Appendix H3

Delivery and Servicing Management Plan

St William Homes LLP

Marian Place, Bethnal Green Delivery and Servicing Management Plan

February 2020

transport planning practice

Contents

Appendices

1 INTRODUCTION

1.1.1 Transport Planning Practice has been appointed by St William Homes LLP to provide transport planning advice in relation to the redevelopment of a site located in Bethnal Green within the London Borough of Tower Hamlets (LBTH).

1.1.2 The existing site comprises four decommissioned gasholders, a substation and a pressure reduction station. The main access to the site is from Marian Place, with a secondary access located on Emma Street.

1.1.3 The description of the proposed development is the following:

> "Demolition of existing buildings, decontamination/remediation of the site and retention (including dismantling, refurbishment and reinstatement) of the two existing gasholder frames to facilitate redevelopment for a mixed-use development comprising 5 buildings ranging between 6-13 storeys (up to 63m AOD) to contain 555 residential dwellings and 4,182sqm (GIA) non-residential floorspace in flexible A1-A4, B1 and D Use Classes (maximum provision of up to 180sqm A1/A2, up to 1,300sqm A3/A4, up to 2,485sqm of B1(a) and up to 635sqm of D1/D2 use class floorspace), together with access, car and cycle parking, associated landscaping and public realm, public open space and works to the existing canal wall, Pressure Reduction Station and existing gasholders".

1.2 Report Purpose

1.2.1 A Delivery and Servicing Management Plan (DSP) is used to inform the local and regional authorities of the applicant's intent to manage delivery and servicing trips to and from the proposed development to minimise the impact of these trips on the surrounding local highway network.

1.2.2 This report sets out the likely level of servicing trips, proposed access arrangements for servicing and refuse collection vehicles and measures to minimise the impact of servicing and refuse collection trips on the existing highway.

1.2.3 This report is structured as follows:

- Chapter 2 – Policy Context – summarises planning policies and guidance regarding deliveries and servicing.
- Chapter 3 – Delivery and Servicing Design Proposals – sets out the objectives of this DSP.

- Chapter 4 – Deliveries and Servicing Design Proposals – outlines the design proposals for delivery and servicing activities within the development.
- Chapter 5 – Delivery and Servicing Plan Measures – outlines the overarching measures and initiatives to be implemented at the site.

2 POLICY CONTEXT

2.1.1 This section considers the proposed development with regards to delivery and servicing, assessing it against national, regional and local planning policies and guidance.

2.2 National

National Planning Policy Framework, February 2019 – Department for Communities and Local Government

2.2.1 Paragraph 110 of the document states that applications for development should:

allow for the efficient delivery of goods, and access by service and emergency vehicles.

Fleet Operator Recognition Scheme

2.2.2 The Fleet Operator Recognition Scheme (FORS) is a voluntary accreditation scheme that promotes best practice for commercial vehicle operators. FORS encompasses all aspects of safety, efficiency, and environmental protection by encouraging and training fleet operators to measure, monitor and improve performance. FORS provides accreditation pathways for operators of any type, and for those organisations that award contracts and specify transport requirements.

2.2.3 FORS Bronze, Silver and Gold membership provides progressive accreditation enabling operators to achieve exemplary levels of best practice. FORS members stand out from the crowd, work to standards above the legal minimum and have access to a wide range of exclusive benefits that provide a real competitive advantage.

2.2.4 FORS accreditation drives best practice across the European fleet industry in terms of safety, efficiency and environmental protection. It also offers guidance and training to help operators attain the Standard.

2.3 Regional

The London Plan, 2016 – Greater London Authority

2.3.1 Policy 6.14 Freight states that strategically:

The Mayor will work with all relevant partners to improve freight distribution (including servicing and deliveries) and to promote movement of freight by rail and

waterway. The Mayor supports the development of corridors to bypass London, especially for rail freight, to relieve congestion within London.

2.3.2 It also states for planning decisions that development proposals will be encouraged which:

Locate developments that generate high numbers of freight movements close to major transport routes.

Promote the uptake of the Freight Operators Recognition Scheme, construction logistics plans and delivery and servicing plans. These should be secured in line with the London Freight Plan and should be co-ordinated with travel plans and the development of approaches to consolidate freight.

Increase the use of the Blue Ribbon Network for freight transport.

London Plan – Intend to Publish (2019)

2.3.3 Policy T4 Assessing and mitigating transport impacts states that delivery and servicing plans will be required to be in accordance with relevant TfL guidance.

2.3.4 Policy T7 Deliveries, servicing and construction states that:

Development proposals should facilitate safe, clean, and efficient deliveries and servicing. Provision of adequate space for servicing, storage and deliveries should be made off-street, with on-street loading bays only used where this is not possible. Construction Logistics Plans and Delivery and Servicing Plans will be required and should be developed in accordance with Transport for London guidance and in a way which reflects the scale and complexities of developments.

Developments should be designed and managed so that deliveries can be received outside of peak hours and in the evening or night time. Appropriate facilities are required to minimise additional freight trips arising from missed deliveries and thus facilitate efficient online retailing.

At large developments, facilities to enable micro-consolidation should be provided, with management arrangements set out in Delivery and Servicing Plans.

Delivery and Servicing Plans: Making freight work for you – Transport for London

2.3.5 This TfL guidance provides the most appropriate best practice guidance for preparing DSP's. The guidance is aimed at established organisations. Therefore, this guidance

will be used to prepare the full DSP after the occupation of the proposed development when full delivery and servicing surveys have been undertaken.

Managing freight effectively: Delivery and Servicing Plans – Transport for London

2.3.6 This guidance is no longer available from Transport for London (TfL). However, there has not been any new guidance published and therefore, this guidance still provides the most appropriate best practice guidance for preparing DSP's and has therefore been used to prepare this DSP.

Rethinking deliveries summary report – Transport for London

2.3.7 This document focuses on how delivery and servicing trips can be consolidated. The document is based on the findings of a range of techniques currently in place in the UK and internationally to help understand how each can be used, their benefits and potential barriers. This document focuses on the main findings and identifies areas where different consolidation solutions can be introduced in a cost-effective way.

The London Low Emissions Zone

2.3.8 The Low Emission Zone (LEZ) was introduced in 2008 to encourage the most polluting heavy diesel vehicles driving in the Capital to become cleaner. The LEZ covers most of Greater London. To drive within it without paying a daily charge these vehicles must meet certain emissions standards that limit the amount of particulate matter being discharged from their exhausts.

2.3.9 The LEZ aims to improve air quality in the city by setting and enforcing new emissions standards for HGV's, large vans, pickups, coaches, buses, minibuses and various other specialist vehicles and deterring the use of the most polluting vehicles by freight operators. Cars and motorcycles are not affected.

2.3.10 The LEZ operates 24 hours a day, seven days a week, every day of the year including weekends and public holidays, with a daily charge of £200 being applicable for HGV's, coaches and buses; and £100 for large vans, pickups and minibuses which do not meet the required standards.

2.3.11 The LEZ is enforced through fixed and mobile cameras which read vehicle registration number plates as vehicles are driven past within the LEZ and check it against a database of vehicles. The database contains vehicles which meet the LEZ emissions standards and are therefore exempt from charges, are registered for a 100% discount

or have paid the LEZ daily charge. Vehicles not within the database are will be issued a penalty charge notice which will need to be paid by midnight the next working day.

2.4 Local

Tower Hamlets Local Plan 2031: Managing Growth and Sharing the Benefits

2.4.1 The new local plan provides the following standards to calculate waste generated by residential developments:

Table 1 – Waste guidance (Local Plan)

Number of bedrooms	Suggested capacity per week (litres)			
	Refuse	Dry recyclables	Without garden waste	With garden waste
1	70	60	23	100
2	120	90	23	100
3	165	120	23	200
4	215	150	23	200

3 DELIVERY AND SERVICING PLAN OBJECTIVES

3.1.1 The objective of this DSP is to develop through the planning process a document which will seek to support a sustainable and well managed development with regards to deliveries and servicing.

3.1.2 This DSP will therefore seek to achieve the following objectives:

- 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.
- Improve the reliability of deliveries to the site.
- Reduce the operating costs of occupants and freight companies.
- Reduce the impact of freight activity on local residents and the environment.

4 DELIVERY AND SERVICING ARRANGEMENTS

4.1.1 The description of the proposed development is the following:

> "Demolition of existing buildings, decontamination/remediation of the site and retention (including dismantling, refurbishment and reinstatement) of the two existing gasholder frames to facilitate redevelopment for a mixed-use development comprising 5 buildings ranging between 6-13 storeys (up to 63m AOD) to contain 555 residential dwellings and 4,182sqm (GIA) non-residential floorspace in flexible A1-A4, B1 and D Use Classes (maximum provision of up to 180sqm A1/A2, up to 1,300sqm A3/A4, up to 2,485sqm of B1(a) and up to 635sqm of D1/D2 use class floorspace), together with access, car and cycle parking, associated landscaping and public realm, public open space and works to the existing canal wall, Pressure Reduction Station and existing gasholders. ".

4.2 Internal layout

4.2.1 The proposed layout of the site is illustrated in Inset 1.

Inset 1: Proposed site layout

4.2.2 The vehicular access point from Marian Place will facilitate access to an on-site perimeter road which will be provided with speed tables/humps to limit vehicle speeds to ensure that conflicts between vehicles and other users are kept to a minimum.

4.2.3 There will be an access control point on the perimeter road near the Marian Place access. This will feature a retractable bollard for vehicular control and an intercom system which connects to the concierge desk located in Building A. The retractable access control bollard can be controlled with a key fob which will be issued to residents who will have allocated car parking bays in the basement. For other drivers accessing the development, the intercom system linked to the concierge will be used to gain access into the development. Drivers that are not familiar with the development will be directed to their desired destination by the concierge desk via the intercom.

4.2.4 The perimeter road will enable vehicles to drive to each of the five buildings for deliveries and refuse collection. The typical width of the road is 4.1m which is adequate for cars and small vans to pass one another simultaneously. Three passing/loading bays are provided along the length of the road and near each building to allow for large vehicles to drive past other vehicles, as well as to allow for deliveries and refuse collection. There will be a turning area and three parking bays located to the south of Building A to accommodate delivery and servicing vehicles close to the concierge desk in Building A.

4.3 Deliveries and servicing arrangements

4.3.1 Deliveries and servicing associated with all proposed uses will be undertaken within the site. Delivery vehicles will access the on-site perimeter road from Marian Place and will be directed to the correct building at the intercom by the concierge desk and through wayfinding / signage. The majority of deliveries to the residential development (expected to be ecommerce deliveries or post) will be delivered at the concierge desk in Building A. The concierge will then hold the parcels for collection by residents.

4.3.2 For deliveries of takeaway food, food shopping or bulky goods to all residential units, the delivery vehicles will be directed to the relevant building at the intercom and will park within the nearest layby to perform the drop-offs (or within parking bays for Building A).

4.3.3 Deliveries for the commercial uses will be directed to the correct building at the intercom and drop-offs will be performed within the nearest layby (or within parking bays for Building A).

4.3.4 Refuse vehicles will access the site from Marian Place and will utilise the on-site perimeter road to perform waste collection. Waste operatives will park their vehicle within the nearest layby or suitable stopping point, wheel the bins to the vehicle for collection and return the bins to their original location after the waste has been collected. Each layby/suitable stopping point is located within a 10m distance from the waste store.

4.3.5 Swept path analysis of a 10m rigid vehicle and a refuse truck which illustrate the movement of the vehicles within the site is shown in Appendix A.

4.4 Waste storage arrangements

Residential

4.4.1 The proposed residential development will comprise a total of 57 1,100 litre Eurobins for refuse waste, 33 1,280 litre Eurobins for recyclable waste and 54 240 litre bins for compostable waste. The calculation of the residential waste and the minimum number of bins required is provided in Appendix B. The proposed bins will be arranged as per the following:

- Building A – 25 1,100 litre Eurobins for refuse waste, 15 1,280 litre Eurobins for recyclable waste and 22 240 litre bins for compostable waste;
- Building B – seven 1,100 litre Eurobins for refuse waste, five 1,280 litre Eurobins for recyclable waste and eight 240 litre bins for compostable waste;
- Building C – 12 1,100 litre Eurobins for refuse waste, seven 1,280 litre Eurobins for recyclable waste and 11 240 litre bins for compostable waste;
- Building D – eight 1,100 litre Eurobins for refuse waste, seven 1,280 litre Eurobins for recyclable waste and 10 240 litre bins for compostable waste; and
- Building E – five 1,100 litre Eurobins for refuse waste, three 1,280 litre Eurobins for recyclable waste and five 240 litre bins for compostable waste.

4.4.2 Bin stores for the residential development will be provided at ground level within buildings B, C, D and E, which will be accessed by residents and waste collection operatives. However, for Building A bins will be provided within small stores in the

basement, with the main bin store at ground level. Residents will only use the stores at basement level to dispose of waste. When the limited number of bins in the basement are filled, they will be moved to the main store at ground floor by members of the estate management company via a goods lift and will be swapped with empty bins from the store at ground level. The Council's waste operatives will only need to access the ground floor bin store.

Commercial

4.4.3 Commercial bins will be provided within a bin store on the eastern end of Building A and will be managed by the estate management company. The various commercial occupiers on the site will be required to make waste collection arrangements with the estate management company. This will essentially involve communal bins used by all commercial occupiers. Terms will be agreed with the estate management company based on actual/predicted waste generated by the commercial occupier. The communal waste arrangements will ensure that the waste for each commercial use will be collected together rather than each occupier arranging collection for their own waste streams separately. This will ensure that the number of trips generated by refuse collection vehicles to the site is kept to a minimum.

4.4.4 The proposed commercial uses will comprise a total of 10 1,100 litre Eurobins. The calculation for the commercial waste is provided in Appendix C.

4.5 Delivery and servicing trip generation

C3 Residential

4.5.1 The servicing demands of the residential units have been based on servicing surveys on four weekdays at a residential scheme in Victoria, London called Grosvenor Waterside which is a mixed tenure scheme developed by the Berkeley Group which has circa 600 units. The trips recorded include the delivery of goods and also contractors undertaking work at the development. The daily servicing trip rate derived from the survey averaged 0.09 trips per unit. These were spread throughout the day between 07:30 and 19:00 with no discernible peak period. The split of the vehicle types used for servicing were:

3% by motorcycle

80% by car or van

10% by small rigid

4% by large rigid

3% by PT, cycle and walking modes

4.5.2 Based on the above modal split, the 555 residential units are expected to generate a total of 50 deliveries between 07:30 and 19:00. Of these, 40 are expected to be undertaken by a car or van, five by small rigid vehicles, two by large rigid vehicles and the remaining three by motorcycle, public transport, cycle or walking. The delivery and servicing trips for the residential development are spread throughout the day between 07:30 and 19:00 which would equate to approximately four deliveries per hour.

B1 Office

4.5.3 A daily servicing trip rate of 0.28 per 100m^2 has been assumed for the proposed B1 offices. This value was taken from the comprehensive set of delivery vehicle survey data provided in the research paper 'Business, goods and service vehicle trip generation at office developments' produced by JMP Consultants. The trip rate takes into account Central London sites only and was utilised to estimate the servicing trips for the B1 office in the previously consented scheme.

4.5.4 Based on the above trip rate, it is estimated that the proposed B1 office would generate a total seven deliveries throughout a typical day. These deliveries are expected to be undertaken by cars or LGVs.

A3/A4 Restaurant/Café

4.5.5 The delivery and servicing trip generation associated with the proposed restaurant/café has been determined based on trip rates obtained from comparable sites within London from the TRICS database. The sites selected are the ones presented (in more detail) in Chapter 5 of the Transport Assessment.

4.5.6 The sites provided a daily trip rate of 0.291 per 100m^2. Based on this, it is estimated that the proposed A3/A4 would generate four deliveries on a typical day. These are expected to be undertaken by cars or LGVs.

A1 / A2

4.5.7 It has been assumed that the proposed A1/A2 will generate two deliveries throughout a typical day. These could be deliveries for products/goods as well as maintenance and repair.

D1 / D2

4.5.8 It has been assumed that the proposed D1/D2 will generate two deliveries throughout a typical day.

5 DELIVERY AND SERVICING PLAN MEASURES

5.1.1 This chapter outlines the overarching measures and initiatives included within the DSP which are applicable within the proposed development site.

5.1.2 This DSP will specifically aim to ensure that servicing of the development can be carried out efficiently and mitigate any negative impacts on the local residents, the highway network and the environment.

5.1.3 In accordance with TfL's best practice guidance contained within their document entitled 'Managing Freight Effectively: Delivery and Servicing Plans' the proposed management measures and initiatives have been grouped into the following areas:

- Design
- Procurement Strategy
- Operational Efficiency
- Waste Management
- Road Trip Reduction

5.2 Design

5.2.1 The London Freight Plan recognises that good design can minimise disturbance for residents at, or on-route to, the site, and the impact of servicing upon the surrounding highway network, the specific design related measures implemented as part of the development are set out in turn below:

Servicing Facilities

5.2.2 The proposed development's servicing arrangements have been designed to ensure all delivery and servicing activities will take place off the existing public highway which will ensure that traffic flows on the surrounding public highway network are unaffected by the operation of the site. Details of the servicing proposals are provided within Chapter 4 of this report.

Risk assessment of servicing area

5.2.3 A risk assessment would be normally undertaken by suitably trained site management staff prior to use. This assessment will examine the following issues:

- Adequate manoeuvring space for the vehicles
- Interaction with pedestrians

- Adequate unloading area
- Level route from vehicle to destination
- Interaction with vehicles
- Visibility of management staff through the use of personal protective equipment (PPE)

Servicing Restrictions

5.2.4 The largest vehicle types that can reasonably be expected to deliver to and service the proposed development are as follows:

- 10m rigid HGV (width 2.5m; length 10m; height: 3.7m)
- Refuse vehicle (width 2.5m; length 10.7m; height: 3.2m)

5.2.5 However, it is anticipated that the most frequent delivery vehicles will be cars and light goods vehicles (LGVs). Vehicle swept path analysis drawings are included in Appendix A.

5.2.6 Any delivery and servicing vehicles exceeding the size of the vehicles set out above are expected to make specific delivery arrangements with the estate management company in advance to make sure they can be accommodated for. Any abnormal / overweight vehicles would need to be specifically assessed for appropriate means of accessing the site and any essential mitigation that maybe required. These would be treated as exceptional circumstances.

Accommodating Special Deliveries including home removals

5.2.7 Any special deliveries/home removals to and from the development will need to be pre-arranged with the estate management company. The delivery time and duration will be agreed with the estate management company to minimise the impact upon the routine daily servicing requirements of the development. Out of peak deliveries will be encouraged for such deliveries wherever possible.

5.3 Procurement Strategy

5.3.1 Procurement process should demonstrate an awareness of all vehicle activity associated with the site, its impacts and appropriate measures to reduce it. This will be undertaken by the estate management company.

Local facilities

5.3.2 The location of local shops and services, including supermarkets, will be promoted through the travel information pack that will be issued to residents and commercial tenants as part of the Travel Plan. This is expected to encourage them to source everyday items from the local area which will contribute to reducing the number of deliveries to the site.

5.4 Operational efficiency

Communication of delivery procedures

5.4.1 The delivery procedures in operation at the site will be communicated to all occupiers upon occupation. Freight operators will be able to contact the estate management company prior to arriving at the site so that they can be informed of the site arrangements for deliveries and any procedures they should undertake to deliver goods and services the site safely and efficiently.

5.5 Waste management

Waste reduction, storage and removal measures

5.5.1 Guidance contained within the London Freight Plan identifies that developments should provide sufficient facilities for storage and collection of segregated waste.

5.5.2 The development will provide segregated waste storage for the proposed uses. Waste will be segregated into residual waste and recyclable waste. Provision for recyclables is provided within the site in accordance with the relevant local guidance.

Refuse Collection Procedures

5.5.3 On refuse collection days, refuse collection will be undertaken as set out in Chapter 4 of this document.

5.5.4 Refuse collection will be undertaken outside of the peak hours where possible, with the specific collection times being arranged with the local authority or private waste contractor to minimise impacts upon the uses within the site.

5.6 Road trip reduction

Delivery and servicing vehicle frequencies

5.6.1 The number of delivery and servicing trips has been considered earlier on in this document in Chapter 4.

Encouraging Deliveries by Sustainable Modes

5.6.2 Occupiers of the commercial units will be encouraged to use suppliers who are affiliated to the Freight Operator Recognition Scheme (FORS) and operating green fleets complying with the emission standards set out by the London Emission Zones. This measure will contribute towards encouraging more maintenance contractors to use electric vehicles.

5.7 Targets and monitoring

Monitoring

5.7.1 A programme of monitoring and review will be carried out in accordance with TfL's guidance for undertaking surveys as set out in Delivery and Servicing Plans, Making freight work for you. These surveys will be undertaken on a periodic basis.

5.7.2 Monitoring and review of deliveries to the site will be the responsibility of the estate management company. A delivery survey audit will be undertaken after the development is occupied.

5.7.3 The estate management company (or appointed consultant) will undertake delivery monitoring surveys on the third and fifth year after the initial survey.

Review

5.7.4 The results of the surveys will be used to identify particular trends such as a particular supplier visiting the site more than once a day or that a number of different companies deliver similar products. The results will then help the development management to look for 'quick wins'.

5.7.5 These could include for example, that four suppliers deliver the same types of products to the site four times a week, which could potentially be reduced to twice, or even once, a week.

5.7.6 This process will provide the opportunity for delivery operations and procedures on the site at the time to be reviewed and new management measures to be implemented (if necessary) to achieve the objectives set out within Chapter 3.

5.8 Enforcement

5.8.1 The contents of this DSP have been prepared in order to inform the planning authority of the developer's intent for the planning application for this site. Therefore it must be complied with unless otherwise agreed in writing with the planning authority.

5.8.2 A full DSP will be prepared after the baseline surveys have been carried out in line with the TfL's guidance, Delivery and Servicing Plans, Making freight work for you, a maximum of six months after the proposed development has reached 75% occupation.

Appendices

Appendix A

Swept path analysis

10.0m rigid passing transits van on bend

Service vehicle bays

PRS maintenance vehicle space

Intercom to Concierge

Collapsible bollard access control

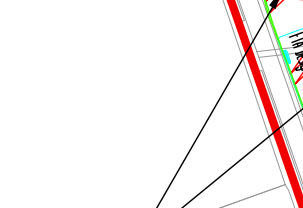
Raised island (+150mm)

Loading bay/passing bay

Loading bay/passing bay

Speed control measure

Vehicle used



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

This drawing has been prepared for planning purposes and should not be used for construction.

Based on drawing number RSHP-P-0100-P-00. TPP REF - IN_54.

MARIAN PLACE, BETHNAL GREEN

Swept path analysis of 10m rigid servicing site

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transport planning practice

SCALE @ A3	DATE	DRAWN BY	CHECKED	DRAWING NUMBER	REV
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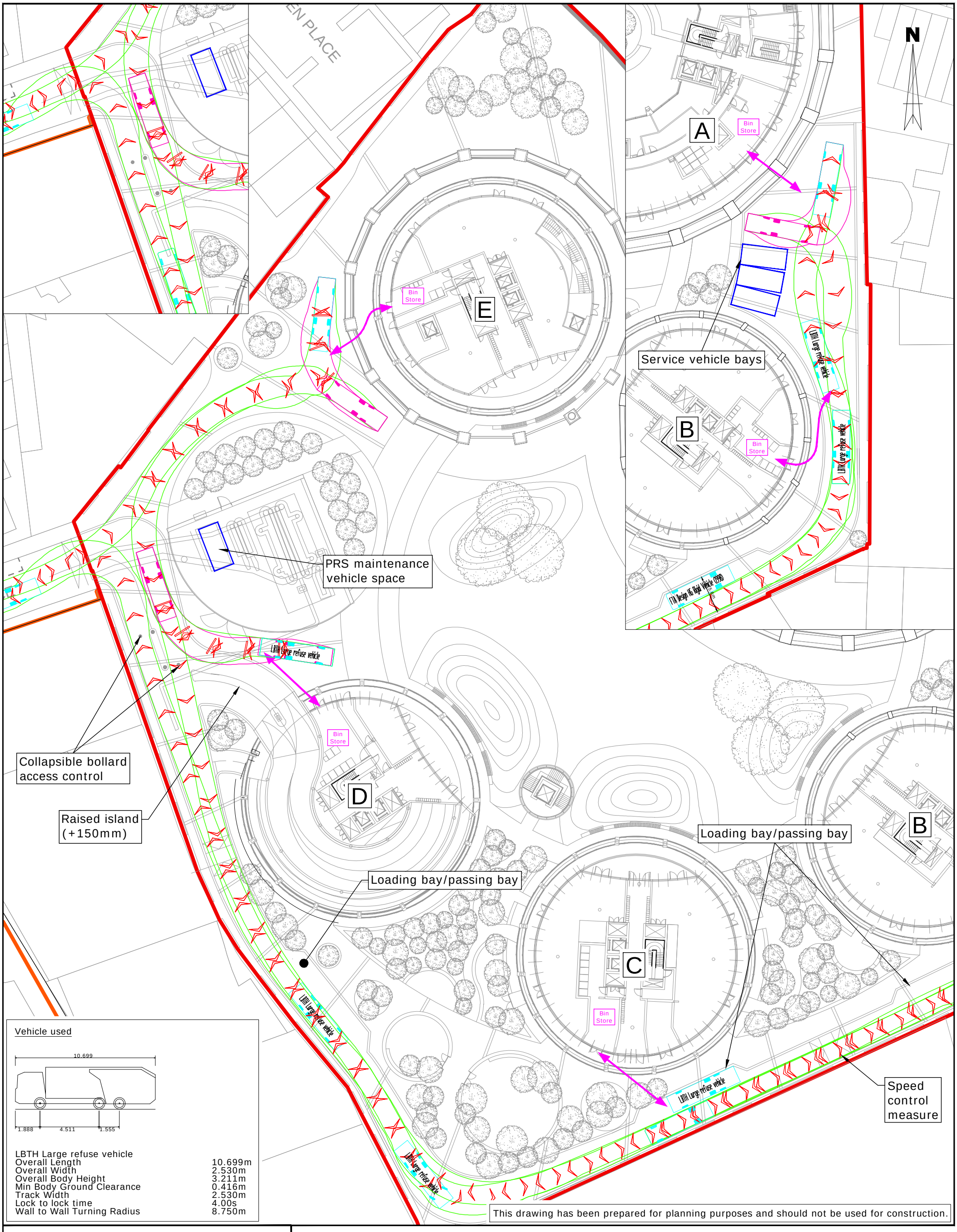

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Based on drawing number RSHP-P-0100-P-00. TPP REF - IN_54.

MARIAN PLACE, BETHNAL GREEN

Swept path analysis of LBTH refuse vehicle servicing site

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SCALE @ A3	DATE	DRAWN BY	CHECKED	DRAWING NUMBER	REV
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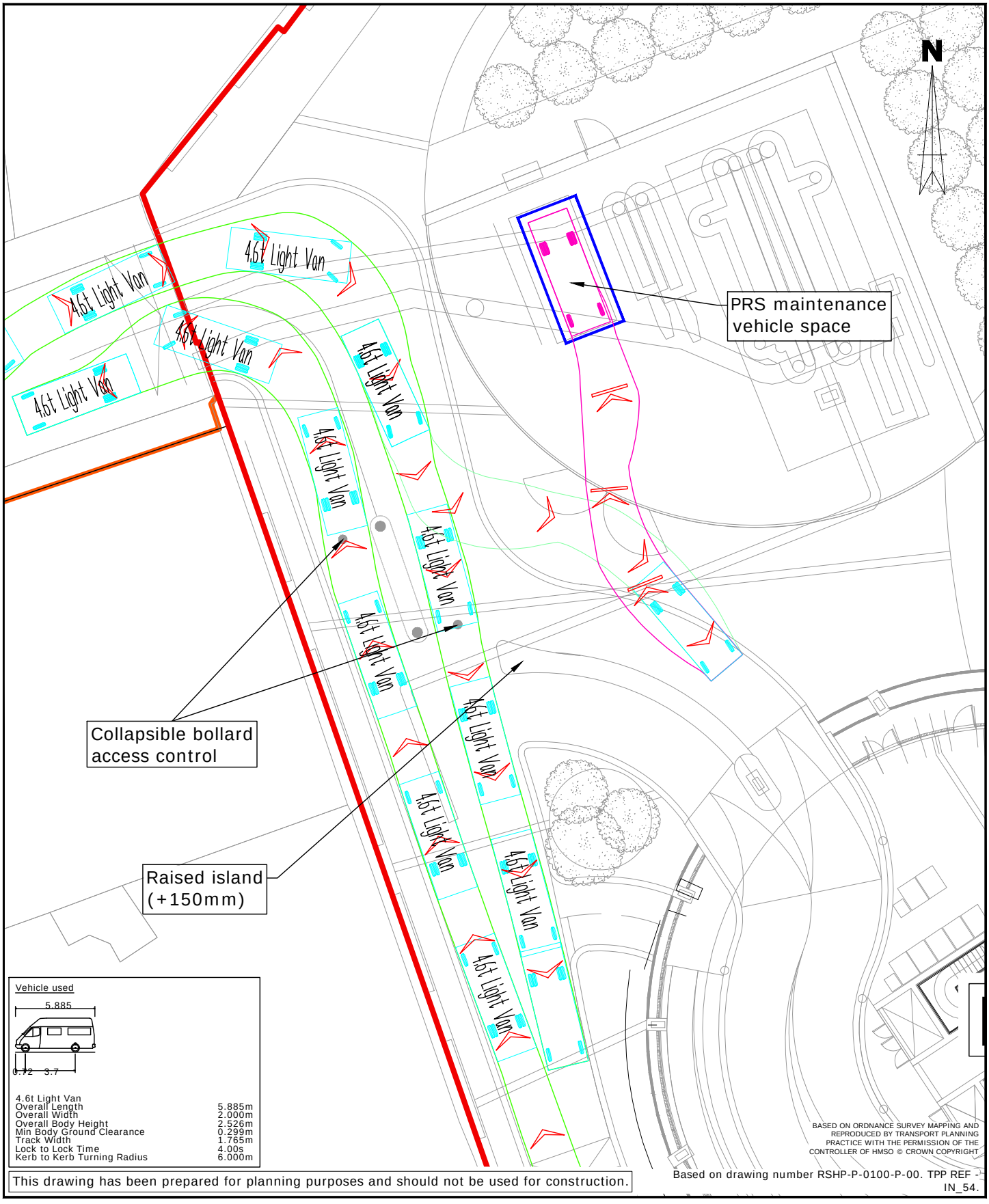

Vehicle used

4.6t Light Van	
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

This drawing has been prepared for planning purposes and should not be used for construction.

Based on drawing number RSHP-P-0100-P-00. TPP REF - IN_54.

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MARIAN PLACE, BETHNAL GREEN

Swept path analysis of a 4.6t transit van passing at site access and entering PRS maintenance vehicle space

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SCALE @ A4	DATE	DRAWN BY	CHECKED	DRAWING NUMBER	REV
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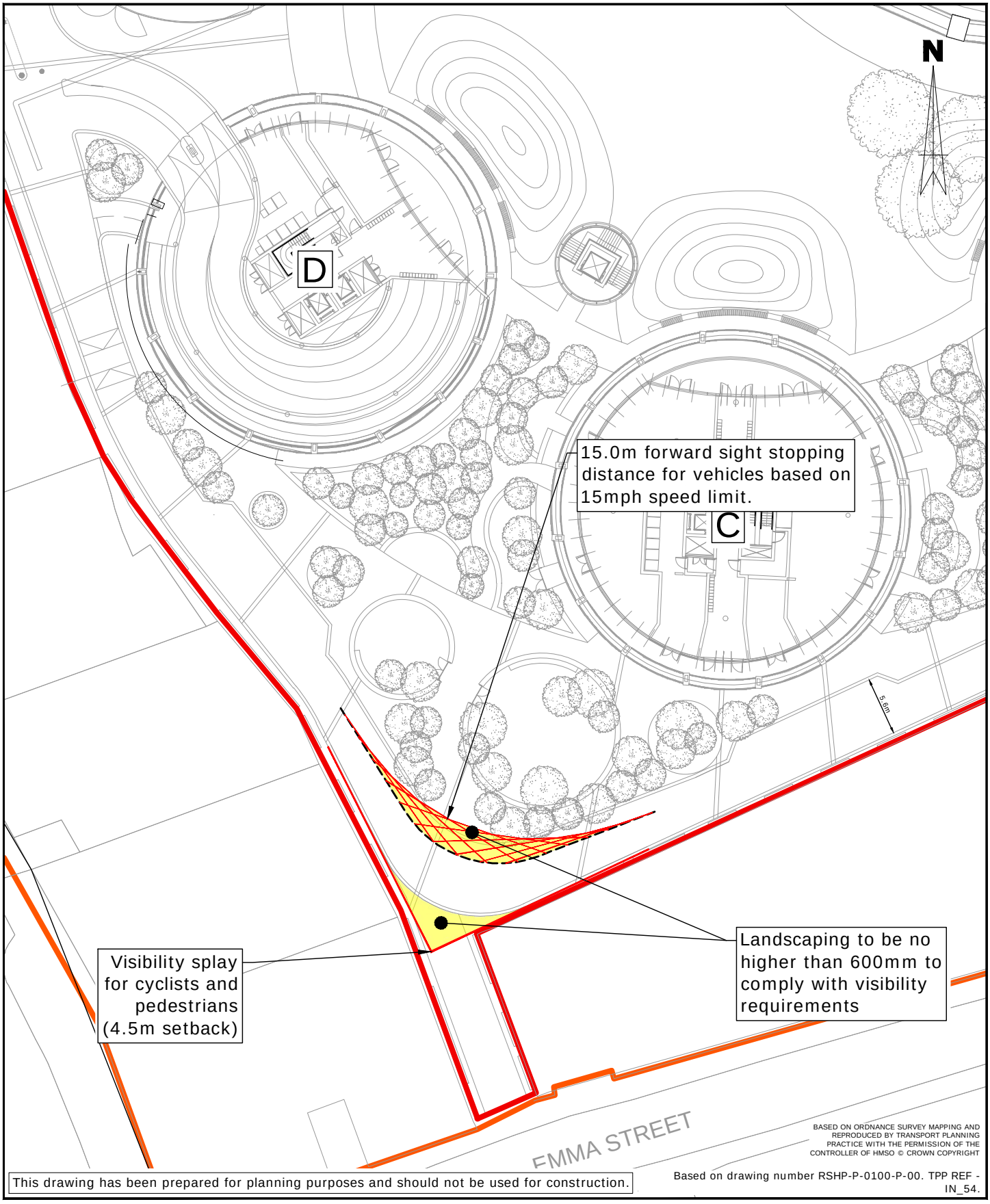

This drawing has been prepared for planning purposes and should not be used for construction.

Based on drawing number RSHP-P-0100-P-00. TPP REF - IN_54.

MARIAN PLACE, BETHNAL GREEN

Visibility requirements at south-western bend

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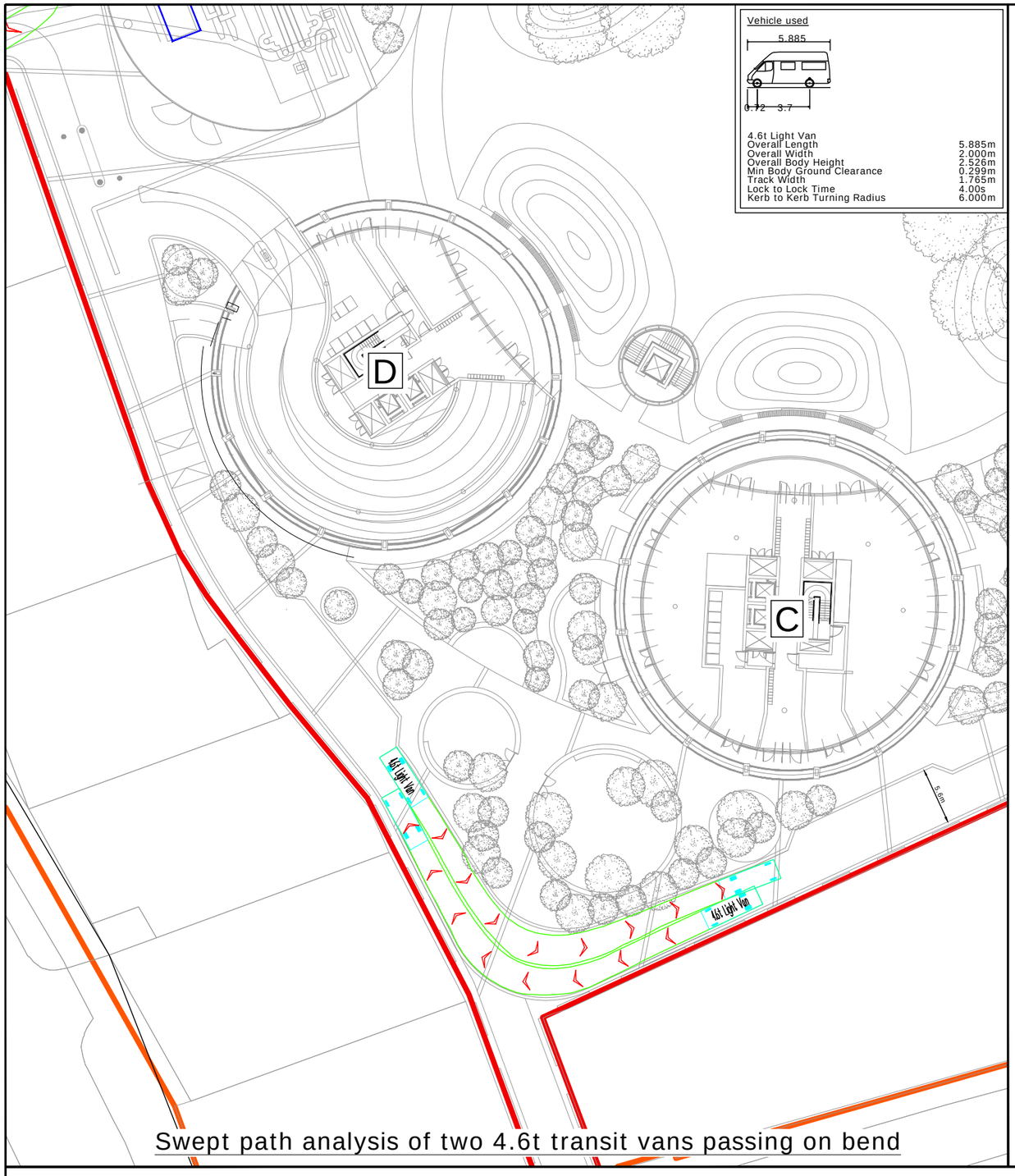
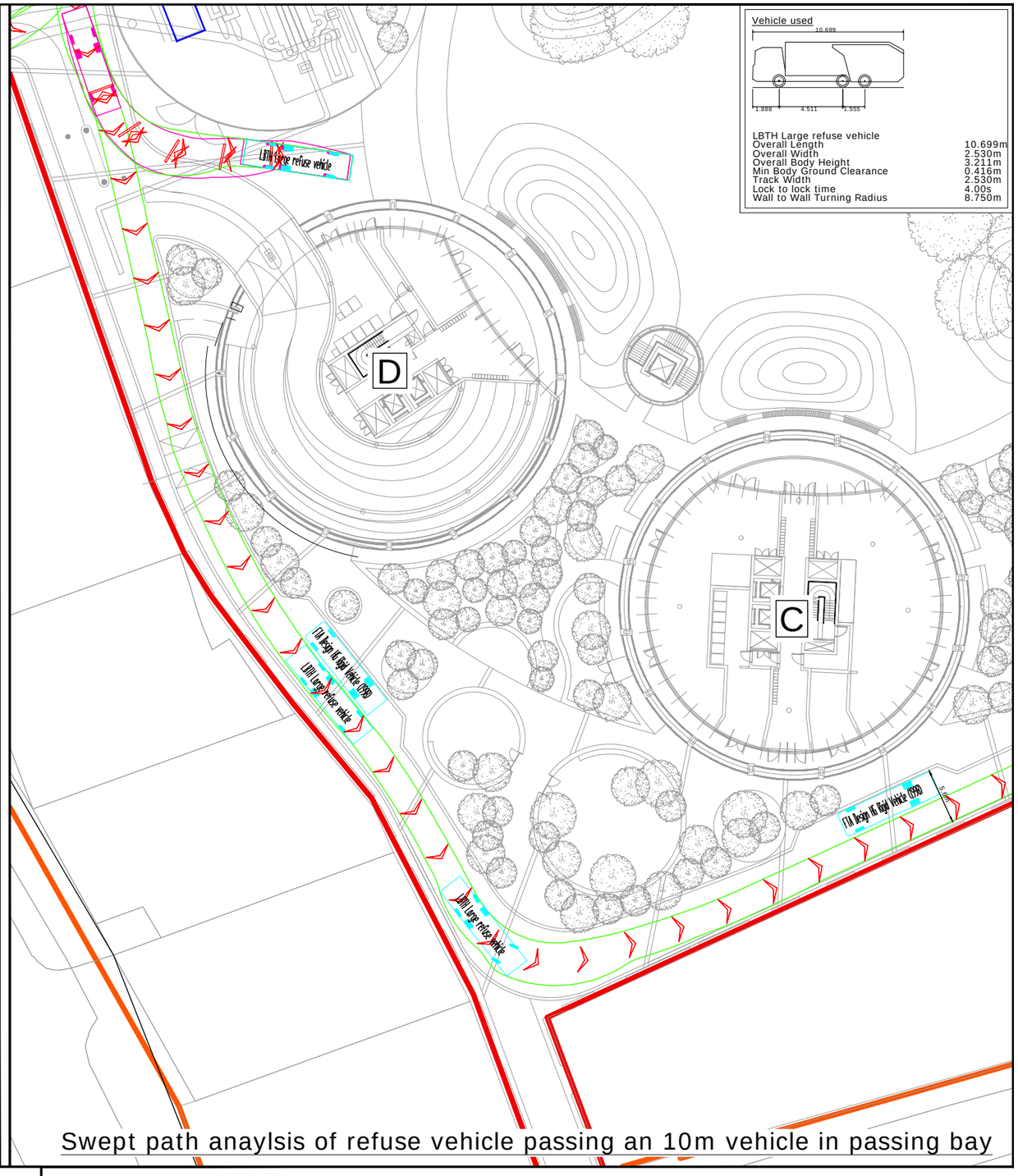


Swept path analysis of two 4.6t transit vans passing on bend



Swept path anaylsis of refuse vehicle passing an 10m vehicle in passing bay

N

Based on drawing number RSHP-P-0100-P-00. TPP REF - IN_54.

T:\30000_Projects\31003 Marian Place, Bethnal Green\ACAD\054_A - 060_A.dwg

MARIAN PLACE, BETHNAL GREEN

Swept path analysis of south-western bend

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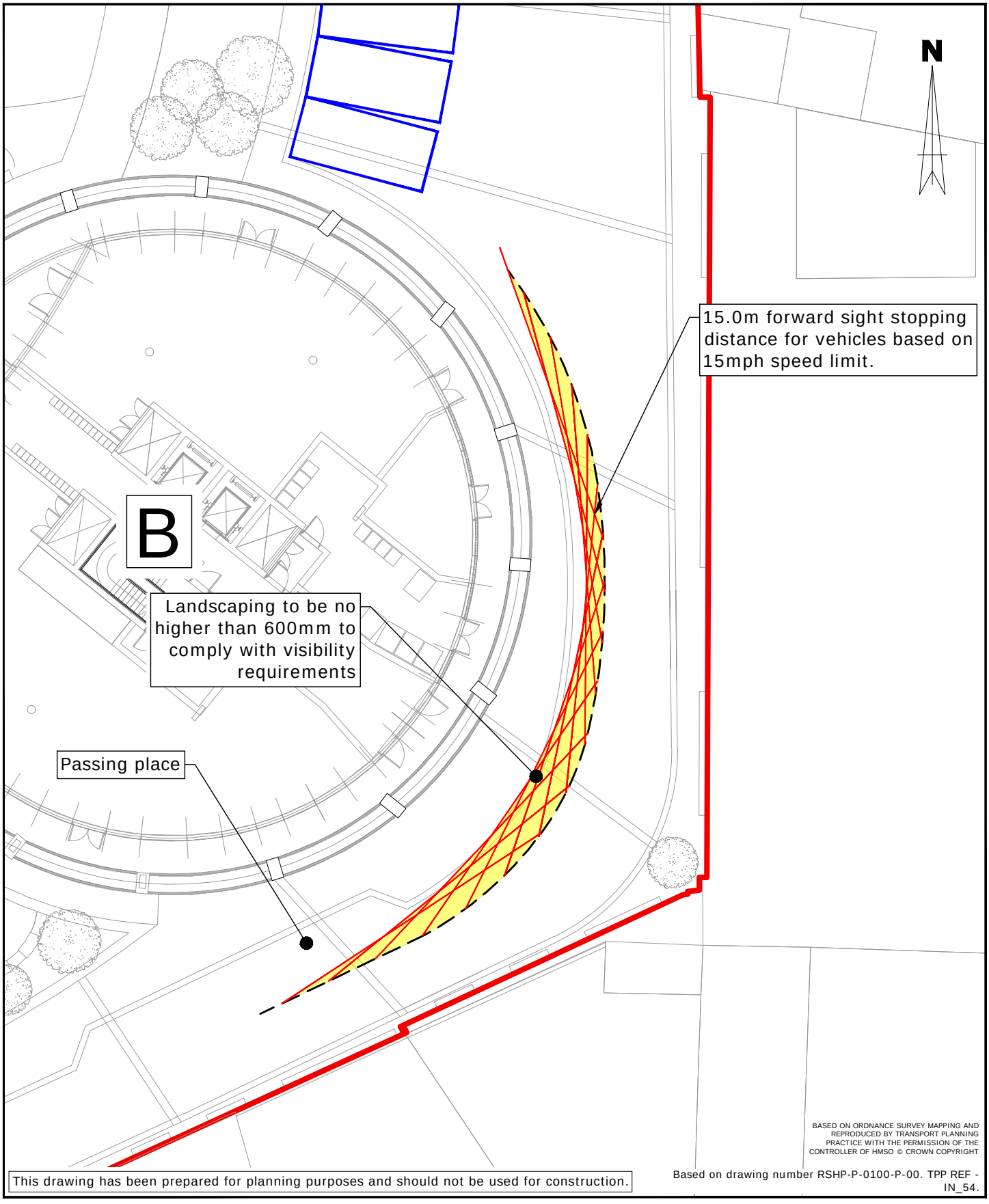
SCALE @ A3	DATE	DRAWN BY	CHECKED	DRAWING NUMBER	REV
1:500 (0 5 10m)	26/11/19	LD	CVR	31003/AC/058	A



This drawing has been prepared for planning purposes and should not be used for construction.

Based on drawing number RSHP-P-0100-P-00. TPP REF - IN_54.

MARIAN PLACE, BETHNAL GREEN

Visibility requirements at south-eastern bend

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SCALE @ A4	DATE	DRAWN BY	CHECKED	DRAWING NUMBER	REV
1:250 (0 2.5 5m)	21/11/19	LD	CVR	31003/AC/059	A

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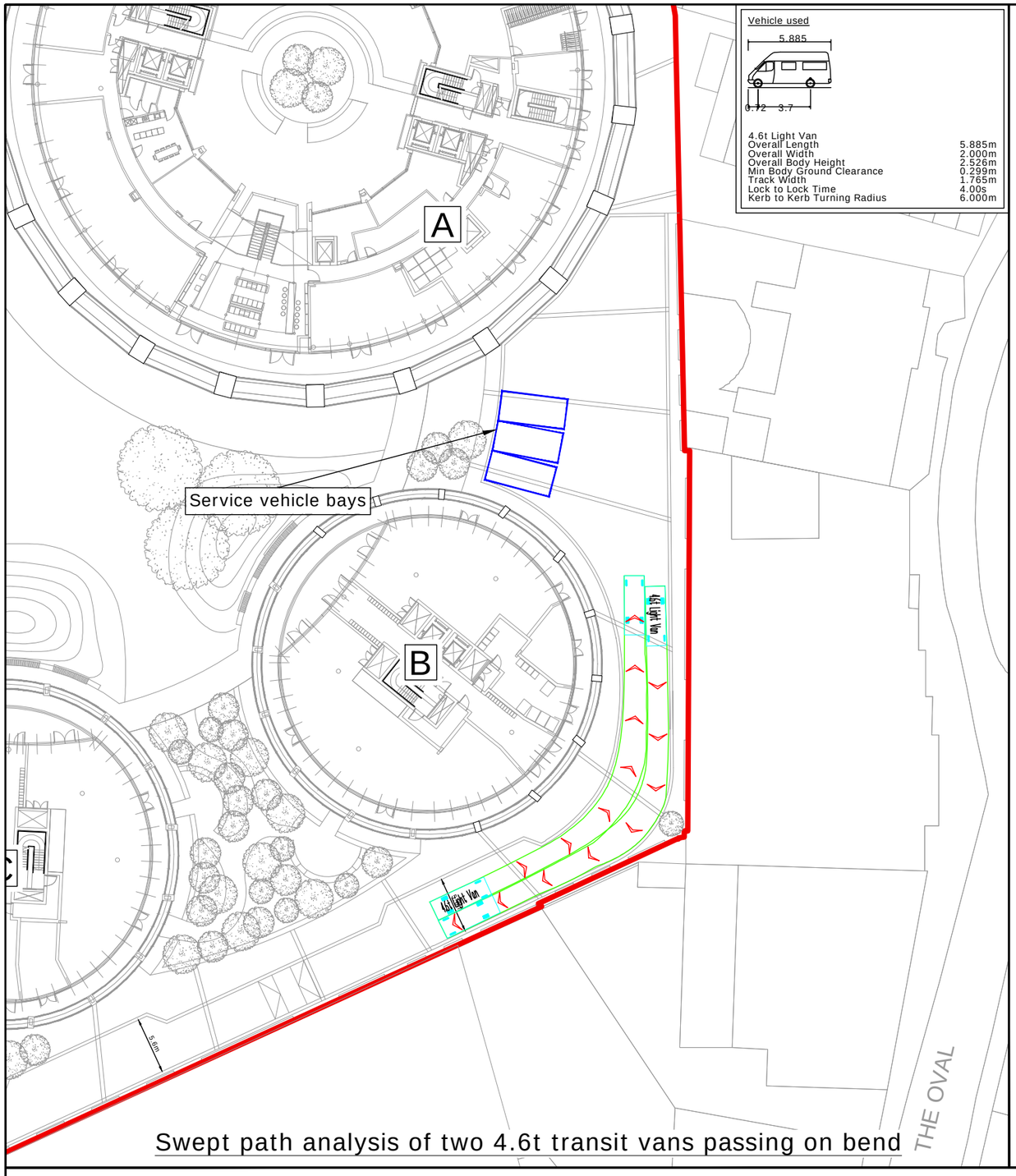
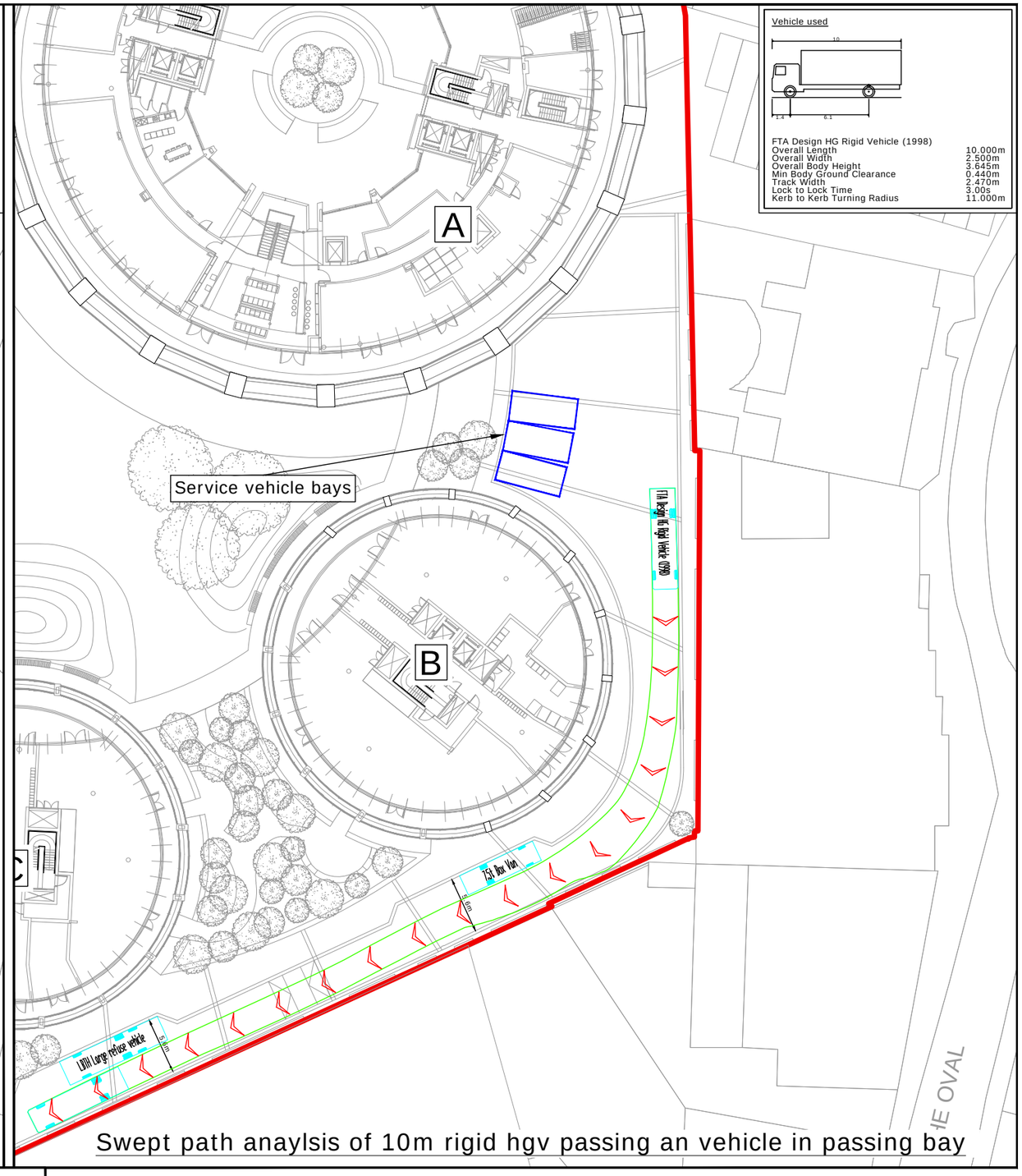


Swept path analysis of two 4.6t transit vans passing on bend



Swept path anaylsis of 10m rigid hgv passing an vehicle in passing bay

N

This drawing has been prepared for planning purposes and should not be used for construction.

Based on drawing number RSHP-P-0100-P-00. TPP REF - IN_54.

MARIAN PLACE, BETHNAL GREEN

Swept path analysis of south-eastern bend

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SCALE @ A3	DATE	DRAWN BY	CHECKED	DRAWING NUMBER	REV
1:500 (0 5 10m)	21/11/19	LD	CVR	31003/AC/060	A

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Appendix B

Residential waste calculation

Number of bedrooms	Capacity per week (litres)			
	Refuse	Dry recycables	Compostable waste	
			Without garden waste	With garden waste
1	70	60	23	100
2	120	90	23	100
3	165	120	23	200
4	215	150	23	200

Private Development Block A						
Waste volume						
	Studio/1bd	2bd	3bd	4bd	Total	Eurobin Provision
No. of units	90	108	30	0	228	
Refuse (litres)	6300	12960	4950	0	24210	22
Recycable (litres)	5400	9720	3600	0	18720	15
Compostable (litres)	2070	2484	690	0	5244	22

Private Development Block B						
Waste volume						
	Studio/1bd	2bd	3bd	4bd	Total	Eurobin Provision
No. of units	72	16	0	0	88	
Refuse (litres)	5040	1920	0	0	6960	6
Recycable (litres)	4320	1440	0	0	5760	5
Compostable (litres)	1656	368	0	0	2024	8

Affordable Rent Block C						
Waste volume						
	Studio/1bd	2bd	3bd	4bd	Total	Eurobin Provision
No. of units	14	12	36	22	84	
Refuse (litres)	980	1440	5940	4730	13090	12
Recycable (litres)	840	1080	4320	3300	9540	7
Compostable (litres)	322	276	828	506	1932	8

Privated Development Block D						
Waste volume						
	Studio/1bd	2bd	3bd	4bd	Total	Eurobin Provision
No. of units	32	8	0	0	40	
Refuse (litres)	2240	960	0	0	3200	3
Recycable (litres)	1920	720	0	0	2640	2
Compostable (litres)	736	184	0	0	920	4

Shared Ownership Block D						
Waste volume						
	Studio/1bd	2bd	3bd	4bd	Total	Eurobin Provision
No. of units	28	32	0	0	60	
Refuse (litres)	1960	3840	0	0	5800	5
Recycable (litres)	1680	2880	0	0	4560	4
Compostable (litres)	644	736	0	0	1380	6

Private Development Block E						
Waste volume						
	Studio/1bd	2bd	3bd	4bd	Total	Eurobin Provision
No. of units	45	10	0	0	55	
Refuse (litres)	3150	1200	0	0	4350	4
Recycable (litres)	2700	900	0	0	3600	3
Compostable (litres)	1035	230	0	0	1265	5

Appendix C

Commercial waste calculation

COMMERCIAL ACCOMMODATION					
		Area (GEA)			
Use Class	Unit Description	Ft²	M²	No of Units	Refuse Requirement (litres)
Food & Beverage	Ground / Basement	13,084	1,216	3	4,254
Retail	Ground Floor	1,833	170	2	681
Commercial	Ground / Basement	22,661	2,105	8	4,211
HA workspace (10% of total Commercial)		2,518	234		468
Leisure	Ground / Basement	6,226	578	2	1,157
				TOTAL	10,771

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