HOARE LEA

Hayes Park West.
London.
Shall Do Hayes Developments Ltd.

FIRE ENGINEERING
STAGE 2 REPORT – FIRE SAFETY STRATEGY

REVISION 01 – 30 OCTOBER 2025

STAGE 2

Audit sheet.

Rev.	Date	Description of change / purpose of issue	Prepared	Reviewed	Authorised
00	29/09/2025	First issue for comment.	NW	JW	-
01	30/10/2025	Revision to include design team comments and updated planning drawings.	NW	JW	-

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Contents.

Executive summary.

A summary of the provisions in this fire strategy is shown in Table 1 below.

Table 1: fire strategy provisions summary.

Report Section	Item	Comment
Throughout	Basis of design	BS 9991:2024 (*incorporating Corrigendum No. 1*)
Table 2	Building height	– 12.5m parapet height from adjacent ground level. – Comprised of three apartment and terraced home variants. – For the purposes of determining the appropriate fire safety provisions, the development as a whole extends over four storeys (lower ground to second).
Sections 3.1.2 and 3.1.3	Evacuation strategy	– *Residential:* Occupants of the affected dwelling are expected to evacuate without undue delay. Occupants of other, unaffected dwellings are not required to evacuate unless directly affected, they choose to leave or are instructed to do so by the fire service. – *Residential ancillary:* Simultaneous evacuation strategy.
Section 3.1.1	Means of warning	– *Residential:* Independent Category LD1 smoke/heat alarm system to BS 5839-6:2020. – *Residential ancillary:* Single Category L4 fire detection and warning system to BS 5839-1:2025.
Section 3.1.6	Persons requiring assistance to escape	– No evacuation lifts are proposed within this development, as all dwellings are accessed directly from the exterior and there are no internal common areas or upper storeys requiring vertical evacuation via lifts. – The evacuation arrangement for the dwellings relies on occupants to self-evacuate in the event of a fire.
Section 3.3.1	Minimum structural fire resistance rating	Minimum R60 fire resistance.
Table 7	Compartment floors	– Minimum REI60 fire resistance. – Separating residential units. – Not required (or recommended) within multi-storey dwellings.
Section 3.3.4	Sprinkler protection	– Coverage provided in each dwelling to BS 9251:2021.
Section 3.5.2	Fire service facilities	– Every area of the development (dwellings and ancillary) can be reached directly from outside from the vehicle parking positions. There are no internal common access stairs or routes. – Given the hose laying distances which meet the recommendations of BS 9991, rising fire mains are not required.

1. Introduction.

1.1 Report outline

Hoare Lea have been appointed to provide RIBA Stage 2 fire strategy advice for Hayes Park West. A new development in London. The wider scheme is proposed to consist of four residential blocks; however, this report relates solely to Hayes Park West The objectives of this report are:

- To demonstrate how the proposed scheme will comply in principle with the functional requirements (Part B) of the Building Regulations 2010 (as amended)[1];
- To provide fire safety advice using the guidance outlined in BS 9991:2024[2] and other related fire safety guidance documents where appropriate; and,
- To highlight areas of the design which vary from the guidance, and to justify the alternative design solutions adopted.

This report addresses the five functional requirements of Part B, namely means of escape, internal fire spread (linings), internal fire spread (structure), external fire spread, and access and facilities for the fire service.

A fire engineered approach has been proposed for some elements of the fire safety design to demonstrate compliance with the functional requirements of The Building Regulations 2010 (as amended); Part B. Instances of variation from the relevant fire safety guidance documents are highlighted within this report promoting discussion with the design team and Statutory Authorities.

Where not explicitly described within this report, it is assumed that in all other respects the building will be designed to comply with the relevant sections of BS 9991 and the supporting British Standards referenced herein.

1.2 Building description

Hayes Park West is in the north-west corner of the wider Hayes Park site and forms one of four residential buildings, as illustrated in Figure 1. A full drawing set is provided in Appendix C.

The proposed development involves the partial demolition and redevelopment of an existing multi-storey car park to provide new homes, landscaping, car and cycle parking, and other associated works.

The new development will comprise four storeys, featuring a mix of dwelling types arranged in a U-shaped formation with an adjoining open-sided covered car park, the roof of which forms a podium level.

All dwellings are accessed directly from the outside, with no internal common areas provided throughout the development. A summary of dwelling types is presented in Table 2.

Table 2: Building description summary.

Dwelling type	No. of occupied storeys	Height to top occupied floor	Building height(1)
Open-plan apartments	1 (Lower ground)	n/a	12.5m
Dwellinghouse 1	3 (Ground, first, second)	6m(2)	
Dwellinghouse 2	4 (Lower ground, ground, first, second)	9m(3)	

Note:
(1) For the purposes of determining the appropriate fire safety provisions, the development as a whole extends over four storeys (Lower ground to second levels). Measurement shown, from top of parapet to adjacent ground level.
(2) When measured from ground (podium) level.
(3) When measured from adjacent ground level (at lower ground level).

1.3 Architectural drawings

The architectural drawings listed in Appendix A have been prepared by Studio Egret West and used in the compilation of this report.

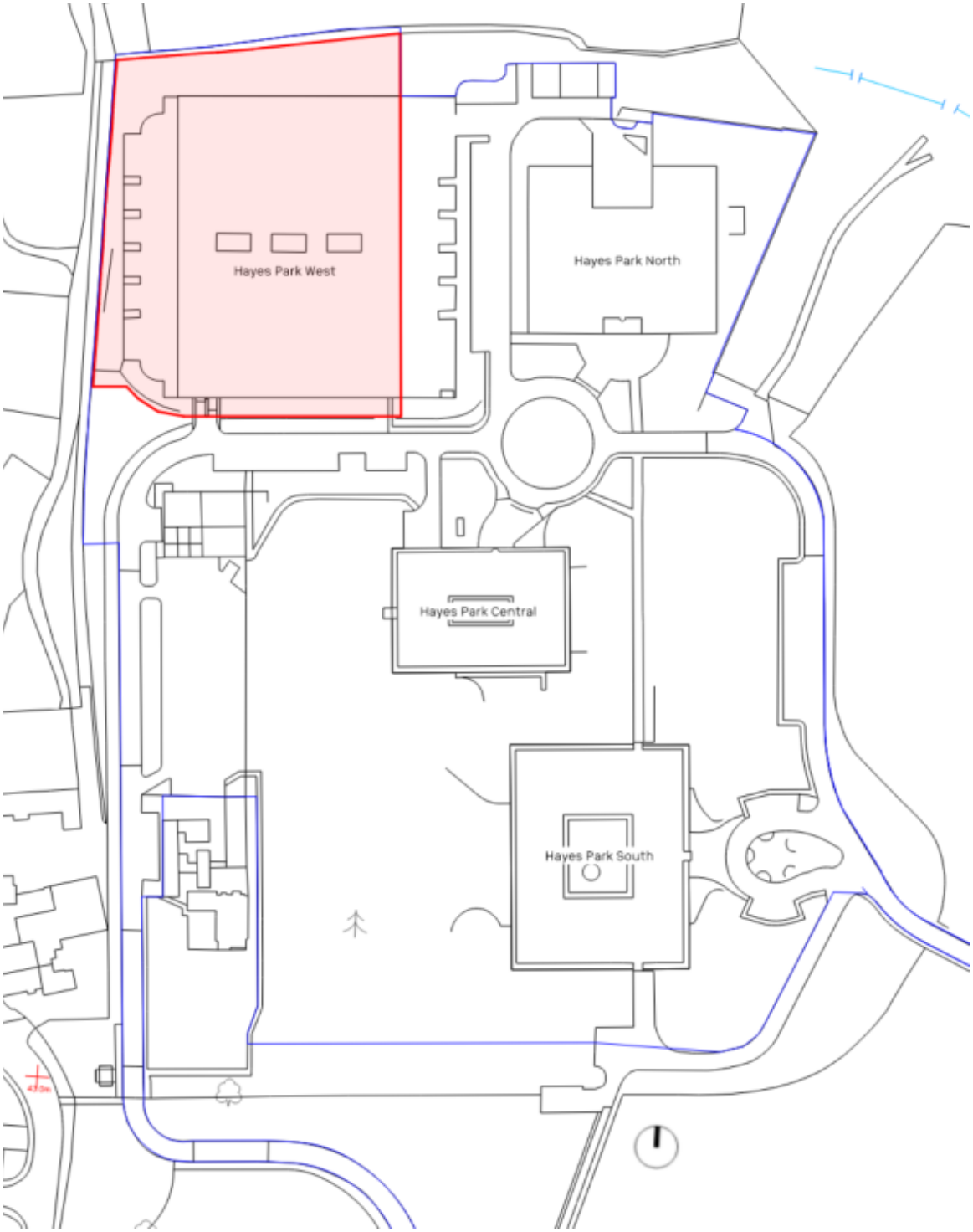

Figure 1: Site plan; Hayes Park West (HPW) boundary in red highlight – subject to this report. Hayes Park masterplan boundary in blue line.

1.4 Items for Statutory Authority discussion

Table 3 outlines the fire engineered proposals to be discussed and agreed with the Statutory Authorities.

Table 3: Fire engineered proposals.

Report section	Item	Comment	Status
Section 3.1.3	Travel distance	– Extended travel distance in the Lower Ground LV switch room, and plant room. – When layouts are developed and confirmed, travel distance should not exceed 9m within the room.	To be discussed and agreed

1.5 Items requiring confirmation/ development

Table 4 outlines specific items requiring confirmation/development as part of the following design stages.

Table 4: Items to be confirmed during the following design stages.

Report section	Item	Comment
Section 3.5.1	Fire service access	Given the non-standardised nature of the fire service appliances, London Fire Brigade (LFB) should be consulted to confirm that the outlined specifications are adequate.

2. Statutory guidance.

The building will be subject to a range of fire related Statutory Legislation. The principal fire related considerations include:

- The Building Regulations 2010 (as amended),
- The Regulatory Reform (Fire Safety) Order 2005 (as amended)[3].

2.1 The Building Regulations 2010 (as amended).

The building will be subject to the requirements of the Building Regulations 2010 (as amended). It will be necessary, therefore, for it to meet the requirements of Schedule 1 of the Regulations relating to:

- B1 (Means of warning and escape),
- B2 (Internal fire spread (linings)),
- B3 (Internal fire spread (structure)),
- B4 (External fire spread),
- B5 (Access and facilities for the fire service).

In England, guidance on how to satisfy these functional requirements can be found in Approved Document B (AD-B) Volume 2 – Buildings other than Dwellings[4]. However, whilst AD-B provides guidance for some of the more common building arrangements, there is no obligation to adopt any particular solution contained in the document, as alternative solutions are acceptable, provided that an equivalent level of fire safety to that provided by the standard solutions can be demonstrated.

2.2 Construction, Design and Management Regulations

Design projects undertaken in the UK are subject to the requirements of the Construction (Design and Management) Regulations 2015 (CDM 2015)[5], the objective of which is to ensure that health and safety issues are properly considered during a project's design and development so that the risk of harm to those who have to construct, use and maintain the building is reduced.

As a designer, in accordance with Regulation 9 of the CDM regulations, Hoare Lea have taken into account the general principles of prevention in the preparation of this report and where reasonably practicable, have eliminated, minimised and/or controlled foreseeable hazards associated with the design.

Where elimination has not been reasonably practicable, Hoare Lea is required to provide 'pre-construction' information in respect of any significant and/or unusual project-specific hazards that remain.

Following our design process, Hoare Lea confirm that there are no significant and/or unusual residual hazards associated with this particular design.

2.3 The Regulatory Reform (Fire Safety) Order (as amended)

The Regulatory Reform (Fire Safety) Order (the RRO) is based on risk-appropriate compliance and requires a fire risk assessment to be carried out. The fire service will conduct inspections of premises to enforce the regulations. Whilst a guidance document has been produced by the government to assist in the preparation of the risk assessment, it should be noted that this document should not be used to design the building – the building design should focus on satisfying the functional requirements of the Building Regulations.

The fire strategy detailed in this report does not, therefore, explicitly address the management requirements of the RRO. It will be necessary for effective fire safety management regimes to be developed by the building occupier, and a risk assessment of the premises to be conducted (and updated on an on-going basis).

2.4 Property protection

This report deals only with Statutory Requirements, and property protection is not, therefore, explicitly addressed, unless otherwise stated. As such, it is recommended that the building insurers are consulted at an early stage to ensure that any additional needs are satisfied.

2.5 Materials and workmanship

Regulation 7(1) of the Building Regulations requires that all building work should be carried out in a workmanlike manner, with adequate and proper materials that are appropriate for the circumstances in which they are used, are adequately mixed and prepared, and are applied, used or fixed so as to perform the functions for which they are designed.

Further guidance is provided in the Approved Document supporting Regulation 7(1).

Independent certification schemes exist to provide additional confidence that products are manufactured and installed to an appropriate and consistent standard. Such schemes can assist in ensuring that the Material and Workmanship requirements of Regulation 7(1) are satisfied. It is therefore suggested that, where appropriate, manufacturers and installers that are subject to independent certification schemes are specified on this scheme.

Attention is drawn to Regulation 7(1A) which prohibits the use of relevant metal composite materials (as defined in Regulation 2(6)(c) becoming part of the external wall, or a specified attachment, of any building of any height.

Regulation 7(2) prohibit the use of combustible materials within the external wall construction and specified attachments including balconies, solar shading or solar panels, within residential, institutional or residential (other) purpose group buildings which have a storey more than 18m above the lowest adjacent external Ground level.

2.6 Building Safety Act 2022

The Building Safety Act (BSA) 2022[6] applies to all buildings in England and amends the Building Act 1984[7] to:

- Create powers to prescribe requirements on those who procure, design, plan, manage and undertake building work;
- Introduce new enforcement powers for building control authorities; and
- Introduce a new higher-risk regime for Higher Risk Buildings (HRBs), which is directly overseen by the Building Safety Regulator (BSR).

The BSA defines HRBs as any building meeting the height condition of at least 18m in height, or having 7 or more storeys, in addition to the following conditions:

a. Have at least two residential units; or

b. Will be a hospital or care home.

The Hayes Park West development is not considered to be a HRB as it is does not meet the required height threshold of 18m (or 7 or more storeys) as measured from lowest ground level in accordance with the HRBs (Descriptions and Supplementary Provisions) Regulations 2023[8].

The development is therefore not required to go through the gateway process or involve the BSR as the Building Control Authority through the approval process. A planning Gateway one fire statement for consultation with the HSE will not be required to be submitted with the planning application.

3. Key fire safety measures.

3.1 B1: Means of warning and escape

3.1.1 Means of warning

- An independent Category LD1 smoke/heat alarm system shall be provided within each dwelling, designed and installed in accordance with BS 5839-6:2020[9].
- A single Category L4 fire detection and warning system shall be provided throughout the ancillary areas, designed and installed in accordance with BS 5839-1:2025[10].

3.1.2 Means of escape from dwellings

- In the event of a fire, occupants of the affected dwelling are expected to evacuate without undue delay. Occupants of other, unaffected dwellings are not required to evacuate unless directly affected, they choose to leave or are instructed to do so by the fire service.
- The development is proposed to include both single-level apartments and dwellinghouses with three or four storeys. Each dwelling is accessed directly from the exterior, with no internal communal access provided anywhere within the development.
  - The apartments shall all be open-plan design, each with a floor area less than 12m x 16m with ceilings not less than 2.25m from finished floor level. Cooking facilities will be located remotely from escape routes, aligning with the dimensions provided in Clause 5.6 of BS 9991.
  - The internal stairway of each dwellinghouse shall be constructed as a protected stairway, connecting the ground and all upper storeys, and deliver directly to a final exit.

3.1.3 Means of escape from residential ancillary areas

- Residential ancillary areas will operate a simultaneous evacuation strategy.
- Travel distances for ancillary accommodation are limited as outlined in Table 5, with figures in brackets to be used where the layout is unknown.

Table 5: Residential ancillary travel distance limitation.

Ancillary area	Within the room / area		To the nearest storey exit (including distance in room / area)	
	Single direction [m]	Alternative direction [m]	Single direction [m]	Alternative direction [m]
– Engineering services installation rooms. – Boiler rooms. – Fuel storage areas. – Transformer, battery and switchgear rooms. – Refuse store.	9 (6)	18 (12)	18 (12)	45 (30)
– Covered car park. – Communal lounges. – Common amenity areas.	18 (12)	45 (30)	18 (12)	45 (30)
Cycle store	9 (6)	45 (30)	18 (12)	45 (30)
External and rooftop plant	60 (40)	200 (133)	60 (40)	200 (133)

- Travel distance exceeds 6m (measures 6.5m) in the lower ground level LV switch room (within the room and with unknown layouts).
- Travel distance exceeds 9m (measures 10m) in the lower ground level plant room (within the room and with known layouts).
  - As layouts are developed and confirmed in the following stage of design, travel distance should not exceed 9m within these rooms. Progressing the design on this basis should be reasonable – subject to discussion and agreement with the approving authorities.
- Except for where noted above, all travel distances are within the recommended limits outlined in Table 5.

3.1.4 Means of escape from the podium

- The ground floor podium provides alternative means of escape, comprising a semi-enclosed stair bounded by two dwellings (descending to lower ground level communal courtyard to the north of the podium) and a walkway to the public highway (at ground level to the south of the podium). The three-storey dwellinghouses terminate at podium level, requiring occupants to traverse the open-air podium to access either escape route to reach a place of ultimate safety.
- Under BS 9991, podium stairs should have fire resistance equivalent to the elements of structure when enclosed within the building. Where the escape route is in open air, the stair should be separated from the building by at least 1800mm.
- The stair connecting the podium to lower ground floor communal courtyard is bounded by two dwellings and is considered to meet with the guidance for the following reasons:
  - At ~3600mm wide, the stair provides sufficient separation such that occupants are not required to pass within 1800mm of the building, even if either of the adjoining dwellinghouses forming the stair walls is involved in fire;
  - Alternative means of escape are provided from the podium, so occupants are not solely reliant on the stair; and,
  - The 3-storey dwellinghouses are to be provided with sprinkler protection.

3.1.5 Means of escape from the roof

- Access and egress from the roof for ad hoc maintenance and repair will be provided via a cherry picker or similar plant, as there is no common stair access within the development. All personnel accessing the roof are expected to be capable of self-evacuation.
- Access is expected to be subject to risk assessments and method statements (RAMS) or other appropriate safe systems of work. When considering the positioning of the access equipment, travel distance is recommended to remain within the limitations outlined within Table 5. This will likely require alternative landing points.

3.1.6 Persons requiring assistance to escape

- No evacuation lifts are proposed within this development, as all dwellings are accessed directly from the exterior and there are no internal common areas or upper storeys requiring vertical evacuation via lifts.
- The evacuation arrangement for the dwellings relies on occupants to self-evacuate in the event of a fire.
- Ancillary areas are understood to be provided with step-free level egress.

3.1.7 Smoke control

- Smoke ventilation shall be provided in the areas noted below. Smoke ventilation and/or clearance is not required elsewhere, as the development does not include any common internal stairs, corridors or basement levels, and all other ancillary areas are accessed directly from outside.
  - The lower ground refuse store lobby which shares an access corridor with a plant room shall be provided with at least 0.2m^2 (geometric free area) permanent natural ventilation (or equivalent mechanical).
  - The covered car park shall be provided with a smoke and heat ventilation system (having the objective of clearing smoke during a fire and/or after a fire has been suppressed) designed in accordance with BS 7346-7:2013[11].
    - In accordance with Section 6.2 of this BS, the car park shall be naturally ventilated through permanent openings. The ventilation should have an aggregate equivalent area of at least 5% of the floor area of the car park, with at least half of this area equally arranged between two opposing walls. This requirement is understood to be achieved for the covered car park.

3.1.8 Residential ancillary occupancy capacity

- Other than the car park, residential ancillary areas are transient and typically have low occupancy (significantly fewer than 60 persons per area – a single exit being acceptable).
- The covered car park, with 42 spaces, may accommodate up to 84 persons (assuming 2 per car). Under BS 9999:2017[12], the exit capacity has been assessed by:
  - Applying a B3 risk profile which recommends a minimum exit width of 6mm/person.
  - Exit widths of <1050mm safely accommodate up to 83 persons under a B3 risk profile.
- Given that the shortfall of one person is negligible, and that additional escape routes not included in this assessment are available (e.g., via the cycle stores), the two outward-opening final exits from the car park, each with a clear width of at least 850mm to allow for unassisted mobility-impaired egress, is considered reasonable.

3.1.9 General provisions

3.1.9.1 Emergency lighting

- Emergency lighting should be provided in accordance with the recommendations of BS 5266-1:2016[13].

3.1.9.2 Signage

- Except within the flats, every escape route should be distinctively and conspicuously marked by exits signs of adequate size complying with BS ISO 3864-1:2011[14]. All exit signs will be designed in accordance with BS 5499-1:2002[15].

3.1.9.3 Access control

- Where access controlled, doors on escape routes (whether or not the doors are fire doors), should either not be fitted with lock, latch, or bolt fastenings, or they should only be fitted with simple fastenings that can be readily operated from the side approached by people making an escape.
- If a secure door is operated by a code, combination, swipe or proximity card, biometric data or similar means, it should also be capable of being overridden from the side approached by people making their escape.
- Electrically powered locks should return to the unlocked position:
  - On operations of the fire alarm system;
  - On loss of power or system error; and,
  - On activation of a manual door release unit (Type A) to BS EN 54-11 positioned at the door on the side approached by people making their escape. Where the door provides escape in either direction, a unit will be installed on both sides of the door.

3.2 B2: Internal fire spread (linings)

3.2.1 Wall and ceiling linings

- All wall and ceiling linings should meet the relevant European classifications outlined in Table 6.
- BS 9991 acknowledges that further information on the classification of linings, together with limitation s on their use, is given in BS 9999:2017[12].

Table 6: Classification of linings.

Location	European Classification(1)
Small rooms of area not exceeding 4m^2.	D-s3, d2
Other rooms	C-s3, d2
Circulation spaces within dwellings	
Other circulation spaces	B-s3, d2

Note:
(1) The European classifications are described in BS EN 13501-1:2007 *"Fire classification of construction products and building elements – Part 1: Classification using data from reaction to fire tests"*[16].

3.3 B3: Internal fire spread (structure)

3.3.1 Compartmentation and fire resisting elements

- All loadbearing elements of structure are to achieve at least R60 fire resistance as the top occupied storey height is greater than 5m and less than 11m when measured from the lowest adjacent ground level (measuring 9m).
- Compartmentation and fire resisting elements shall achieve the criteria outlined in Table 7.
  - Fire resisting enclosure is the minimum required fire resistance. If the wall or floor also forms a compartment line or an element of structure, then the greater fire resistance requirement should take precedence.

Table 7: Compartmentation and fire resisting elements.

Area of accommodation	Minimum required fire resistance period (minutes)(1)	Method of exposure	Fire door rating
Any wall separating a dwelling from another part of the building/ one another.	REI 60	Each side separately	n/a(1)
Protected stairs within each dwellinghouse.	REI 30	Each side separately	E30
– Cycle store (including pedal bikes with battery charging facilities). – Communal areas. – Refuse store lobby (where adjoined to the plant room corridor).	REI 30	Each side separately	E30Sa
– Plant rooms. – Refuse store. – Sprinkler pump room. – Car park (where adjoined to the building).	REI 60	Each side separately	E60Sa
Any room containing life safety equipment.	REI 120	Each side separately	E120Sa
Energy supplier substation(2)	REI 120	Each side separately	E120Sa
External escape routes(3)	EI30	From inside the building	n/a
Re-entrant corners(4)	EI60	From inside the building	n/a

Note:
(1) Where stated, "R" rating applies to load-bearing elements only.
(2) Dwelling entrance doors are not required to achieve a prescribed level of fire resistance, as each opens directly to the outside and there is no passing risk - occupants do not need to pass by another dwelling in the event of a fire.
(3) The fire resistance of the substation should be confirmed with the provider as they may have higher requirements.
(4) See Section 3.3.2.
(5) See Section 3.3.3.

3.3.2 Protection of external escape routes

- The external wall of the Lower Ground ancillary areas, within 1800mm of the exits from the dwellinghouses, should provide the required level of fire resistance (see Table 7) up to a height of 1100mm above the walking surface.

3.3.3 Re-entrant corners

- The external walls of the 3- and 4-storey dwellinghouses form an internal angle of less than 135°. The distance between any openings in the external walls of adjoining dwellinghouses should be not less than 1m. Additionally, the external wall within this 1m separation should provide the required level of fire resistance (see Table 7).
    - There are specific openings at Second floor level within this 1m separation that trigger this requirement. These openings should be specified as fire-resisting and fixed shut unless repositioned.

3.3.4 Automatic water sprinkler system

- An automatic water sprinkler system shall be provided in each dwelling. This provision satisfies the recommendations for open-plan apartments and 4-storey dwellinghouses (with a floor over 7.5m). Sprinkler provision, in addition to the protected internal stairs, within the 3-storey dwellinghouses acts as a betterment of guidance.
    - In the absence of a fire main, the sprinkler coverage in each dwelling shall comprise a Category 2, 3 or 4 system, designed and installed to BS 9251:2021, and corresponding Table 2, Footnote B) or C) of the BS.

3.3.5 Concealed spaces (cavity)

- The provision of cavity barriers should meet the recommendations outlined in Section 25 of BS 9991.

3.3.6 Fire stopping

- The provision of fire stopping should meet the general recommendations of Section 30.4 of BS 9991.
- All joints between fire-separating elements and all openings for pipes, ducts, conduits or cables which pass through any part of a fire separating element should be fire-stopped.
- Additional information regarding the design, installation and maintenance of passive fire protection is provided in the ASFP guidelines given in *"Ensuring Best Practice for Passive Fire Protection in Buildings."* [17].

3.4 B4: External fire spread

3.4.1 Space separation analysis

The external fire spread for Hayes Park West has been assessed using the enclosing rectangle method within BR 187:2014 [18] *"External fire spread: building separation and boundary distances"* published by the Building Research Establishment.

The results of the analysis demonstrate that all facades can be fully unprotected (not required to be fire resisting to any degree). Reference should be made to the full analysis provided in Appendix B.

3.4.2 External wall construction

- The development does not have any storey exceeding 11m in height. Therefore, either the external walls shall satisfy the performance criteria described in BRE Report BR 135[19], or the external wall surfaces shall satisfy the surface spread of flame classification requirements of Table 9 within BS 9991. Additionally, cavity barriers shall be provided in any external wall cavity in accordance with Clause 25 of BS 9991.
- Full reference should be made to the guidance provided in BS 9991 regarding recommendations for external walls.
- It is recommended that balconies should achieve a European classification A2-s1, d0 or Class A1 to minimise the risks associated with balcony fires. In practise this would preclude the use of timber in external balcony constructions.
- Balconies should be designed in accordance with Annex E of BS 9991.

3.4.3 Roof coverings

- Roof coverings shall meet the recommendations of Section 24.6 of BS 9991 (see also Section 3.4.4).

3.4.4 Photovoltaic installations

- Roof mounted photovoltaic (PV) installations are proposed. Hoare Lea understands that these installations will form independent systems attached to the roof which will not form part of the structure of the roof. The following provisions are recommended:
  - The roof should achieve at least Broof(t4) below the installations;
  - The installations and support framework detail should not compromise the performance of the roof covering;
  - Due to the constriction of the roof (the metal frame construction does not have a continuous concrete slab at roof level), the arrays shall not span across the compartment lines which act as party walls between dwellings; and,
  - The installations are recommended to be provided with:
    - Arc-fault protection to mitigate the risk of ignition and reduce the associated fire risk;
    - A shutdown mechanism such that the fire service can shut down the panels to ensure no further power is generated; and,
    - Interface to the ancillary area fire alarm system such that this shuts down automatically in the event of a fire alarm activation.
  - It is also advised to consult with the insurer, if not already done so, to determine any further requirements related to the PV installation. This consultation may include the application of the FPA RC62:2023 (*"Recommendations for fire safety with PV panel installations")* [20].

3.5 B5: Access and facilities for the fire service

3.5.1 Fire service access

- Access for fire service vehicles to shall be provided via the internal estate road network, which is entered from the public highway. To achieve fire service access to the dwelling houses atop the podium, a fire appliance will need to be driven onto the podium.
  - The strengthening of the podium will accommodate the fire tender, as confirmed by Whitby Wood (project structural engineering consultants).
- With the current arrangements, access is available to within 90m of all parts of every single-level apartment (all on Lower Ground – no floor more than 4.5m above ground level) and within 75m of all parts of every dwellinghouse (with floors more than 4.5m above ground level) on a route suitable for laying a hose.
- All access routes should meet the specifications for the pumping appliance outlined in Table 8.
  - Given the non-standardised nature of the fire service platforms, London Fire Brigade (LFB) should be consulted to confirm that these specifications are adequate.

Table 8: Access routes and hardstanding requirements for fire service appliances.

Appliance type	Min. width of road between kerbs [m]	Min. width of gateways [m]	Min. turning circle between kerbs [m]	Min. turning circle between walls [m]	Min. clearance height [m]	Min. carrying capacity [t]
Pump	3.7	3.1	16.8	19.2	3.7	14(1)

Note:
(1) 12.5t in accordance with BS 9991; however, 14t in accordance with the LFB Fire safety guidance Note, *Access for Fire Appliances*, *GN29*[21].

- Electric vehicle (EV) charging facilities are positioned outside of the covered parking area. Locating EV charging points in open, external areas reduces potential fire risks associated with charging activities and facilitates easier access for the fire service in the event of an incident. No additional fire provisions are recommended.

3.5.2 Fire service facilities

- Every area of the development (dwellings and ancillary) can be reached directly from outside from the vehicle parking positions. There are no internal common access stairs or routes.
- Given the hose laying distances which meet the recommendations of BS 9991 (noted in Section 3.5.1), rising fire mains are not required as all dwellings are sprinkler protected.
- Fire hydrants should be provided within 90m of an entry point to the building and not more than 90m apart (on a route suitable for laying a hose). Hoare Lea understands that operational hydrants are provided accordingly.
  - The existing water services will be disconnected and diverted to provide new cold-water supplies to Hayes Park West. One of the existing fire hydrants will remain operational, and two additional hydrants are proposed, all situated within the criteria noted above (as outlined within the Hayes Park West Utilities Statement).

4. Conclusion.

The functional requirements of The Building Regulations 2010 (as amended) have been reviewed with respect to the proposed residential blocks at Hayes Park West in London.

This report describes the RIBA Stage 2 fire safety strategy which outlines the principles that should be adopted to ensure the design demonstrates statutory compliance. The report is not sufficient to support a Building Regulations application but is rather intended to assist with the development of the scheme from a fire safety point of view.

The scheme will generally comply with the guidance of BS 9991; however, fire engineered solutions are proposed within this report which should be discussed and agreed with the Statutory Authorities. These items are summarised in Table 3.

Regulation 38 of The Building Regulations 2010 (as amended) requires that fire safety information be given to the person responsible for the occupied building. Therefore, copies of the fire safety strategy report and other relevant fire safety information should be retained and issued to the Responsible Person.

References.

[1] His Majesty's Stationery Office (HMSO), *The Building Regulations 2010, England and Wales*. The Stationary Office, 2010.
[2] British Standards Institution (BSI), *BS 9991: Fire safety in the design, management and use of residential buildings - Code of practice*. BSI Global, 2024.
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[4] Department for Communities and Local Government (DCLG), *Approved Document B Fire safety Volume 2: Buildings other than dwellings, 2019 edition incorporating 2020 and 2022 amendments.*., 2019th edn, vol. 2. 2022.
[5] Health and Safety Executive, *Managing Health and Safety in Construction, Construction (Design and Management) Regulations 2015*. HSE Books, 2015.
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[8] UK Government, *The Higher-Risk Buildings (Description and Supplementary Provisions) Regulations 2023*. in Statutory Instruments, Building and Buildings, England. 2023.
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Appendix A: Architectural drawings.

The architectural drawings listed in Table 9 have been prepared by Studio Egret West and used in the compilation of this report.

Table 9: Architectural drawings.

Type	Title	Number	Revision	Date
Plan	Proposed Site Plan	0489-SEW-ZZ-ZZ-DR-A-501001	P1	20.10.25
	Proposed Lower Ground Floor Plan	0489-SEW-HPW-B1-DR-A-001110		
	Proposed Ground Floor Plan	0489-SEW-HPW-00-DR-A-001111		
	Proposed First Floor Plan	0489-SEW-HPW-01-DR-A-001112		
	Proposed Second Floor Plan	0489-SEW-HPW-02-DR-A-001113		
	Proposed Roof Plan	0489-SEW-HPW-RF-DR-A-001114		
Elevation	Proposed North and East Elevations	0489-SEW-HPW-ZZ-DR-A-001200		
	Proposed West and South Elevations	0489-SEW-HPW-ZZ-DR-A-001201		
Section	Proposed Sections	0489-SEW-HPW-ZZ-DR-A-001202		

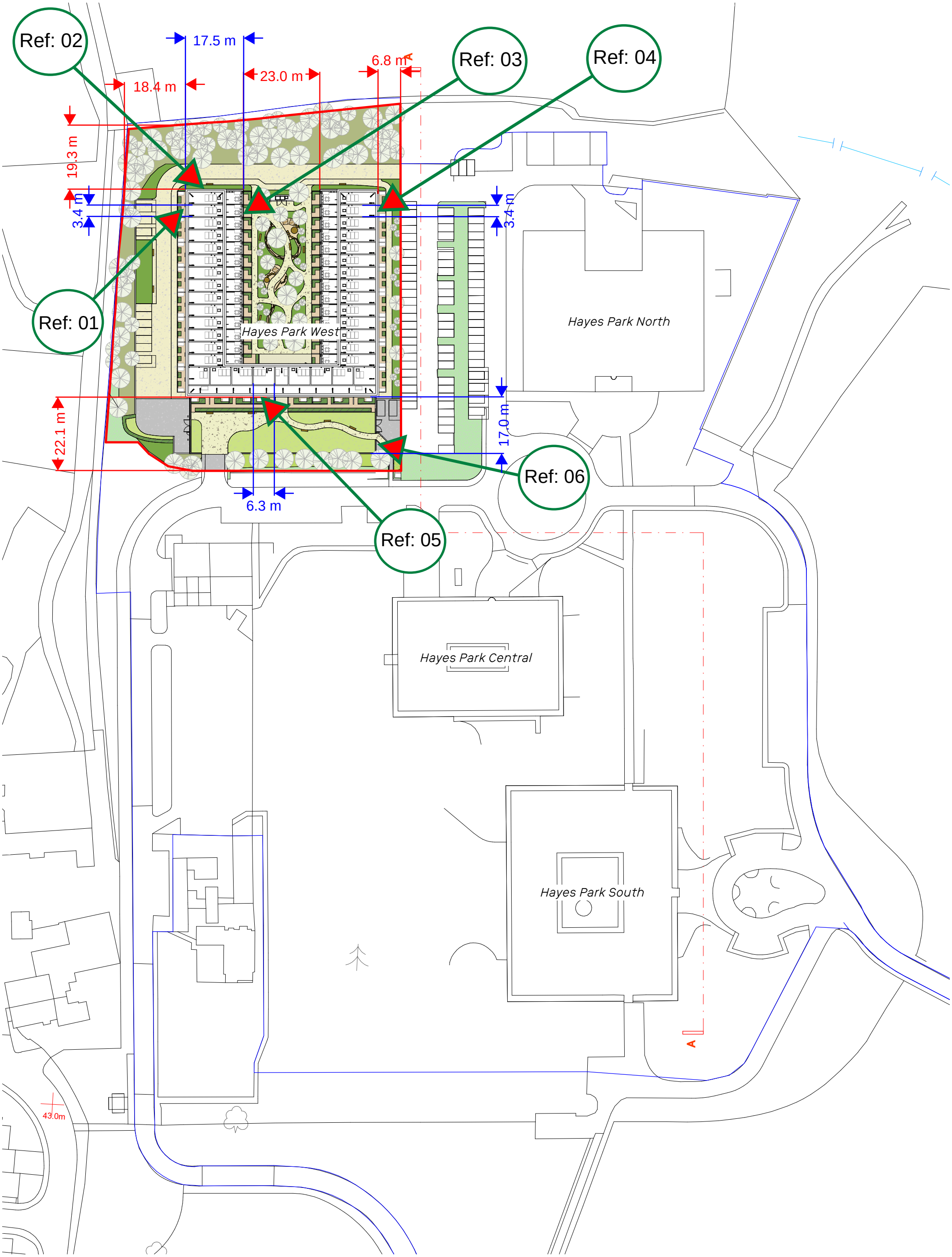
Appendix B: Space separation analysis.

- The external fire spread to the site boundaries has been assessed using the enclosing rectangle method within BR 187:2014 *"External fire spread: building separation and boundary distances"* published by the Building Research Establishment [18], and is based on the following assumptions:
  - The radiation intensity for the residential areas is assessed as 84kW/m^2.
  - The radiation intensity for the car park is assessed as 168 kW/m^2.
  - The compartments will be considered as the height of the entire façade for each dwellinghouse, as compartment floors are not provided within each unit. The largest dwellinghouse, and car park, is assessed individually, where appropriate on each façade.
  - The provision of a water suppression system allows for doubling the unprotected area in accordance with BR 187.
  - The relevant boundary distance is taken to the property boundary. Where units are facing one another, the mid-way point has been used as a notional boundary. This is beyond the minimum requirements of guidance.
- The site boundaries and locations of calculation references have been illustrated in the supporting drawings within this appendix.

The results of the analysis are outlined in Table 10. As demonstrated, all facades can be fully unprotected.

Table 10: Space separation analysis.

Elevation reference	Compartment dimensions (width x height) [m]	BRE enclosing rectangle (width x height) [m]	Available distance to the relevant boundary [m]	Area of compartment requiring protection [m^2]	Area of compartment that can be unprotected [m^2]	Percentage Unprotected Area of compartment [%]
01	3.4 x 9.2	6 x 12	18.4	0	31.28	100%
02	17.5 x 12.2	18 x 15	19.3	0	213.5	100%
03	3.4 x 12.2	6 x 15	11	0	41.48	100%
04	3.4 x 9.2	6 x 12	6.8	0	31.28	100%
05	6.3 x 9.2	9 x 12	22.1	0	57.96	100%
06	17 x 3	18 x 3	6.8	0	51	100%



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

All SEW drawings are based on survey information by CSL Surveys, dated May 2021

Hayes Park West Boundary

Hayes Park Masterplan Boundary

Key Plan

0 20m
@ 1:500

Project No.	***0489***
Project Name	***Hayes Park West***

Drawing Title

Proposed Site Plan

Client	***Shell Do Hayes Developments Ltd***
Scale @A1	***1 : 500***
Date	***20/10/2025***
Drawn by	***PJ***
Checked by	***GLJ***

Rev	Date	Reason	Chk
P1	20/10/25	For Planning	

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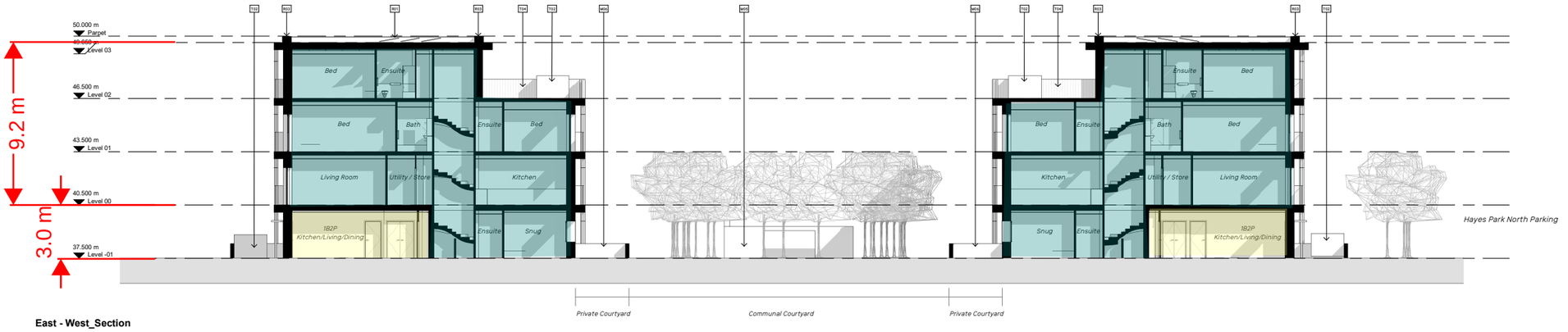
Drawing Number	Rev
0489-SEW-ZZ-ZZ-DR-A-501001	***P1***

East Internal Elevation

West Internal Elevation



East - West_Section

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 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

Material Key

Facade
F01 - GRC Cladding Panels – Twine Ferro pattern / Greysilver
F02 - GRC Cladding Panels – Matt / Greysilver
F03 - GRC Cladding Panels – Ferro / Offwhite
F04 - Terracotta Tiles – RAL colours 6021, 6011, 6020

Glazing / Windows / Openings
G01 - Aluminium Window Frames PPC Coated - RAL 6011
G02 - Aluminium PPC Coated Perforated Façade Panel - RAL 6011
G03 - Glazing - Tint/colour to meet U-value performance requirements
G04 - Spandrel Panel - Opaque glass or insulated PPC metal - RAL 6011
G05 - Timber Doors - Paint finish to match RAL 6011
G06 - Timber Doors - Paint finish to match RAL 3031
G07 - Timber Doors - Paint finish to match RAL 1024

Terrace
T01 - Privacy Screen – vertical wire trellis - Galvanised or PPC coated
T02 - ASHP (air source heat pump) enclosure
T03 - Tiled Terrace floor
T04 - Separating Privacy Wall, finish and colour to match F01

Stairs
S01 – Stainless Steel Vertical Balustrade
S02 - Precast concrete stair

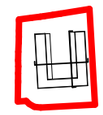
Miscellaneous
M01 –Architectural Woven Mesh Balustrade 30% open – Stainless Steel
M02 - Stainless Steel Posts
M03 - Soffit Board (drained) – GRC to match F03
M04 - Soffit Board (undrained) – GRC to match F03
M05 - Timber Cladding
M06 - Concrete wall to Garden, finish and colour to match F03
M07 - Metal perforated wall – Metal finish, PPC coated, RAL colour 6010
M08 - Automated car park door - Metal finish, PPC coated, RAL colour
M09 – PPC coated metal canopy to match RAL 6011

Roof Fixtures & Fittings
R01 - Photovoltaic (PV) panels
R02 - Folding Man-Safe Rail
R03 - Aluminium Coping (Roof Edge) - PPC coated to match concrete shell
R04 - Aluminium Rooflight PPC

Bird Boxes
Swarovo (2 no.)
Swift (10 no.)

Bat Boxes - Cluster of 3
(10 no.)

Key Plan



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Project No.	0489
Project Name	Hayes Park West
Drawing Title	Proposed Sections
Client	Shelf Do Hayes Developments Ltd
Scale @A0	1 : 100
Date	20/10/2025
Drawn by	PJ
Checked by	GH

Rev	Date	Reason	Chk
P1	20/10/25	For Planning	

Drawing Number	Rev
0489-SEW-HPN-ZZ-DR-A-001202	P1