Waste & Servicing Strategy

Plot 9b, First Street

Vita Meadow Limited

Prepared by:

SLR Consulting Limited

5th Floor, 35 Dale Street, Manchester, M1 2HF

SLR Project No.: 410.065757.00001

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Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
01	6 November 2024	AT	GD	GD
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Basis of Report

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1.0 Introduction

Background

1.1 This Waste & Servicing Strategy Report has been prepared by SLR on behalf of Vita Meadow Limited in support of a planning application for a proposed purpose-built student accommodation (PBSA) in Plot 9b of the First Street Masterplan Area.

1.2 This report presents the servicing strategy and provides an assessment of the waste generation by the development, along with the recycling strategy along with how collections are made and managed to minimise impacts.

1.3 This development is also supported by a Transport Statement (TS) and a Framework Travel Plan (FTP) prepared by SLR.

Site Location and Development

1.4 The location of the development site is shown in a local context in **Dwg VS9B-TGA-G100-PL-XX-95200.**

1.5 This planning application for Plot 9b forms the second part of the Plot 9 development site. Plot 9a, is under construction to deliver a 9-storey commercial office development to the immediate north of Plot 9b. To the east lies Plot 10a, a site with planning permission for an office development and further east the next site lies the Plot 10b PBSA House of Social building. To the south of the site is the First Street South PBSA development also under construction.

1.6 The wider area surrounding the site is characterised by a mix of uses including office, leisure, residential and student residential accommodation.

1.7 Plot 9b will be a total gross floor area (GFA) of 26,858 sqm and it is bound by the development Plot 9a to the north, First Street to the east, Hulme Street to the south, and Medlock Street to the west. There are no permanent structures on the site, and no trees on or adjacent to the site.

1.8 To the south of the site beyond Hulme Street lies the development of First Street South which is being constructed by Downing. This is a development comprising four buildings of over 2200 bedrooms along with large amenity space and 17,000 sqft of commercial leisure, restaurant and retail space.

Proposed Development

1.9 The development proposals for Plot 9b consists of the construction of a 33-storey PBSA building with no car parking provided.

1.10 The gross internal area (GIA) of the proposed development will be 26,858sqm.

1.11 The relevant plans of the development are given in **Appendix A**.

Report Structure

1.12 Following this introductory chapter, the remainder of this report is structured as follows:

- Section 2: Servicing Strategy
- Section 3: Waste Strategy and Forecasts
- Section 4: Refuse Storage and Collection
- Section 5: Summary and Conclusions

2.0 Servicing Strategy

Access Overview

2.1 The main pedestrian entrances for the PBSA are from the southeastern end of the building from Hulme Street. Hulme Street is a private road which serves the First Street South plot and Plots10a and 10b.

2.2 Improved areas of public realm will be provided around the building to create a pleasant environment for pedestrians.

2.3 The landscaping plan showing the quality of the external space is shown in **Dwg Z19B-TPM-G710-PL-XX- 4645 101.**

2.4 The approach from Hulme Street will be of a high quality and the junction with the First Street access will benefit from a raised table which acts as a traffic calming feature.

Service Access

2.5 Along the southern frontage of Plot 9b there is a landscaped space which includes a shallow width layby. On the southern side of Hulme Street there will be, upon completion a full depth layby and both of these offer opportunity for delivery vehicles to park up and serve the building.

2.6 To the west of Plot 9b is a service access road that provides access to both Plot 9b and Plot 9a. Access to Plot 9a is protected and controlled by automatic drop bollards with a comms unit enabling controlled access to the service area to the north. Plot 9b vehicles will not normally be able to pass through these bollards and here there is space for a Refuse Lorry or larger HGVs to pull up and serve the site.

2.7 Swept path analysis has been undertaken to ensure the vehicle with the most onerous turning requirements, a large refuse vehicle with a length of 11.5m, can safely service the development.

2.8 The swept path analysis has been undertaken drawing has demonstrated that a large refuse vehicle will enter via Hulme Street and service the site and exit as shown in **Drawing 410.065757.00001-TR114.**

2.9 Along the eastern side of Plot 9b there is the continuation of First Street, with a high-quality pedestrian route and access to the Plot 9a basement car park. This route is controlled, and the Plot 9b service vehicles will not be given access to this route.

2.10 Servicing and Parking Activity along Hulme Street is privately controlled, and short stay service activity will be permitted although parking by the general public will not.

Online Courier Deliveries

2.11 Developments such as these can attract large numbers of online courier deliveries, either in vans or notably for food deliveries by bike. Firstly, it is noted that the Plot 10b House of Social development to the east will include a Food Hall, and that amenity will offer a wide range of hot food options close by. The proximity of the Building to the Food Hall; should in theory limit the number of deliveries being made by such couriers.

2.12 For those couriers that do arrive there is sufficient space in the landscaped area to the south where couriers can park their bikes. There are also the Cycle Parking in Sheffield Stands located on First Street on the east elevation of the building.

Delivery Forecasts and Timings of Deliveries

2.13 A forecast of service vehicle trips hour by hour has been undertaken for Plot 9b with reference TRICS database for Student Accommodation as presented in the Transport Statement.

2.14 It is noted that the Plot 9b PBSA development is similar and located close to the Plot 10b PBSA as well as the First Street South development scheme to the south of Hulme Street. A single delivery vehicle could well make multiple drop-offs at these locations such as post van or refuse vehicle. Most logistics firms look to coordinate their delivery rounds and therefore the number of vehicles on the wider network is likely to be much lower than the forecasts from each individual site. The number of service vehicle trips are presented in the TS and are summarised in **Table 2.1**.

2.15 The service vehicle trips during the mid-morning peak hour, the afternoon peak hour, and the daily forecasts are described in **Table 2.1** below and in full in **Appendix B**.

Table 2.1: Plot 9a PBSA Service Trip Forecasts

Time Period	LGVs		OGVs*	
	Arrivals	Departures	Arrivals	Departures
Morning Peak 1000-1100	2	1	0	0
Afternoon Peak 1400-1500	2	2	0	0
Daily	13	13	1	1

**OGV is a Goods vehicle with 3 axles typically in excess of 18T*

2.16 There is expected to be one large Heavy Good Vehicle per day accessing the site which is expected to arrive before the morning rush hour. Up to 13 Light Good Vehicles are expected to arrive spread throughout the day typically from 0900-1700 with the busiest hour being just after lunch where around LGVs expected.

2.17 The service area on the west side of the building will also be managed so that the vehicle arrivals of the larger deliveries are timed so that they do not conflict.

2.18 On top of this we can add cycle trips from online couriers. The available data is limited, but surveys show that overall, the level of cycle activity at PBSA sites is more a modest volume of arrivals rather than an intensive level of activity.

Combined Highway Operation with Plot 9a

2.19 Given the shared use of the Service Corridor with Plot 9a, a major commercial office development, we have considered the interaction of the service vehicles as described above for Plot 9b combining with the expected service vehicles from Plot 9a.

2.20 The Plot 9a service traffic forecast was presented in the TS for that development, and this is repeated below as **Table 2.2**.

Table 2.2. Plot 9a Service Vehicle Trip Forecasts

Busiest Peak Hour	Plot 9a Service / Delivery Vehicle Trips			
	Arr		Dep	
	LGV	HGV	LGV	HGV
10:00-11:00	3	1	4	1
Daily	19	3	20	3

2.21 Here it was forecast that Plot 9a generated around 3 HGVs per day and up to 20 LGVs per day. The busiest hour was forecast mid-morning 1000-1100 with up to 4 LGVs accessing the service road in that hour and 1 HGV.

2.22 If we combine the service trips from Plot 9a and Plot 9b we forecast the following vehicle activity as described in **Table 2.3.**

Table 2.3: Plot 9a & 9b Combined Service Trip Forecasts

Time Period	LGVs		HGVs*	
	Arrivals	Departures	Arrivals	Departures
1000-1100	5	6	1	1
1400-1500	2	2	0	0
Daily	33	33	4	4

**TRICS describes this category as OGVs, a goods vehicle with 3 axles typically in excess of 18T*

2.23 In general, the peak periods for service trips between the two developments do not coincide. Plot 9a attracts more service activity which peaks mid-morning when we expect up to 4 LGVs and 1 HGV accessing the service road. At this time, we expect up to 2 LGVs serving Plot 9b at this time and no HGVs.

2.24 LGVs tend to deliver their goods quickly, typically between 5-10 minutes so we do not expect vehicles to be waiting along that corridor and in general we don't expect multiple vehicles to be present serving Plot 9b.

2.25 These low numbers along with appropriate service vehicle management to spread arrivals, we don't expect any conflict or delay for service vehicles serving Plot 9a or Plot 9b.

2.26 It noted that in an emergency, Fire Tenders will be able to access through the automatic bollards to tackle a fire or other emergency situations. The Fire Tender access complies with the Building Regulations requirements for the length that a vehicle can reverse along a cul-de-sac.

2.27 Overall, we expect that the servicing area will see a small number of vehicles activity across the day. We expect Refuse Collections to be made early in the morning at a regular time to avoid conflict with other service activity. Where there are regular arrivals Then we expect these to be timed to avoid clashes with other vehicles.

2.28 Most deliveries are completed within 5-10 minutes and a few up to 20 minutes. We expect that it can operate efficiently and without blocking access for delivery drivers nor causing an adverse impact on pedestrian safety.

2.29 In terms of the Plot 9a and Plot 9b vehicles being able to pass each other, we show this in **Dwg 410.065757.00001-TR114**.

Service Vehicle Mitigation Measures

2.30 Measures will be taken regarding pedestrian safety/amenity and servicing will be made with a minimum amount of noise and no use of the horn at any time.

2.31 As such vehicles will manoeuvre on‐site with as little noise as possible and drivers will ensure they:

- Engage gears quietly;
- Keep engine revs to a minimum;
- Apply brakes gently;
- Close driver's door quietly; and
- Engine off when not in use.

3.0 Waste Management Strategy

3.1 This section of the report outlines the management of waste. Waste forecasts across the various land uses proposed are discussed before the site's refuse storage provision is detailed and subsequent waste transfer strategy.

Policy Context

3.2 Manchester City Council (MCC) have published guidance on the design and management of buildings to produce waste management strategies that maximise the amount of waste that is recycled. This guidance GD04 requests that a Waste Proforma is completed to support development applications, and this is presented in **Appendix C.**

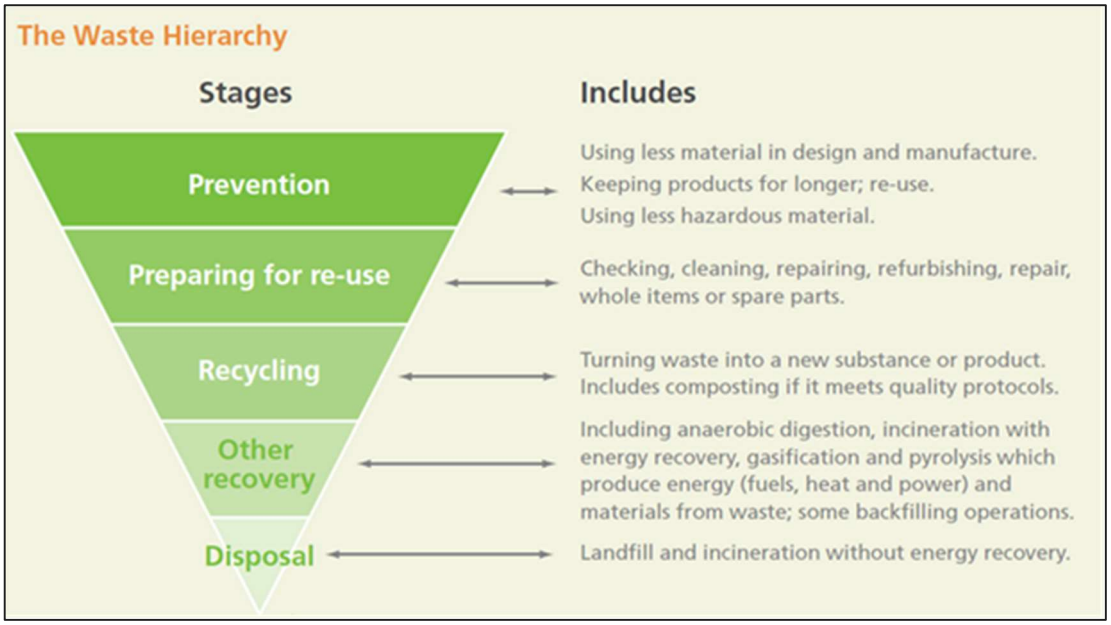
3.3 To achieve high recycling rates, it states that all refuse should be separated at source and stored off the highway in purpose-built refuse stores minimising the distance to collection thus reducing the opportunity for spillage.

3.4 In accordance with Section 34 of the Environmental Protection Act 1990, the manager of the development has a legal 'Duty of Care' to ensure that waste is securely stored and disposed of legally. The most convenient way to achieve this is by using a registered waste carrier.

3.5 The Waste (England and Wales) (amendment) Regulations 2012 has introduced changes and updates that affect both waste producers and waste management companies alike. These include the need to separate wastepaper, metal, plastic and glass in different waste streams.

3.6 Another change will be the obligatory use of SIC codes in all documentation relating to waste management services and a compulsory commitment from waste producers to adhere to the waste hierarchy as described in **Figure 3.1.**

Figure 3.1: Waste Hierarchy



3.7 To demonstrate compliance with regulations, a Waste Transfer Note is required when that waste is collected by the waste carrier. This may be provided electronically. Many carriers are also able to provide environmental reports to inform on the waste management performance.

3.8 There will be food waste generated by the kitchens and cafés/restaurants which needs to be covered by the Animal By-Products (Enforcement) (England) Regulations 2011. The volumes of waste will be greater than 20kg and therefore need to be stored in a labelled container and collected by a licensed carrier and records kept.

3.9 Interventions are needed in all stages of the process to minimise waste going to landfill. The minimisation of waste and recycling interventions by occupiers and the management company can help meet MCC's and the government's aspirations.

3.10 All new developments must meet the requirements of Part H6 of the Building Regulations 2000 (solid waste storage) which states:

- Adequate means of storing solid waste shall be provided; and
- Adequate means of access should be provided for people in the building to the place of storage, and, from the place of storage to a collection point agreed by the waste collection authority.

Waste Management Strategy

3.12 Student residents would take their waste via lifts to a ground floor refuse drop lobby where there would be a hatch opening to drop in to the open state bins below. These would be clearly identified to ensure the correct waste being deposited in the correct bin. In general students will not have access to the bin store unless by exception under management guidance (such as to drop off outsized waste).

3.13 The Waste Streams for the student residents is given in **Figure 3.2** below:

Figure 3.2 Waste Streams

Pulpable Recycling (Paper/Cardboard/Tetrapak etc)



Mixed Recycling (Glass/Cans/Plastics)



Food Waste



General Waste – All Other Waste

Waste Forecasts

PBSA Waste Forecasts

3.14 The waste forecasts for Student Accommodation have been based on a typical waste generation rate of 100litres per bedspace per week. This is considered a robust approach as it is based on standard residential apartments which could include 2 persons living rather than single person individual bedrooms. The weekly waste generation is forecast as below:

c.861 apartments x 100 litres = 86,100 litres per week

3.15 The allocation of this waste volume to the relevant waste streams is given in **Table 3.1** below.

Table 3.1: PBSA Waste Recycling Rates

Plot 9b Student Accomodation						
Dwellings	861					
Weekly Waste Forecast Waste Forecast (100 litres per Apartment per Week) = 86100 litres per week = 12300 litres per day						
	Student Accommodation Recycling Streams	General Refuse (inc Organic)	Organic	Paper/ Card	Plastic/ Metal/Glass	**Total**
		47%	5%	24%	24%	**100%**
	Litres per Week	40467	4305	20664	20664	**86100**
	Litres per Day	**5781**	**615**	**2952**	**2952**	**12300**
	EuroBin lifts every 2 days	11		6	6	**23**
	240 litres Bin Lifts every 2 days		6			**6**

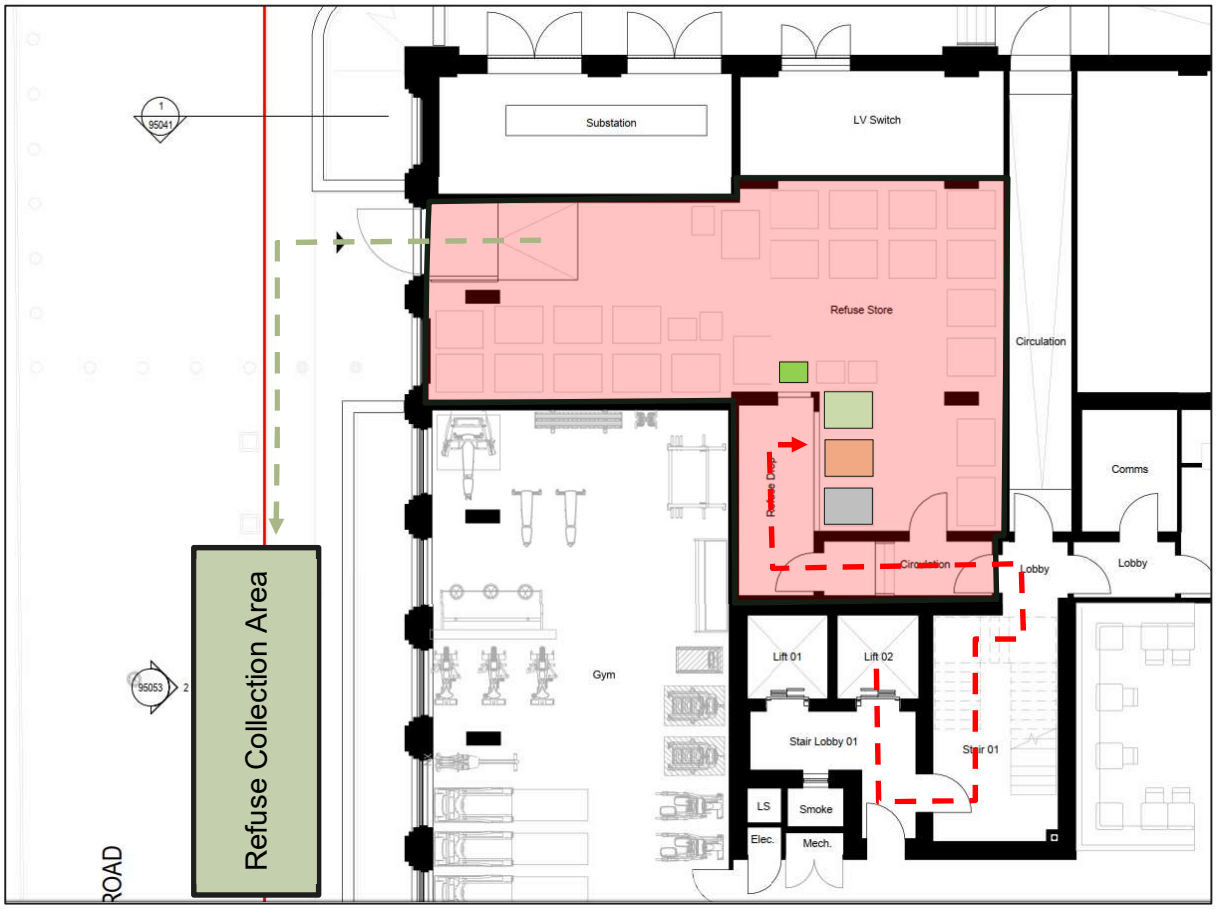
4.0 Refuse & Storage Collection

Summary

4.1 Refuse is stored at ground floor level. Students can access the Drop Waste Lobby from the lifts and here there is a hatch opening for then to drop waste into the bin on the other side of the wall. There is a waste drop specifically for food waste and this will have a 240litre bin located on the other side of the drop.

4.2 The Bin Store Layout is shown in **Figure 4.1** below.

Figure 4.1: Bin Store Layout



4.3 In general students would not have access to the bin store unless by exception such as for dropping off bulk items.

4.4 It will be the responsibility of the on-site management team to monitor bin capacity and replace bins as they get full. CCTV will cover the area.

4.5 **Figure 4.1** shows that the proposed bin stores can accommodate the forecast number of bins as described in Section 3.

4.6 The waste transfer routes are also shown on **Figure 4.1** this plan from the lifts to the bin store. The refuse store has a raised platform for users to drop off waste. Staff will collect the waste of residents whose disability prevents them from climbing stairs and taken the waste to the refuse area.

4.7 The diagram also shows the refuse drop for the students and here the areas would be colour coordinated to ensure that waste is deposited in the correct bin.

4.8 The bin stores would be ventilated, have impervious floors, bump strips to avoid damage to doors and walls, be appropriately ventilated and to assist in cleaning, the bin stores will benefit from a water outlet. It will be the responsibility of the on-site management team to keep the bin stores and transfer routes clean.

Waste Collection

4.9 The transfer route from the Bin Store to Vehicle Collection point is also shown in **Figure 4.1**.

4.10 The Refuse store has its external access onto the west facade and the service road. The management team will move the refuse bins to the collection point at the day of servicing.

4.11 Waste Collection would be undertaken via a private contractor.

4.12 The tracking of a large Refuse Lorry reversing up to the refuse collection area is as shown in **Dwg 410.065757.00001-TR114.**

Waste Proforma

4.13 MCC require that a Waste Proforma be prepared to support the planning application. Using the information presented in this report, a completed Waste Proforma for the development is presented in **Appendix C.**

5.0 Summary and Conclusion

Summary

5.1 This document has set out the Waste & Servicing Strategy for the development of Plot 9b. which is for a large development of purpose-built student accommodation.

5.2 It has set out the likely waste generation for the land use and associated refuse storage provision. A recycling strategy is also incorporated within the strategy and sufficient servicing provision has been demonstrated.

Conclusion

5.3 It is concluded that the refuse storage, waste management and collection proposed is appropriate for this scale of development and that waste collection can be undertaken in an efficient manner.

Drawings



Proposed Site Plan
1 : 500

General Notes

Use figured dimensions only. Do not scale off this drawing. All dimensions must be set out and checked by the contractor on site prior to commencement of construction. Any variations between drawings and site must be reported to TGA before work proceeds.

Drawings to be read in conjunction with Architectural Specification, Structural Engineer's Drawings and Specifications, Mechanical & Electrical Engineer's Drawings and Specifications, all Supplemental Information, including but not limited to; Detailed Fire Strategy, Acoustic Report, Thermal Report & Overheating Report.

No portion of the Works to commence without acceptance of the required submittals by the Employer.

Main Contractor to submit relevant documents to building regulation and legislation approval authorities as required to comply with the Specification.

Legend and Notes

- Red Line Planning Boundary
- Existing Development
- Consented Development

Rev	Description	Date	By
P01	Draft Planning Issue	08.11.24	EJ
P02	Planning Issue	06.12.24	EJ

Title
Proposed Site Plan

Drawing No.
VS9B-TGA-G100-PL-XX-95021

Revision
P02

Status
Planning

Scale
As indicated@A1

Project
Plot 9B_First Street

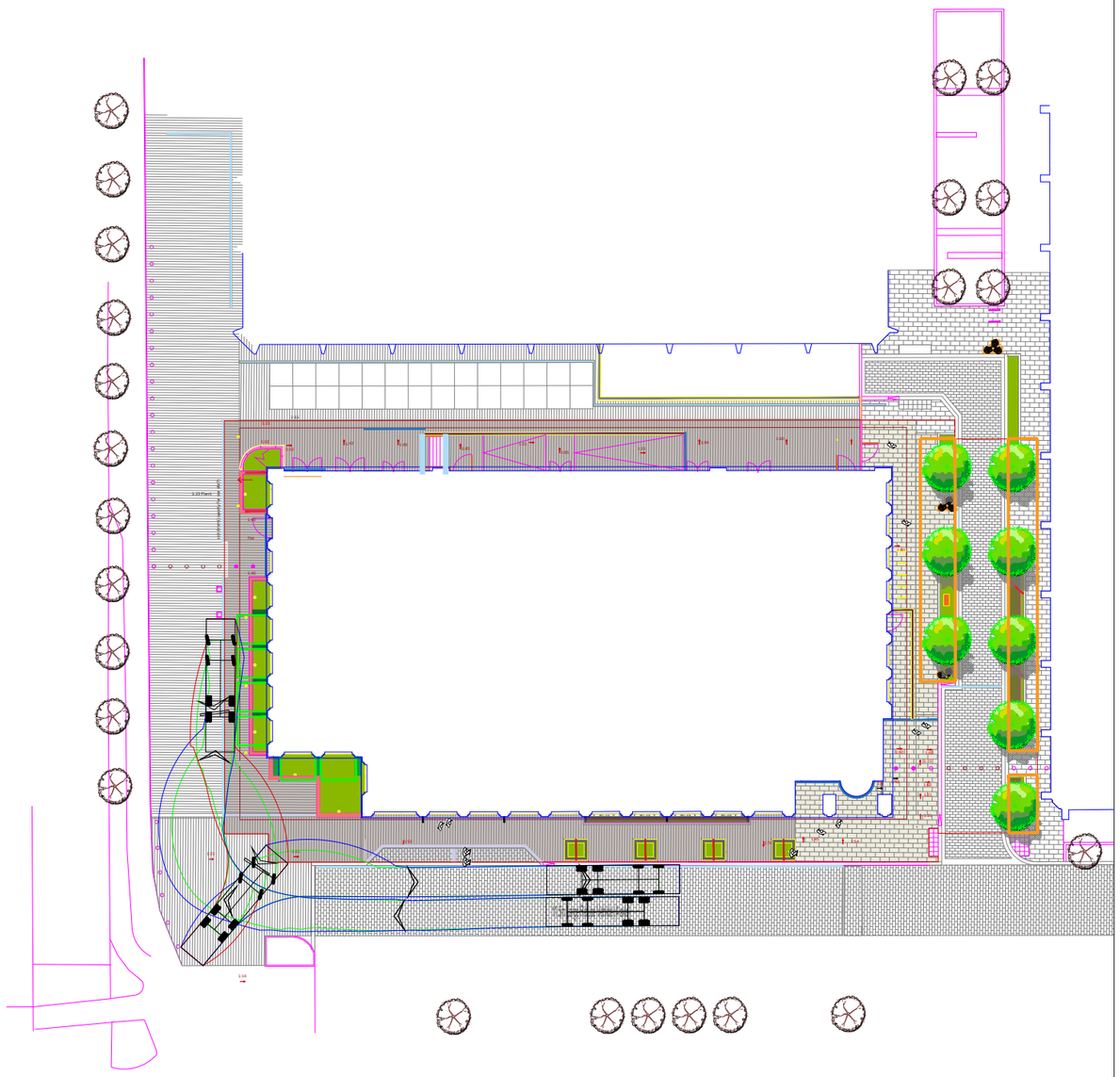
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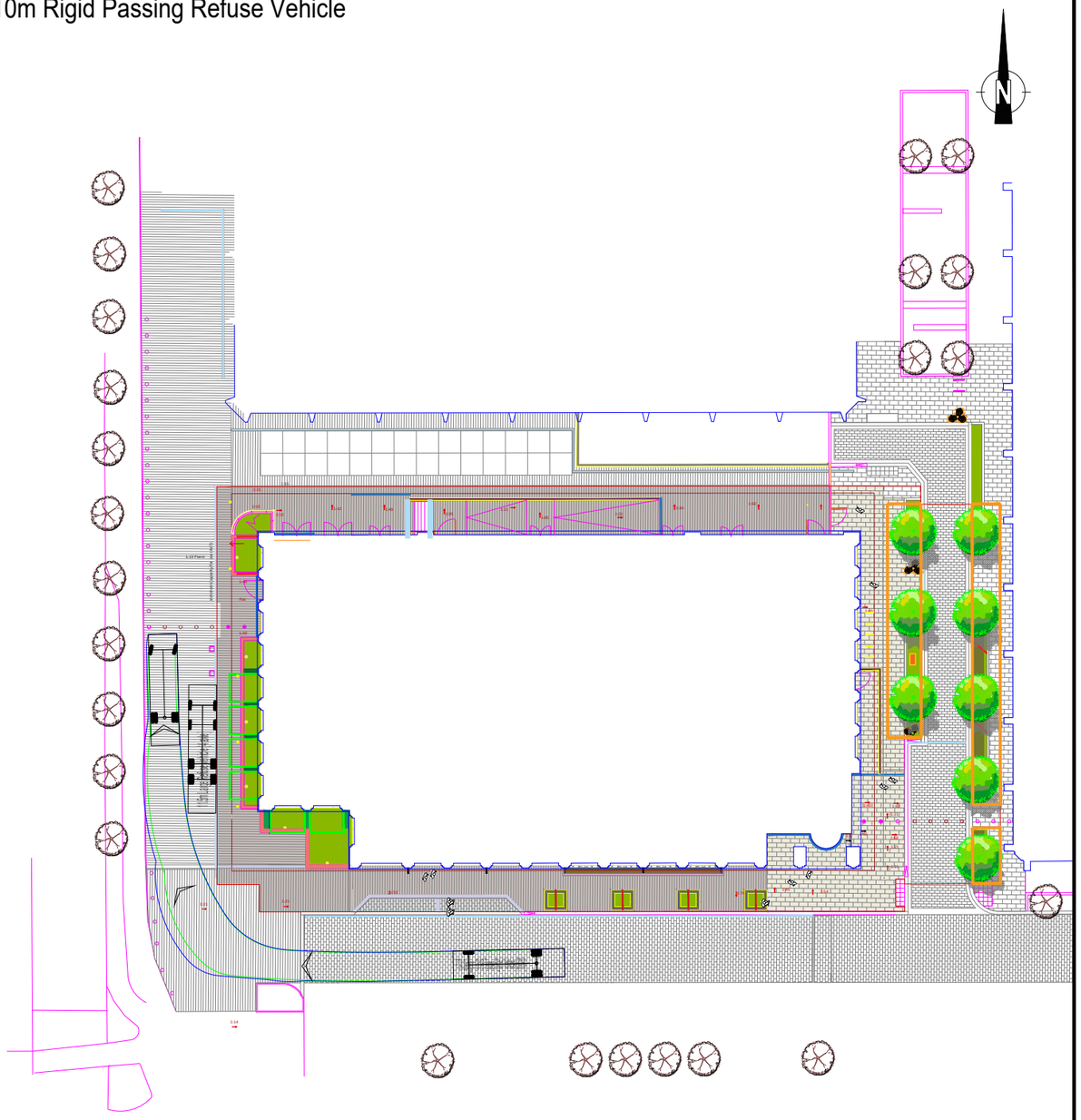
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Access - Refuse Vehicle



10m Rigid Passing Refuse Vehicle



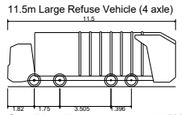
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REV.	DETAILS	DRAWN	CHECKED	DATE
A	Amendments made to swept path analysis	WD	AT	26.09.24
B	Site plan updated & amendments to tracking	CG	AT	04.10.24
C	Refuse Lorry tracking updated	CG	AT	15.10.24
D	Site Plan Update	YF	AT	12.12.24

Notes:

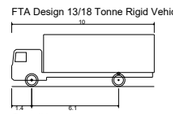
1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.

11.5m Large Refuse Vehicle (4 axle)



Overall Length	11.500m
Overall Width	2.500m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	6.00s
Wall to Wall Turning Radius	11.330m

FTA Design 13/18 Tonne Rigid Vehicle (2016)



Overall Length	10.000m
Overall Width	2.550m
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

Plot 9b, First Street

VITA

Swept Path Analysis - Refuse Vehicle & 10m Rigid

SLR

DRAWN:	CHECKED:	DATE:	SCALES:	DRAWING NUMBER:	REVISION:
YF	GD / AT	12.12.24	1:500 at A3	410.065757.00001-TR114	D

Appendix A Relevant Scheme Plans

Waste & Servicing Strategy

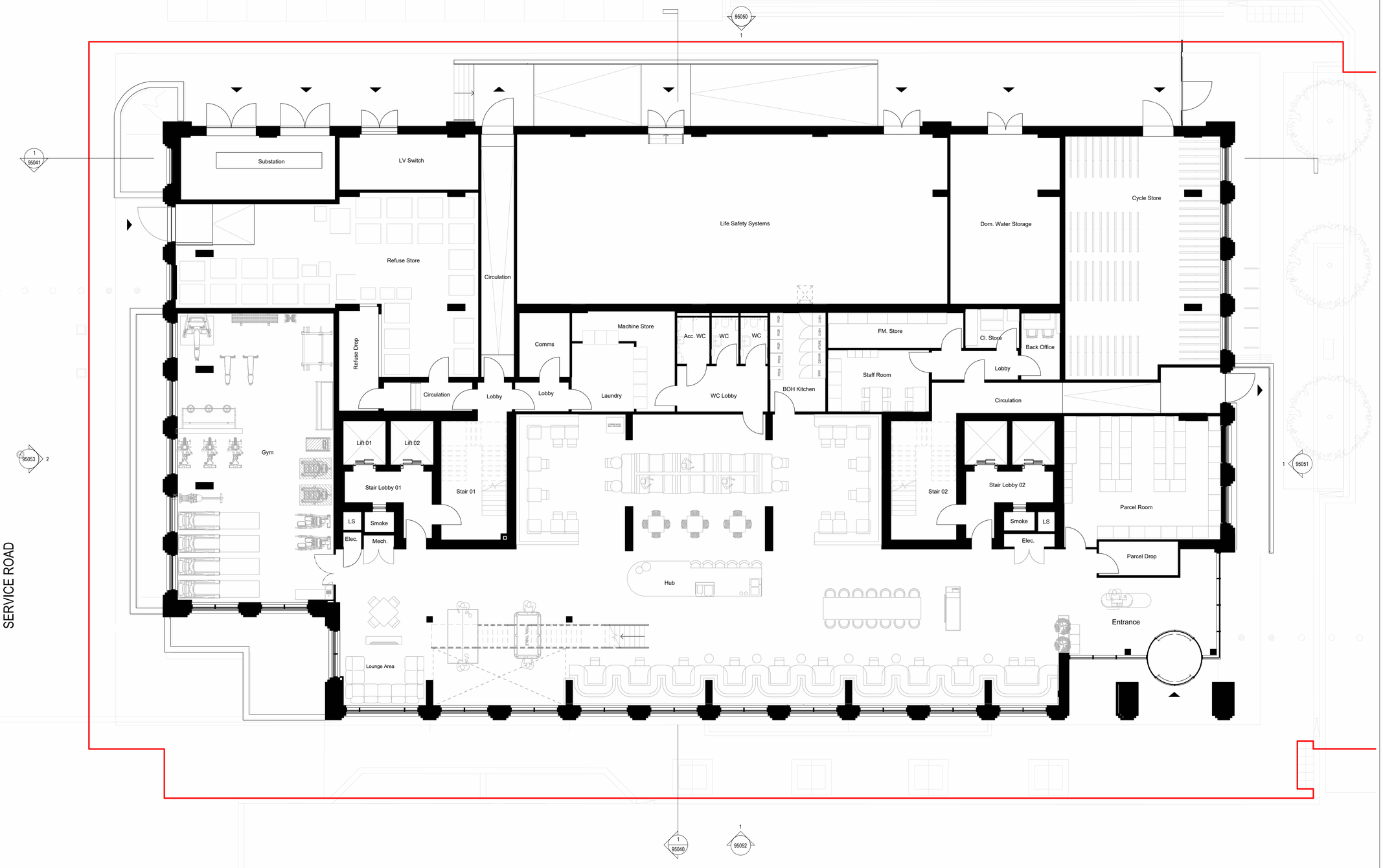
Plot 9b, First Street

Vita Meadow Limited

SLR Project No.: 410.065757.00001

12 December 2024

PLOT 9A



GA Plan - Level 00 - Ground Floor

1 : 100

0m 5m 10 m

General Notes

Use figured dimensions only. Do not scale off this drawing. All dimensions must be set out and checked by the contractor on site prior to commencement of construction. Any variations between drawings and site must be reported to TGA before work proceeds.

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Main Contractor to submit relevant documents to building regulation and legislation approval authorities as required to comply with the Specification.

Legend and Notes

Planning Boundary

Bike Store Schedule		
Description	No. of Bike Racks	No. of Bike Spaces
Sheffield Bike Stand	5	10
	5	10
Double Stacked	68	136
	68	136
Grand Total	73	146

Rev	Description	Date	By
P01	Draft Planning Issue	08.11.24	EJ
P02	Planning Issue	06.12.24	EJ

Title
General Arrangement - Level 00 (Ground Floor)

Drawing No.
VS9B-TGA-G200-PL-00-95030

Revision
P02

Status
Planning

Scale
1 : 100@A1

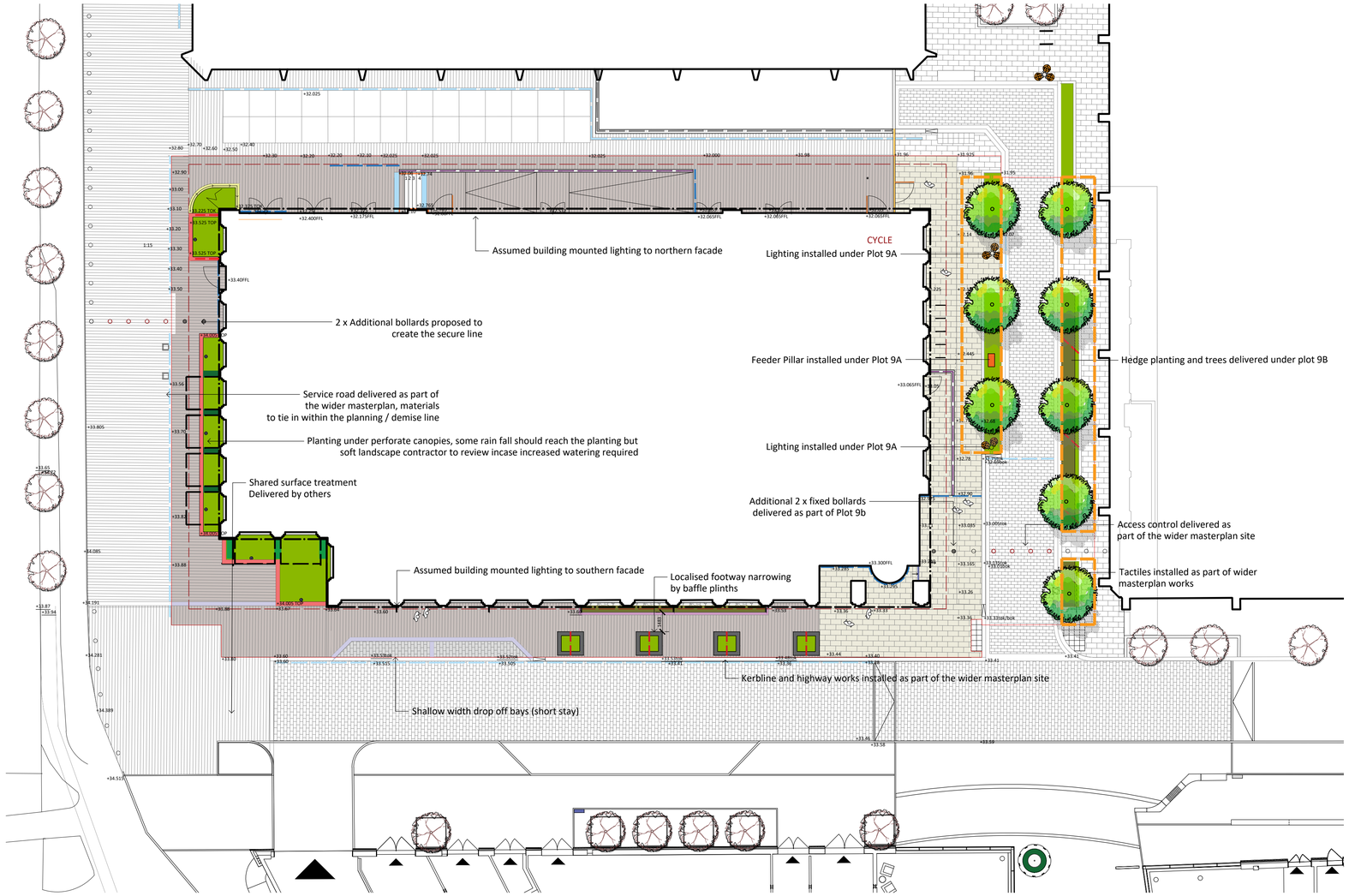
Project
Plot 9B_First Street

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HARD LANDSCAPE

Established Masterplan Paving Installed Under Other Phases

Proposed Paving Type 1 - Concrete
Product: Hydro Lineo 40 by Hardscape (or similar approved)
Plan Size: 300 x 100 x 100
Colour: Standard Grey
Laying Bond: Stretcher Bond
Other: 5mm Butt jointed

Proposed Paving Type 2 - Granite Mix Setts
Product: 30% Kobra & 70% Royal White Mix by Hardscape (or similar approved)
Plan Size: 100x 300 x 63mm (depth tbc)
Finish: Flamed
Laying Bond: Stretcher Bond

Proposed Paving Type 2 - Yorkstone Flags
Product: Scoutmoor Yorkstone Flags to match existing First Street Surfacing
Plan Size: 400-900 x 300 x 63mm (depth tbc)
Finish: Sawn
Laying Bond: Min 100mm overlap

Proposed Edge Type 1 - Flush Planting Bed Surround
Product: Royal White Granite by Hardscape (or similar approved)
Plan Size: 200x900x150 (depth tbc)
Finish: Flamed
Upstand: 0mm

Proposed Edge Type 2 - Raised Planting Bed Surround
Product: Royal White Granite by Hardscape (or similar approved)
Plan Size: 300x900x250 (depth tbc)
Finish: Flamed
Upstand: 125mm
Other: Anti-skate required 1.5m centres

Proposed Edge Type 3 - Flush Kerb
Product: Royal White Granite by Hardscape (or similar approved)
Plan Size: 300x900x200 (depth tbc)
Finish: Flamed
Upstand: 0mm

Proposed Edge Type 4 - Low Wall
Product: Royal White Granite by Hardscape (or similar approved)
Plan Size: Wall width 300 x H Varies. Clad and coping
Finish: Flamed
Upstand: Varies
Other: Anti-skate required 1.5m centres

Proposed Edge Type 5 - Wall and Balustrade
Product: Brick clad wall to match the architecture
Laying Bond: Staggered bond
Other: Brick on Edge copings - special ends, Vertical flat bar railings (min 1.1m high)

Proposed Edge Type 6 - Steps
Product: Royal White Granite by Hardscape (or similar approved)
Plan Size: 1100x300x175mm
Finish: Flamed
Other: Contrast nosing
Other: Corduroy s/s strip tactile pavings

FURNITURE

Proposed Bollard to Match Masterplan Furniture
Product: K8 Shallow Depth Terra Neptune SIngle by Frontier Pitts LTD (or similar approved)
Class Code:V/7500/64/90:0.0
Foundation: Shallow Mount

Proposed Lighting to Column Match Masterplan Furniture
Product: 2/3 head Multi Woody by IGuzzini or similar approved
Height: 5m
Materials: S/S

Proposed Lighting Bollard to Match Masterplan Furniture
Product: Unknown - to match the wider masterplan palette
iWay bollard Super Comfort round 180degrees

Proposed Cycle Stands to Match Masterplan Furniture
Product: S/S or similar approved

NB Baffles: Patternation and colour tone to tie with the architectural narrative

Proposed Movable Plinth Planter with Baffle
Product: Bespoke weighted Plinth Planter with Baffle
Plinth Materials: Granite 1800w x1800l x500h
Baffle Dimension: 1800w x 2500h
Other: 50% Porosity - Perforate Pattern (tbc)

Proposed Baffle - Building Entrance
Product: Bespoke
Dimension: 1100w x 3000h
Other: 50% Porosity - Perforate Pattern (tbc)

Proposed Baffle - Located in Planting Beds
Product: Bespoke
Dimension: 1800w x 3000h
Other: 50% Porosity - Perforate Pattern (tbc)

Proposed Fin - Southern Building Facade
Product: Bespoke
Dimension: 500w x 1800h
Other: Perforate Pattern (tbc)

Proposed Railings and Gate
Product: To Match Wider masterplan proposals
Other: To be ascertained if part installed under Plot 9A
Other: Needs to be visually permeable

Indicative Drainage Channel

Drainage Channel Delivered by Others

Proposed Feeder Pillar Delivered by Another Phase

SOFT LANDSCAPE

Trees Proposed on Other Development Plots

Proposed Tree Planting
Typical Species: Pinus Sylvestris
Size: 25-30cm
Other: Clear Stem 2m

Proposed Ornamental Planting
5L Ornamental planting stock at 5 per m2
70mm Depth Melcourt Bark Nuggets or similar approved

Proposed Hedge Type 1
Type: Evergreen
Size: 1.2m long x 0.5m wide x 1.5m high

Proposed Hedge Type 2
Type: Evergreen
Size: 1.6m long x 0.5m wide x 1m high

Proposed Hedge Type 3
Type: Evergreen
Size: Linear hedging x 0.5m wide x 1.2m high

Proposed Below Ground Structural Tree Cells
Product: Rootspace by GreenBlue Urban or similar approved
Sizes: Modules of 0.5m x depth cells 1m

GENERAL NOTES

1. This drawing is the copyright of TPM Landscape Ltd and cannot be reproduced in any form without the consent of the company.
2. This drawing is to be read in conjunction with detail landscape drawings, details and specification.
3. This drawing is to be read in conjunction with all relevant Architects', Engineer's, Specialists, Bills of Quantities and Specifications.
4. The insertion of any firm or proprietary brand on this drawing is an indication of the class or quality required and does not exclude the use of alternative materials that are equal in performance, quality and appearance, provided that they have been approved in writing by the Landscape Architect.
5. The Contractor is responsible for accurately ascertaining the position of underground services and responding to all relevant service easement requirements.
6. All dimensions are in millimetres unless stated otherwise, for the purposes of construction this drawing must not be scaled and only written dimensions used. Written and scaled dimensions to be checked on site, any discrepancies reported prior to work commencing. IF IN DOUBT PLEASE ASK.
7. All work and materials are to be in accordance with the relevant British Standards and Code of Practice.
8. All Proprietary products are to be used strictly in accordance with the manufacturer's instructions and details.

REVISION NOTES

Rev	By	Description	Date
P4	KH	Planter Levels Added	28/11/2024
P3	KH	Annotation amendment	25/11/2024
P2	KH	Coordinated Issue	13/11/2024
P1	KH	First Issue	09/10/2024

Client
Vita Meadow Ltd

Project
First Street - Plot 9B

Description
Landscape Layout

Status
For Information

Scale @ A1	Drawn	Checked	Date
1:200	KH	KH	09.10.2024

Drawing number
Z19B-TPM-G710-PL-XX- 4645 101

Revision
P4

N

tpm landscape
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address: 4th Floor Studio 10 Little Lever St Manchester M1 1HR
tel: 0161 235 0600 fax 0601 email info@tpmlandscape.co.uk

Appendix B Service Vehicle Forecasts

Waste & Servicing Strategy

Plot 9b, First Street

Vita Meadow Limited

SLR Project No.: 410.065757.00001

12 December 2024

Calculation Reference: AUDIT-529504-241105-1123

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

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:	15 to 1100 (units:)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/16 to 02/05/24

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	3 days
Friday	1 days

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

Selected survey types:

Manual count	6 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	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	4

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.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	7 days - Selected
Servicing vehicles Excluded	X days - Selected

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	
2	DY-03-G-02 CATHEDRAL ROAD DERBY	STUDENT ACCOMMODATION		DERBY
	Town Centre Built-Up Zone Total Number of residents:		350	
3	HM-03-G-02 PADDENSWICK ROAD HAMMERSMITH	STUDENT FLATS		HAMMERSMITH AND FULHAM
	Edge of Town Centre Residential Zone Total Number of residents:		217	
4	KI-03-G-01 PENRHYN ROAD KINGSTON UPON THAMES	STUDENT FLATS		KINGSTON
	Edge of Town Centre Built-Up Zone Total Number of residents:		200	
5	KI-03-G-02 CAMBRIDGE ROAD KINGSTON UPON THAMES NORBITON	STUDENT FLATS		KINGSTON
	Edge of Town Centre Residential Zone Total Number of residents:		300	
6	LB-03-G-02 WESTMINSTER BRIDGE RD LAMBETH	STUDENT FLATS		LAMBETH
	Town Centre Built-Up Zone Total Number of residents:		1100	

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 OGVS
Calculation factor: 1 RESIDE
Estimated TRIP rate value per 861 RESIDE shown in shaded columns
BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate	No. Days	Ave. RESIDE	Trip Rate	Estimated 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	488	0.001	0.706	5	488	0.001	0.706	5	488	0.002	1.412
08:00 - 09:00	5	488	0.000	0.000	5	488	0.000	0.000	5	488	0.000	0.000
09:00 - 10:00	5	488	0.000	0.000	5	488	0.000	0.000	5	488	0.000	0.000
10:00 - 11:00	5	488	0.000	0.000	5	488	0.000	0.000	5	488	0.000	0.000
11:00 - 12:00	5	488	0.000	0.000	5	488	0.000	0.000	5	488	0.000	0.000
12:00 - 13:00	5	488	0.000	0.000	5	488	0.000	0.000	5	488	0.000	0.000
13:00 - 14:00	5	488	0.000	0.000	5	488	0.000	0.000	5	488	0.000	0.000
14:00 - 15:00	5	488	0.000	0.000	5	488	0.000	0.000	5	488	0.000	0.000
15:00 - 16:00	5	488	0.000	0.000	5	488	0.000	0.000	5	488	0.000	0.000
16:00 - 17:00	5	488	0.000	0.000	5	488	0.000	0.000	5	488	0.000	0.000
17:00 - 18:00	5	488	0.000	0.000	5	488	0.000	0.000	5	488	0.000	0.000
18:00 - 19:00	5	488	0.000	0.000	5	488	0.000	0.000	5	488	0.000	0.000
19:00 - 20:00	5	488	0.000	0.000	5	488	0.000	0.000	5	488	0.000	0.000
20:00 - 21:00	5	488	0.000	0.000	5	488	0.000	0.000	5	488	0.000	0.000
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.001	0.706			0.001	0.706			0.002	1.412

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.*

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
MULTI-MODAL LGVS
Calculation factor: 1 RESIDE
Estimated TRIP rate value per 861 RESIDE shown in shaded columns
BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate	No. Days	Ave. RESIDE	Trip Rate	Estimated 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	488	0.000	0.353	5	488	0.000	0.353	5	488	0.000	0.706
08:00 - 09:00	5	488	0.000	0.353	5	488	0.000	0.353	5	488	0.000	0.706
09:00 - 10:00	5	488	0.001	1.059	5	488	0.001	0.706	5	488	0.002	1.765
10:00 - 11:00	5	488	0.002	1.766	5	488	0.002	1.413	5	488	0.004	3.179
11:00 - 12:00	5	488	0.002	1.413	5	488	0.002	1.766	5	488	0.004	3.179
12:00 - 13:00	5	488	0.000	0.353	5	488	0.001	0.706	5	488	0.001	1.059
13:00 - 14:00	5	488	0.002	1.413	5	488	0.001	1.059	5	488	0.003	2.472
14:00 - 15:00	5	488	0.002	2.119	5	488	0.003	2.472	5	488	0.005	4.591
15:00 - 16:00	5	488	0.002	1.413	5	488	0.002	1.413	5	488	0.004	2.826
16:00 - 17:00	5	488	0.001	1.059	5	488	0.001	1.059	5	488	0.002	2.118
17:00 - 18:00	5	488	0.000	0.353	5	488	0.000	0.353	5	488	0.000	0.706
18:00 - 19:00	5	488	0.000	0.000	5	488	0.000	0.000	5	488	0.000	0.000
19:00 - 20:00	5	488	0.001	0.706	5	488	0.000	0.353	5	488	0.001	1.059
20:00 - 21:00	5	488	0.000	0.353	5	488	0.001	0.706	5	488	0.001	1.059
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.013	12.713			0.014	12.712			0.027	25.425

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 Waste Pro-Forma

Waste & Servicing Strategy

Plot 9b, First Street

Vita Meadow Limited

SLR Project No.: 410.065757.00001

12 December 2024

MANCHESTER CITY COUNCIL

Appendix E - Waste Management Strategy (v7.00 from September 2023) for Plot 9b, First Street

Planning Application Number:
Date Submitted:
Estimated volumes / m2 required by the development

Will this property be used as a House in Multiple Occupation (HMO)?	Not Applicable
If this property will be used as an HMO, how many people do you intend to accommodate (5+)?	Not Applicable

Low Rise Domestic

Waste Types	Capacity required (litres)	Number of bins required (per household)	Confirm what is to be provided (and whether the developer or the resident will be responsible for ordering these)
General refuse	140 standard / 240 in certain circumstances	1 x wheeled bin (possibly more for HMO)	Not Applicable
Pulpable Recycling	240	1 x wheeled bin (possibly more for HMO)	Not Applicable
Mixed Recycling	240	1 x wheeled bin (possibly more for HMO)	Not Applicable
Garden Waste	240	1 x wheeled bin (possibly more for HMO)	Not Applicable
Food Waste	23	1 x 23 litre caddy (Possibly more for HMO)	Not Applicable

High Rise Apartment Developments

0.43m2 has been provided per apartment for the containers, with extra space for residents to access each container and space for staff to manoeuvre each container for collection. (different for purpose-built student accommodation – see guidance)	The proposed Bin Store does not comply with the MCC PBSA guidance of 0.23 sqm of Bin Store space per apartment. This is due to the scale of development at 861 apartments
Is it as easy, or easier, for residents to recycle, as it is for them to dispose of general waste?	YES

Commercial Developments

Please state number of bins you propose, showing calculations where appropriate.

General Waste – 11 x Eurobins

Food Waste – 6 x 240 litre bins

Dry recycling (Plastic/ Metal/ Glass) - 6 x Eurobins

Paper/ Card - 6 x Eurobins

Calculations as below:

Plot 9b Student Accomodation						
Dwellings	861					
Weekly Waste Forecast Waste Forecast (100 litres per Apartment per Week)	= 86100 litres per week = 12300 litres per day					
	Student Accommodation Recycling Streams	General Refuse (inc Organic)	Organic	Paper/ Card	Plastic/ Metal/Glass	Total
		47%	5%	24%	24%	100%
	Litres per Week	40467	4305	20664	20664	86100
	Litres per Day	**5781**	**615**	**2952**	**2952**	**12300**
	EuroBin lifts every 2 days	11		6	6	**23**
	240 litres Bin Lifts every 2 days		6			**6**

Has / will a contract be obtained with a licenced waste carrier?	Yes

Mixed Use Developments

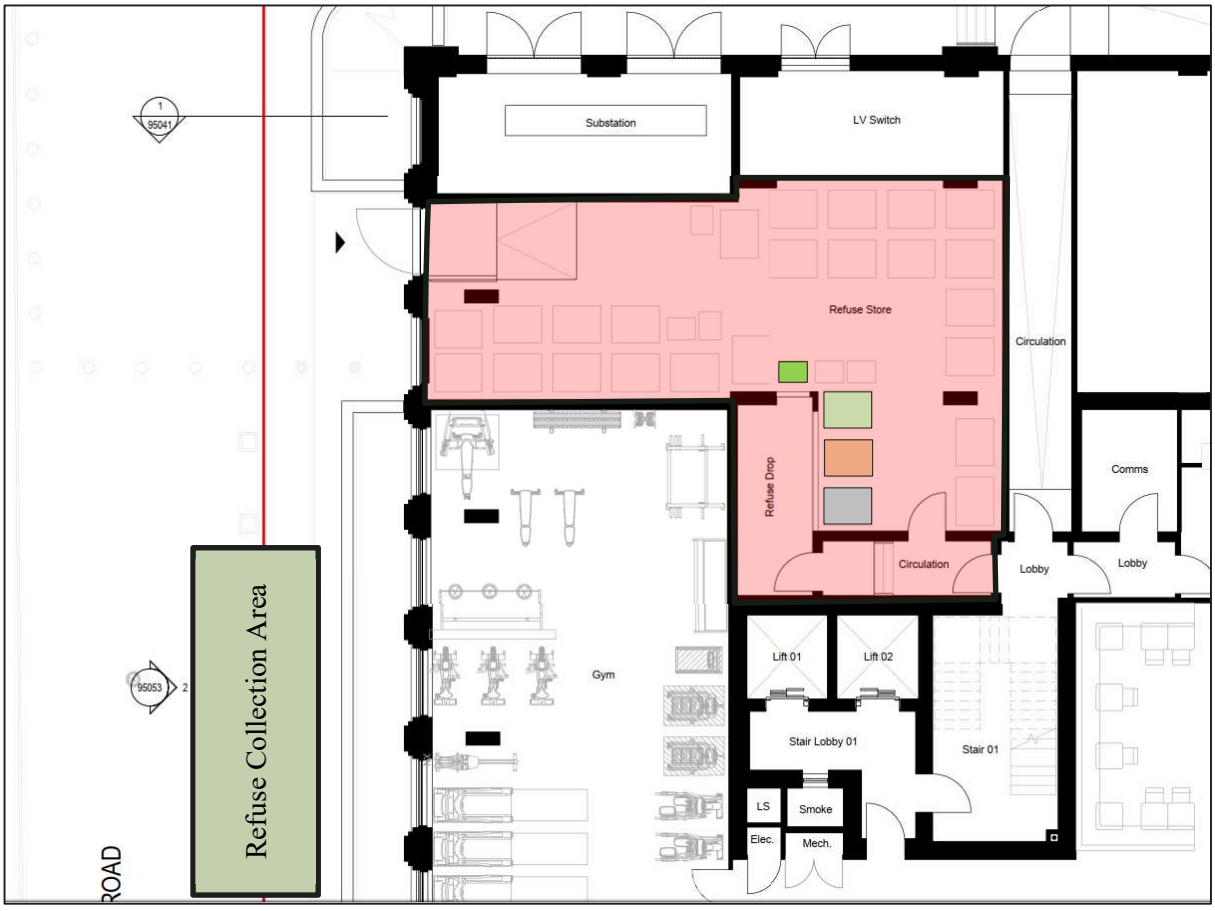
Are the stores for residential and commercial waste completely separate from each other, with residents having no access to the commercial store and the commercial units having no access to the residential store?	N/A

Internal Stores (Residential and Commercial)

Please provide details of internal stores / segregation of waste and recycling.

Residents would be required to segregate their waste into four streams in their apartment/ kitchen area i.e. General Refuse, Organic, Paper/ Card and Plastic/ Metal/ Glass and there would be colour coded labelled bins available for that.

The bin store is located on the ground floor which would be accessed via lifts. A Refuse Drop Lobby is proposed for students to drop waste into the respective waste bins on the other side of the wall, as shown in figure below.



The Refuse Drop is rained
In general students would not have access to the bin store unless by exception such as for dropping off bulk items.

Storage Areas for Waste Containers (Residential and Commercial)

Please provide details of container stores, attaching plans if appropriate.

The Refuse Drop is raised and accessed via Steps. For any user not able to use the steps then the on site management team would take their waste for dropping. In general students would not have access to the bin store unless by exception such as for dropping off bulk items.

Ensure all bins in the store are accessible	Yes
Ensure recycling facilities are as easy to access as general refuse	Yes

Please confirm details of waste store ventilation and hygiene / cleaning proposals

Ventilation – The refuse store will be mechanically ventilated. **Hygiene** - Refuse containers will be of appropriate construction, kept in sound condition, and will be easily cleaned / disinfected. Nearby on the ground floor there will be a water source for the cleaning team to use to help mop up spills.

Please provide details of who will be responsible for placing the bins at the collection point and returning them to the store / property promptly e.g., resident / management company

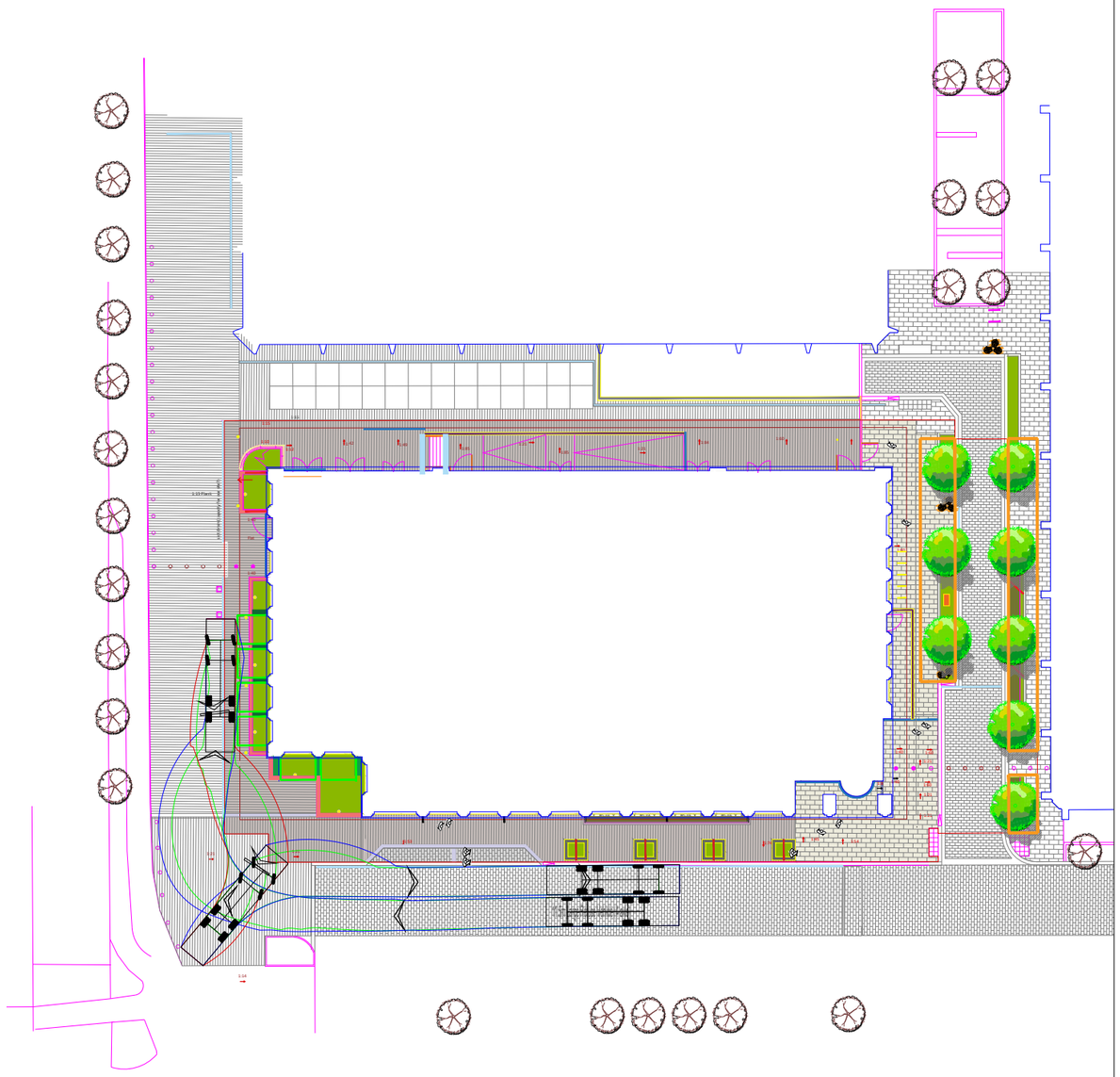
Waste will be collected by a private licensed waste carrier in accordance with government legislation requiring the appropriate documentation to ensure that waste is disposed of in a hygienic and environmentally sustainable way. Refuse collections would be made early in the morning and here the management company or under their direction, the waste operator would wheel out the bins to the collection area prior to collection. The bins would then be returned to storage immediately afterwards. The external areas would be designed to a high quality to accommodate the movement of a large 26t refuse vehicle. The tracking of such a vehicle accessing the space is shown in Dwg TR114 attached.

Please ensure that you have attached:

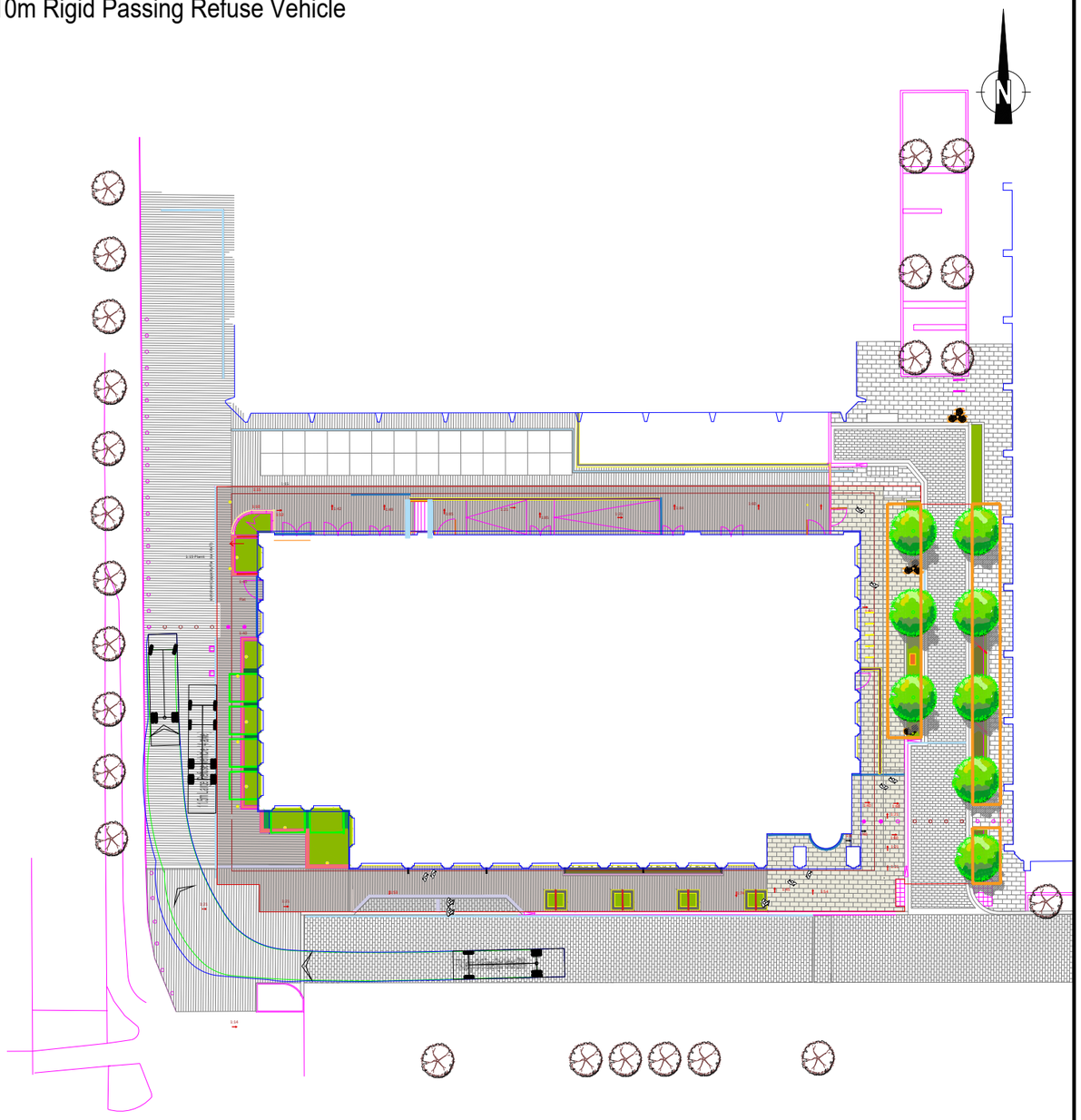
Detailed plans of bin stores	Yes
Location plans showing stores	Yes
Location plans showing the proposed collection point and the route the collection vehicle will take (please refer to the Road, vehicle and Waste Operative Access Specification – paying particular attention to turning space and reversing)	Yes

Please ensure that you have completed this form in accordance with the latest version of GD04 Waste Storage and Collection Guidance for New Developments – v.7 September 2023, read in conjunction with the Waste and Recycling Service Standard found on the Council website.

Access - Refuse Vehicle



10m Rigid Passing Refuse Vehicle



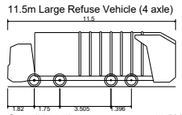
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REV.	DETAILS	DRAWN	CHECKED	DATE
A	Amendments made to swept path analysis	WD	AT	26.09.24
B	Site plan updated & amendments to tracking	CG	AT	04.10.24
C	Refuse Lorry tracking updated	CG	AT	15.10.24
D	Site Plan Update	YF	AT	12.12.24

Notes:

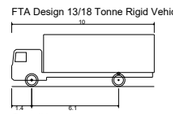
1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.

11.5m Large Refuse Vehicle (4 axle)



Overall Length	11.500m
Overall Width	2.500m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	6.00s
Wall to Wall Turning Radius	11.330m

FTA Design 13/18 Tonne Rigid Vehicle (2016)



Overall Length	10.000m
Overall Width	2.550m
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

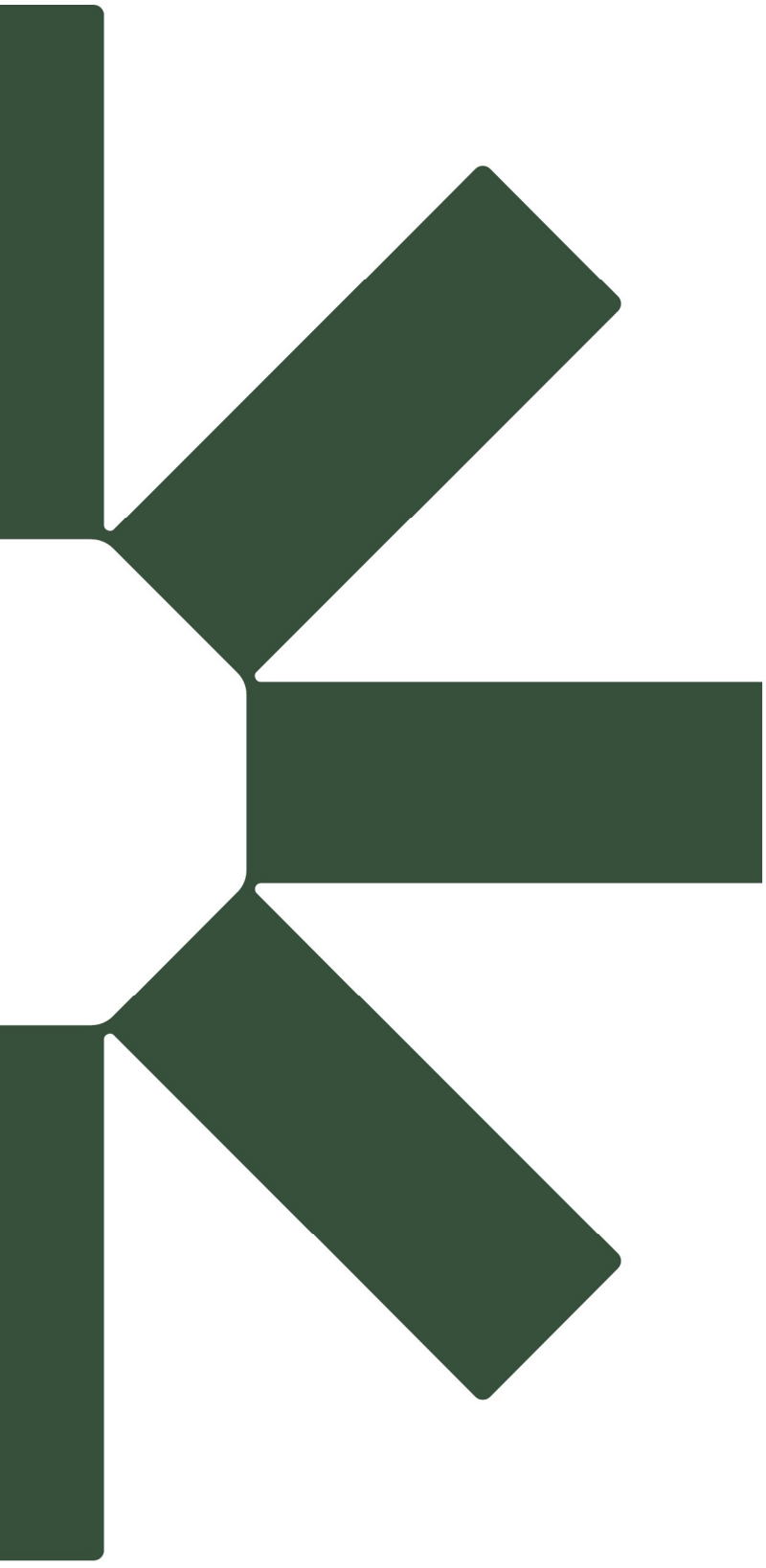
Plot 9b, First Street

VITA

Swept Path Analysis - Refuse Vehicle & 10m Rigid

SLR

DRAWN:	CHECKED:	DATE:	SCALES:	DRAWING NUMBER:	REVISION:
YF	GD / AT	12.12.24	1:500 at A3	410.065757.00001-TR114	D



Making Sustainability Happen