

03 Design Development

Prologis Stockley Park West

Doc. Ref: PLON01-CWO-XX-XX-RP-Q-00090

Revision: P02

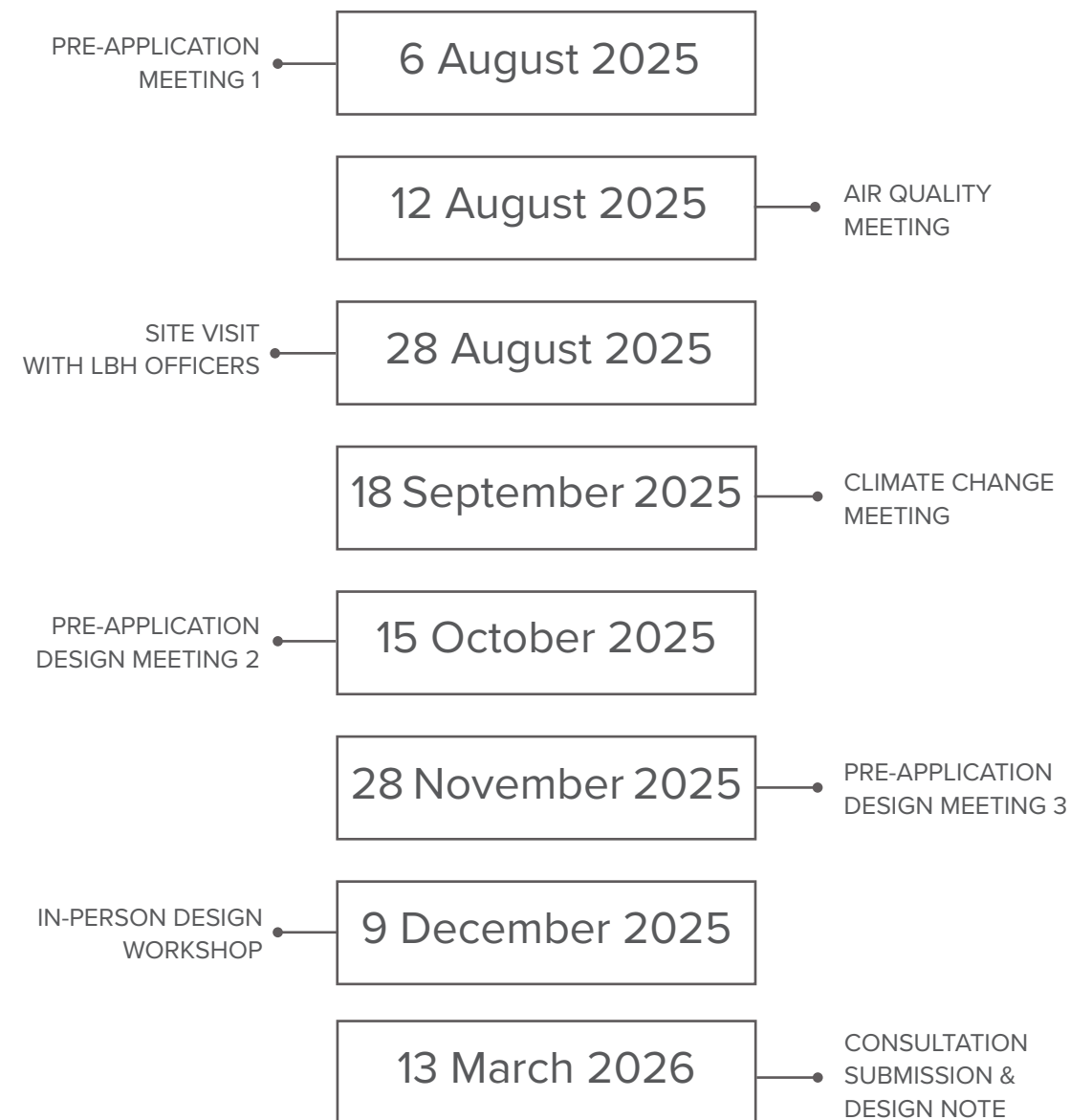
Design Development

Planning & Pre-application Process

A carefully structured and collaborative pre-application process has played a central role in shaping the proposals for the conversion of DC5 and DC6 into Data Centre 01 (DC01) and Data Centre 02 (DC02). Engagement with the London Borough of Hillingdon (LBH) was undertaken under a Planning Performance Agreement (PPA), ensuring a coordinated program of meetings, workshops and design reviews throughout 2025 and early 2026. This process provided early clarity on planning parameters, technical expectations, and design considerations, and directly informed the final proposals submitted for approval.

The pre-application sequence included several formal meetings with LBH planning officers, a site visit, and dedicated workshops covering Air Quality and Climate Change. These sessions allowed the applicant team to test assumptions, explore alternative design directions, and respond to officer feedback in a structured and iterative manner. In-person design workshop in December 2025 provided detailed commentary on architectural treatment, massing, landscaping and the visual impact of the proposed gantry structures. This work was continued into early 2026 through the Design Review process, which provided further targeted feedback on the evolving architectural approach, in particular the refinement of the DC01 gantry.

The engagement process also had a tangible effect on the design of the proposed development. Officer and design review feedback led to a reduction in gantry height to ensure the structures remain visually subordinate to the host buildings. Architectural refinements were made to the gantry cladding and façade articulation, introducing a carefully considered palette of fins, tonal variation and datum lines that respond to local townscape character and integrate more naturally with the existing building fabric. Adjustments were similarly made to the treatment of the existing structure to house the proposed substation while maintaining the existing visual appearance.



Pre-planning Engagement Timeline
Reference: 39207/PRC/2025/109

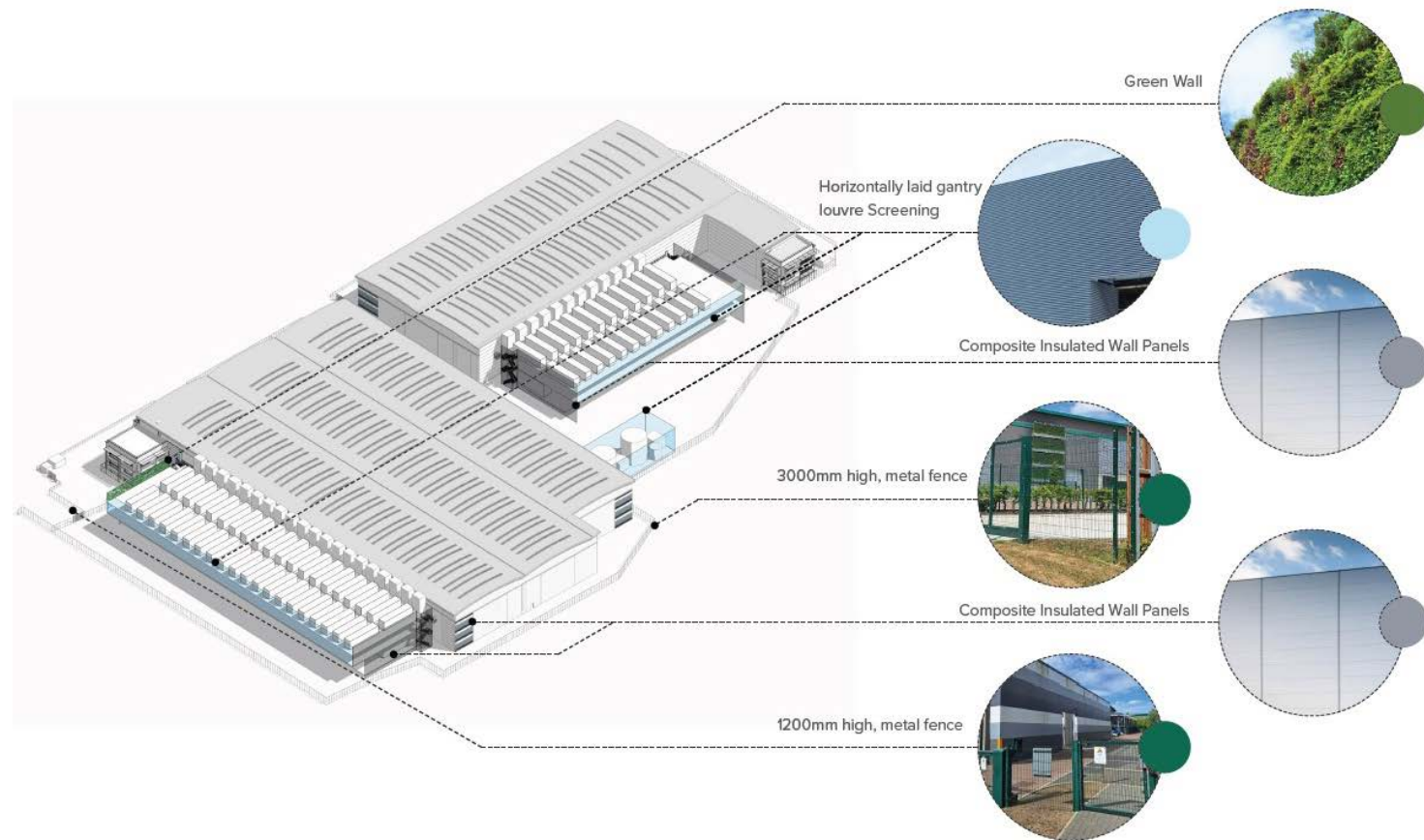
Landscape design was significantly reinforced through the pre-application process. Officers emphasised the importance of improving the interface with Iron Bridge Road North and softening the site's more prominent edges. In response, the proposals introduce enhanced planting, additional native species, and increased green infrastructure to replace areas of superfluous parking. These changes create a greener, more visually cohesive frontage and support a more positive relationship with surrounding public routes.

Technical workshops provided further critical direction. Air Quality discussions focused on the assessment methodology for generator emissions and testing regimes, while Climate Change meetings addressed operational energy, carbon considerations and reporting requirements for the Environmental Statement (ES). LBH confirmed that the scheme had potential for significant environmental effects, prompting the preparation of a full ES and guiding its scope. These discussions ensured that environmental considerations were embedded early into both design and technical assessment workstreams.

The pre-application process significantly strengthened the quality, robustness and responsiveness of the proposals. The final design reflects a clear and traceable dialogue with LBH, integrating officer feedback across architecture, landscape, environmental strategy and planning methodology. The proposals now present a carefully considered, contextually informed and operationally optimised conversion of the existing buildings, delivering essential digital infrastructure while enhancing the character and functionality of the site.

Design Development

Planning & Pre-application Process



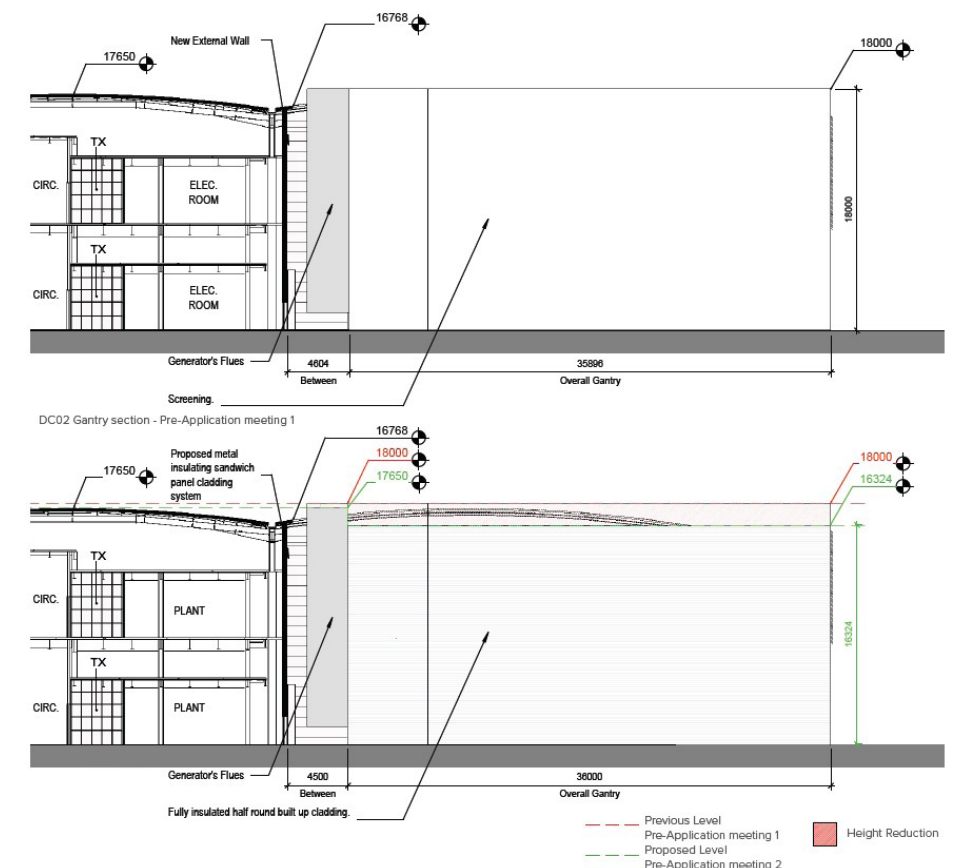
Extract from Pre-app Design Meeting 1 - Site Axonometric Proposal

Pre-app Design Meeting 1 - 6 August 2025

In Pre-App Design Meeting 1 the Applicant Team provided a brief overview of the proposed redevelopment, including site context and proposed layout. The scheme includes partial demolition and the extension of existing units, new plant, chiller decks, and external alterations.

Key Agreements & Actions:

- Officers confirmed the flexible use class supports B8 Data Centre use.
- VU.City model to be shared with LBH for height testing and agreement of the TVIA viewpoints.
- Officers raised concerns that the chiller decks and gantry extensions are overly bulky and visually dominant, lacking clear hierarchy.
- Façade alterations must be well integrated with the architectural language.
- Existing 217 parking spaces exceed what is expected for the Data Centre, officers expect ~ 50 spaces.
- Applicant Team to provide further design, landscaping and transport swept path information.
- Site visit to be arranged for end of August / early September.
- Follow-up meeting to cover air quality and technical matters (12.08.25).



Extract from Pre-app Design Meeting 2 - Section, Reduced Gantry Height

Pre-app Design Meeting 2 - 15 October 2025

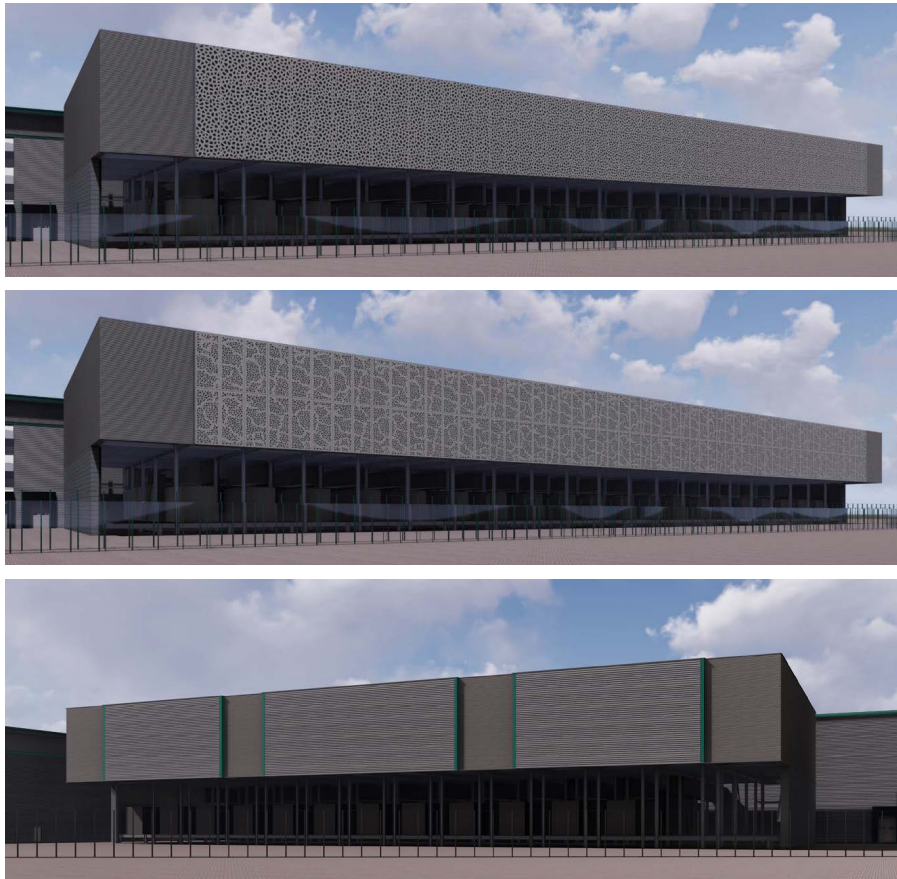
The Applicant Team provided an overview of the evolving design for the project site, including updates to massing, gantry height, an externalised substation within the envelope, reduced parking, and an updated views study.

Key Agreements & Actions:

- Gantry Height reduced by ~ 1.67m (17650).
- Full floor plans/elevations and material details have been requested.
- LBH advised testing two gantry approaches: Mitigation through articulation or Celebration through placemaking.
- The substation is proposed to be externalised with a new louvred façade, LBH requested clarity on colour banding, louvre density/transparency, and visibility of the removed roof from multiple viewpoints.
- Additional technical drawings and street-level views are required to demonstrate how the louvres integrate with the wider façade rhythm and what visual impact the exposed roof area may have.
- Provide Landscape Drawings showing fence, hedge, and tree relationships.
- LBH require BNG to be measured against the true existing baseline, including green walls, and expect the scheme to demonstrate a minimum +10% biodiversity uplift. Applicant's target: +15%.

Design Development

Planning & Pre-application Process



Extract from Pre-app Design Meeting 3 - DC01 and DC02 Design Proposal

Pre-app Design Meeting 3 - 28 November 2025

The Applicant Team presented the updated gantry designs with pattern studies, elevations, and key view renders. DC01 explored pebble, tree, and stick motifs at different scales, while DC02 showed its blending strategy, material contrasts, and vertical fins. Updated substation information included revised sections, louvres, bay spacing, and site visualisations.

Key Agreements & Actions:

- DC01 pebble pattern was considered visually repetitive and lacking clear subdivisions.
- The “trees and sticks” pattern was viewed more favourably, offering greater potential due to increased variation, visual richness, and stronger conceptual alignment.
- Further exploration of building corners requested, including how the rainscreen cladding turns the corner toward Iron Bridge Road.
- While DC02’s materials and green fins help break up the massing, further refinement is expected, with horizontal trim suggested over vertical fins.
- Improvements to the substation were positively noted, but further clarity is needed on louvre transparency, with supporting material suggested such as data sheets, detailed drawings, and visual studies.



Extract from In-Person Design Workshop - DC01 and DC02 Design Proposal

In-Person Design Workshop - 9 December 2025

In the In-Person Design Workshop the Applicant Team presented multiple view studies for the DC01 and DC02 gantries, including Wave and Fins cladding options for the DC01 façade. In addition to the views, the team also provided TVIA AVR wireframe studies, photomontages, elevations and materials information.

Key Agreements & Actions:

- DC01 is in a sensitive location within the Registered Park & Garden and requires refined, contextually sensitive design.
- DC02 gantry must remain visually subordinate to the existing building.
- Use a green band or extend existing datum lines at the gantry base to visually anchor it and integrate with the architectural language.
- Develop a shared DC01 design language with geometric, refined patterns and colours that harmonise with existing buildings
- DC02 is mainly seen from fast-moving, less sensitive views, so the gantry should blend with the building and remain visually recessive
- Introduce subtle 1–2 rhythm shadow gaps between materials for DC02 while maintaining the green roof line.



Extract from Consultation Submission - DC01 Design Proposal

Consultation Submission - 13 March 2026

The Applicant Team submitted a revised DC01 gantry design, reflecting feedback from the in-person design workshop. The document includes TVIA AVR views for summer and autumn scenario, enlarged elevations with colour and material finishes, and detailed bay studies with key dimensions. A supporting note explains how the LBH’s comments have been addressed.

Key Agreements & Actions for the full planning application:

- The shift toward a consistent, standardised architectural approach is welcomed and represents a more robust design direction than previously explored bespoke iterations.
- A full Townscape and Visual Impact Assessment is required for the planning application submission, including the previously agreed viewpoints.
- Boundary fencing should have a less visually prominent colour (i.e. darker green)
- Ensure ancillary elements (e.g. tanks and infrastructure) are integrated into the design or appropriately screened to minimise visual impact.
- A comprehensive landscaping strategy, including clear plans, sections and tree schedules.

Design Development

Site Plan Evolution & Deconstruction

The proposed layout reflects a series of design iterations aimed at integrating critical infrastructure while preserving site functionality and quality. Multiple test fits were carried out to address spatial constraints and operational requirements before finalising the solution.

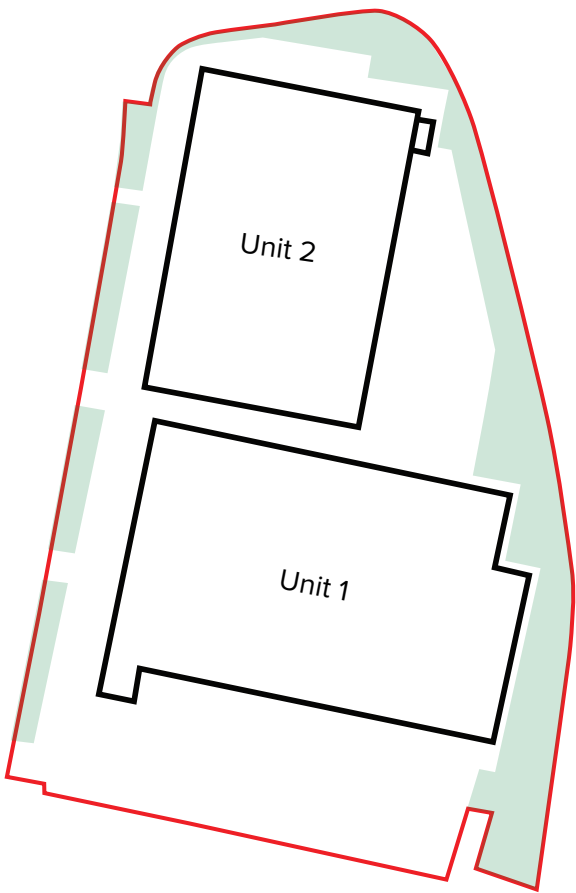
Key Factors Driving Deconstruction and Design Decisions:

- Irregular site shape, limiting flexibility for infrastructure placement.
- Existing landscaping and green buffer, requiring selective removal to accommodate new structures.

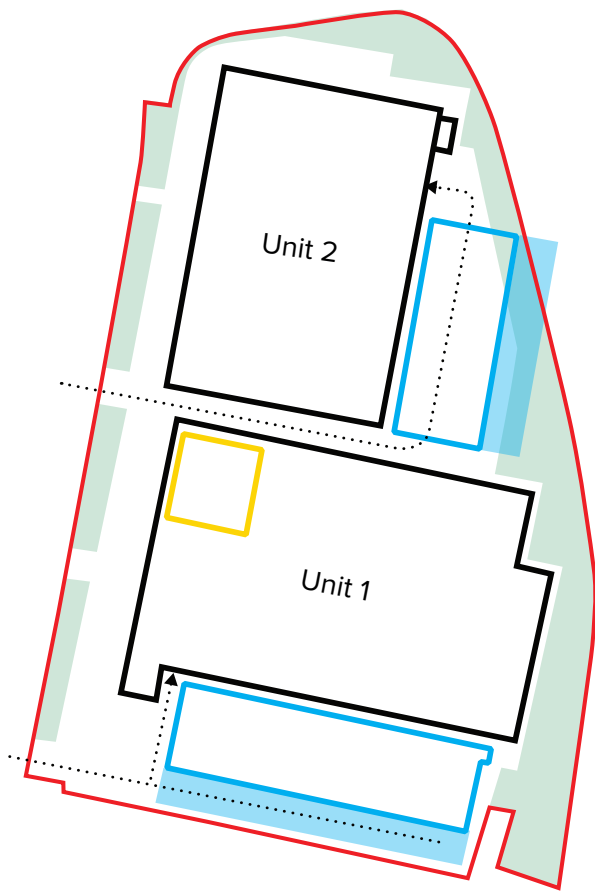
- External gantries for generators and chillers:
 - DC1 gantry positioned within its service yard without major alterations.
 - DC2 gantry enabled through partial deconstruction of Unit 2, overcoming initial space limitations.
- Generator replacement zones, ensuring adequate space for maintenance and future equipment replacement.
- Delivery and access requirements for HGVs and fire tender, influencing circulation routes and positioning of new structures.

- Substation integration:
- Required footprint exceeded available space, while the external service yards were restricted due to the addition of gantries, the internal footprint within DC01 exceeded requirements.
 - Solution - place substation within DC1.
 - Requires partial façade and roof removal for ventilation and air supply.
 - Final design: concrete enclosure within existing structure, open roof, louvred façade, primary frame retained.

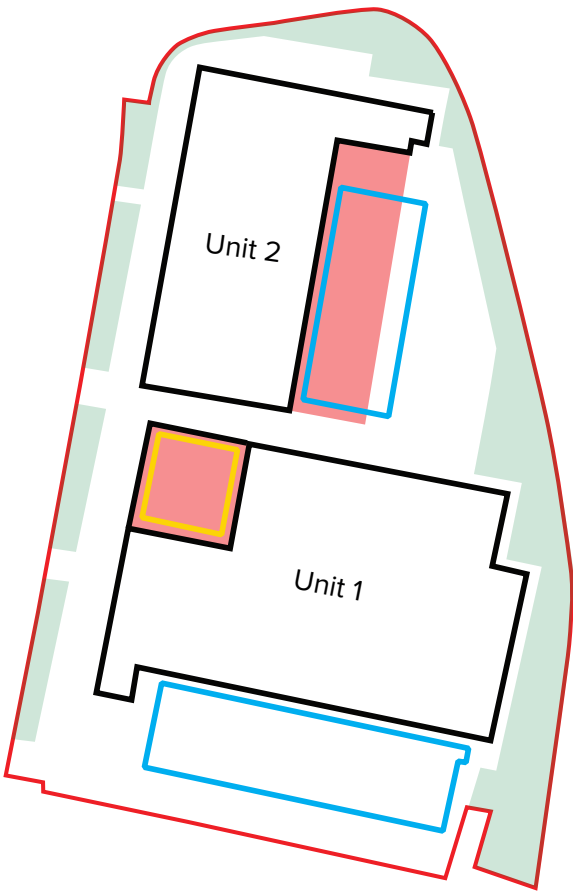
- Site Boundary
- DC Building
- Greenery
- ...➔ Deliveries & Access
- External Plant Gantry
- Generator Replacement Zone
- Substation
- Deconstruction



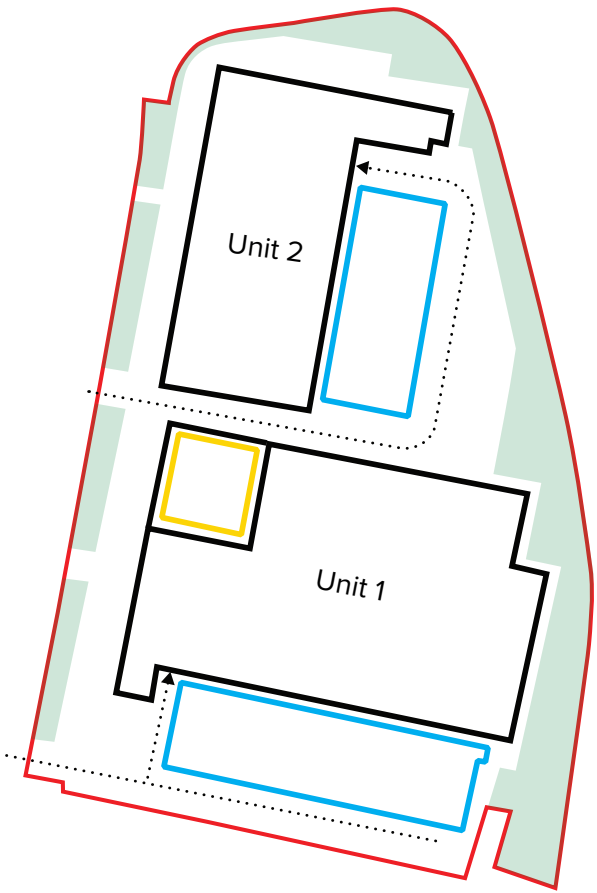
1. Existing Layout



2. Test-fit



3. Deconstruction



4. Proposed Layout

Design Development

Substation Evolution

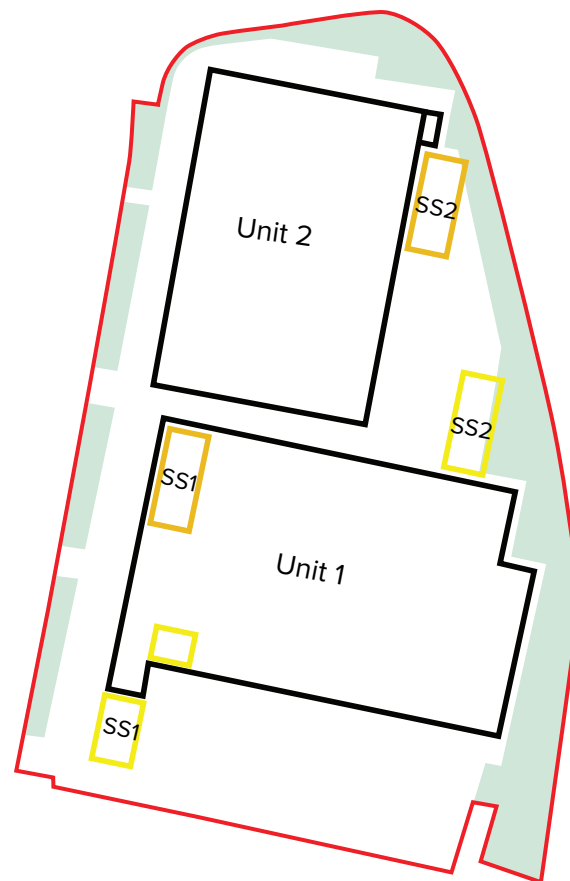
Since the inception of the project, the design team has considered multiple substation arrangements and placements. Initially, separate substation options for each building were explored.

For DC01, the substation was proposed to be located internally in the northwest corner. In Option 2, the transformer was placed externally in the existing car park adjacent to the office, with the switchroom located inside the building. However, this option was ruled out due to its proximity to the office and the fact that it still required partial internal installation.

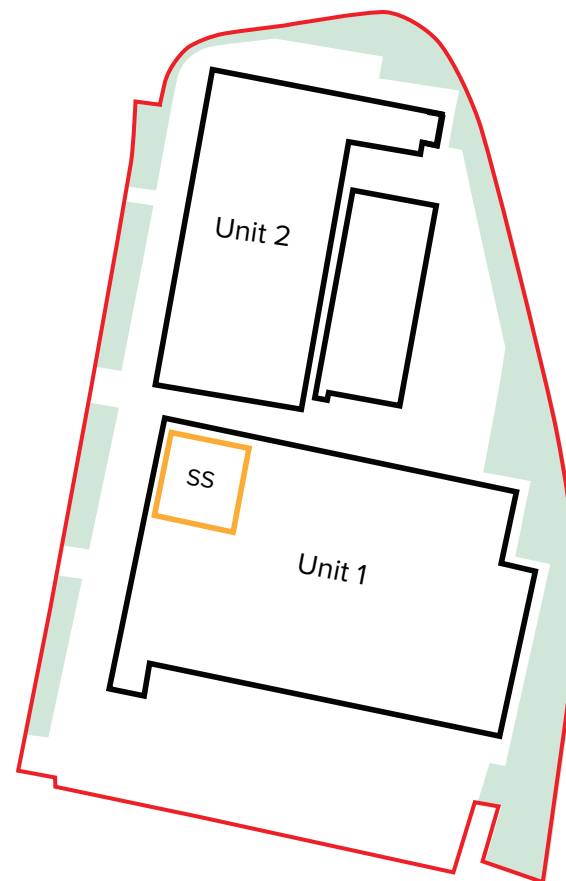
For DC02, the substation was initially considered for placement in the southeast corner of the service yard, adjacent to DC01. However, this area is more suitable for accommodating the combined fire suppression water tanks and pump house serving both buildings. Option 2 proposed locating the substation in the northern part of the service yard, but this position is closest to the most occupied area - the office block - and access would be constrained by the site's shape.

Considering the above risks and requirements, such as minimizing new external structures, improving fire and maintenance access, and reducing fire risk - the design team concluded that Option 3 represents the optimal solution. This option provides a combined substation conveniently located between the DC01 and DC02 buildings, at the northwest part of DC01.

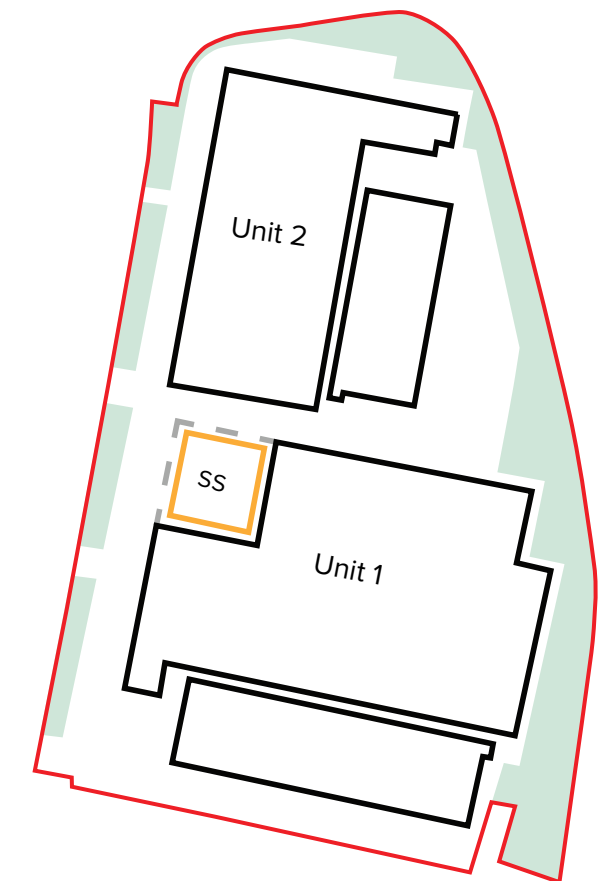
- Site Boundary
- DC Building
- Greenery
- Substation Options



1. Substation layout - Test fit



2. Substation layout - Pre-App 1



3. Substation layout - Proposed

Design Development

Gantry Evolution

The proposed external equipment gantries are integral to the data centre operations, accommodating critical infrastructure in a configuration that ensures technical performance while respecting architectural character. Their design has evolved through several iterations to address spatial, operational, and aesthetic constraints.

Key Steps Undertaken During the Gantry Design Process:

1. Initial Options Tested

Early layouts attempted to place all MEP equipment externally using modular electrical rooms. This approach resulted in an excessive gantry length that brought it close to the site boundary, increased the visual impact of the extension, and reduced the space available for access, fire tender manoeuvring and MEP parts replacement.

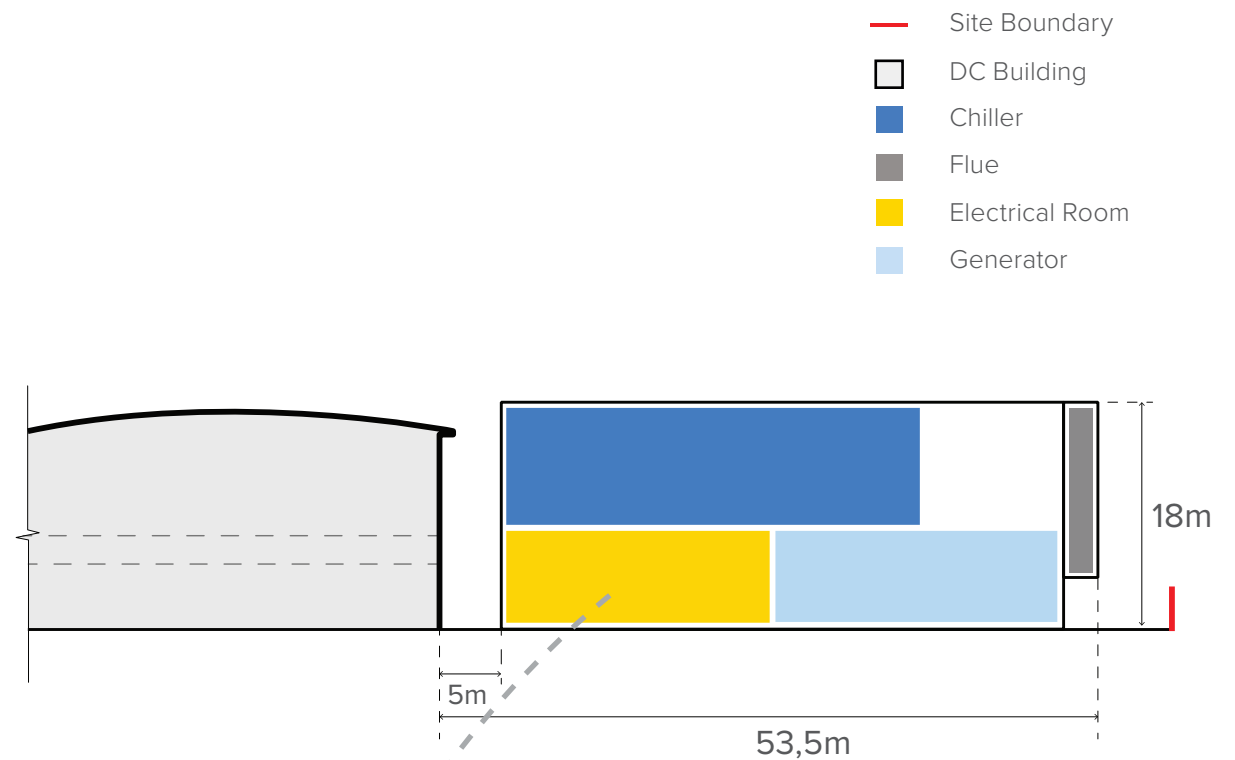
2. Optimised Configuration

To reduce the gantry's mass, minimise visual impact, improve circulation, support the fire strategy, and facilitate plant replacement, the electrical rooms have been proposed to be located inside the building. This adjustment significantly reduces the gantry length while maintaining operational efficiency.

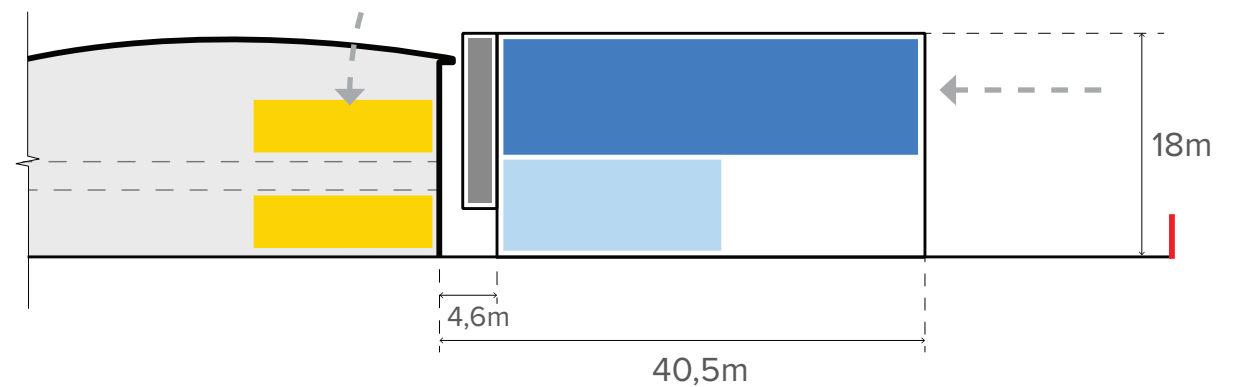
3. Final Design Upgrade

Following pre-application meeting no. 1, the team was further challenged to reduce the gantry size. While the gantry depth had already been minimised, the team succeeded in reducing the gantry height by an additional ~ 1.7 m, further decreasing its visual impact. The top level of the gantry now aligns with the existing building's eaves, ensuring architectural integration and minimising visual impact. This development ensures the gantries meet all technical requirements while respecting site circulation and the architectural character.

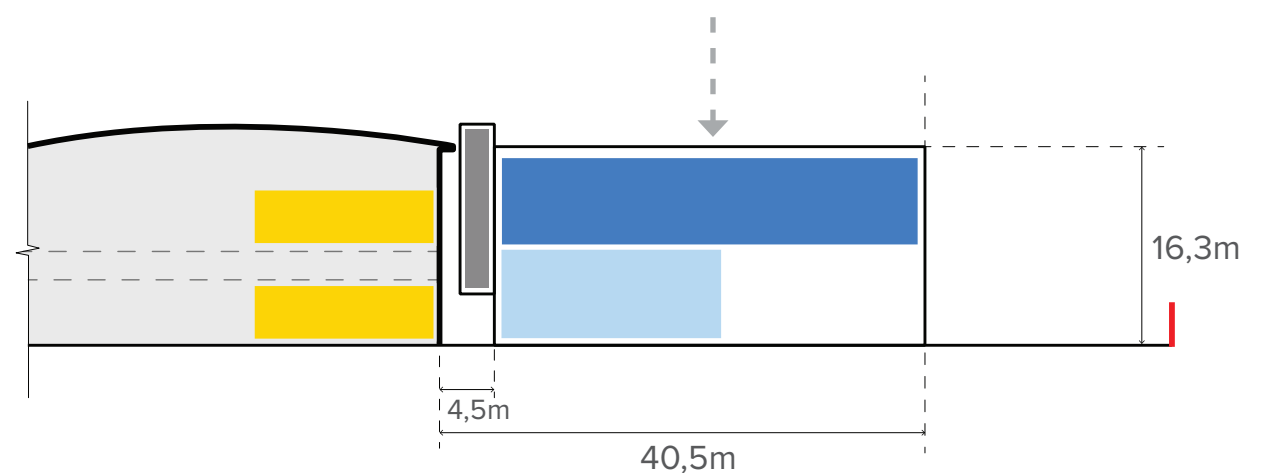
1. Gantry layout - Option 1



2. Gantry layout - Option 2



3. Gantry layout - Option 3



Design Development

Mezzanine - New Level Addition

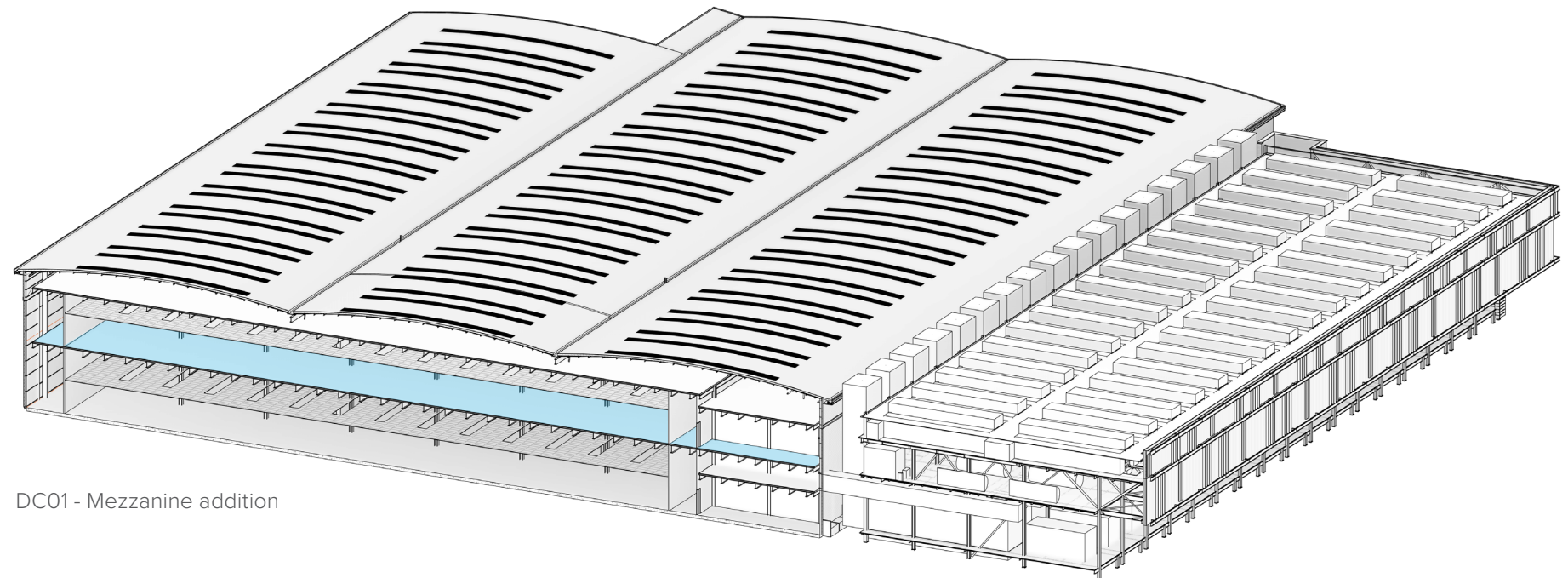
The warehouse portion of the building does not currently include intermediate levels, which are essential for data centre operations. To address this requirement, new intermediate floors have been proposed to align with the existing Level 2 slab in the office portion of the building. These new levels will accommodate data halls along with the associated electrical and mechanical technical spaces.

Design Approach

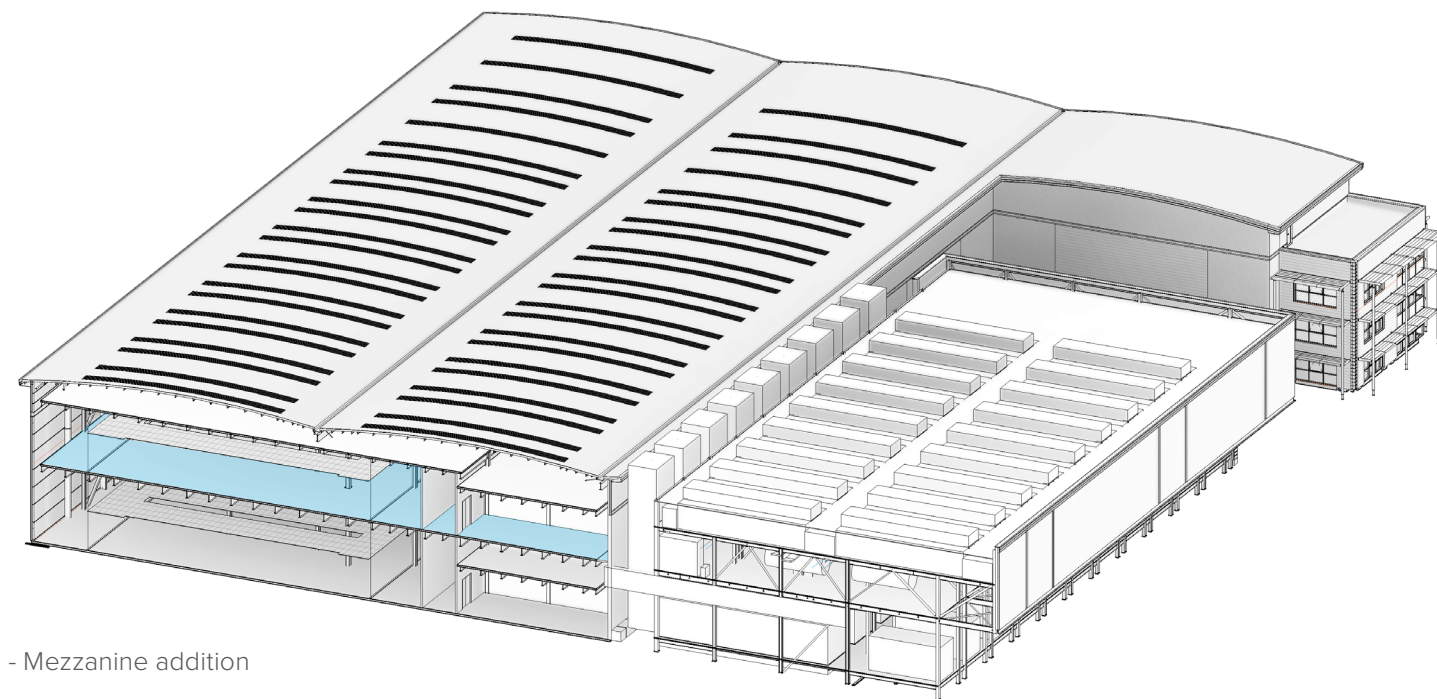
A proposed composite slab will subdivide the existing warehouse volume into two levels. Level 1 will contain functional zones for data halls, plant areas, and circulation. Above Level 1, a structural lid will be introduced beneath the existing roof; however, the current roof structure is not designed to support heavy MEP ceiling services or to provide watertight protection.

The structural integration between the new Level 1 slab and the lid above will be carefully coordinated to work within the retained structural framework, minimizing disruption to the existing building envelope. The load-bearing capacity and vibration performance of the new structure will be designed to meet data centre standards.

A new column grid will be introduced to support the added level, requiring piling through the existing ground floor slab. The space between the new Level 1 lid and the roof will have limited headroom and will be used solely for roof drainage access and maintenance.



DC01 - Mezzanine addition



DC02 - Mezzanine addition

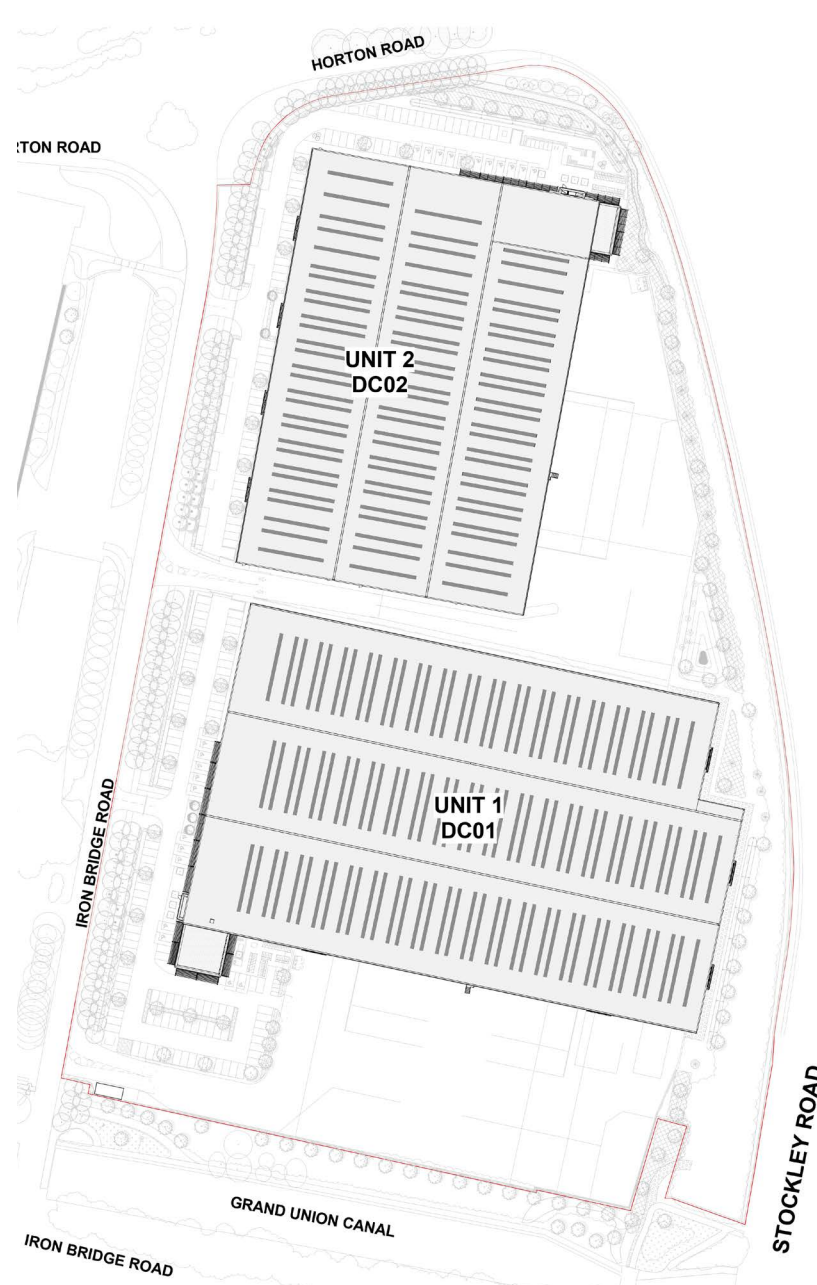
Design Development

Phasing

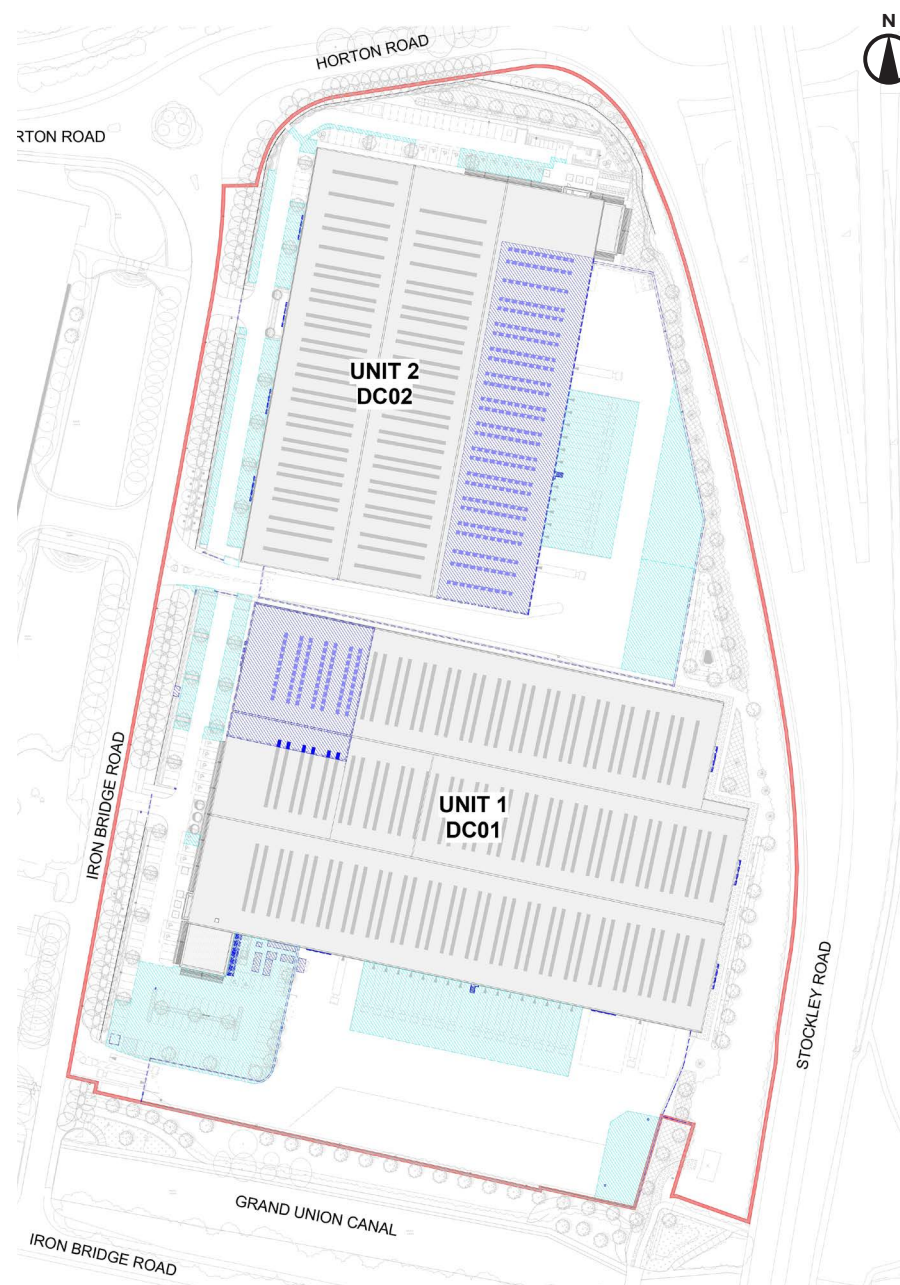
As part of the design process, a comprehensive assessment of the existing site and buildings has been undertaken to inform the emerging proposals. This approach seeks to minimise the extent of intervention while reducing potential environmental and operational impacts. The proposed works will be delivered in two distinct stages:

Initial Deconstruction Phase – Targeted removal of elements such as loading bay docks, doors, and part of Unit 2 (2. Deconstruction Phase - marked in blue).

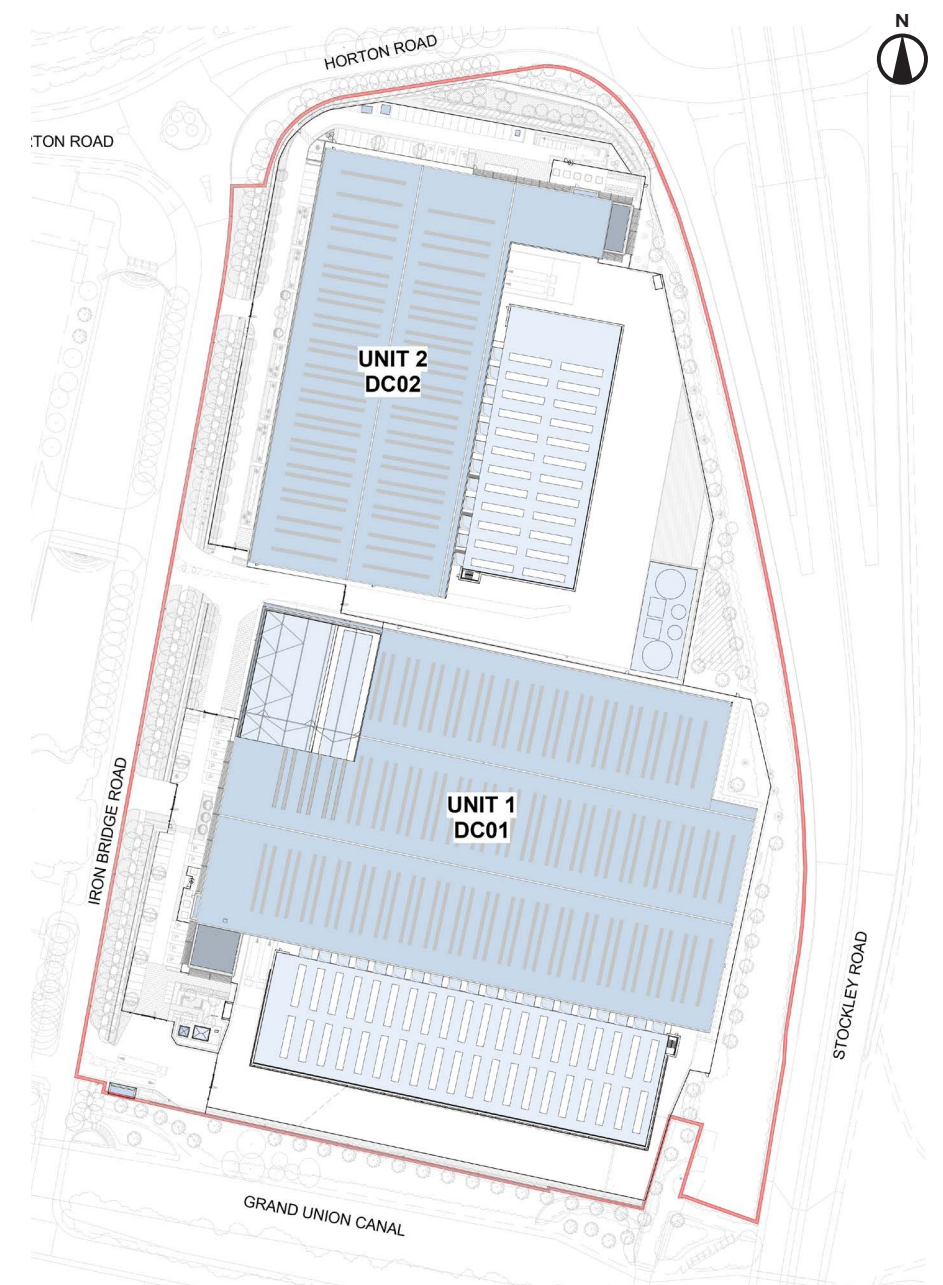
New Construction Phase – Upgrading and adapting the buildings for use as Data Centres, aligned with updated design and performance criteria.



1. Existing Site Plan



2. Deconstruction Phase



3. New Construction Phase

Design Development

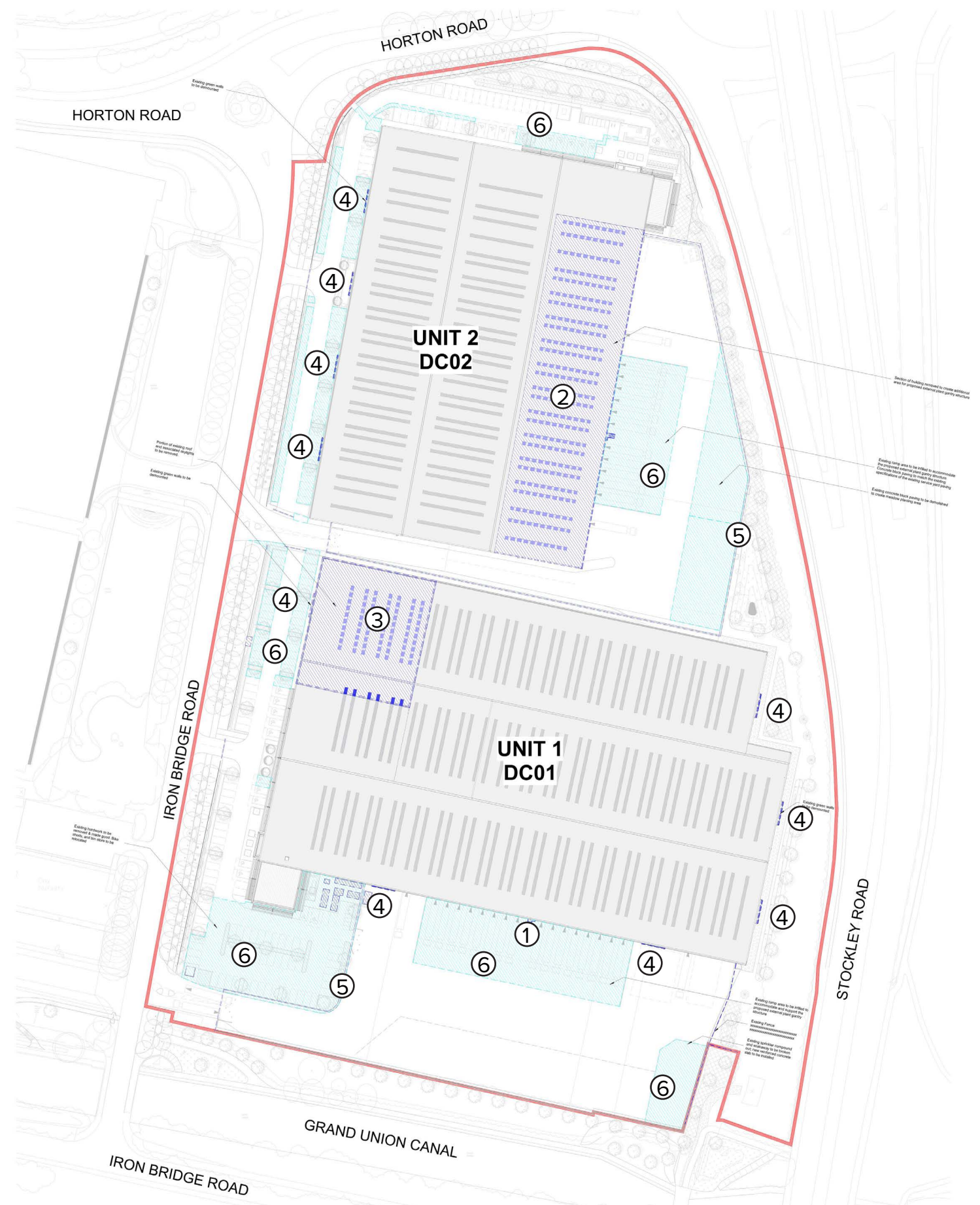
Deconstruction Phase

The proposed deconstruction works have been carefully considered to minimize impact on the existing buildings and retain as much of the original structure as possible to reduce waste, cost, and environmental impact.

The scope of removal is targeted and includes:

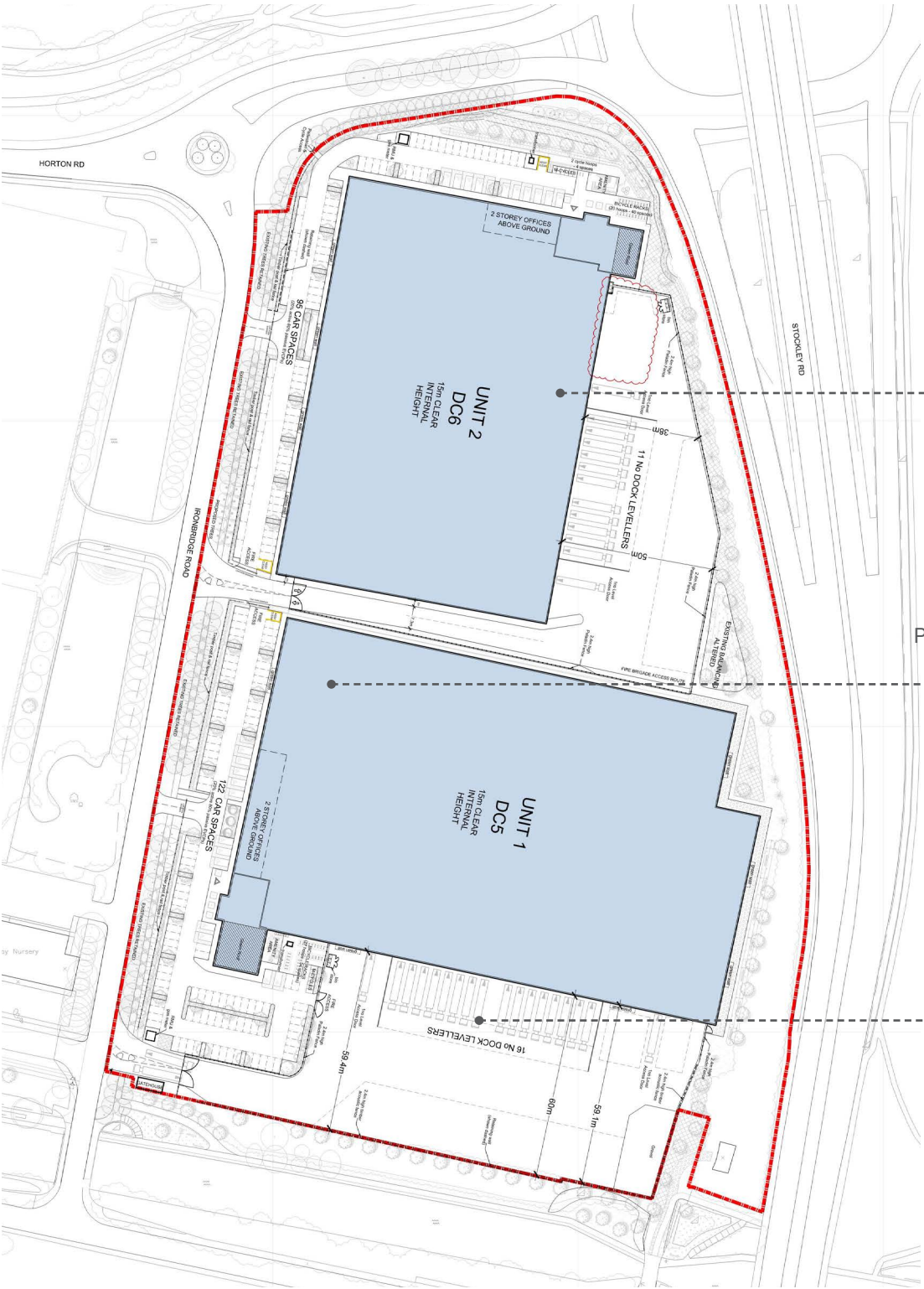
- ① The existing loading bays, docks, and selected external doors: these elements are no longer required for the operational needs of the data centre and their removal optimizes internal circulation and external access.
- ② A section of Unit 2 is removed to create the necessary footprint for the external chiller gantry, ensuring adequate space for cooling infrastructure critical to data centre performance.
- ③ A portion of the roof above the future substation location (Unit 1) will be removed to allow for installation and ventilation of electrical infrastructure. The primary structural framework will be retained, while the existing perimeter cladding will be replaced with new louvred cladding to meet the operational requirements of the substation.
- ④ The existing green walls attached to the elevations will be removed. The project will deliver biodiversity enhancements through improved green and blue infrastructure, offsetting the loss of existing green elements.
- ⑤ Part of existing fencing will be replaced with a high-security fence to meet data centre security standards.
- ⑥ Deconstruction of the loading dock ramp-down area, removal of existing site infrastructure that conflicts with the new layout, and removal of existing hard landscaping. All affected surfaces will be reinstated as part of the overall site enhancement works.

- Existing As-build
- Existing building elements for Deconstruction
- Existing hardwork to be removed & made good
- Existing Fencing and Gate to be Deconstructed



Design Development

Existing vs Proposed Site Plan



Existing Site Layout

Proposed Layout Amendments
 The revised site layout introduces essential infrastructure while maintaining the existing quality of the development.
 Key changes include:

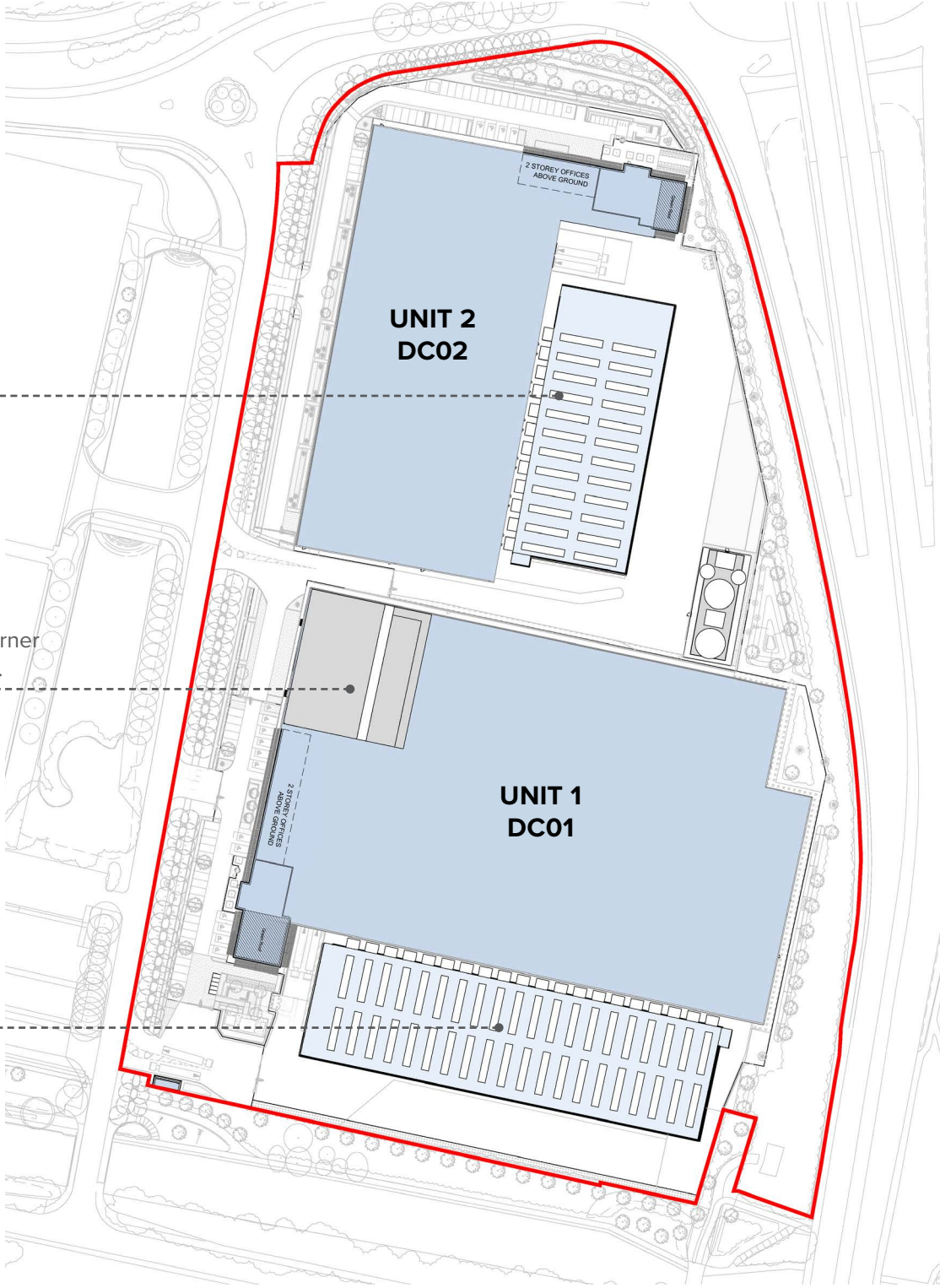
Partial deconstruction of Unit 2 to accommodate the chiller and generator gantry.

Partial removal of external wall on the northwest corner elevation of Unit 1 for the substation compound.

Construction of a DC1 gantry adjacent to the south elevation of Unit 1, requiring removal of existing loading docks.

Elimination of green wall features on both buildings.

Comprehensive landscaping enhancements across the site, ensuring no reduction in overall site quality.



Proposed Site Layout

Design Development

Proposals Summary

The proposed development involves the conversion of two existing logistics warehouses into data centres, designated DC01 and DC02. Each building will comprise two data centre levels and an integrated three-storey office component, providing administrative and technical support functions.

To meet the operational and spatial requirements of the new use, a new level will be introduced within the existing warehouse, supported by independent steel structures. Partial deconstruction of the original buildings will facilitate the installation of external three-storey gantry decks, one per building, positioned within the former service yards. A detached substation, discreetly located at the northwest corner of DC01, will provide power infrastructure for both data centres.

The site entrances from the public road will remain in their current locations, with new security-rated bi-fold gates set back from the existing alignment to improve vehicle access and on-site circulation. The number of loading docks has been reduced to two per unit and repositioned closer to the office blocks to enhance operational efficiency. The development also includes landscape enhancements, new security fencing, pedestrian gates, and a fire suppression compound within DC02's service yard, screened by louvres for visual discretion.

The elevations of the existing units are clad in insulated metal panels arranged in bays that reflect the underlying structural grid, introducing rhythm and visual interest. The material palette combines shades of grey with green fascias. To add texture and depth, the metal cladding alternates between horizontal cladding profiles and flat panels at building corners.

The proposed external gantries adopt the same design language, featuring three tones of grey and a combination of sinusoidal and half-round profiles, complemented by horizontal green bands that provide a visual link to the existing buildings.

Office areas are finished with a rainscreen and curtain wall systems incorporating glazed sections and insulated glass-faced spandrel panels. The existing office façades remain largely unchanged.



Design Development

Proposals Summary

Use

The proposed development comprises the adaptation of Units 1 and 2 at Prologis Park West London to accommodate a data centre use. The proposals enhance the existing industrial buildings to support secure IT operations, including associated plant, infrastructure, and ancillary facilities. The established flexible industrial use class permission supports data centre, B8 use in principle, and the development is compatible with the prevailing industrial character and operational context of the surrounding.

Amount

The proposed development is contained within the existing site boundary and largely utilises the existing building footprints, including the provision of a substation. The proposals comprise internal reconfiguration of Units 1 and 2 to accommodate data halls and associated support spaces, together with a limited number of external interventions. These include two gantries, one fire suppression compound, one external plant area located to the southwest of the site, additional façade louvres, campus security fencing, and extensive landscape works. The amount of development is therefore proportionate and makes efficient use of the site without over-intensification.

Layout

The layout responds to the operational requirements of a data centre campus while respecting the established arrangement of buildings and servicing areas within the site. Internally, efficient data hall and plant configurations are provided, with a clear separation between secure, operational, and servicing zones, including the introduction of a new internal level to maximise use of the existing footprint. Externally, gantries are located within existing servicing yards and integrated with building elevations to minimise visual impact, while landscape enhancements and boundary treatments support security requirements and biodiversity. Pedestrian, cycle, vehicular, and emergency access are all taken from Iron Bridge Road and accommodated through a clear internal circulation strategy, ensuring safe, legible, and efficient movement across the site with inclusive, level access throughout.

Scale

The scale of the development remains consistent with the existing built form. New elements, including gantries and ancillary structures, are subordinate to the host buildings and reflect the established industrial character of the site. Partial deconstruction of Units 1 and 2 enables an optimised balance between internal and external operational areas. The overall height of the gantries aligns with the existing eaves level of Unit 1 (16,324 mm), while flues do not exceed the maximum existing building heights of 17,950 mm for DC01 and 17,650 mm for DC02. The gantries are therefore lower than the host buildings and are seamlessly integrated into the overall design. The proposals maintain appropriate relationships with the wider Prologis Park West context, make efficient use of the site, and respond positively to the adjacent canal-side environment, delivering refined and well-articulated ancillary elements that contribute positively to the overall development.

