Hayes Park

Refuse and Recycling Strategy

May 2023

Waterman

Hayes Park, Hayes End Road, Hayes, UB4 8FE

Refuse and Recycling Strategy

June 2023

Waterman Infrastructure & Environment Limited
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Client Name:	Shall Do Hayes Developments Limited
Document Reference:	WIE19060.100.R.5.3.2.OWMS
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Quality Assurance – Approval Status

This document has been prepared and checked in accordance with
Waterman Group's IMS (BS EN ISO 9001: 2015, BS EN ISO 14001: 2015 and BS EN ISO 45001:2018)

Issue	Date	Prepared by	Checked by	Approved by
Final	June 2023	J Hamp Senior Transport Planner	S Owen Senior Associate	M Powers Technical Director

Comments

Disclaimer

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We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

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1. Introduction

Brief

1.1. Waterman Infrastructure & Environment Ltd (Waterman) has been commissioned by Shall Do Hayes Developments Ltd ('the Applicant') to prepare a Refuse and Recycling Strategy (RRS) for the proposed development at Hayes Park, Hayes End Road, Hayes, UB4 8FE ('the site').

Background

1.2. The site lies within a wider former business park known as 'Hayes Park'. The red line site area which forms the basis of this application is 3.73 hectares and comprises of Hayes Park South and Hayes Park Central which are two vacant office buildings as well as the surrounding grassland area, and the associated car parking and internal access road areas. Both the Hayes Park South and Hayes Park Central are Grade II* Listed buildings.

1.3. The wider Hayes Park business park site which includes Hayes Park North and the adjacent multi-storey car park which do not form part of this application. The site is accessed from the east via Park Lane and from the west via Hayes Park Road.

Description of Development

1.4. The development proposals are for the change of use of the existing office buildings (Use Class E) to residential use (Use Class C3). The proposed development will provide a total of 124 residential units (25 x Studios, 40 x 1-bed, 41 x 2-bed, 17 x 3-bed and 1x 4-bed units) and ancillary internal and external community space.

1.5. A total of 124 car parking spaces will be retained from the existing site provision, in-line with the London Plan 2021 standards and cycle parking will be provided in-line with the London Plan 2021 standards.

Report Scope

1.6. The purpose of this RRS is to detail how waste will be stored, managed, and collected when the development is complete. It outlines the types and volumes of waste predicted to arise. It sets out anticipated waste storage capacity requirements (bin numbers) for the proposed uses.

1.7. This document should be read in conjunction with other submission documents, including the Circular Economy Statement and Delivery and Servicing Management Plan.

2. Guidance and Standards

2.1. The following guidance and standards were considered in developing this RRS.

The Building Regulations 2010 Approved Development H

2.2. This Approved Document provides practical guidance. It sets out the requirements of Schedule 1 and Regulation 7 of the Building Regulations 2010 (SI 2010/2214) for England and Wales. Requirement H6, "*Solid Waste Storage*" specifies:

(1) Adequate provision shall be made for storage of solid waste.

(2) Adequate means of access shall be provided:

(a) for people in the building to the place of storage

(b) from the place of storage to a collection point […]"

2.3. Requirement H6 stipulates waste storage should be designed and sited so as not to be prejudicial to health or local amenity.

British Standard 5906:2005

2.4. This British Standard is a code of practice for methods of storage, collection, segregation for recycling and recovery, and on-site treatment of waste. This standard relates to residential and non-residential buildings and healthcare establishments. It is applicable to new buildings, refurbishments and conversions of residential and non-residential buildings, including but not limited to retail and offices. It expands upon the legal requirements set out in The Building Regulations 2010, Approved Document H, requirement H6 as above. BS 5906:2005 advises that:

"Designers should consider:

- *Easy and safe access for waste producers, including older persons or persons with disabilities*
- *Easy and safe access for collectors and collection vehicles*
- *Location and space (including avoidance of opportunity to cause nuisance or injury) […]*
- *Special requirements (e.g., separate storage and collection provisions for healthcare waste and bulky waste)"*

London Plan (2021)

2.5. London Plan policy SI 7, reducing waste and supporting the circular economy, promotes minimising waste, reusing materials, and recycling. It encourages developments to be designed with *"…adequate, flexible, and easily accessible storage space and collection systems that support, as a minimum, the separate collection of dry recyclables (at least card, paper, mixed plastics, metals, glass) and food".*

2.6. London Plan policy SI 7, reducing waste and supporting the circular economy, promotes the following targets:

- zero biodegradable or recyclable waste to landfill by 2026;
- at least 65% of municipal waste will be recycled by 2030;
- designing developments with adequate, flexible, and easily accessible waste storage space; and

2.7. supporting separate collection of dry recyclables (at least card, paper, mixed plastics, metals, glass) and food.

2.8. Policy SI 7 also requires the submission of a Circular Economy Statement (CES) which should demonstrate:

- how much waste the proposal is expected to generate;
- how waste will be managed in accordance with the waste hierarchy; and
- how performance will be monitored and reported.

2.9. A response to the requirements of Policy SI 7 is provided later in this report.

2.10. Policy D3 'Optimising site capacity through the design-led approach' states that developments should:

Aim for high sustainability standards (with reference to the policies within London Plan Chapters 8 and 9) and take into account the principles of the circular economy.

New developments should be designed and managed so that deliveries can be received outside of peak hours and if necessary in the evening or night-time without causing unacceptable nuisance to residents. Appropriate facilities will be required to minimise additional freight trips arising from missed deliveries.

Shared and easily accessible storage space supporting separate collection of dry recyclables, food waste and other waste should be considered in the early design stages to help improve recycling rates, reduce smell, odour and vehicle movements, and improve street scene and community safety.

Buildings and spaces should be designed so that they can adapt to changing uses and demands now and in the future. Their lifespan and potential uses or requirements should be carefully considered, creating buildings and spaces.

2.11. Policy D6 'Housing quality and standards' states that: *Housing should be designed with adequate and easily accessible storage space that supports the separate collection of dry recyclables (for at least card, paper, mixed plastics, metals, glass) and food waste as well as residual waste.*

2.12. Table 3.2 in Policy D6 states:

The development should ensure that:

- *the experience of arrival, via footpaths, entrances and shared circulation spaces is comfortable, accessible and fit for purpose.*
- *sufficient levels of secure, covered and conveniently located externally accessible storage is provided for deliveries and other bulky items.*
- *recycling and waste disposal, storage and any on site management facilities are convenient in their operation and location, appropriately integrated, and designed to work effectively for residents, management and collection services.*

London Plan Guidance: Circular Economy Statements (2022)

2.13. The Greater London Authority's Circular Economy Statements guidance expects adequate and easily accessible storage and collection space to be provided for at least three waste streams – dry recyclable waste, residual waste, and food waste. It encourages applicants to be more ambitious than London Plan policy targets for recycling etc. where possible, and to monitor performance during operational phases.

2.14. A response to these points is provided later in this report.

London Borough of Hillingdon Local Plan

Local Plan Part 1: Strategic Policies (2012)

2.15. Local Plan Policy EM11: 'Sustainable Waste Management' states that: *The Council will require all new development to address waste management at all stages of a development's life from design and construction through to the end use and activity on site, ensuring that all waste is managed towards the upper end of the waste hierarchy.*

Local Plan Part 2: Development Management Policies (2020)

2.16. Local Plan Policy DMHB 11: 'Design of New Development' states that: *Development proposals should make sufficient provision for well designed internal and external storage space for general, recycling and organic waste, with suitable access for collection. External bins should be located and screened to avoid nuisance and adverse visual impacts to occupiers and neighbours.*

Guidance for Waste and Recycling Storage and Collection

2.17. London Borough of Hillingdon (the Council) provide a calculation on the total volume of all waste (refuse and recycling) generated in a week by flats, which is outlined in Table 1.

Table 1: Hillingdon waste storage calculation

Size of household	Number in development	Projected weekly waste per household	Waste produced from all households
Studio/one bedroom	A	100 litres	A x 100 = W litres
Two bedroom	B	170 litres	B x 170 = X litres
Three bedroom	C	240 litres	C x 240 = Y litres
Total weekly waste arising			**W+X+Y = Z litres**

2.18. Residents should not carry their waste more than 30m in the horizontal distance from their front store to the bin store. Where there are multiple bins provided, there should be sufficient space to rotate the bins in between collections. There should be provision within the bin store for cleansing of the bin stores with water and disinfectant.

2.19. Waste collection operatives should not have to cart a 1,100L Eurobin more than 10m from the storage area to the collection vehicle. The path between the bin store and collection vehicle should be smooth, have a gradient ideally no more than 1:20 and have dropped kerbs to move bins to the level of the collection vehicle.

2.20. Table 2 sets out the container types and their dimensions to be used.

Table 2: Dimensions and best use of containers

Container type	Height	Depth	Width	Notes
940 litre Chamberlin	1,500mm	975mm	1,020mm	Only use this bin as replacement for paladins in chute refuse systems. Can contain up to 10 to 11 refuse sacks.
1,100 litre Eurobin	1,370mm	990mm	1,260mm	Preferred option for bulk bin issue. Can hold up to 14 to 15 sacks of refuse.
1,280 litre Eurobin	1,370mm	990mm	1,260mm	An option for bulk bin issue at blocks of flats with six to seven households

2.21. For food waste, Council Officers have previously stated ‘*‘The food unit space is a minimum of 140 litres, but we do not currently have calculations for ratio per unit, however we recommend 1 X 140L food waste unit per bin area, collected weekly, with the view that it is monitored. We have previously trialled a 240 litre unit in a block for 88 properties and serviced weekly, this was enough capacity.’*

3. Operational Waste Management Strategy

Proposed Development

3.1. The proposed development will provide 124 dwellings within the Hayes Park Central and Hayes Park South blocks. The site layout plans are provided at Appendix A.

3.2. The proposed development comprises the following accommodation schedule for up to 124 residential units spread across 2 buildings shown in Table 3 below.

Table 3: Residential unit mix

Unit Type	Central	South	Total
Studio Flat	12	13	25
1 Bed Flat	14	26	40
2 Bed Flat	20	21	41
3 Bed Flat	2	15	17
4 Bed Flat	1	0	1
Total	**49**	**75**	**124**

Overview

3.3. Three waste streams are anticipated to arise from residential development on a weekly basis: residual, mixed dry recycling (MDR) and food waste. Bulky waste (such as fridges, mattresses, sofas, etc.) is expected to arise occasionally.

3.4. Residents will be expected to separate their wastes at source, likely within kitchen areas. Then they will deposit it into a communal container within a dedicated bin store which will be presented for collection. The communal bins within the bin stores will be 1,280 litre Eurobins for residual and MDR waste and 240 litre wheelie bins for food waste. The shared bin stores will be located on the ground floor of each block.

3.5. The Council will collect residential waste from the development. The Council's standard service offers at least weekly collection of residual, MDR and food waste. Residents will be expected to liaise with the Council if and when bulky waste arises. There is space for bulky waste storage in both bin stores.

Estimated Storage Provision

3.6. Residential waste storage requirements have been estimated using the method outlined in the Council's guidance document which is displayed in Table 1. The subsequent storage requirements for both the Hayes Park Central and Hayes Park South blocks are shown in the Table 4 and Table 5 below.

Table 4: Hayes Park Central Waste Storage Requirements

Beds	No. of units	Rate / Unit (L)	Total volume (L)	Refuse (L)	Recycling (L)
1	26	100	2,600	1,300	1,300
2	20	170	3,400	1,700	1,700
3 +	3	240	720	360	360
Total	**49**		**6,720**	**3,360**	**3,360**
Proposed provision of 1,280 L bins to meet requirement above				**3**	**3**

Table 5: Hayes Park South Waste Storage Requirements

Beds	No. of units	Rate / Unit (L)	Total volume (L)	Refuse (L)	Recycling (L)
1	39	100	3,900	1,950	1,950
2	21	170	3,570	1,785	1,785
3 +	15	240	3,600	1,800	1,800
Total	**75**		**11,070**	**5,535**	**5,535**
Proposed provision of 1,280 L bins to meet requirement above				**5**	**5**

3.7. In-line with previous advice provided by Council Officers, one 240 litre wheelie bin will be provided in each refuse store for food waste.

Storage Provisions

Hayes Park Central

3.8. The Hayes Park Central residential block will provide a total of six 1,280 litre Eurobins (three for residual waste and three for MDR waste) and a 240-litre wheelie bin for food waste. This is in line with the weekly storage requirement set out in the Council's guidance. There is space in the bin store for the storage of bulky waste.

3.9. The refuse store is located in the north-eastern corner of the residential block. The refuse store can be accessed by residents via the entrance lobby and is within 30m of most of the residential units within the block.

3.10. The distance between residential units in the south-western corner of the block does exceed 30m between the units and the refuse store. However due to the nature of the proposed development (a change of use rather than a demolition and new construction) and the constraints of making structural changes to the listed building due to its heritage status preventing extensive works, it was not practicable to provide the bin store closer to these units.

3.11. In addition, the bin store is well located within the residential lobby, therefore residents in the south-western corner of the block would walk past the bin store when exiting the site via the residential lobby and can dispose of their waste conveniently when leaving.

3.12. Access to the bin store will be controlled by key fob for residents, and there will be a key code for the collection entrance, which will be communicated to the Council's waste team prior to occupation.

Hayes Park South

3.13. The Hayes Park South residential block will provide a total of ten 1,280 litre Eurobins (five for residual waste and five for MDR waste) and a 240-litre wheelie bin for food waste. This is in-line with the weekly storage requirements set out in the Council's guidance. There is space in the bin store for bulky waste storage.

3.14. The refuse store is located at the north of the block and can be accessed via the eastern entrance lobby and externally and is within 30m of most of the residential units within the block.

3.15. The distance between residential units in the south-western corner of the block and the refuse store does exceed 30m. However due to the nature of the proposed development (a change of use rather than a demolition and new construction) and the constraints of making structural changes to the listed building due to its heritage status preventing extensive works, it was not practicable to provide the bin store closer to these units.

3.16. In addition, the bin store is well located within the entrance lobby, therefore residents in the south-western corner of the block would walk past the bin store when exiting the site via the entrance lobby and can dispose of their waste conveniently when leaving.

3.17. Access to the bin store will be controlled by key fob for residents, and there will be a key code for the collection entrance, which will be communicated to the Council's waste team prior to occupation.

Collection

3.18. Waste will be collected weekly by the Council waste collection operatives as part of their existing rounds. Appendix B shows the swept path of a refuse collection vehicle circulation on the site's internal road network.

3.19. Refuse collection vehicles for the Hayes Park Central block will utilise the existing routes and access points through the site to avoid unnecessary changes to the building fabric and landscape within the park which has heritage status. There is adequate space for the refuse collection vehicle to stop to the north of the block, which is the closest a refuse collection vehicle can stop and collect from the site without impacting on the existing listed buildings fabric or landscaping.

3.20. Refuse collection vehicles for the Hayes Park South block will also utilise the existing routes and access points through the site to avoid unnecessary changes to the building fabric and landscape within the park which has heritage status.

3.21. Waste for the Hayes Park South block will be collected from a turning head to the north of the block which is the closest a refuse collection vehicle can stop and collect from the site without impacting on the existing listed buildings fabric or landscaping.

3.22. There is no parking along this section of the site's internal road network, therefore the only vehicles accessing the turning head will be refuse collection vehicles.

3.23. Residents will arrange the date, time and access for bulky waste collections with the Council and site management staff.

Waste Storage and Collection Monitoring

3.24. Site management staff will be responsible for overseeing waste storage arrangements (appropriate positioning of bins within bin stores, housekeeping, etc.), as well as monitoring and reporting operational performance, including:

- creating a residential waste collection schedule;
- reporting missed collections;
- liaising with the Council's waste officer;
- recording bulky waste collections;
- ensuring waste is presented for collection at the appropriate time and location;
- fielding feedback from occupants and neighbours;
- responding to any incidents or problems with servicing activity; and
- regularly reviewing the development's performance.

3.25. Site management staff will monitor the usage of the bin stores to ensure the provision of bins are meeting the waste generation demand in terms of quantity and type of waste. The mix of bins will be adjusted as recycling rates increase, and engagement with residents will be ongoing to encourage waste reduction and segregation of wastes. The engagement will start with communication to residents about waste storage provisions as part of the Travel Information Pack residents will receive upon occupation. This will include details of the location of the refuse stores, the types of bins provided, a contact number to organise bulky waste collection, and the benefits of recycling and reducing waste.

3.26. Monitoring of the waste storage and collection arrangements will also be covered within the Delivery and Servicing Management Plan (DSP) monitoring regime. The DSP monitoring regime is detailed within the DSP submitted alongside this application.

4. Circular Economy Considerations

Operational Waste Arisings

4.1. The following sources have been used to estimate operational waste arisings from the proposed development (in tonnes per annum):

- there being up to 364 residents (assuming maximum occupancy)[1]; and
- The Council collected household waste per person for the year 2020-2021 – 357.2kg – according to Defra local authority collected waste statistics dataset[2].

4.2. Based on these sources, it is estimated that the proposed development could generate approximately 130 tonnes of waste per annum.

Operational Waste Storage Space, Collections and Performance Monitoring

4.3. As described in section 3 above, the design includes adequate and easily accessible waste storage space. The proposed bin-based waste management system has been designed with flexibility in mind. The complement (number and type) of bins can be adjusted in response to the development's recycling rate, for instance, and will seek to achieve the 65% recycling target by 2030 and zero biodegradable or recyclable waste to landfill by 2026.

4.4. Site management staff will monitor waste storage areas and operational performance (e.g. rate and quality of recycling). They will liaise with the Council if the opportunity to adjust or increase recyclable waste storage provisions arises and with residents to encourage responsible use of the facilities.

4.5. As described the design supports the separate collection of at least three waste streams: residual, MDR, and food waste. Section 3 also addresses the site management staff role in monitoring performance.

Implementation of the Waste Hierarchy

4.6. Regulation 12 of the Waste (England and Wales) Regulations 2011 requires waste producers or those handling waste to comply with the waste hierarchy (prevention, prepare for reuse, recycling, recovery, disposal) unless it can be justified on environmental or technical grounds that this is not appropriate. The waste hierarchy gives top priority to preventing waste. When waste is created, the hierarchy prioritises preparing it for reuse, then recycling, then recovery (including energy recovery), then last of all disposal (including landfill). In order to comply with London Plan policy SI 7, no recyclable or biodegradable waste should be despatched to landfill.

4.7. The West London Waste Authority (WLWA) is responsible for managing the residual municipal waste and food waste collected by the Council. It implements the waste hierarchy by maximising recycling and minimising landfill disposal. WLWA divert 97% of residual waste collected in West London away from landfill and send it to Severnside energy recovery facility (ERF) where it is used to create renewable energy[3]. WLWA manages organic waste through anaerobic digestion and composting[4].

[1] Studio Egret West area schedule with reference 0419-SEW-ZZ-ZZ-SH-A-0000001 dated 07 March 2023.
[2] Defra dataset *"Local Authority Collected Waste Statistics – Local Authority data"* table 3.
[3] WLWA (2022) "*FAQs*". Available at https://westlondonwaste.gov.uk/about-us/faqs (accessed 05 May 2023).
[4] WLWA (2022) *"What happens to our waste and where does it go?"*. Available at https://westlondonwaste.gov.uk/where-your-waste-goes (accessed 05 May 2023).

Consideration of Consolidation and Consolidated Smart Logistics

4.8. The RRS for the proposed development has been informed and based on the Council's waste collection guidance. The Council states that refuse storage in 1,100L Eurobins is their preferred option for bulk bin issue, although Council's guidance also recognises that 1,280 litre Eurobins also an option for bulk bin storage at blocks of flats with six to seven households.

4.9. Storage and collection systems such the Automated Waste Collection System (AWCS) and Underground Recycling and Residual Waste System (URS) would not be suitable for the proposed development as the Council do not operate a waste collection fleet compatible with these systems. Internal waste chutes have not been considered in the proposed development due to the significant management input, with the proposed development seeking a self-sustaining solution instead. Weekly collection is also proposed as this is in-line with the Council's existing waste collection strategy and frequency.

4.10. Waste will be collected by the Council. It is reasonable to assume the Council will seek to optimise its vehicle routings and provide a regular collection schedule (e.g. same days and times each week).

Consideration of Community-Led Waste Minimisation Schemes

4.11. The WLWA support various community-led waste minimisation schemes such as:

- community groups and schools in West London which promote extending the lifecycle of clothing and supporting a circular economy;
- *"Don't Bin it, Bring it"* events which make it easy for residents to recycle their electrical items; and
- initiatives to switch to reusable absorbent hygiene products, including workshops held at local schools, informative webinars and loaning reusable nappy packs to local families to try[5].

4.12. Further schemes will be considered where appropriate to the needs of future residents, such as repair cafés, workshops for upcycling furniture, and sharing networks for items like books, clothes, and unwanted furniture.

Policy Compliance

4.13. The proposed RRS demonstrates that both residential blocks provide, safe, secure and convenient access to the refuse stores. There is provision for residual, MDR, food and bulky waste streams within the proposed refuse stores. The refuse stores are located close to the proposed collection points and the routes between the refuse stores and collection points are smooth and flat. The proposals are therefore in line with Policies SI7, D3 and D6 of the London Plan, as well as national and local policy.

4.14. The provision of MDR and food waste bins and the information about benefits of recycling and the on-site recycling facilities within the Travel Information Packs handed to residents will help meet the targets of 65% of waste to be recycling by 2030 and to ensure no recyclable or biodegradable waste goes to landfill by 2026 set in Policy SI7 of the London Plan.

4.15. The refuse storage provision is provided in-line with the required refuse storage provision set out within the Council's Guidance for Waste and Recycling Storage and Collection.

[5] WLWA document titled "*Treating Waste as a Valuable Resource – West London Waste Annual Report – June 2021*". Available at https://westlondonwaste.gov.uk/ (accessed 05 May 2023).

APPENDICES

A. Site Layout Plans

Proposed Level 00 – HPC (Studio Egret West 0419-SEW-HC000-DR-A-001111)

Proposed Level 00 – HPS (Studio Egret West 0419-SEW-HC000-DR-A-001116)

General Notes

No implied licence exists. This drawing should not be used to calculate areas for the purposes of valuation.
Do not scale this drawing for construction purposes. All dimensions to be checked on site by the contractor and such dimensions to be their responsibility.
All work must comply with relevant British Standards and Building Regulations requirements. Drawing errors and omissions to be reported to the architect.

Notes

For the purpose of this application, the existing building has been modeled in 3D, taken from 2D survey information provided by CSL Surveys (Stevenage) LTD and a structural model, designed by Whitby Wood. Due to the complexities of an existing building, the 3D model may not be accurate enough for the level of drawings required for the planning submission and design work stage. Please refer to the detailed drawings for the setting-out.

Residential Typologies

- 1B1P
- 1B2P
- 2B3P
- 2B4P
- 3B5P
- 3B6P
- 4B
- 5B
- 6B

Other residential uses

- Plant / cycle store / bin store
- Communal room
- Proposed amenity - garden
- Proposed amenity - balcony
- Proposed indicative sloped/stepped ground floor light wells
- Existing basement/tunnel location
- Existing HPC lower ground location
- Proposed amenity - garden
- Paving for roof maintenance access
- PV panels

0 5m
@ 1:100

Key Plan

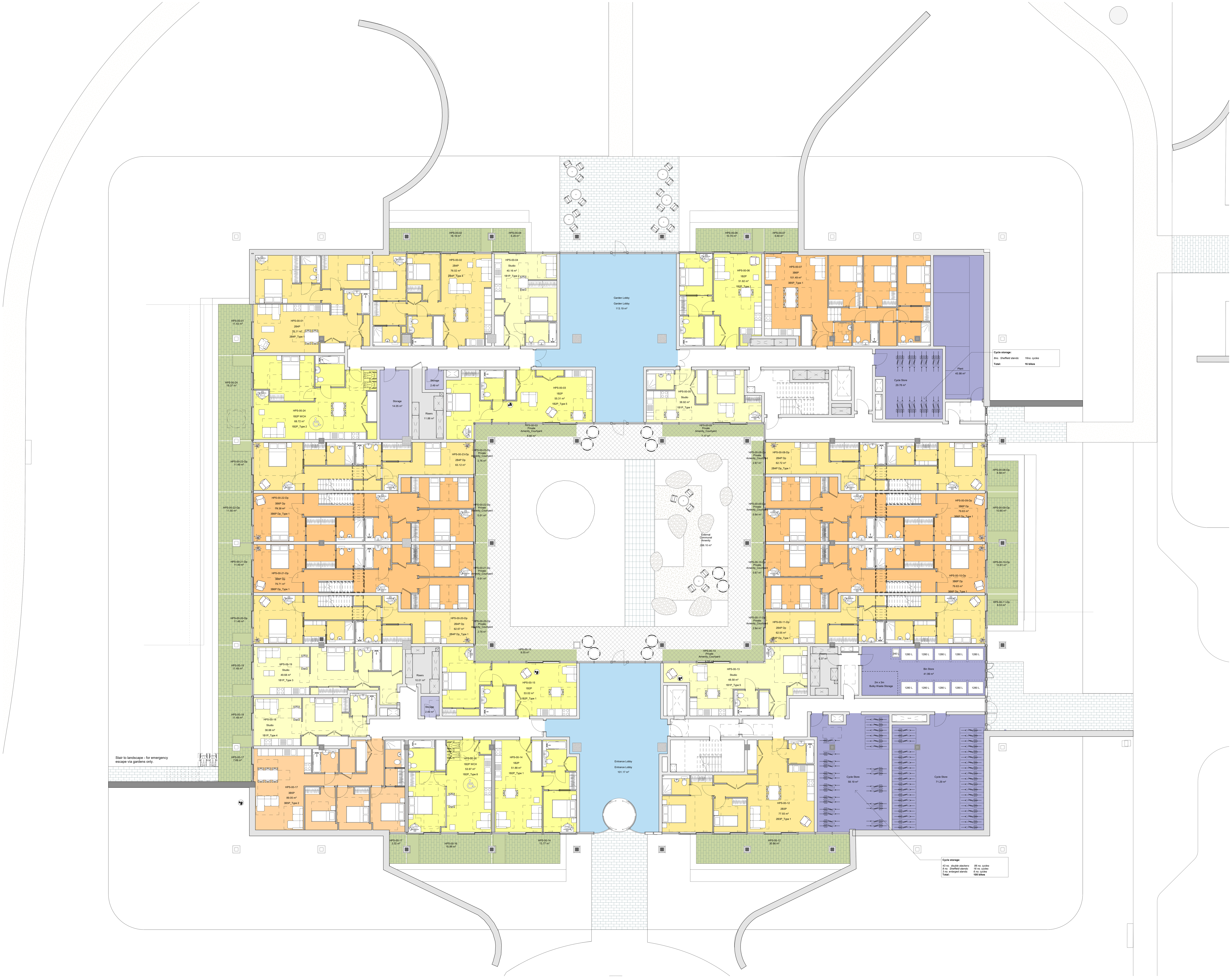
Studio Egret West
3 Brewhouse Yard
London, EC1V 4JQ
hello@egretwest.com
+44 (0) 20 7549 1730

For Planning

Project No.	0419
Project Name	Hayes Park
Drawing Title	Proposed Level 00 -HPC
Client	Shall Do Hayes Developments Limited
Scale @A0	1 : 100
Date	12/05/2023
Drawn by	PJ
Checked by	CS

Rev	Date	Reason	Chk
P1	12/05/23	For Planning	SEW

Drawing Number	Rev
0419-SEW-HC-00-DR-A-001111	P1



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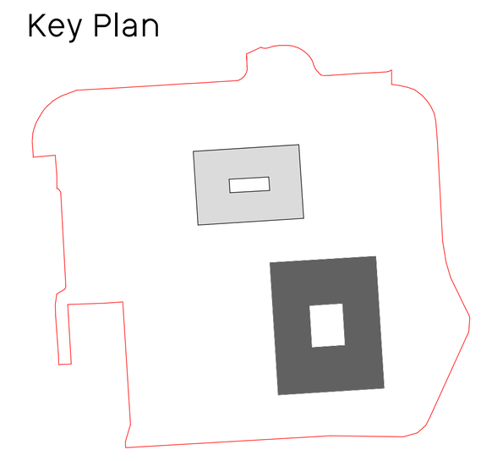
Key Plan



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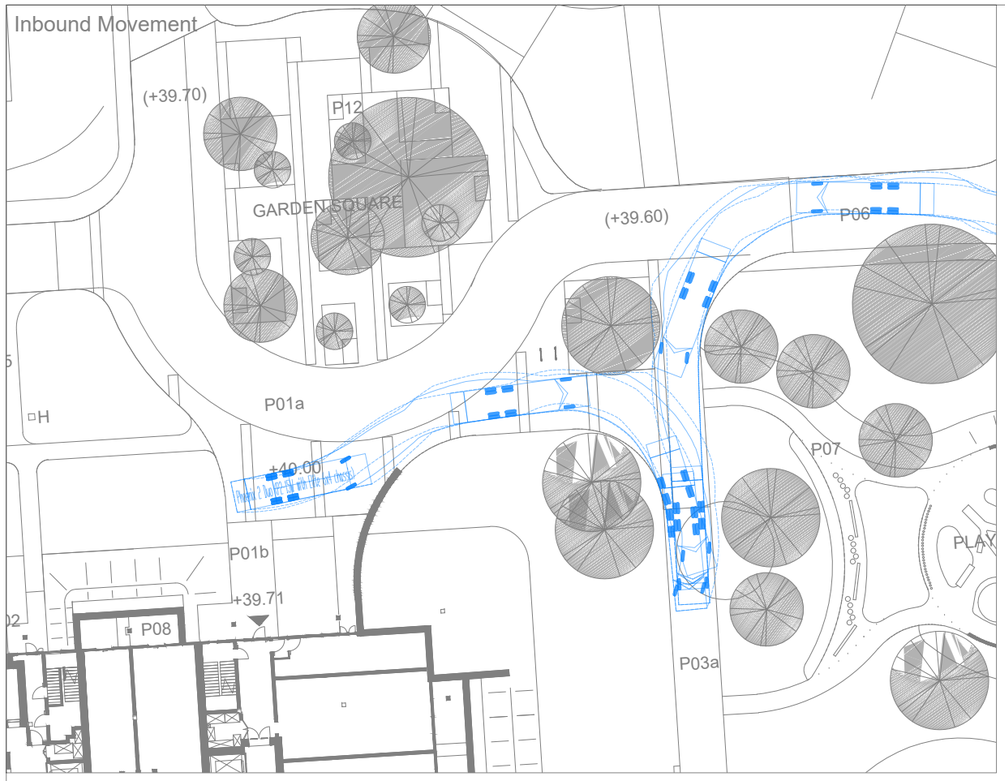
For Planning

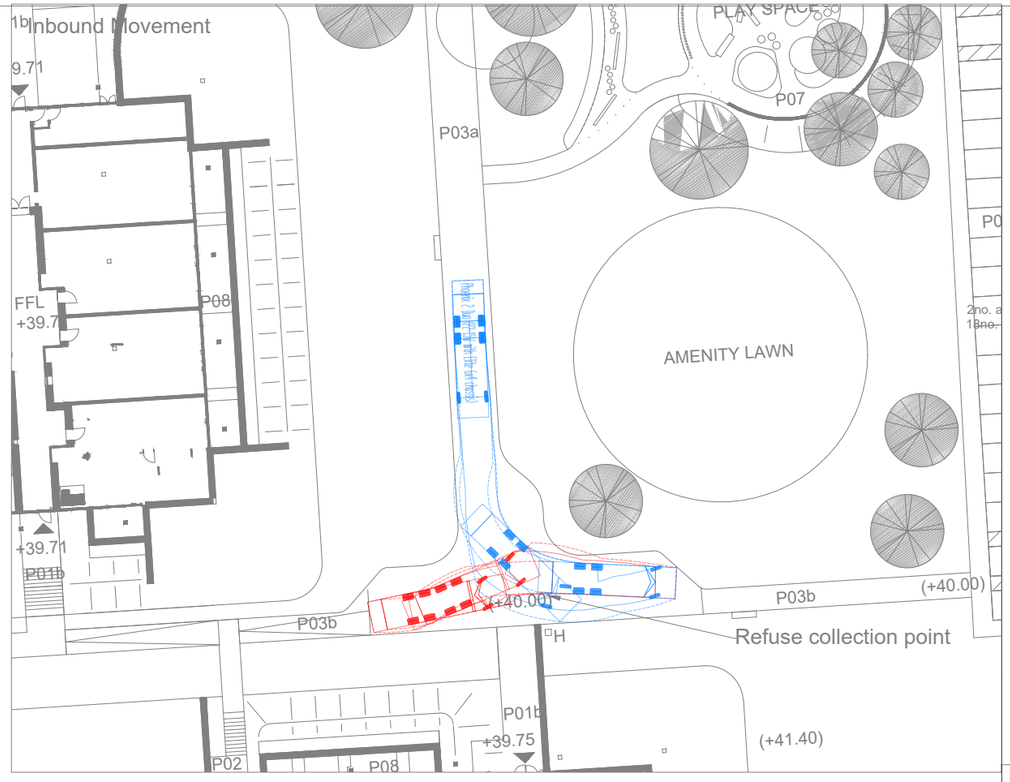
Project No.	0419
Project Name	Hayes Park
Drawing Title	Proposed Level 00 -HPS
Client	Shall Do Hayes Developments Limited
Scale @A0	1 : 100
Date	12/05/2023
Drawn by	CS
Checked by	GN

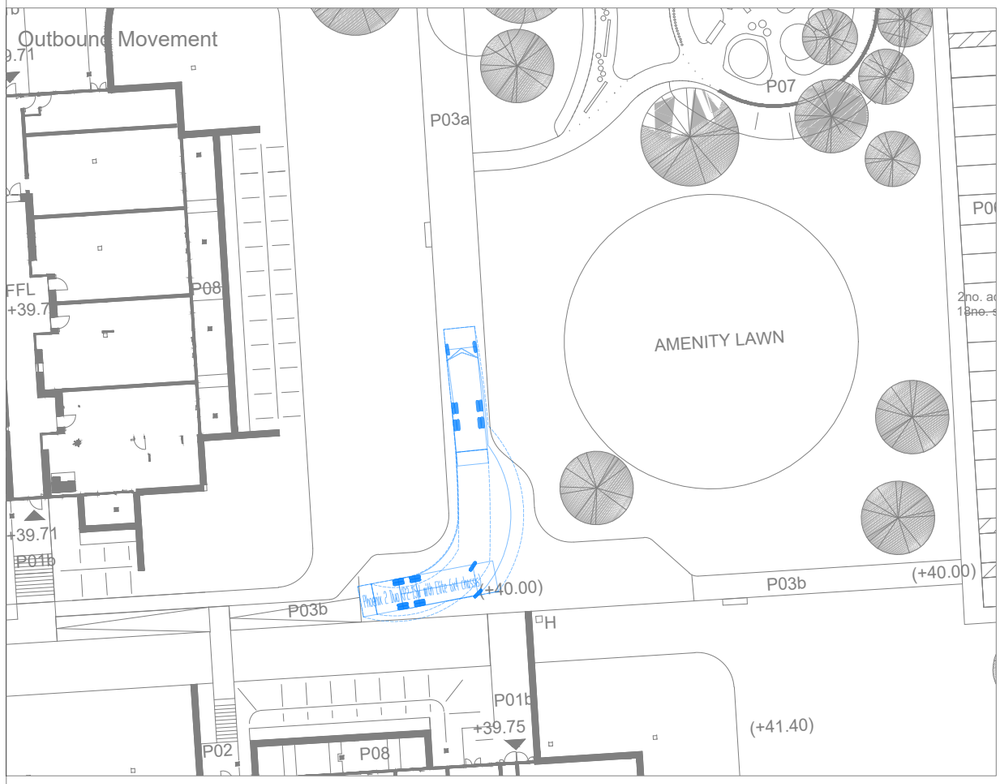
Rev	Date	Reason	Chk
P1	12/05/23	For Planning	SEW

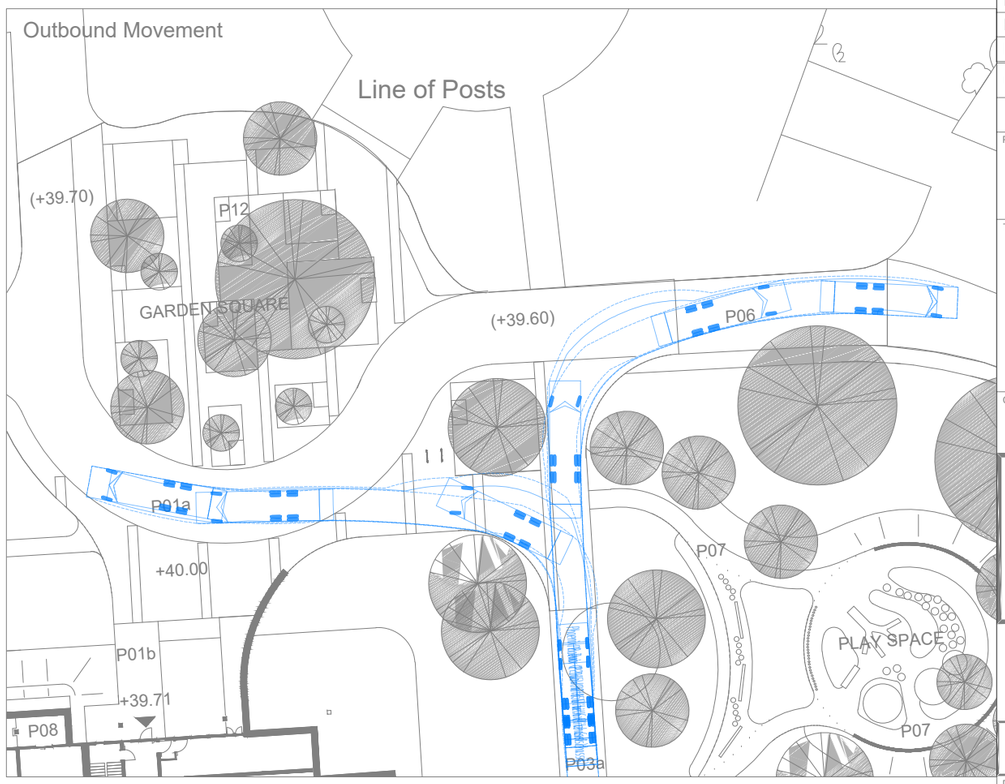
Drawing Number	Rev
0419-SEW-HS-00-DR-A-001116	P1

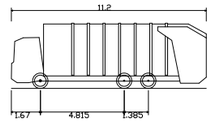
B. Swept Path Analysis of Refuse Collection Vehicle











Phoenix 2 Duo (P2-15W with Elite 6x4 chassis)

Overall Length	11.200m
Overall Width	2.530m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.500m

Note: Vehicle body overhangs edge of carriageway - wheels remain on carriageway

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

1:1 0 10 20 30 40 50 60 70 80 90 100

Rev	Date	Description	By	Chk
P03	20.04.23	LANDSCAPE PLAN UPDATED	AM	MP
P02	18.04.23	LANDSCAPE PLAN UPDATED	JH	MP
P01	16.03.23	ISSUED	DM	MP

Amendments

Project

Hayes Park

Title

Refuse Collection Access Swept Path Analysis

Client

Marson Property

waterman

Pickfords Wharf Clink Street London SE1 9DG

t 020 7928 7888

mail@watermangroup.com www.watermangroup.com

WIP S0

Designed By	Director	Waterman Ref
JH	MP	WIE19060
Drawn By	**Date**	**Scales @ A3**
GF	May 2023	1:500

Project - Originator - Volume - Level - Type - Role - Number

WIE19060-SA-95-0001-P05

Revision

P05

File Path N:\Projects\WIE19060\1007_CAD\95_Transport\

0419-SEW-ZZ-00-DR-L-001000

Inbound Movement

Outbound Movement

Line of Posts

GARDEN SQUARE

(+39.70)

(+39.60)

P12

P06

P03a

P05

P01a

P01b

P02

P08

P04

P07

P03b

+40.00

+39.71

Refuse collection point

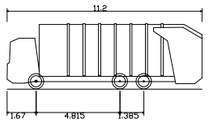
FFL +39.7

REFER TO DRAWING 0419-SEW-ZZ-00-DR-L-001001 FOR COURTYARD DESIGN

(+41.65)

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

1:1 0 10 20 30 40 50 60 70 80 90 100



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Rev	Date	Description	By	Chk
P02	20.04.23	NEW LANDSCAPE	AM	MP
P01	18.04.23	ISSUED	JH	MP

Amendments

Project

Hayes Park

Title

Refuse Collection Access Swept Path Analysis

Client

Marson Property

waterman

Pickfords Wharf Clink Street London SE1 9DG

t 020 7928 7888

mail@watermangroup.com www.watermangroup.com

WIP S0

Designed By	Director	Waterman Ref
JH	MP	WIE19060
Drawn By	**Date**	**Scales @ A3**
GF	March 2023	1:500

Project - Originator - Volume - Level - Type - Role - Number	Revision
WIE19060-SA-95-0004-P04	P04

File Path N:\Projects\WIE19060\100\7_CAD\95_Transport\

0419-SEW-ZZ-00-DR-L-001000

waterman

Our vision

"Engineering a better environment for people and the planet"

Our mission

"To solve complex problems for the benefit of clients, communities and the climate"

Our values

People orientated

Individually and collectively, people are our business.
We strive to create environments for everyone to flourish and thrive.

Flexible

Pragmatic by nature and dedicated to getting the job done to the highest possible standard.

Professional

Operating at pace with integrity to deliver technical and robust solutions.

Environmentally aware

We understand our responsibility to the environment, it shapes our decision making and informs our practice.

Innovative

Our forensic questioning provides the ability to deliver appropriate innovations at every stage on every project.

Relationship focused

We value individuality and the benefits of working collaboratively to achieve positive outcomes for all.