	0	1	0	1	0	1	0	2
15:00-16:00	0	0	0	0	0	0	0	0	0	0	0	0
16:00-17:00	0	0	0	0	0	0	0	0	0	0	0	0
17:00-18:00	0	0	0	0	0	0	0	0	0	0	0	0
18:00-19:00	0	0	0	0	0	0	0	0	0	0	0	0
19:00-20:00	0	0	0	0	0	0	0	0	0	0	0	0
20:00-21:00	0	0	0	0	0	0	0	0	0	0	0	0
21:00-22:00	0	0	0	0	0	0	0	0	0	0	0	0
22:00-23:00												
23:00-24:00												

APPENDIX C: SWEPT PATH ANALYSIS

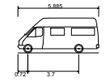
NOTES:

This scheme drawing has been developed as a design concept for the purposes of option testing and therefore does not represent a final design for construction.

THIS DRAWING IS ONLY APPLICABLE TO THE PROJECT STATED BELOW.
THIS DRAWING IS ONLY TO BE USED AT THE SIZE AND SCALE STATED BELOW.
ANY DISCREPANCIES ARE TO BE REPORTED TO THE DESIGNER NAMED BELOW.



7.5t Panel Van with wing mirrors	
Overall Length	7.210m
Overall Width	2.192m
Overall Body Height	2.544m
Min Body Ground Clearance	0.316m
Track Width	1.865m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	7.400m



4.6t Light Van with wing mirrors	
Overall Length	5.885m
Overall Width	2.000m
Overall Body Height	2.526m
Min Body Ground Clearance	0.299m
Track Width	1.765m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	6.000m

REV	DATE	DRAWN	REV'D	APP'D	NOTES
0					

DRAWING STATUS

DRAFT

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CLIENT
LAWNMIST LIMITED

PROJECT
100 GRAYS INN ROAD

DRAWN	DESIGNED	REVIEWED	DATE	APPROVED	DATE
CWB	CWB	DAK	20.09.22	DAK	20.09.22

TITLE
VEHICLE TRACKING

SCALE	DRAWING No	REV
NTS	7545-SK01	1.0

A3

LOGIN NAME: MORGAN.CARTER
LOCATION: B:\Projects\7545 Grays Inn Road Transport Assessment\Deliverables\Drawings\Dwg\Sketches\7545-SK01-Vehicle Tracking_v2.dwg

APPENDIX D: DELIVERY SURVEY

NORMAN ROURKE PRYME

LOCATION ..... Sheet ..... of .....

DELIVERY SURVEY

Date	Arrival Time	Vehicle Registration No.	Vehicle Make and Model	Delivery Organisation	Item/s Delivered	Delivered from (origin of journey)	Departure Time

NORMAN ROURKE PRYME

CONSTRUCTION CONSULTANTS
HIGHWAYS AND INFRASTRUCTURE
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