

ACCESS & MOVEMENT



7.1 DELIVERING AN INCLUSIVE ENVIRONMENT

Introduction

An inclusive environment is one in which all buildings, places and spaces are accessible to, and usable by, as many people as reasonably possible without the need for special adaptation or specialised design.

The Mayor of London requires all new development in London to achieve the highest standards of accessible and inclusive design and states that developments should address the following principles:

- Can be used safely, easily and with dignity by all regardless of disability, age, gender, ethnicity or economic circumstances.
- Are convenient and welcoming with no disabling barriers, so everyone can use them independently without undue effort, separation or special treatment.
- Are flexible and responsive taking account of what different people say they need and want, so people can use them in different ways.
- Are realistic, offering more than one solution to help balance everyone's needs, recognising that one solution may not work for all.

The design of Osterley Place aims to deliver a welcoming and inclusive environment that maximises accessibility for all, and consequently issues relating to access and inclusion have been considered throughout the design process. This satisfies the General Duty placed upon the London Borough of Hounslow under the Equality Act 2010 to promote the interests of disabled people.

The Equality Act (2010) & 'Disability'

The Equality Act has been in force since October 2010, and replaces, amongst other legislation, the Disability Discrimination Act (DDA). However, the same underlying philosophy regarding discrimination on the grounds of disability applies, and the duties placed on the physical design of the built environment remain unchanged.

In summary, the Equality Act 2010 aims to protect nine identified 'protected characteristics', of which 'Disability' is one. The Equality Act provides legal rights for disabled people in the areas of:

- employment;
- education;
- access to goods, services and facilities;
- buying and renting land or property; and
- functions of public bodies.

The Equality Act, although not prescriptive, includes an intent to offer disabled people an accessible environment which does not discriminate against them because of their impairment. Statutory regulations and recommendations for the built environment provide parameters for how an accessible environment can be achieved. Compliance with these regulations and recommendations is not proof that Equality Act issues have been addressed. They do though go a long way to ensuring such issues are considered.

In the Act, the term 'disability' includes not only disabled people, but also people who have an association with a disabled person (e.g. carers and parents) and people who are perceived to be disabled.

Disability - Definition

The term "disability" has been viewed in its broadest sense and includes impaired mobility, sight, comprehension and hearing. However, the design principles set out in this document have also been considered in relation to, and have the potential to benefit, a wider spectrum of user groups including:

- Individuals with mobility, sight, comprehension or hearing impairment.
- The ageing population.
- People with temporary injuries.
- People whose movement may be impaired or encumbered in any way i.e. pregnant women, people with young children or people with baggage.

This approach addresses not only short-term compliance with the intent of the Equality Act and relevant planning policies, but also the long-term implications of sustainability.

Sources of Advice & Guidance Used

The following documents and guidance have been used to inform the approach to access, with due consideration for the level of detail appropriate for an outline planning application.

- The Building Regulations Approved Document Part M 2015 Edition incorporating 2016 amendments "Access to and Use of Buildings"
- The Building Regulations Approved Document Part K 2013 Edition "Protection from Falling, Collision and Impact"
- BS 8300: 2018 (Design of an accessible and inclusive built environment),
- Department for Transport (DfT), 2013, "Inclusive Mobility" (A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure).
- The London Borough of Hounslow, Local Plan.
- Greater London Authority and Local Authority access specific design standards, where relevant
- The Mayor of London's Housing SPG 2016
- Consideration of Equality Act issues.

7.2 ACCESSIBILITY OVERVIEW

Introduction

The principles of inclusive design have informed the development of the proposals for Osterley Place. However, because the planning application is in outline only, many of the accessibility and inclusivity principles can only be considered at a relatively strategic level, with more detailed design proposals being put forward in future Reserved Matters Applications (RMA).

The text below summarises some of the key issues which have been considered.

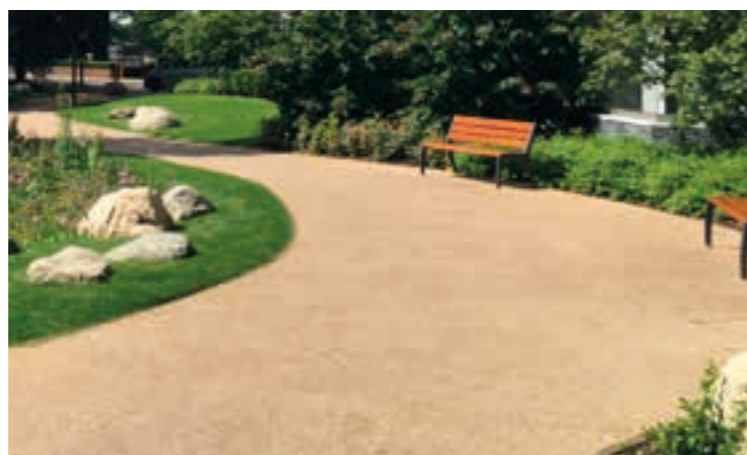
Wider Connectivity

A key aspect of accessibility is providing connectivity to local amenities and public transport options. The proposals have carefully considered how the development will connect into the existing network and enhance it, but in a way which recognises the importance of sustainability. The proposals prioritise the use of walking, cycling and public transport ahead of the private car, but without neglecting the needs of those who rely on them because of disability or frailty. The following sections of this chapter explain the strategy in more detail.

Examples of Inclusive Landscape Design



Sensory Planting



Wide Level Paths, Space around Benches for Accessibility



Water Jets Providing Inclusive Play

Accessible Public Realm

The masterplan has been developed to create a high quality public realm with a clear, legible circulation pattern of new streets and spaces designed to accommodate multiple modes of travel. This approach will not only improve the legibility and clarity of the on-site circulation, minimising the need for extensive signage, but also create a vibrant and welcoming physical environment.

The topography of the site means that there will be no need for stepped access within the public realm and future RMAs should focus on providing an inclusive environment that is aesthetically pleasing and functional, and that can be used equally by all ages, gender or disability. Design consideration will need to be given to:

- Pedestrian routes - width of path and gradients
- Entry and exit points into each area
- Steps
- Site furniture - seats and perches
- Planting
- Inclusive play
- Lighting
- Way marking

Mixed Use Units

A variety of commercial, employment and community uses are proposed across the site. All these units will be designed to meet the accessibility requirements set out in Building Regulations Part M and will also need to consider the regulations and recommendations set out in the Equality Act, particularly in respect of their detailed internal fit-out and how this will impact upon their employees and visitors.

Mobility Hub

The proposed mobility hub will include a range of facilities designed to enhance access to local transport options. Proposed uses include:

- A cycle hub, providing a high quality, secure and covered cycle parking area. The cycle hub could provide Brompton Bike Hire lockers, allowing people to hire Brompton folding bikes and/or a dockless bicycle hire bay (Mo-Bike, Lime bikes or similar).
- A delivery locker, to enable residents to send and/or receive parcels without the need for excessive movement of delivery vehicles.
- Information board/map, showing how to access local facilities and public transport hubs.

Accessible Parking Provision

The proposals support London Plan strategic aims to reduce the need to travel by car by improving accessibility to public transport, walking and cycling, and improving the interchange between different transport types through the provision of a Mobility Hub. However, the London Plan also recognises that many residents will continue to own and travel by car, particularly in outer London, and this is often particularly important for people who are disabled, whether wheelchair users or not.

The proposals will include accessible parking spaces provided both on the street and within the podium structures. These spaces will be strategically located in close proximity to building entrances and provide additional space around the edges to facilitate easy access into and out of vehicles.

7.3 ACCESSIBLE HOMES

Osterley Place will include homes of varying size and configuration to suit the needs of different households. In line with GLA requirements, and as set out in the Development Specification, a minimum of 10% of homes will be designed to meet Building Regulation requirement M4(3) - 'Wheelchair User Homes', with the remaining homes being designed to meet Building Regulation requirement M4(2) - 'Accessible and Adaptable Homes'.

The homes designed to M4(3) standard will be distributed across various buildings in the development and at different floor levels to enable the greatest choice, size and positioning for individuals who use wheelchairs. This approach ensures that wheelchair users are considered without discrimination and that M4(3) standard homes are not concentrated in any particular location.

Adherence to these requirements will remove barriers to access and enable as wide a cross section of the community as possible to live at Osterley Place.

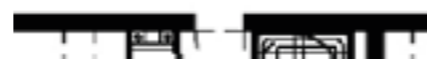
External & Internal Circulation

A key aspect of providing accessible homes in developments consisting largely of apartments is ensuring that the approach to the building and the communal areas within it, are every bit as accessible to residents and visitors as the homes themselves.

Because this is an outline planning application these elements have not been designed in detail, but future Reserved Matters applications (RMA) will need to demonstrate how external approach routes, shared building entrances and internal circulation spaces within communal areas have been designed to meet the requirements set out in the building regulations. This will include features such as the provision of two lifts within residential cores to ensure that access to upper floors is always available should one of the lifts be undergoing servicing or maintenance.

Indicative Plans

The adjacent plans show indicative layouts for a typical building access core and different configurations of M4(3) compliant homes. These are not being submitted for approval, but demonstrate how the principles discussed above could be delivered as part of future RMAs.



- 10 Person Lift
- 13 Person Lift
- Fire Escape Stair
- M&E Risers
- Mechanical Smoke Extract Riser

Indicative Residential Core Layout



1B1P
M4(3) LAYOUT



1B1P
M4(3) LAYOUT

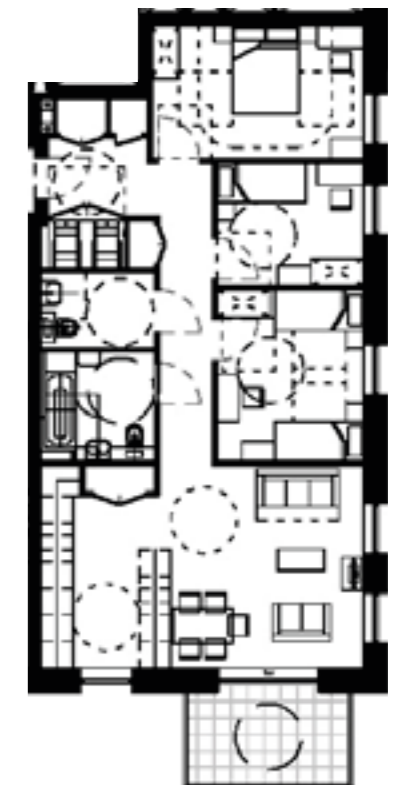


1B1P
M4(3) LAYOUT

Indicative M4(3) Apartment Layouts



2B3P
M4(3) LAYOUT

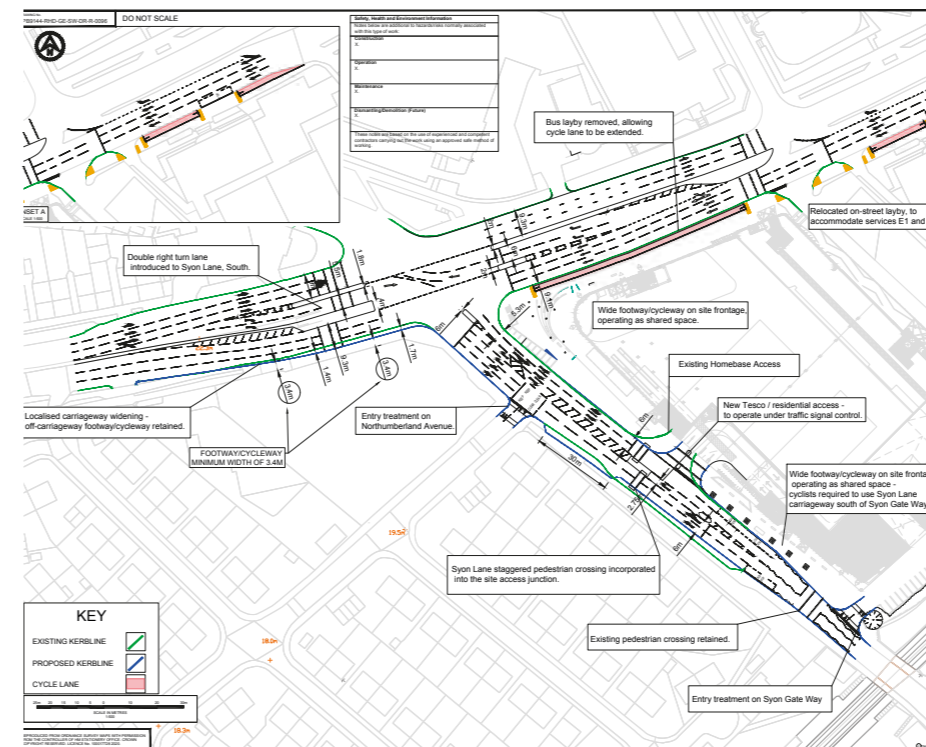


3B5P
M4(3) LAYOUT

7.4 WIDER CONNECTIONS



Proposed Site Access Plan



Proposed Highway Arrangements - Pedestrian Underpass Retained

GILLETTE CORNER JUNCTION IMPROVEMENTS

The highway infrastructure improvement works to the Gillette Corner junction will include localised carriage-way widening and the creation of a double right turn lane to accommodate turning movements from the A4 (West) towards Syon Lane (South), in accommodating the reassignment of traffic associated with the development schemes.

The bus stop and layby adjacent to the site frontage on A4 Great West Road would be relocated to an on-street layby. This would serve to improve bus journey movements through the junction in relation to bus services E1 and H98. The removal of the bus layby would serve to provide a wide footway/cycleway on the site frontage, which would operate as shared space.

ACCESS AND MOVEMENT STRATEGY

The wider access and movements arrangements surrounding the proposed development site are subject to improvements intended to encourage travel by sustainable modes, to reduce traffic congestion and reduce the associated environmental effects of traffic movements. These measures include facilitating an off-road cycle route along Syon Lane adjacent to the development site frontage. The cycle route would link with proposed cycle infrastructure improvements elsewhere on Syon Lane and along Great West Road. An off-road segregated cycle lane would be introduced as part of the Homebase scheme. The cycle lane would be located adjacent to the northern border of the Homebase site.

Public transport and highway enhancements would also be made as part of the scheme. These would include the removal of the existing Tesco roundabout access to improve the pedestrian environment along Syon Lane. The proposed site access junction with Syon Lane would incorporate a pedestrian crossing of Syon Lane. New bus infrastructure along Grant Way including bus stops and a bus stand would be provided to accommodate the extended E1 and diverted H28 bus services. The operation of these bus services would improve public transport accessibility to and from the site.

7.5 WALKING

The masterplan is designed to provide clear pedestrian priority routes through the site, connecting to key public transport access points and local facilities, as well as enhancing linkages between surrounding uses.

Routes are designed to meet accessible design standards. Overall, pedestrian routes have simple and logical sight lines and the hierarchy and orientation of buildings will aid way-finding.

Clearly defined strategies for parking and servicing will minimise vehicular movements within the streets and emphasise pedestrian priority within these spaces.

Careful siting of trees, planting and parking bays will help to create natural separation between the primary pedestrian routes and vehicular routes to increase pedestrian safety and allow for safe, comfortable access especially for wheelchair or mobility scooter users and parents with buggies.

All pedestrian routes will have a minimum width of 2m, with 3m provided on more heavily used routes. Suitable, non-slip surface materials will be specified, with flush junctions or shallow gradients at pedestrian crossings and appropriate illumination along routes to ensure safe use at all times of day.

Where provided, steps will meet or exceed the regulatory provisions as set out in Building Regulations Part M. Appropriately designed rest points will also be provided along pedestrian routes at suitable intervals.



KEY

- Primary Pedestrian Routes ↔
- Segregated Cycle and Pedestrian Route - - -
- Internal Pedestrian Movement - - -

7 ACCESS & MOVEMENT
7.6 CYCLING



The masterplan is designed to connect into the existing desire lines and emerging network of cycle routes, promoting this mode of transport to access the wider area.

Working alongside the s278 improvement works that work part of the Bolder Academy application, the southern boundary of the site to Syon Lane will accommodate a segregated pedestrian and cycle route linking east to the Gillette Corner junction, and proposed extensions to the Cycle Super Highway 9.

To the north the Water Gardens will provide an improved east-west route, aligned with routes identified within the GWC Local Plan.

Within the Boulevard and Lanes will provide secondary routes shared with local traffic on the carriageway, linked at the junctions with the boundaries to the wider network.

Visitor parking to the local centre of the Clearing will be provided to the perimeter of this space, safeguarding this as a pedestrian priority area.



- Primary Cycle Routes
- External Cycle Routes
- Segregated Cycle and Pedestrian Route
- External Cycle Movement
- Internal Cycle Movement

Improving MacFarlane Lane
A Key Route to the new Bolder Academy





CYCLE PARKING

Cycle parking will be provided across the site within the podiums, in semi-basement cycle stores and external cycle structures or short stay bike stands within the public realm. This will provide flexibility to meet the requirements of different user groups and respond to the varying character of the public realm.



Double stacked cycle storage beneath a building



Secure external cycle store - St Clements, Mile End

KEY

- Indicative Locations of External cycle store
- Podium parking block
- Semi-basement cycle store
- Access to semi-basement cycle store
- Access to podium parking



7.7 PUBLIC TRANSPORT

BUS ROUTES AND BUS TURNAROUND

As part of the proposals the public transport services offer will facilitate improve the local connections, extending and improving the frequency of two local bus routes:

E1 Route

Current	Proposed
Greenford to Ealing	Greenford to Osterley
6/hour	6/hour

By extending the route to Osterley the E1 would terminate at Osterley Place, utilising the welfare facilities within the Mobility Hub, the location identified on the adjacent plan, with illustrative accommodation listed below:

- Information Point
- 3 Unisex Superloos
- Cleaners Store
- General Store
- CCTV Cupboard

H28 Route

Current	Proposed
Bulls Bridge to Osterley	Bulls Bridge to WHM
3/hour	3/hour

This existing service would alter the route, whilst continuing to serve the site, with the new terminus at at the West Middlesex Hospital.

As part of the illustrative masterplan two route options have been tested for compliance, as displayed to the right. A comparative review of the detail of the two routes is included within addendum of this document.

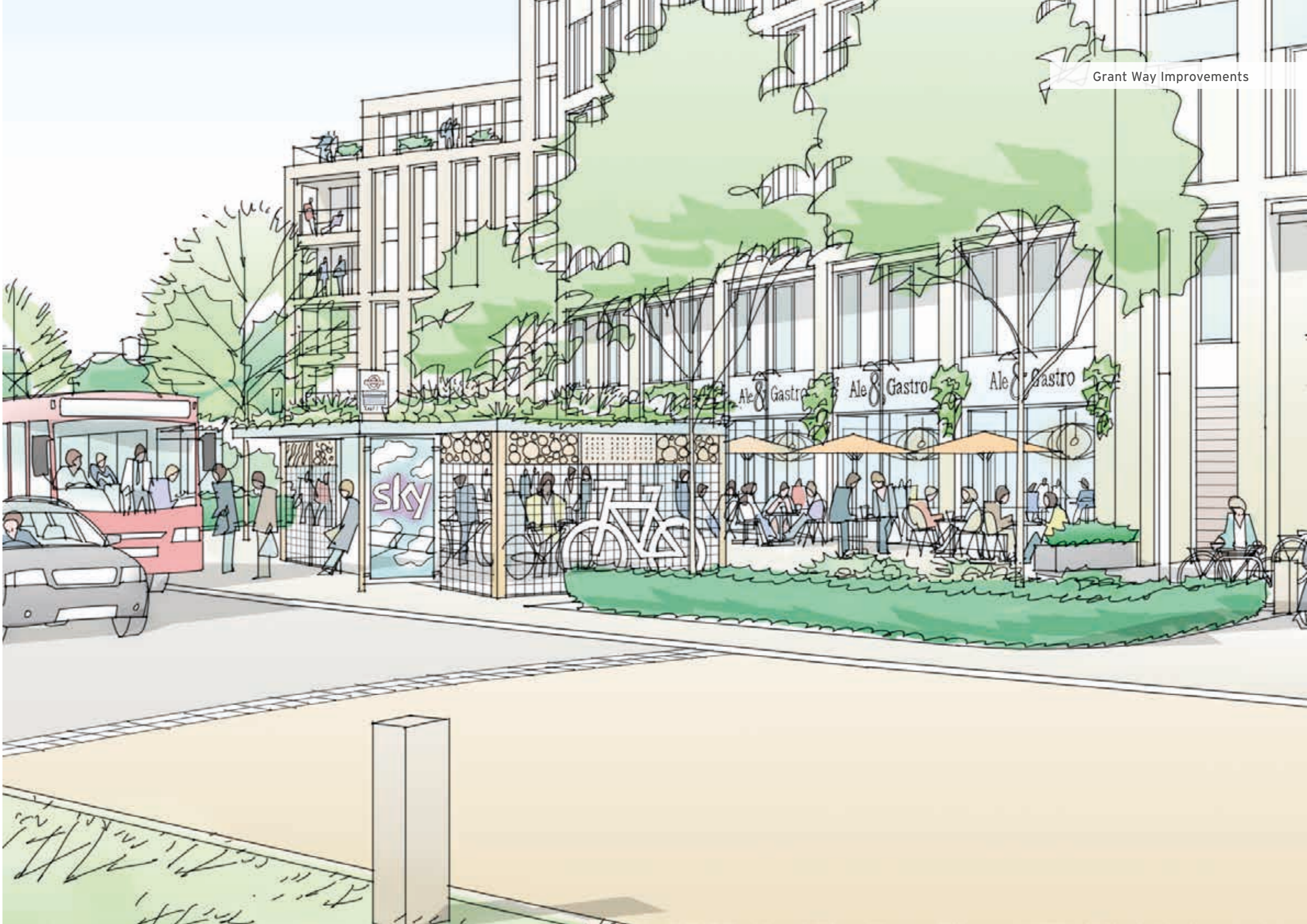
KEY

Bus Route Option 1: E1 & H28 

Bus Route Option 2: E1 & H28 

Indicative Mobility Hub & Information Location 





7.8 VEHICULAR ACCESS & MOVEMENT

MAIN VEHICULAR ACCESS

The main vehicular access will be from Syon Lane, where the existing roundabout will be replaced with a priority junction with a ghost-island right-turn lane. The proposed design has been developed to accommodate large servicing and emergency vehicles. It is anticipated that vehicle movements will fall significantly when the land use changes from the current food retail use to the proposed residential/mixed use development.

In view of the notable levels of pedestrian movement observed across the site access on Syon Lane, and in accordance with the requirements of Healthy Streets, the site access design has been developed to provide suitable capacity and safe pedestrian crossing for users of all abilities. During pre-application discussions, the local authority expressed a preference for the provision of a direct 'straight-across' pedestrian facility at the site access arm of the junction, and this has been incorporated into the design.

EMERGENCY/OCCASIONAL ACCESS

A restricted vehicular access point is provided from Macfarlane Lane, connecting to the western end of the northern Lane. This is intended to provide occasional access for emergency service vehicles and to facilitate a more convenient collection route for refuse and recycling vehicles around the site (see also section 7.11). The width of the access route will be the minimum required to adequately serve the vehicles which will use it, and the overall character and appearance will be that of a wide footpath/cycleway, which will be its primary function. Lockable lowering bollards will be provided at both ends to prevent unauthorised use.

Provision is allowed to offer a route across the head of the Clearing to facilitate a second Bus Route Option as shown in section 7.7, and described in more detail.

- KEY**
-  Primary Car Routes
 -  Secondary Car Routes
 -  One Way Bus and Refuse (Bus Route Option 2)
 -  Turning Circle
 -  One Way Refuse & Emergency



7.9 CAR PARKING







Most of the parking provision on the site will be provided within undercroft parking areas beneath the podium gardens of Development Parcels A, C, D and H.

A limited amount of provision will also be provided on the street, serving specific users and sensitively incorporated with landscaping to minimise its visual impact.

This will help to limit the impact of vehicles on the public realm and strengthen the creation of a pedestrian friendly environment.

Car parking and cycle parking numbers have been tested within the Illustrative Masterplan using the relevant space standards and requirements and detailed layouts to ensure the numbers provided can be achieved.

KEY

-  On-street parking bays
-  Podium parking
-  Access to podium parking
-  On-street parking or bus waiting bays
Bus Route Option 2

7.10 COMMERCIAL & RESIDENTIAL SERVICING

The servicing of commercial and residential properties will be carefully controlled to avoid delivery vehicles being parked in inappropriate/inconsiderate locations within the public realm.

Deliveries will be managed by a concierge located in the south west corner of Development Parcel H, close to the main vehicular entrance to the site.

The majority of commercial servicing will be undertaken within the podium of Block H, with space provided for a minimum of two large vehicles and adequate turning provision within the boundary of the parcel.

Commercial properties for Development Parcel B will be serviced from Development Parcel H, with deliveries transported by palette across The Clearing.

Servicing bays will also be provided on MacFarlane Lane and along the Boulevard and the Lanes within the site to accommodate large deliveries to residential properties. Further details are provided in the Draft Delivery and Servicing Plan, with a detailed version of this document to be agreed at reserved matters stage.



Development Parcel H Service Podium tracked to allow for 2 No. 10m rigid vehicle + ancillary loading & direct General Store Access.

↔ Route to/across the Clearing identified for palette deliveries.

KEY

- Route for service vehicles
- Turning head
- On-street servicing bays
- Parcel H
- Indicative location of concierge



7.11 WASTE MANAGEMENT

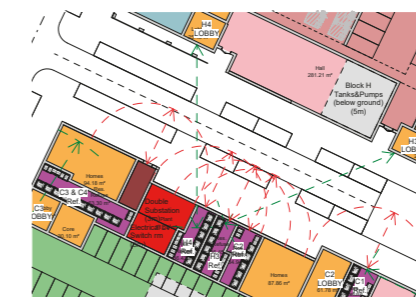


This document presents an outline waste strategy for the outline application for the residential-led mixed-use development by St Edward Homes Limited at Tesco Osterley. The waste strategy is indicative at this outline stage and will be detailed and the reserved matters stage.

The sizing and location of the refuse storage within the illustrative masterplan is based on the requirements set out by Aecom in Appendix A.

Waste and recycling will be collected at street level from dedicated stores beneath the buildings fronting the Boulevard and the Lanes. The internal street layout is designed to minimise the need for collection vehicles to reverse, with turning areas provided at the eastern end of both Lanes and a service only access to MacFarlane Lane in the north west corner of the site.

Development Parcels E, F and J will be serviced from MacFarlane Lane. Development Parcel B will be serviced from the two lanes, across the Clearing as an estate managed solution






All refuse stores located within 30m of Lobby Entrance & 10m of carriageway



All refuse stores sized for capacity of waste streams and unit sizes as HBC policy, including provision for allocated areas of bulky waste.

Provision for commercial waste has been calculated, and stores provided. Commercial waste will be managed independently from that of the HBS collections.

KEY

-  Refuse Routes
-  Residential Refuse Stores
-  Estate Managed Refuse Routes

IMPLEMENTATION



8.1 DELIVERY AND PHASING

Given the outline nature of the application, a detailed development programme has not yet been finalised. An indication of the assumed sequencing of works is presented in the adjacent diagram.

The proposed phasing currently seeks to deliver the clearing early in the construction process so as to deliver these uses and benefits as early as possible to the existing and new community.

Prior to work starting on-site, the CEMP and CLP would be produced and agreed with LBH.

Prior to commencement of works, hoarding would be erected along the boundaries of the site as appropriate and suitable access would be arranged in consultation with LBH and TfL. Hoardings would be made secure, separating the general public from on-site activities.

Demolition works would comprise the removal of the existing building on-site together with any below ground structures and foundations. This would initially comprise the Tesco Extra store and The Petrol Filling Station would follow at vacant possession two years later. Detailed consideration would be given in assessing the assignment and routing of traffic as part of a construction traffic management plan and all works on-site would be undertaken in accordance with the provisions of the Construction (Design and Management) (CDM) Regulations 2015.

Phases and Expected Start Date:

- Phase 1 - Q3 2025
- Phase 2 - Q2 2027
- Phase 3 - Q2 2028
- Phase 4 - Q1 2030
- Phase 5 - Q3 2031
- Phase 6 - Q4 2032
- Phase 7 - Q4 2033



Indicative Phasing Diagram

8.2 MANAGEMENT



Social Sustainability & Stewardship

From the outset, St Edward Homes Limited talk to local residents and understand what is already in the area and what people want. Good local engagement creates a sense of ownership for the proposals which helps with long-term support and stewardship of the place.

Then we undertake a social sustainability assessment. This applies a set of 13 criteria which reflect what academic research tells us are the building blocks of a strong community. They include links with neighbours, feelings of safety, local identity and ability to influence. Crucially, they cover both the physical and the social fabric of a neighbourhood.

Through this assessment we prioritise specific actions that will help to make a fantastic place to live and realise a shared vision. This is in tandem with, and informed by, extensive local consultation and masterplan preparation.

Well before residents start to move in, we develop a bespoke Community Plan to make sure that everyone's ambitions are delivered. Each Community Plan drives an events programme and a digital forum, which help people mix, meet and integrate into the surrounding community. It creates a system of community governance, which can range from social clubs to residents committees, and starts to embed a sense of shared responsibility and self-management.

The leadership initially comes from Berkeley Group but then passes to residents and the managing agent appointed by us to look after each place long-term.

St Edward Homes Limited also measure the success of each community we create. On some large developments we commission independent research to test our performance against the 13 social sustainability criteria. This provides evidence about people's wellbeing and a clear picture of what works and where we need to improve. Ultimately, we work to create a place where people are happy and where the residents can contribute and take charge.



SUMMARY



9.1 KEY BENEFITS

1,677
Homes

35%
Affordable Homes
(Hab Room Basis)

Biodiversity
NET GAIN

>45%
is Public Realm

ZERO
Carbon Development

HIGH
Quality Green
Interventions

>46%
Recovered Green &
Blue Landscape

12,000m²
Flat Roof Space for
Play, Wildlife, Water
& Energy Generation

800m
Perimeter Trim Trail

300+
Trees Planted

46,000sqft
Commercial

58%
On-Site Reduction
Carbon Emissions

HUB
TRANSPORT

9.2 CONCLUSION

*“..but where is the local centre,
where is the heart?”*

This was our first question when arriving in Osterley, walking along the busy A4.

This simple question was raised time and again, becoming a common topic of conversation at many of the discussions we had while engaging with the local community over the last 6 months.

Today, Osterley Place together with Syon Gardens, presents a real generational opportunity for the established communities surrounding the sites to form and nurture a local heart to their neighbourhood. These two developments, framing the western entrance of the Great West Road will establish a new identifiable centre for the area, designed to respond to the people and their needs whilst celebrating the unique social history and built heritage of this part of west London.

From the outset the three key vision principles of the landscape-led project have remained true; cultivate community, nurture ecology and marry environments. These have formed a foundation of a strong design narrative which has been welcomed by the council, Design review panels, Greater London Authority and the many community groups we have engaged with throughout the area.

The proposal makes efficient and considered use of this key brownfield site, in line with policy principles and reflective of its opportunity as a central and accessible location; whilst protecting and enhancing the existing natural assets, reinvigorating the neglected Water Gardens to the north, as part of a new sequence of outdoor public spaces.

The density of the development ensures a vibrant and active environment, while bringing a range of residential products accessible to a wider demographic. In addition to the surrounding transport provision the proposal safeguards space to provide a much needed transport hub to the area, facilitating increased frequency and extended bus routes further afield.

Combined with the emerging opportunities of the Great West Road Local Plan the proposal will unlock existing and future routes across the neighbourhood offering increase accessibility to all residents; enhanced by a new network of public street and spaces - these which form over 50% of the site area.

As a landscape-led proposal the public realm will provide much needed ‘spaces for uses’ to the surrounding population; areas to meet, shop, live, and enjoy. Offering the Osterley of the future a true local and active centre for residents and visitors alike.



APPENDICES



A. OUTLINE WASTE STRATEGY

Residential Bin Storage Requirements.

This Memo has been written for St Edward Homes Ltd to advise on the bin storage requirements for the Tesco, Osterley Proposed Development located in the London Borough of Hounslow (LBH).

Methodology

The methodology for residential waste and recycle requirements has been taken from LBH's 'Recycling and Refuse Guidance, Guide for Architects and Planners submitting applications to Hounslow Council' 2019 document alongside additional communication with LBH (please see Table 1 and Table 2 of this Memo for the methodology used).

Table 1. Waste Arising Methodology

Method	Waste Arisings
LBH Guidance	(70 L x average number of bedrooms) + 30 Litres

Table 2. Waste Stream Split Methodology

MDR					Food	Residual	Total
50 %					10 %	75 %	125 %
Plastic	Cardboard	Paper	Cans/aerosols	Glass			
33%	33%	15%	12%	7%			

Bin Storage Requirements per Core

From the methodologies presented in Table 1 and Table 2 of this Memo, bin storage requirements per core based on a fortnightly collection frequency for residual waste and a weekly collection frequency for recycle waste can be seen in Table 3 of this Memo.

Please note, fortnightly collection of residual waste and weekly collection of recycle waste is the standard collection frequency within LBH. If frequency collection is to be increased, a commercial contractor would need to be used. If required, please see Appendix A for bin numbers based on a weekly residual waste collection and twice weekly recycle waste collection frequency.

Table 3. Bin Storage Requirements per Core Based on a Fortnightly Collection for Residual Waste and a Weekly Collection Frequency for Recycle Waste.

Block	Residual	Card	Plastic	Paper	Cans/Aerosols	Glass	Food
A	46 x 1,100 L	10 x 1,100 L	10 x 1,100 L	14 x 360 L	11 x 360 L	7 x 360 L	28 x 240 L
B	18 x 1,100 L	4 x 1,100 L	4 x 1,100 L	6 x 360 L	5 x 360 L	3 x 360 L	11 x 240 L
C	22 x 1,100 L	5 x 1,100 L	5 x 1,100 L	7 x 360 L	5 x 360 L	3 x 360 L	13 x 240 L
D	20 x 1,100 L	5 x 1,100 L	5 x 1,100 L	6 x 360 L	5 x 360 L	3 x 360 L	12 x 240 L
E	4 x 1,100 L	1 x 1,100 L	1 x 1,100 L	1 x 360 L	1 x 360 L	1 x 360 L	2 x 240 L
F	13 x 1,100 L	3 x 1,100 L	3 x 1,100 L	4 x 360 L	3 x 360 L	2 x 360 L	8 x 240 L

G	14 x 1,100 L	3 x 1,100 L	3 x 1,100 L	5 x 360 L	4 x 360 L	2 x 360 L	9 x 240 L
H	29 x 1,100 L	7 x 1,100 L	7 x 1,100 L	9 x 360 L	7 x 360 L	4 x 360 L	18 x 240 L
J	2 x 1,100 L	1 x 1,100 L	1 x 1,100 L	1 x 360 L	1 x 360 L	1 x 360 L	1 x 240 L

Combined Bin Storage Requirements

Combined bin storage requirements have been calculated based on the methodology provided in Table 1 and Table 2 of this Memo. Table 4 of this Memo shows bin storage requirements based on a fortnightly collection frequency of residual waste and a weekly collection frequency of recycle waste (if required please see Appendix A for bin numbers based on a weekly residual waste collection and twice weekly recycle waste collection frequency).

Table 4. Combined Bin Store Requirements Based on a Weekly Collection Frequency

Residual	Card	Plastic	Paper	Cans/Aerosols	Glass	Food
164 x 1,100 L	36 x 1,100 L	36 x 1,100 L	50 x 360 L	40 x 360 L	24 x 360 L	101 x 240 L

Additional Requirements

It should be noted, LBH do not collect compacted waste. If this apparatus is to be used within the Proposed Development, a commercial waste contractor would need to be used for waste and recycle collection. Bin numbers based on in-bin compaction can be calculated if required.

Bin stores should be < 30 m (excluding horizontal and vertical distance) from each residential unit. Further storage and collection requirements the development must adhere to are presented in Appendix B of this Memo. Please note, these requirements would require further discussion with members of the design team to make sure the proposed development is compliant to LBH's requirements.

A. OUTLINE WASTE STRATEGY



Appendix A – Increased Collection Frequencies.

Bin Storage Requirements per Core Based on A Weekly Collection Frequency of Residual Waste and a Twice Weekly Collection Frequency of Recyclate Waste.

Block	Residual	Card	Plastic	Paper	Cans/Aerosols	Glass	Food
A	26 x 1,100 L	6 x 1,100 L	6 x 1,100 L	8 x 360 L	7 x 360 L	4 x 360 L	16 x 240 L
B	10 x 1,100 L	2 x 1,100 L	2 x 1,100 L	3 x 360 L	3 x 360 L	2 x 360 L	6 x 240 L
C	12 x 1,100 L	3 x 1,100 L	3 x 1,100 L	4 x 360 L	3 x 360 L	2 x 360 L	8 x 240 L
D	11 x 1,100 L	3 x 1,100 L	3 x 1,100 L	4 x 360 L	3 x 360 L	2 x 360 L	7 x 240 L
E	2 x 1,100 L	1 x 1,100 L	1 x 1,100 L	1 x 360 L	1 x 360 L	1 x 360 L	2 x 240 L
F	8 x 1,100 L	2 x 1,100 L	2 x 1,100 L	2 x 360 L	2 x 360 L	1 x 360 L	5 x 240 L
G	8 x 1,100 L	2 x 1,100 L	2 x 1,100 L	3 x 360 L	2 x 360 L	1 x 360 L	5 x 240 L
H	17 x 1,100 L	4 x 1,100 L	4 x 1,100 L	5 x 360 L	4 x 360 L	3 x 360 L	10 x 240 L
J	1 x 1,100 L	1 x 1,100 L	1 x 1,100 L	1 x 360 L	1 x 360 L	1 x 360 L	1 x 240 L

Bin Storage Requirements per Core Based on A Weekly Collection Frequency of Residual Waste and a Twice Weekly Collection Frequency of Recyclate Waste

Residual	Card	Plastic	Paper	Cans/Aerosols	Glass	Food
94 x 1,100 L	21 x 1,100 L	21 x 1,100 L	29 x 360 L	23 x 360 L	14 x 360 L	58 x 240 L



Appendix B – Storage and Collection Requirements.

In line with BS 5906:2005, Part H6 of the Building Regulations, and LBH 2019 document "Recycling and Refuse Guidance, Guide for Architects and Planners submitting applications to Hounslow Council", the following collection requirements has to be considered into the Proposed Development in order to comply with all mandatory waste storage requirements.

Location

- Close proximity to living quarters need to be avoided, as well as, placing facilities beneath any area that could either act as a means of entry, cause a noise nuisance or be a potential fire hazard, i.e., placing a site against a garden fence or beneath the eaves of a low house or low tree.
- Facilities should not be placed so far from the point of entry that residents choose to place their waste in a more convenient location.
- Commercial containers (wheeled bins and compactor skips) must be stored within the external or internal space of commercial premises. Ideally this will take place within the building itself.
- Where co-location is not possible, the recycling facilities should be placed close to the logical direction that residents would take to exit the development. Recycling should be more convenient than disposing of residual waste.
- Storage area doors must not open over the public footway or road. Expectation will only be made where it would require structural and visual change that the council find unacceptable.
- Waste Storage chambers should be away from the main entrance of the building.
- Premises must have an off-street collection area at ground level. Waste Storage chambers should be located at vehicle access level. Basement level storage should have adequate provision to move waste to the ground floor for collection e.g. dedicated lift.
- Waste containers should be sited so that the containers can be taken to the collection point within 25m and not be taken through a building.

Convenience

- If chutes are installed, they should be spaced no more than at 60m intervals so that the occupier should not have to carry waste a distance of more than 30m.
- Waste storage chambers should be situated in readily accessible positions and should not require householders to carry refuse waste more than 30m (excluding any vertical distance from each dwelling).

Bulky Waste

- A separate area for bulky waste (i.e. fridges, mattresses) is recommended so that bulky waste does not block the bins. Bulky waste should be disposed using the chargeable council bulky waste services, or a private contractor.

Screening or covering

- Obscuring bin stores for aesthetic reasons is ideal.
- [For commercial waste] where adequate screening of views from public areas and any over-looking sensitive uses (e.g. residential properties on higher floors) has been provided, storage in private yards will be acceptable. Such screening should consist of a fence or other boundary treatment to a minimum 1.8 m in height or that of the highest container as stored and seen from sensitive public vantage points.
- Bins should be kept off the public highway and screened.

A. OUTLINE WASTE STRATEGY



- Enclosures should be robust, well ventilated and attractively integrated with the building and screened for privacy and security.
- Internal built storage areas should conform to British Standard BS 5906:2005 – Waste management in buildings.
- Waste containers should be inside or at least enclosed. If bins are outside, they should be secured in a compound.
- Bins should be fitted with close fitting lids to prevent vermin access.

Signage

- Clear signage must be provided to make it easy for residents to differentiate which bins are for recycling. This should be done with suitable door or wall signs and, where appropriate, floor markings. This combats misuse of the recycling bins which cannot be tolerated.
- Signage should allow residents to identify with bin store is for their flats and locate the bin store if it is obscured from view.
- Commercial and Domestic mixed-use developments must have a separation of facilities, including appropriate signage.
- Residents should be made aware of the fire risk from waste storage. This should be done using applicable signage displaying the dangers of carelessly stored waste.
- All roads should be clearly marked to prevent unauthorised parking which may disrupt waste management practises.

Bin store design

- A bin store must be large enough for the bins to sit next to each other, not behind each other. Residents will not take responsibility for rotating bins.
- The height of the bin store must be sufficient for the residual waste bin lids to be opened.

Accessibility

- Storage must be designed to be accessible for disabled and other public as set out by the Disability and Discrimination Act (DDA), as specified in BS 8300:2009 the design of buildings and their approaches to meeting the full range of needs of all people.
- Facilities must be readily accessible by both residents and the collection crews with adequate space.
- Bulky items blocking access to the bins must be removed privately.
- The entrance of the waste storage room will be free from steps and projections.
- If the site has a gate key, fob or code, it will need to be supplied, to provide access.
- Residual waste and recycling should be placed together for ease of use by residents. The full range of recycling must be available in each bin store.

Access Paths

- Facilities should be designed so that bins can be pulled easily and safely to the vehicle for collection, including dropped kerbs where required. This should avoid slopes and narrow access.
- There is a 10-metre maximum pull distance for four-wheeled bins (euro) and a 15- metre maximum for two-wheeled bins, from the bin store to the vehicle collection point.
- The ground surface must have a solid foundation, be smooth (i.e. no cobbled surfaces), and have minimum width of 2 metres.
- Paths between container chambers and collecting vehicles should be free from kerbs or steps or inclines with a gradient more than 1:20 and be non-slip.



- Loading of commercial containers should take place within the private yard of the commercial premises. However, subject to no major disturbance to access for other vehicles and no need to reversing onto the public highway (for instance to reverse onto a skip for loading), it may be acceptable for the collection vehicle itself to remain outside but immediately adjoining the yard in public areas, with containers being loaded from the yard edge. This will avoid the need for large areas of space (redundant for other purposes) within the yard.
- For waste containers up to 250L steps should be avoided between the container store and the collection point, however if steps are unavoidable, they should not exceed 3 in number.

Vehicle Access

- Where a vehicle is required to enter a site a vehicle movement plan is required.
- All vehicles are rear steering; this means that the vehicle movement plan should allow clearance of all walls and bollards on the site with this in consideration.
- Manual for Streets (DfT) (2007), should be referred to during the design stage of the Proposed Development in regard to the design, and construction, of new residential streets and access roads.
- BS 5906:2005 recommends a minimum street width of 5 m for waste collection vehicles. However, Manual for Streets recognises that smaller general widths are likely to be acceptable, for example where on-street parking is discouraged.
- Loading bays should have headroom appropriate to the method of waste collection.
- Any part of the building through which a waste collection vehicle passes must have a minimum clearance height of 4.5m.
- There is a preference to drive forwards into and out of any site. Where this is not possible, a plan should be made to reverse into the site and drive out forwards. The Highway Code (200 – 203) requires that large vehicles do not reverse onto a main road.
- If vehicles are required to reverse, then the distance should not exceed 25m (only in exceptional circumstances).
- Consideration should always be given to the swing needed to gain access onto a site. If the road is narrow and cars park on one side, it is inevitable that the vehicle truck will not be able to swing in to gain the access.
- The vehicle movement plan should bring the rear of the vehicle to within 10 meters of the bin store, with sufficient clearance to operate the lifting mechanism.
- The plan should allow sufficient time to stop without causing an unnecessary obstruction.

LBH Standard Waste Collection Vehicle Dimension

Dimensions

Minimum Vehicle Clearance Length	11 m
Height	3.6 m
Width	2.65 m
Weight (Tonnes)	26
Turning Circle (diameter)	23 m

- Commercial occupiers are likely to be less constrained in their choice of collection vehicles than residents. The size and type of vehicles used by different firms to collect a given commercial waste stream may vary widely, offering a greater potential to fit the collection vehicle to the public realm.

Collections

- The developer must contact the Principal Waste and Recycling Officer to commence collections and allow 4 weeks' notice.
- For commercial premises recycling should be prioritised.
- For commercial collections should be designed to minimise spillage of waste.
- Buildings are expected to have an off-street collection area at ground-level.

A. OUTLINE WASTE STRATEGY

Materials and Finishing

- The walls and roofs of the of the waste chamber should be formed of non-combustible robust and secure materials with a smooth finish suitable of washing down. The door of the chamber should be made of steel.
- Where appropriate, a trapped gully and water supply should be provided to make cleaning easier.
- To allow Euro bins or similar wheeled bins to pass easily through the doors of the Waste Store without damaging the doors, please ensure doors have door retainers on them.

Safety and anti-social behaviour

- Unsightly bins can damage the visual amenity and contribute to increased levels of anti-social nuisance such as odour and litter. Therefore, bins should be planned carefully and should be stored in a publicly accessible area.
- The door should be capable from being opened from the inside as well as the outside for reasons of safety.

Locks

- A universal lock and key system can be used to secure waste storage chambers. The standard Fire Brigade (FB) mortise lock and key would be the preferred option.
- If the site has a gate key, fob or code, it will need to be supplied to the council before collection services, to provide access.

Fire Safety

- Fire safety guidance states that all wheeled bins should be 6 meters or further from a building, unless the bins are in a purpose-built brick waste store which has a roof and fire doors. See BS 9999:2008 Code of practice for fire safety in the design, management and use of buildings including DDA compliance.
- The walls and roofs of all waste stores should be formed of non-combustible, robust, secure and impervious material, and have a fire resistance of one hour when tested in accordance with BS 476-21, whilst the door of the stores should be made of steel or have a fire resistance of 30 min when tested in accordance with BS 476-22.
- Caged or screened bins should be locked if in a public accessed area and have a lid and wheel locking mechanism.
- Consideration should be taken to align with a development of fire strategy and plans and review emergency access and egress routes.
- Storage containers and sacks should not be left in entrances, atriums, gangways, shared communal areas or balconies.
- Any internal storage areas adjacent to a fire escape route must be fitted with fire doors, automatic fire detection and a sprinkler system and comply with the Regulatory Reform (Fire Safety) Order 2005.

Ventilation and Lighting

- Facilities must be readily accessible with adequate ventilation (if internal) and lighting.
- Where the area is to be enclosed in a roofed building, adequate ventilation must be provided. Permanent ventilators should be provided giving a total ventilation area of not less than 0.2m².
- Passive ventilators should be fly and vermin proof and located near the ceiling and floor of the chamber as possible but away from windows and dwellings.
- Electrical lighting should consist of sealed bulkhead fittings with houses related to IP65 in BS EN 60529: 1992 for the purposed of cleaning down with hoses and inevitable splashing.
- Luminaires should be low energy light fittings or low energy lamp bulbs, controlled by proximity detection or a time delay button to prevent lights being left on.

Maintenance

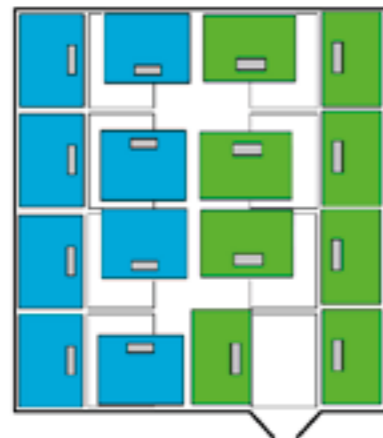
- Bins stores must be regularly cleaned and checked.
 - Bin stores should have drainage to ensure that any liquid from commercial waste does not end up to the public highway.
 - Storage facilities should be kept clean, maintained and managed.
 - Arrangements should be made for cleaning of the chamber with water. A hose union tap should be provided in agreement with the local water authority and the environment agency.
 - The floor of the chamber should have suitable fall towards the drainage points. Gullies should be positioned not to be in the track of container wheels and should incorporate a trap, which maintains a seal, even during prolonged periods of disuse.
- 1.1 In addition to the above requirements, the following points will also be adhered to:
- All restaurants will include separate suitable provision for waste cooking oil and food.
 - Residential and commercial waste will not be stored within the same waste store and will have independent stores.
 - Information packs will be available for residents which will include full information on available recycling facilities and the implemented waste management strategy.
- 1.2 The below diagram details guidance for the appropriate arrangement of waste containers within the waste storage rooms. These rooms must be large enough to allow residents to access to all containers without needing to rearrange any other containers within the storage space itself. The storage area must permit users to access the long edge of each bin.
- 1.3 In addition, it should be noted that the residential waste store should be accessible for disabled/wheel chair users (see the below image in this Memo).

A. OUTLINE WASTE STRATEGY

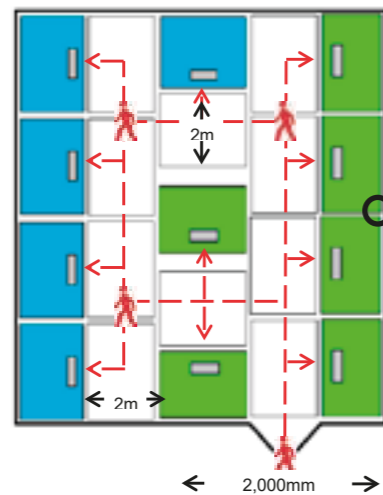
Bin Store Layout Guidance (For Euro Bins).



Not Compliant: It is not possible to access the long edge of the bin, and there is no space to manoeuvre bins within the storage room without moving another bin.



Not Compliant: Whilst it is possible to access the long edge of each bin, it is not possible to access all bins, or manoeuvre bins without moving another bin.



Compliant: It is possible to access the long edge of every bin without needing to move another bin. There is also space between each bin to manoeuvre bins without moving another bin.

150mm between and around each bin

Example Wheelchair Turning Circle

