Delivery and Servicing Management Plan

41-49 & 49-59 Battersea Park Road, Wandsworth

Watkin Jones Group

7-9 Swallow Street, London, W1B 4DE

Prepared by:

SLR Consulting Limited

The Cursitor, 38 Chancery Lane, London, WC2A 1EN

SLR Project No.: 425.000177.00000

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Revision: 04

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
01	8 April 2022	JE	AJP	AJP
02	29 April 2022	JE	AJP	AJP
03	22 March 2023	JE	AJP	AJP
04	19 April 2023	JE	AJP	AJP

Basis of Report

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1.0 Introduction

1.1 SLR has been appointed by Watkin Jones Group to provide highways and transport advice in relation to a full planning application for mixed use residential development located at 41 – 49 Battersea Park Road and 49 - 59 (BMW) Battersea Park Road Wandsworth. The development is located on the existing Bookers Wholesale Warehouse and former BMW Nine Elms Garage. The site is located within the London Borough of Wandsworth (LBW).

1.2 The location of the site in a strategic and local context is shown in **Figures 1.1 and 1.2,** respectively.

Figure 1.1: Strategic Site Location

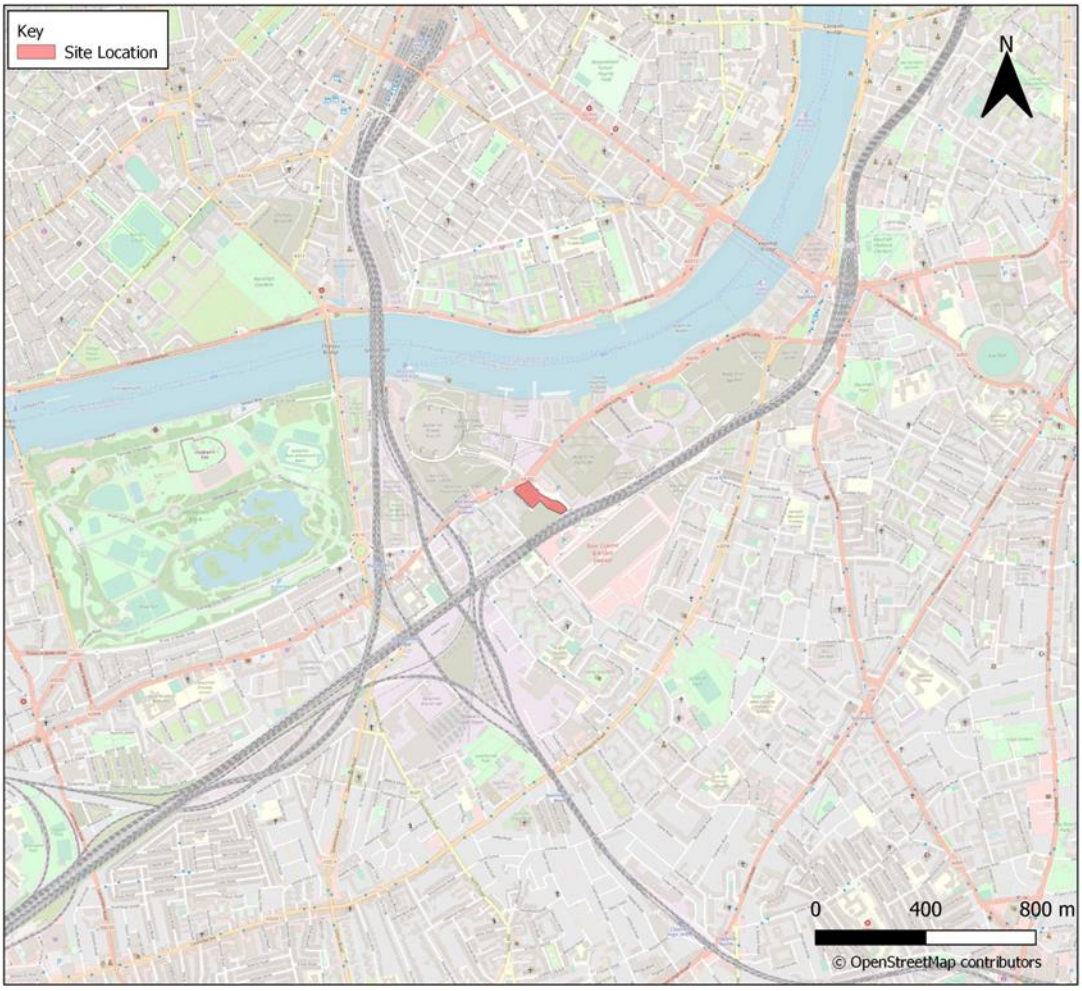
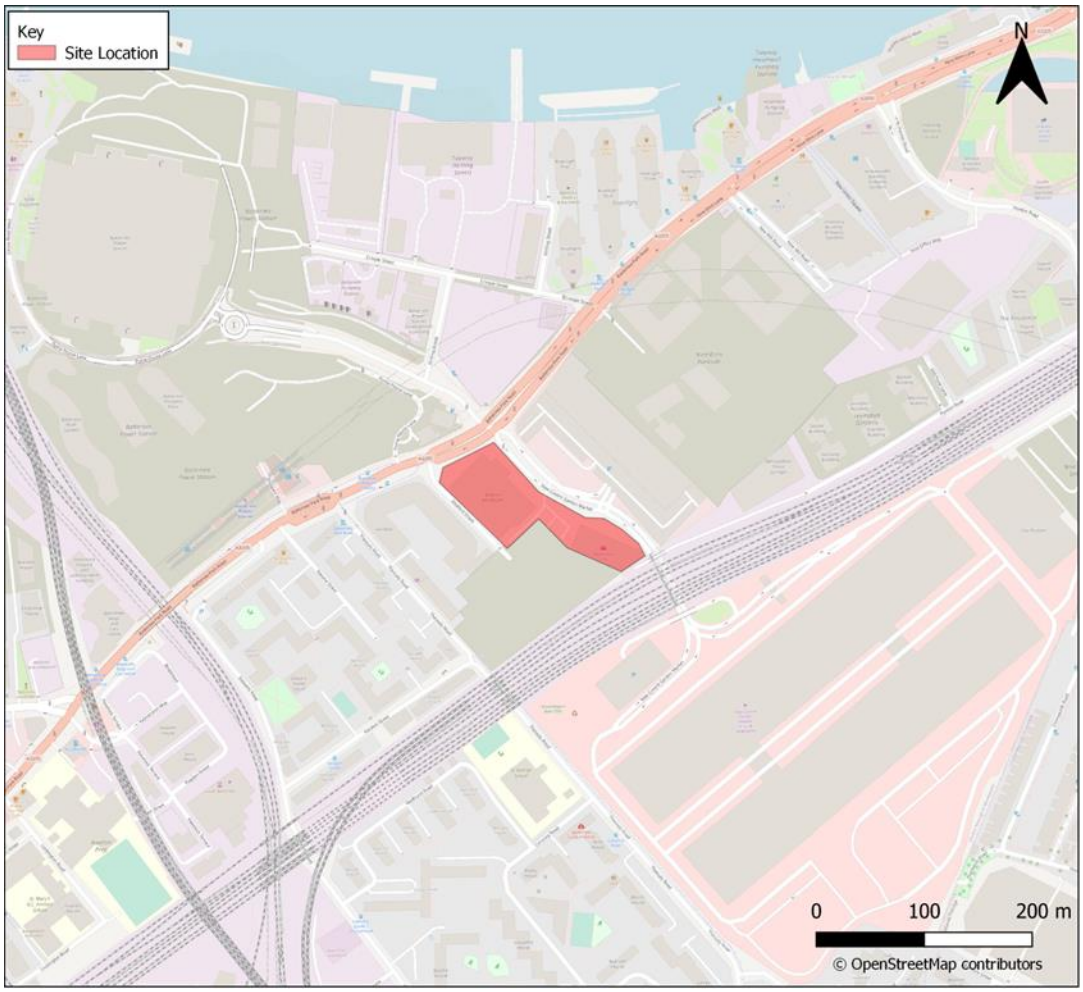


Figure 1.2: Local Site Location



1.3 The proposals seek to develop the site for a mix of 762 student accommodation units and 55 affordable housing units spread across three blocks, with associated commercial space at ground floor level. The site is proposed to be car-free in nature, with the exception of Blue Badge parking spaces and one car club space. Cycling parking will be provided in accordance with adopted London Plan standards (2021).

1.4 The site has an extant permission for redevelopment under Use Classes A1 – A5 and B1 which was granted by Wandsworth Borough Council (WBC) in March 2019 (Planning Reference: 2015/6813). The permitted development comprises:

"Demolition of all existing buildings and construction of new buildings of between 5 storeys and 18 storeys, containing 307 residential units, business (Class B1) floorspace and flexible retail/restaurant and cafe/business floorspace (Class A1-A5 and B1), CHP basement, vehicle and cycle parking, plant and associated works, landscaping and a new access onto Sleaford Street" (Planning Reference: 2015/6813).

1.5 The proposed layout plans are included at **Appendix A**.

1.6 The development will align with the servicing arrangement of the extant permission, which is as follows:

- An Inset Loading Bay on New Covent Garden Market Access Road;
- An Inset Loading Bay on Sleaford Street; and
- A Through-Route for Service Vehicles between New Covent Garden Market Access Road and Sleaford Street (bollard controlled).

2.0 Objectives

What is a Delivery and Servicing Management Plan?

2.1 Delivery and Servicing Management Plans (DSMPs) provide a framework for managing all types of freight vehicle and HGV movements to and from individual developments.

Benefits of a DSMP

2.2 Transport for London (TfL) have produced a 'Delivery and Servicing Plan Guidance' document which identifies the benefits of DSMPs to local authorities, residents, building developers, businesses and freight operators.

2.3 In summary, this DSMP will:

- Help developers and local authority planning officials comply with:
  - The National Planning Policy Framework (NPPF); and
  - The Traffic Management Act and any borough specific policies, such as road safety and air quality action plans.
- Demonstrate that goods and services can be delivered, and waste removed in a safe, efficient, and environmentally friendly way;
- Identify deliveries that could be reduced, re-timed or even consolidated, particularly during busy periods;
- Help cut congestion and ease pressure on the environment;
- Improve the reliability of deliveries to the site concerned;
- Reduce the operating costs of building occupants and freight companies; and
- Reduce the impact of freight upon residents.

DSMP Objectives

2.4 The overall objective of this DSMP is:

To minimise the impacts of freight movements and facilitate sustainable freight travel to and from the proposed development.

2.5 To support the realisation of this overarching objective, several sub-objectives have been set out, and include:

- Promoting smarter operations of freight that reduce the need for freight movement overall or that reduce or eliminate trips particularly in peak periods;
- Encouraging greater use of sustainable freight modes;
- Encouraging the use of greener vehicles;
- Managing the on-going development and delivery of the DSMP;
- Communication of the site servicing/delivery facilities (through dissemination of information);
- Communication of the DSMP measures; and

- Encouraging the most efficient use of freight vehicles and servicing/delivery trips.

3.0 Servicing and Operation Arrangements

3.1 This section of the report includes details on the arrangements for servicing / delivery vehicles that will visit the site as well as details on the operation of the site.

Existing Site Operation

3.2 The development is located on the existing Bookers Wholesale Warehouse and former BMW Nine Elms Garage, with associated parking located off New Covent Garden Market Access Road.

3.3 The site currently has two access points, one to a smaller car park located directly off New Covent Garden Market Access Road, and another larger car park bordering the east side of the wholesaler units. Deliveries take place in the former car park.

Overview of Proposed Site Operation

3.4 The proposed development will have two inset loading bays, one on the New Covent Garden Market Access Road to the northeast of the site, and another located on Sleaford Street. This will also be added to with a through route between Sleaford Street and New Covent Garden Market Access Road for servicing vehicles. These two inset servicing bays will provide deliveries and servicing for different buildings in the development.

3.5 The through route will allow for larger vehicles to access/egress the site in a forward gear as it is not possible for large vehicles to turn at the end of Sleaford Street.

3.6 As stated within the extant permission, it is proposed that the route will be controlled by bollards in order to restrict any general through traffic. These bollards will be managed by an on-site management team who will be employed to management the common parts of the development.

3.7 It is also proposed that this section of through route can also be used as a loading/unloading area when students move in and out at the beginning and end of the student year.

3.8 Refuse collection will also take place using these two inset loading bays, as well as along the through route between Sleaford Street and New Covent Garden Market Access Road.

3.9 It is understood that the peak operation of the New Covent Garden Market peaks between 11pm and 7am. As such, where possible servicing movements will be encouraged to occur outside of these hours. Considering the peak hours, it expected that this will not be a concern. Two-wheeled vehicles will service the site from within the site boundary along the internal through route between Sleaford Street and the New Covent Garden Market Access Road.

Servicing Trip Generation

3.10 To determine the expected level of daily traffic generation associated with servicing and deliveries, survey data has been taken from comparable residential, student accommodation and commercial sites. These are set out in turn below:

Residential Delivery and Servicing Traffic Generation

3.11 The TRICS database has been interrogated for servicing and delivery trips rates of sites with the following parameters:

- Land Use 03/C Residential/Flats Privately Owned;
- Less than 500 dwellings;
- Surveys from January 2017 – December 2019;
- London only; and
- Edge of Town & Free-Standing excluded

3.12 The full TRICS report is contained at **Appendix B**. The resultant trip rates and associated trip generation for 81 residential dwellings are shown overleaf in **Table 3.1**.

Table 3.1: Residential Servicing and Delivery Trip Rates (TRICS-Derived)

Time Period	Trip Rate (Per Dwelling)			Trip Generation		
	In	Out	Two-Way	In	Out	Two-Way
07:00-08:00	0.006	0.006	0.012	0	0	1
08:00-09:00	0.011	0.006	0.017	1	0	1
09:00-10:00	0.015	0.011	0.026	1	1	1
10:00-11:00	0.017	0.011	0.028	1	1	2
11:00-12:00	0.015	0.021	0.036	1	1	2
12:00-13:00	0.013	0.015	0.028	1	1	2
13:00-14:00	0.015	0.018	0.033	1	1	2
14:00-15:00	0.007	0.006	0.013	0	0	1
15:00-16:00	0.011	0.015	0.026	1	1	1
16:00-17:00	0.02	0.021	0.041	1	1	2

17:00-18:00	0.01	0.008	0.018	1	0	1
18:00-19:00	0.014	0.014	0.028	1	1	2
19:00-20:00	0.014	0.014	0.028	1	1	2
20:00-21:00	0.004	0.006	0.01	0	0	1
Daily Trip Rates:	0.172	0.172	0.344	9	9	19

3.13 Following a pre-app meeting held with TfL and LBW on 11th February 2022, TfL provided servicing trip information based on 2014 TfL Household Freight surveys. The daily trip rates and resultant trip generation is shown in **Table 3.2**.

Table 3.2: Residential Servicing and Delivery Trip Rates (TfL data)

Time Period	Trip Rate (Per Dwelling)		Trip Generation	
	One-Way	Two-Way	One-Way	Two-Way
Daily	0.215	0.43	12	24

3.14 It is important to note that TfL further advised that 20% of these deliveries will likely be linked trips providing a delivery to more than one household in the residential development. Therefore, the actual number of daily vehicles would be 9. This aligns with the TRICS-derived daily total of 9 vehicles.

3.15 In addition, TfL advised that daily trip profiles for residential movements could be taken from TRICS data. Therefore, the servicing and delivery movements shown in **Table 3.1** are deemed to reflect typical trips for the residential aspect of the scheme.

3.16 To determine the breakdown of vehicle types, servicing trip information has been obtained from the TRICS database for the same survey sites used above. The resultant vehicle breakdown is shown in **Table 3.3**.

Table 3.3: Residential Servicing and Delivery Vehicle Breakdown (TRICS data)

TRICS Reference	Number Of Units	Breakdown Of Servicing Vehicles (%)		
		Car/Motorcycle	LGV	HGV
BE-03-C-01	79	0%	92%	8%

BM-03-C-01	160	0%	90%	10%
HM-03-C-02	194	20%	71%	10%
IS-03-C-07	185	17%	83%	0%
WF-03-C-01	97	0%	57%	43%
Average	**-**	**7%**	**79%**	**14%**
Daily Delivery & Servicing Vehicles	**55**	**1**	**9**	**2**

3.17 As shown above, the proposed residential element of the scheme is forecast to attract 12 delivery and servicing vehicles per day, of which 2 are expected to be HGVs requiring access along the through-route.

Student Delivery and Servicing Traffic Generation

3.18 The TRICS database has been interrogated for servicing and delivery trips rates for sites with the following parameters:

- Land Use 03/G Residential/Student Accommodation;
- Between 200 – 1,100 units;
- Surveys from January 2017 – December 2019;
- London only; and
- Edge of Town & Free-Standing excluded

3.19 The full TRICS report is contained at **Appendix C.** The resultant trip rates and associated trip generation for 762 student accommodation dwellings are shown below in **Table 3.4.**

Table 3.4: Student Accommodation Servicing and Delivery Trip Rates (TRICS-Derived)

Time Period	Trip Rate (Per Dwelling)			Trip Generation		
	In	Out	Two-Way	In	Out	Two-Way
07:00-08:00	0.002	0.002	0.004	2	2	3
08:00-09:00	0	0	0	0	0	0
09:00-10:00	0.002	0.002	0.004	2	2	3

10:00-11:00	0.003	0.002	0.005	2	2	4
11:00-12:00	0.004	0.005	0.009	3	4	7
12:00-13:00	0	0.001	0.001	0	1	1
13:00-14:00	0.003	0.002	0.005	2	2	4
14:00-15:00	0.004	0.004	0.008	3	3	6
15:00-16:00	0.002	0.002	0.004	2	2	3
16:00-17:00	0.003	0.003	0.006	2	2	5
17:00-18:00	0.001	0.001	0.002	1	1	2
18:00-19:00	0	0	0	0	0	0
19:00-20:00	0.002	0.001	0.003	2	1	2
20:00-21:00	0	0.001	0.001	0	1	1
Daily Trip Rates:	0.026	0.026	0.052	20	20	40

3.20 As with the residential element, a sense check has been completed taking student accommodation servicing trip rates from traffic surveys completed in March 2019 at the Paris Gardens scheme in Southwark (17/AP/4230). The scheme provides student accommodation of circa. 300 student bedrooms and is therefore deemed a suitable comparison.

3.21 The trip rates are given below in **Table 3.5**.

Table 3.5: Student Accommodation Servicing and Delivery Trip Rates (Paris Gardens Survey-Derived)

Time Period	Trip Rate (Per Dwelling)			Trip Generation		
	In	Out	Two-Way	In	Out	Two-Way
Daily Trip Rates:	0.020	0.020	0.040	15	15	30

3.22 Therefore, based on the above, it can be assumed that the student accommodation element will attract between 15 – 20 servicing and delivery vehicles a day.

3.23 To determine the breakdown of vehicle types, servicing trip information has been obtained from the TRICS database for the same survey sites used above. It should be noted that some of the survey sites did not contain this information. The resultant vehicle breakdown is shown in **Table 3.6.**

Table 3.6: Student Accommodation Servicing and Delivery Vehicle Breakdown (TRICS data)

TRICS Reference	Number Of Units	Breakdown Of Servicing Vehicles (%)		
		Car/Motorcycle	LGV	HGV
HM-03-G-01 / 01	235	93%	7%	0%
HM-03-G-02 / 01	217	70%	27%	3%
LB-03-G-02	1,100	4%	93%	4%
Average	**-**	**55%**	**42%**	**2%**
Daily Delivery & Servicing Vehicles	**762**	**11**	**9**	**0**

3.24 As shown above, the proposed student element of the scheme is forecast to attract 20 delivery and servicing vehicles per day, of which none on a typical day are expected to be HGVs. Although it is noted that occasional HGV movements will occur.

Commercial Delivery and Servicing Traffic Generation

3.25 No comparable commercial sites have been identified on the TRICS database that contain servicing and delivery survey information. Therefore, commercial servicing trip rates have been taken from the BBC Television Centre development. The commercial aspect of the scheme accounted for circa. 2,000sqm of space as part of a mixed-use scheme. Therefore,

they are deemed suitable to provide a forecast on servicing trip rates for the Battersea Park Road scheme.

3.26 The proposed commercial space currently stands at 551sqm. The trip rates and resultant trip generation for daily totals are given below in **Table 3.7**.

Table 3.7: Commercial Servicing and Delivery Trip Rates (BBC Survey-Derived)

Time Period	Trip Rate (Per 100sqm)			Trip Generation		
	In	Out	Two-Way	In	Out	Two-Way
Daily Trip Rates:	0.530	0.530	1.060	2	2	4

3.27 Therefore, based on the above, it can be assumed that the commercial element will attract approximately 2 servicing and delivery vehicles per day.

3.28 Given the small scale of the commercial aspect of the scheme, and the relatively low number of daily vehicles expected, it is envisaged that no more than 1 of the 2 daily movements will be an HGV requiring access along the through-route.

Total Servicing and Delivery Traffic Generation

3.29 It is forecast that the proposed development will attract 35 servicing and delivery vehicles a day, made up of 20 student-related vehicles, 12 residential-related vehicles, and 3 commercial-related vehicles.

3.30 Based on the hourly profile information from TRICS, it is clear that these movements will be spread across the day. Furthermore, servicing data derived from the same TRICS survey information indicates that only 3 vehicles per day will likely be 10m vehicles or larger (i.e. HGVs), with 2 vehicles associated with the residential aspect of the scheme, and 1 vehicles associated with either the commercial or student aspect of the scheme.

3.31 The forecast number of servicing vehicles using each loading bay per day is outlined within **Table 3.8** below.

Table 3.8: Servicing Trips by Loading Bay

Loading Bay	Car/Motorbike	Lgv	Hgv	Total
Sleaford Street	1	12	3	15
New Covent Garden Market Access Road	11	8	0	20
Site Internal Through Road	0	0	3	3
Total	12	20	3	35

It is deemed that the loading bays on Sleaford Street and New Convent Garden Market Access Road are more than sufficient to accommodate the forecast demand and as demonstrated above, the route through the site will only be required for a very small level of larger delivery and servicing vehicles on a daily basis.

Waste Management Collection

3.32 All refuse collection will take place on site. The collection will take place on the inset loading bays on Sleaford Street and New Covent Garden Market Access Road, as well as an identified section on the servicing route between Sleaford Street and New Covent Garden Market Access Road. The bins will be stored in dedicated bin stores located on the ground floors of each of the buildings.

3.33 For Blocks D/E/F, the drag distance will exceed 10m. Therefore, the building management team associated with the student accommodation will drag and deposit bins within a designated location near the access road on collection days.

3.34 Swept path analysis of a standard LBW refuse vehicle is shown in **Appendix D**.

Daily Deliveries

3.35 Deliveries for the residential element of the scheme at Block A (i.e. the western building) will be made via the loading bay on Sleaford Street. It is anticipated that most deliveries will turn at the end of Sleaford to route back onto Battersea Park Road. Swept path analysis of a typical box van (e.g. Amazon deliveries) and Mercedes Sprinter van (e.g. Tesco deliveries) making this turn is contained in **Appendix E**. This will ensure that the route through the site will be limited to only occasional larger service vehicles and can be designed as pedestrian-led landscaped environment, allowing occasional, managed and controlled access of larger vehicles only. Access through the site will be restricting using bollards.

3.36 The through route will allow for larger vehicles to access/egress the site in a forward gear. As previously stated, these movements are forecast to be minimal at approximately 3 vehicles per day. The largest vehicle that are anticipated to frequent the site have been used to undertake swept path analysis. This includes an LBW standard refuse vehicle and a 10m rigid delivery vehicle. Swept path analysis has been undertaken and is included at **Appendix F**.

3.37 In addition to the above, it is noted that there is an increased use of food deliveries to residential and student accommodation, which is typically delivered by two-wheeled vehicles. It is considered that there is adequate space between Blocks C and D where vehicles will be encouraged to stop and unload through a sensitively marked area and signage as part of the overall landscape plan.

3.38 New Covent Garden Market has peak hours between 11pm and 7am, hours that would overlap with late night food deliveries. As such drivers of two wheeled delivery vehicles will be encouraged to access the site from Sleaford Street to limit the number vehicles accessing the site from Covent Garden Road. Signage will be implemented as necessary to inform drivers.

4.0 Encouraging Sustainable Freight

4.1 Servicing area activity will be regularly monitored to ensure that it is operating in an efficient way. An over-arching management team will be employed and will have a duty to manage the common parts of the development, including the through route and bollard system through the site.

4.2 For servicing and delivery vehicles requiring access along the through route, the on-site management team will record the servicing activity which will include the following information:

- Date;
- Delivery arrival / departure time;
- Type of vehicle;
- Goods delivered / taken away; and
- Other comments.

4.3 In addition, the over-arching management team will constantly monitor and review the success of the DSMP. If considered necessary, the management team will propose changes which will need to be approved in writing by LBW.

4.4 As part of this suitable security measures will be implemented by the responsible management organisations.

4.5 The contact details of the management team will be provided to TfL and LBW so that in the event of any issues that arise, the authorities can arrange a meeting to discuss.

Raising Awareness

4.6 It will be important to inform all occupiers about the DSMP, including the following:

- What is the DSMP?
- The importance of the DSMPs, freight movements and their impacts;
- What tenants can do to help encourage the use of sustainable servicing and delivery vehicle movement to the site;
- The provision of a concierge to accept deliveries; and
- The potential benefits of successfully using and implementing a DSMP.

4.7 Raising awareness of the DSMP will help to gain support of the tenants for the implementation of the DSMP and ensure stakeholder buy-in at an early stage.

4.8 To increase awareness of the DSMP, relevant future residents and suppliers will be given information about the DSMP and be encouraged to use sustainable freight to and from the site.

4.9 The future residents and suppliers will be informed as to who the management company is at the site and the relevant contact details. As such if they need to or would like to contact

the management company to provide input into the ongoing development of the DSMP they will be able to do so.

5.0 Summary and Conclusions

5.1 The purpose of this DSMP is to manage and control deliveries and servicing movements to manage sustainable freight as well as manage the general operation of the site.

5.2 The proposed development will have two inset loading bays, one on the New Covent Garden Market Access Road to the northeast of the site to serve Building 1 (i.e. the residential building), and another located on Sleaford Street to serve Buildings 2 and 3 (Student Accommodation).

5.3 In addition, a through route will be provided to allow for larger vehicles to access/egress the site in a forward gear as it is not possible for large vehicles to turn at the end of Sleaford Street. This route will be controlled by bollards in order to restrict any general through traffic. It is also proposed that this section can also be used as a loading/unloading area when students move in and out at the beginning and end of the student year.

5.4 Refuse collection will take place using the two inset loading bays, and the through route. At this location, refuse bins will be moved from the bin store to a collection area on collection days to minimise drag distance.

5.5 It can be concluded that this DSMP will ensure the successful and efficient operation of servicing/delivery activity and site operation on a day-to-day basis.

Appendix A Proposed Ground Floor Plans

Delivery and Servicing Management Plan

41-49 & 49-59 Battersea Park Road, Wandsworth

Watkin Jones Group

SLR Project No.: 425.000177.00000

11 January 2024

NOTES:

1. Do not scale from this drawing.
2. Always work to noted dimensions.
3. All dimensions are in millimetres unless otherwise stated.
4. All setting out, levels and dimensions to be agreed on site.
5. The dimensions of all materials must be checked on site before being laid out.
6. This drawing must be read with the relevant specification clauses and detail drawings.
7. Order of construction and setting out to be agreed on site.

KEY

Planning Application Boundary

Revision	Date	Description	Drawn	Apprvd.
P01	19-04-23	Issue for planning	GG	HV

Planit I.E. Limited
E: info@planit-ie.com **W:** planit-ie.com
MANCHESTER
2 Back Grafton St , Altrincham, WA14 1DY
T: 0161 928 9281
LEEDS
No.1 Aire Street, Leeds Station, Leeds, LS1 4PR
T: 0113 824 6413
LIVERPOOL
Tempest 5.3, 12 Tithebarn Street, Liverpool, L2 2DT
T: 0151 363 1230
LONDON
Unit 6 Waterside, 44-48 Wharf Road, London, N1 7UX
T: 0207 253 5678
STANDISH
Standish Gatehouse, Stonehouse, Gloucestershire, GL10 3BZ
T: 0145 360 7080

Client Watkin Jones & Son Limited

Project Battersea Park Road

Drg Title General Arrangement Plan

Created on	Created by	Approved by
06/02/2023	FSM	HV

Scale	Size	Workstage
1:500	A1	PLANNING

Drg No.	Suitability	Revision
3082-PLA-XX-XX-DR-L00-0001	S1	P01

Appendix B TRICS Report: Residential Servicing and Delivery Trip Rates

Delivery and Servicing Management Plan

41-49 & 49-59 Battersea Park Road, Wandsworth

Watkin Jones Group

SLR Project No.: 425.000177.00000

11 January 2024

VECTOS 97 TOTTENHAM COURT ROAD LONDON Licence No: 152301

Filtering Summary

Land Use	03/C	RESIDENTIAL/FLATS PRIVATELY OWNED
Selected Trip Rate Calculation Parameter Range	9-493 DWELLS	
Actual Trip Rate Calculation Parameter Range	79-194 DWELLS	
Date Range	Minimum: 01/01/17	Maximum: 30/06/21
Parking Spaces Range	All Surveys Included	
Parking Spaces Per Dwelling Range:	All Surveys Included	
Bedrooms Per Dwelling Range:	All Surveys Included	
Percentage of dwellings privately owned:	All Surveys Included	
Days of the week selected	Monday	1
	Tuesday	2
	Wednesday	1
	Thursday	1
Main Location Types selected	Town Centre	2
	Edge of Town Centre	3
Population within 500m	All Surveys Included	
Population <1 Mile ranges selected	25,001 to 50,000	2
	50,001 to 100,000	2
	100,001 or More	1
Population <5 Mile ranges selected	500,001 or More	5
Car Ownership <5 Mile ranges selected	0.5 or Less	2
	0.6 to 1.0	3
PTAL Rating	3 Moderate	1
	5 Very Good	2
	6a Excellent	1
	6b (High) Excellent	1

Calculation Reference: AUDIT-152301-220304-0337

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : C - FLATS PRIVATELY OWNED
MULTI-MODAL Servicing Vehicles

Selected regions and areas:

01	GREATER LONDON		
	BE	BEXLEY	1 days
	BM	BROMLEY	1 days
	HM	HAMMERSMITH AND FULHAM	1 days
	IS	ISLINGTON	1 days
	WF	WALTHAM FOREST	1 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
Actual Range: 79 to 194 (units:)
Range Selected by User: 9 to 493 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/17 to 30/06/21

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

Selected survey days:

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

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

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

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

Selected Locations:

Town Centre	2
Edge of Town Centre	3

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

Selected Location Sub Categories:

Development Zone	1
Residential Zone	2
Built-Up Zone	2

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

Secondary Filtering selection:

Use Class:

C3	5 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

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

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

Population within 5 miles:

500,001 or More	5 days

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

Car ownership within 5 miles:

0.5 or Less	2 days
0.6 to 1.0	3 days

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

Travel Plan:

Yes	2 days
No	3 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

3 Moderate	1 days
5 Very Good	2 days
6a Excellent	1 days
6b (High) Excellent	1 days

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

LIST OF SITES relevant to selection parameters

1	BE-03-C-01 CROOK LOG BEXLEYHEATH	BLOCKS OF FLATS		BEXLEY
	Edge of Town Centre Residential Zone Total No of Dwellings:		79	
	Survey date: WEDNESDAY		*19/09/18*	*Survey Type: MANUAL*
2	BM-03-C-01 RINGER'S ROAD BROMLEY	BLOCKS OF FLATS		BROMLEY
	Town Centre Built-Up Zone Total No of Dwellings:		160	
	Survey date: MONDAY		*12/11/18*	*Survey Type: MANUAL*
3	HM-03-C-02 GLENTHORNE ROAD HAMMERSMITH	BLOCKS OF FLATS		HAMMERSMITH AND FULHAM
	Town Centre Built-Up Zone Total No of Dwellings:		194	
	Survey date: TUESDAY		*30/04/19*	*Survey Type: MANUAL*
4	IS-03-C-07 CITY ROAD ISLINGTON	BLOCK OF FLATS		ISLINGTON
	Edge of Town Centre Development Zone Total No of Dwellings:		185	
	Survey date: THURSDAY		*06/06/19*	*Survey Type: MANUAL*
5	WF-03-C-01 ERSKINE ROAD WALTHAMSTOW	BLOCKS OF FLATS		WALTHAM FOREST
	Edge of Town Centre Residential Zone Total No of Dwellings:		97	
	Survey date: TUESDAY		*05/11/19*	*Survey Type: MANUAL*

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL Servicing Vehicles
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	143	0.006	5	143	0.006	5	143	0.012
08:00 - 09:00	5	143	0.011	5	143	0.006	5	143	0.017
09:00 - 10:00	5	143	0.015	5	143	0.011	5	143	0.026
10:00 - 11:00	5	143	0.017	5	143	0.011	5	143	0.028
11:00 - 12:00	5	143	0.015	5	143	0.021	5	143	0.036
12:00 - 13:00	5	143	0.013	5	143	0.015	5	143	0.028
13:00 - 14:00	5	143	0.015	5	143	0.018	5	143	0.033
14:00 - 15:00	5	143	0.007	5	143	0.006	5	143	0.013
15:00 - 16:00	5	143	0.011	5	143	0.015	5	143	0.026
16:00 - 17:00	5	143	0.020	5	143	0.021	5	143	0.041
17:00 - 18:00	5	143	0.010	5	143	0.008	5	143	0.018
18:00 - 19:00	5	143	0.014	5	143	0.014	5	143	0.028
19:00 - 20:00	5	143	0.014	5	143	0.014	5	143	0.028
20:00 - 21:00	5	143	0.004	5	143	0.006	5	143	0.010
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.172			0.172			0.344

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

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

Appendix C TRICS Report: Student Accommodation Servicing and Delivery Trip Rates

Delivery and Servicing Management Plan

41-49 & 49-59 Battersea Park Road, Wandsworth

Watkin Jones Group

SLR Project No.: 425.000177.00000

11 January 2024

VECTOS 97 TOTTENHAM COURT ROAD LONDON Licence No: 152301

Filtering Summary

Land Use	03/G	RESIDENTIAL/STUDENT ACCOMMODATION
Selected Trip Rate Calculation Parameter Range	100-1100 RESIDE	
Actual Trip Rate Calculation Parameter Range	200-1100 RESIDE	
Date Range	Minimum: 01/01/17	Maximum: 25/06/21
Parking Spaces Range	All Surveys Included	
Days of the week selected	Tuesday	2
	Wednesday	2
	Friday	1
Main Location Types selected	Town Centre	1
	Edge of Town Centre	4
Population within 500m	All Surveys Included	
Population <1 Mile ranges selected	25,001 to 50,000	3
	50,001 to 100,000	2
Population <5 Mile ranges selected	250,001 to 500,000	2
	500,001 or More	3
Car Ownership <5 Mile ranges selected	0.5 or Less	1
	0.6 to 1.0	4
PTAL Rating	4 Good	2
	6a Excellent	2
	6b (High) Excellent	1

Calculation Reference: AUDIT-152301-220304-0325

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : G - STUDENT ACCOMMODATION
MULTI-MODAL Servicing Vehicles

Selected regions and areas:

01	GREATER LONDON		
	CN	CAMDEN	1 days
	HM	HAMMERSMITH AND FULHAM	1 days
	KI	KINGSTON	2 days
	LB	LAMBETH	1 days

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

Primary Filtering selection:

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

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

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/17 to 25/06/21

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

Selected survey days:

Tuesday	2 days
Wednesday	2 days
Friday	1 days

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

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

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

Selected Locations:

Town Centre	1
Edge of Town Centre	4

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

Selected Location Sub Categories:

Residential Zone	2
Built-Up Zone	3

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

Secondary Filtering selection:

Use Class:

C3	5 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

25,001 to 50,000	3 days
50,001 to 100,000	2 days

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

Population within 5 miles:

250,001 to 500,000	2 days
500,001 or More	3 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	4 days

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

Travel Plan:

Yes	1 days
No	4 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

4 Good	2 days
6a Excellent	2 days
6b (High) Excellent	1 days

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

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

LIST OF SITES relevant to selection parameters

1	CN-03-G-01 SAINT PANCRAS WAY KING'S CROSS	STUDENT FLATS		CAMDEN
	Edge of Town Centre Built-Up Zone Total Number of residents:		571	
	Survey date: TUESDAY		*14/11/17*	*Survey Type: MANUAL*
2	HM-03-G-02 PADDENSWICK ROAD HAMMERSMITH	STUDENT FLATS		HAMMERSMITH AND FULHAM
	Edge of Town Centre Residential Zone Total Number of residents:		217	
	Survey date: FRIDAY		*25/06/21*	*Survey Type: MANUAL*
3	KI-03-G-01 PENRHYN ROAD KINGSTON UPON THAMES	STUDENT FLATS		KINGSTON
	Edge of Town Centre Built-Up Zone Total Number of residents:		200	
	Survey date: WEDNESDAY		*12/06/19*	*Survey Type: MANUAL*
4	KI-03-G-02 CAMBRIDGE ROAD KINGSTON UPON THAMES NORBITON	STUDENT FLATS		KINGSTON
	Edge of Town Centre Residential Zone Total Number of residents:		300	
	Survey date: WEDNESDAY		*26/06/19*	*Survey Type: MANUAL*
5	LB-03-G-02 WESTMINSTER BRIDGE RD LAMBETH	STUDENT FLATS		LAMBETH
	Town Centre Built-Up Zone Total Number of residents:		1100	
	Survey date: TUESDAY		*27/11/18*	*Survey Type: MANUAL*

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

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
MULTI-MODAL Servicing Vehicles
Calculation factor: 1 RESIDE
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	522	0.002	4	522	0.002	4	522	0.004
08:00 - 09:00	4	522	0.000	4	522	0.000	4	522	0.000
09:00 - 10:00	4	522	0.002	4	522	0.002	4	522	0.004
10:00 - 11:00	4	522	0.003	4	522	0.002	4	522	0.005
11:00 - 12:00	4	522	0.004	4	522	0.005	4	522	0.009
12:00 - 13:00	4	522	0.000	4	522	0.001	4	522	0.001
13:00 - 14:00	4	522	0.003	4	522	0.002	4	522	0.005
14:00 - 15:00	4	522	0.004	4	522	0.004	4	522	0.008
15:00 - 16:00	4	522	0.002	4	522	0.002	4	522	0.004
16:00 - 17:00	4	522	0.003	4	522	0.003	4	522	0.006
17:00 - 18:00	4	522	0.001	4	522	0.001	4	522	0.002
18:00 - 19:00	4	522	0.000	4	522	0.000	4	522	0.000
19:00 - 20:00	4	522	0.002	4	522	0.001	4	522	0.003
20:00 - 21:00	4	522	0.000	4	522	0.001	4	522	0.001
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.026			0.026			0.052

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

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

Appendix D Swept Path Analysis: Refuse

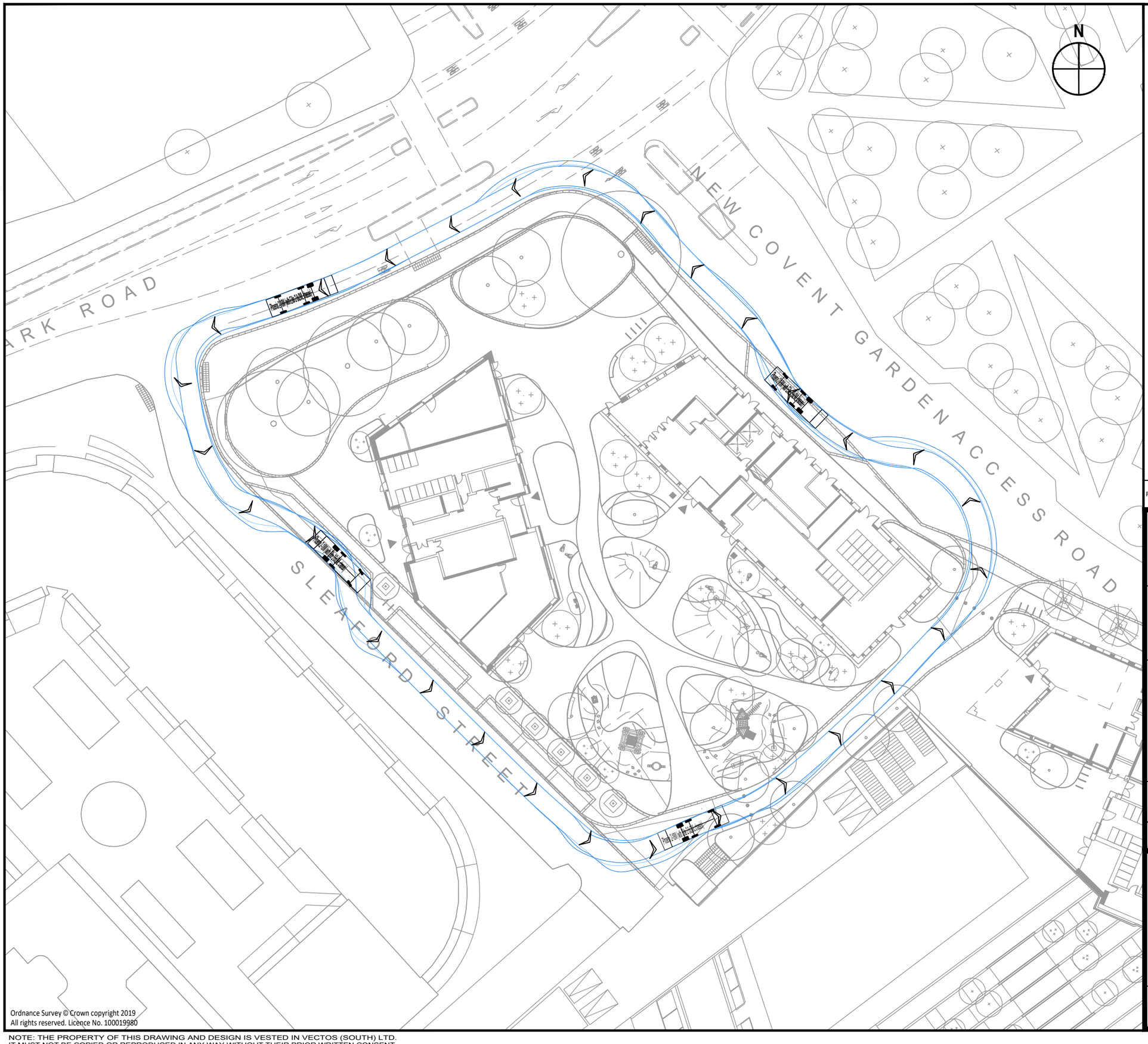
Delivery and Servicing Management Plan

41-49 & 49-59 Battersea Park Road, Wandsworth

Watkin Jones Group

SLR Project No.: 425.000177.00000

11 January 2024



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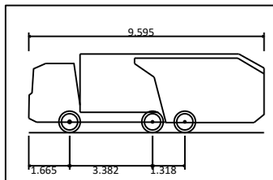
Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.
3. Site plan is 3082-PLA-XX-XX-DR-100-0004-General Arrangement Plan



Phoenix 2-18W (with Elite 2 6x2ML chassis)

Overall Length	9.595m
Overall Width	2.530m
Overall Body Height	3.205m
Min Body Ground Clearance	0.410m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	8.950m

REV.	DETAILS	DRAWN	CHECKED	DATE
E	Revised Site Plan from Architect.	LJ	JE	20.04.2023
D	Revised Site Plan from Architect.	LJ	JE	17.04.2023
C	Revised Site Plan from Architect.	LJ	JE	17.03.2023
B	Revised Site Plan from Architect.	LJ	JM	24.03.2022
A	Revised Site Plan from Architect.	JM	JE	17.01.2022

CLIENT:

Watkin Jones

PROJECT:

41 - 49 Battersea Park Road
Wandsworth

DRAWING TITLE:

Swept Path Analysis
Refuse Collection

SCALES:

1:500 at A3

DRAWN:	CHECKED:	DATE:
JM	AP	29.09.2021

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The Cursitor, 38 Chancery Lane, London, WC2A 1EN
020 7580 7373 vectos@vectos.co.uk

DRAWING NUMBER:	REVISION:
216199/AT/A01	E

Appendix E Swept Path Analysis: Smaller Delivery Vehicles

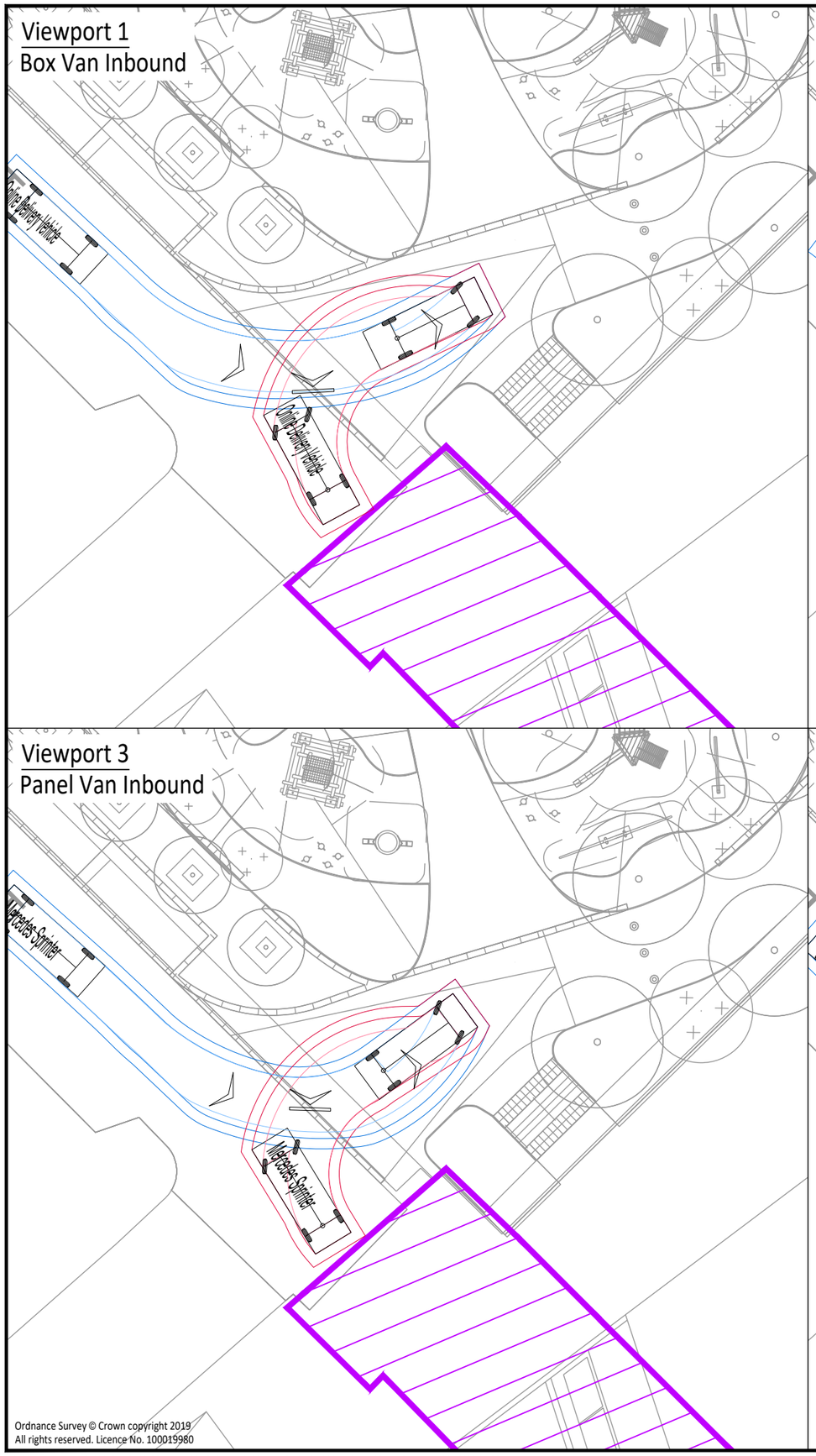
Delivery and Servicing Management Plan

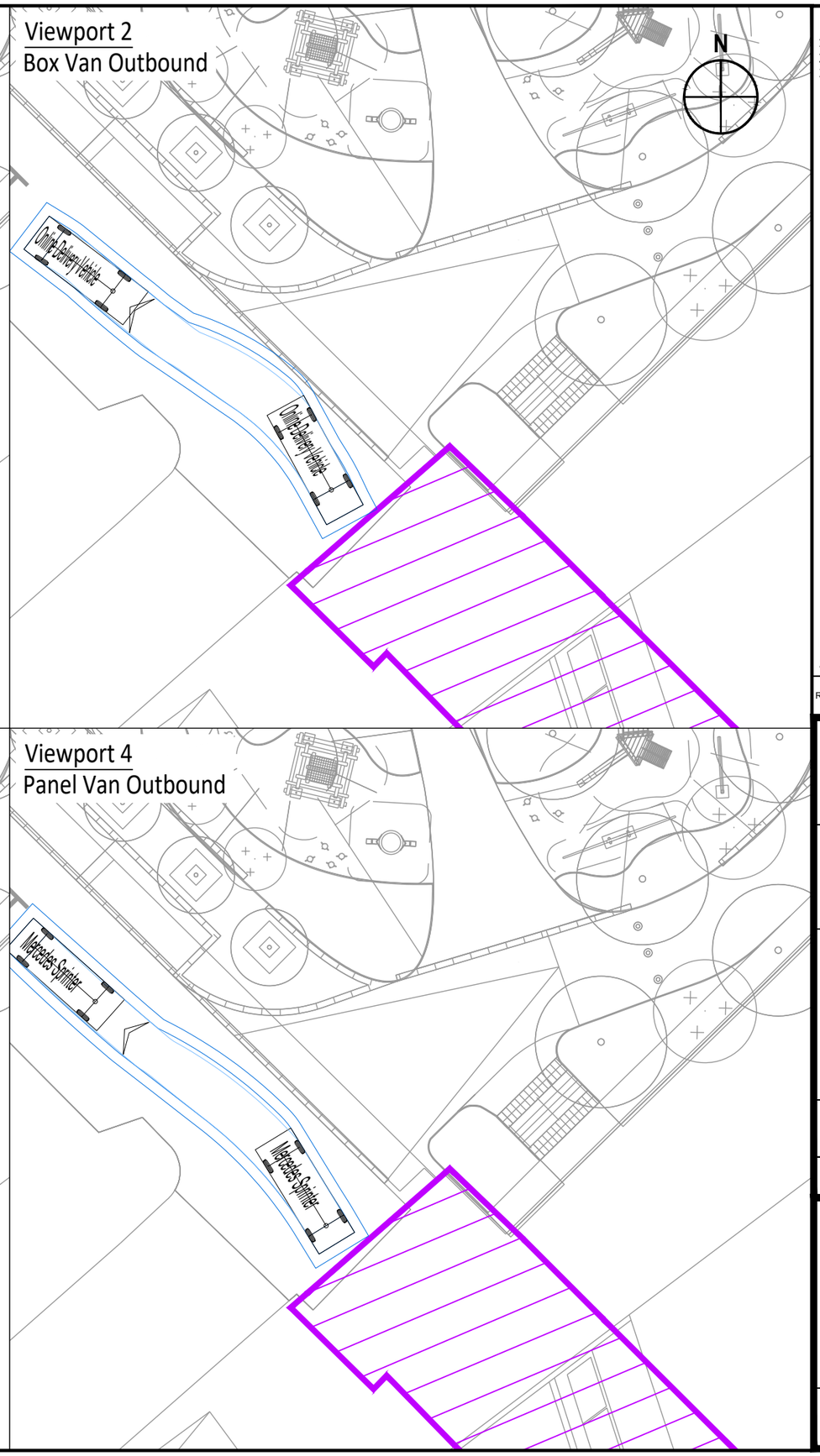
41-49 & 49-59 Battersea Park Road, Wandsworth

Watkin Jones Group

SLR Project No.: 425.000177.00000

11 January 2024



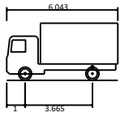


Notes:

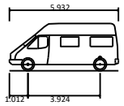
1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.
3. Site plan is 3082-PLA-XX-XX-DR-100-0004-General Arrangement Plan

Key

Proposed Extent of Stopping Up within Peabody Site, from 216199_AT_F01. (Originally From Steer Davies Gleave plan 22764101-TA-02)



Online Delivery Vehicle	
Overall Length	6.043m
Overall Width	2.026m
Overall Body Height	3.100m
Min Body Ground Clearance	0.345m
Track Width	2.026m
Lock to lock time	4.00s
Wall to Wall Turning Radius	6.700m



Mercedes Sprinter	
Overall Length	5.932m
Overall Width	2.020m
Overall Body Height	2.567m
Min Body Ground Clearance	0.339m
Track Width	1.996m
Lock to lock time	4.00s
Wall to Wall Turning Radius	7.600m

REV.	DETAILS	DRAWN	CHECKED	DATE
B	Masterplan Updated	LJ	JE	20.04.23
A	Masterplan Updated	LJ	JE	17.03.23

CLIENT:
Watkin Jones

PROJECT:
41 - 49 Battersea Park Road
Wandsworth

DRAWING TITLE:
Swept Path Analysis
Servicing
Sleaford Street

SCALES:
1:250 at A3

DRAWN:	CHECKED:	DATE:
JM	JE	21.01.2022

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020 7580 7373 vectos@vectos.co.uk

DRAWING NUMBER: 216199/AT/D01
REVISION: B

Appendix F Swept Path Analysis: Larger Delivery Vehicles

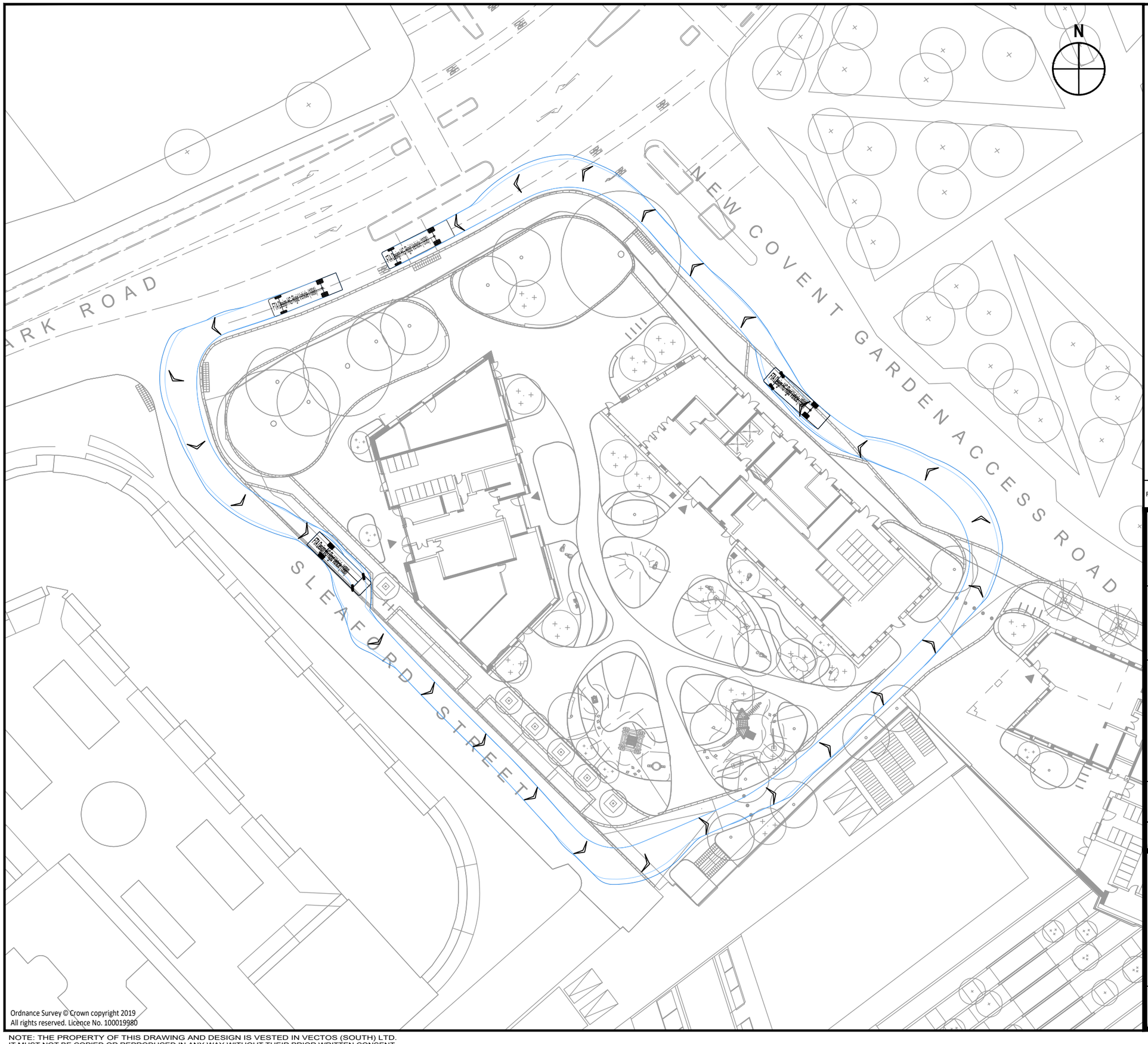
Delivery and Servicing Management Plan

41-49 & 49-59 Battersea Park Road, Wandsworth

Watkin Jones Group

SLR Project No.: 425.000177.00000

11 January 2024



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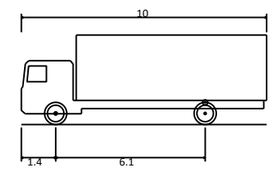
Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.
3. Site plan is 3082-PLA-XX-XX-DR-100-0004-General Arrangement Plan



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.	DETAILS	DRAWN	CHECKED	DATE
D	Revised Site Plan from Architect.	LJ	JE	20.04.2023
C	Revised Site Plan from Architect.	LJ	JE	17.03.2023
B	Revised Site Plan from Architect.	LJ	JM	24.03.2022
A	Revised Site Plan from Architect.	JM	JE	17.01.2022

CLIENT:

Watkin Jones

PROJECT:

41 - 49 Battersea Park Road
Wandsworth

DRAWING TITLE:

Swept Path Analysis
Servicing
10m Rigid Vehicle

SCALES:

1:500 at A3

DRAWN:	CHECKED:	DATE:
JM	AP	29.09.2021

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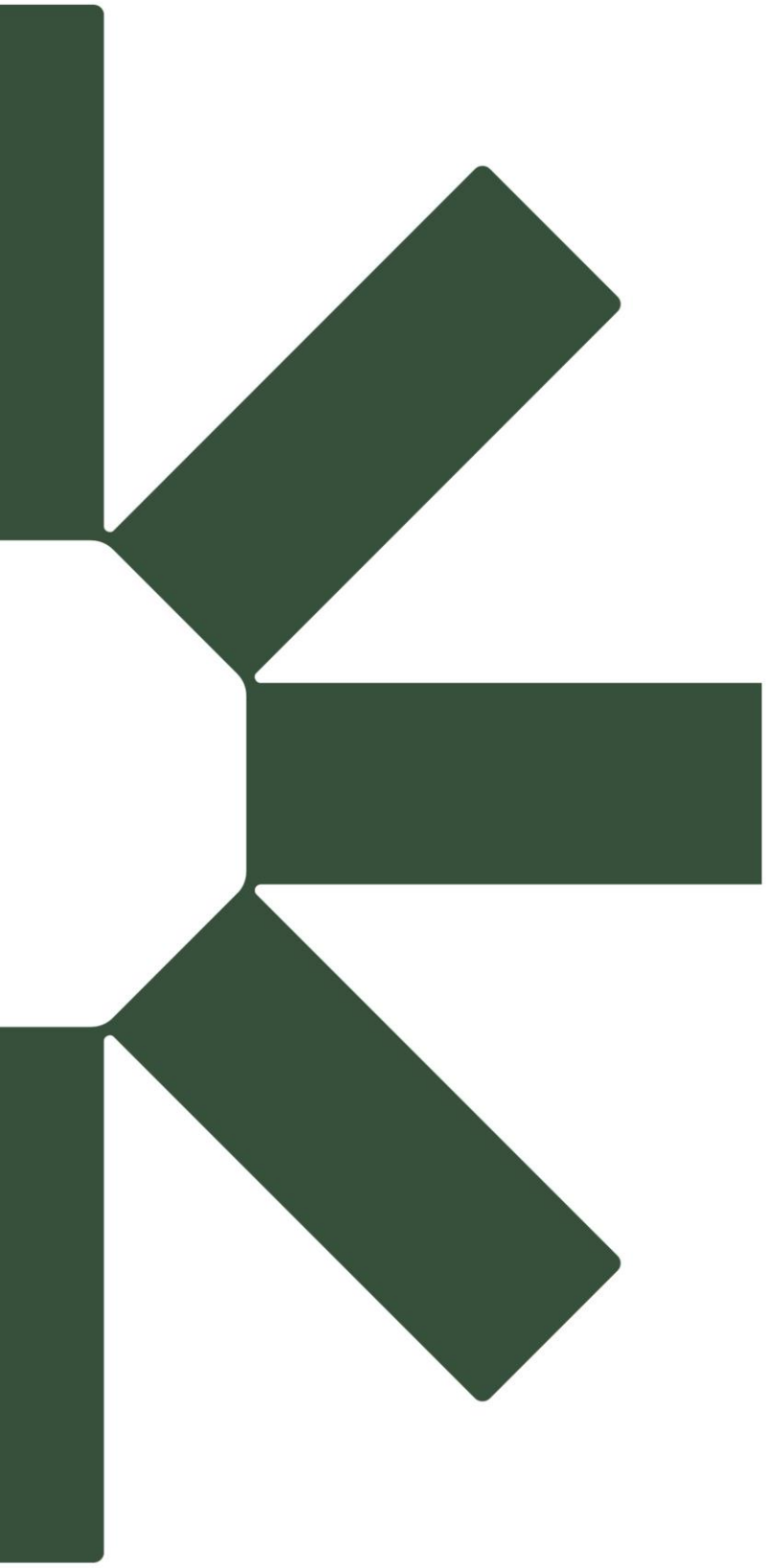
DRAWING NUMBER: 216199/AT/B01

REVISION: D



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