

3 Proposed Development

3.1 Introduction

- 3.1.1 This chapter provides the definitive description of the Proposed Development for the purposes of the EIA.
- 3.1.2 The chapter identifies the deconstruction, construction and operational design features of the Proposed Development that might affect the environment or contribute to the overall environmental effects of the scheme. Given the nature of the scheme, the environmental effects of decommissioning have not been considered.

3.2 Development Description

- 3.2.1 The description of development is as follows:

"Partial deconstruction and adaptation of existing buildings; installation of mezzanines and new gantry decks housing MEP, a sub-station and fire suppression infrastructure; and associated physical works including alterations to the layout of the Site."

- 3.2.2 The EIA has assessed the development proposed, which is set out above, alongside the spatial parameters defined in the detailed design drawings.
- 3.2.3 The assessment has been undertaken on the basis of the detailed layout and design information presented in Table 3.5 at the end of this chapter. These drawings are provided in full in ES Volume 1b – Main Statement Figures and Drawings.
- 3.2.4 These drawings establish the key development parameters, including land-use areas, building heights, design and character, and deconstruction requirements. Further details on the Proposed Development and its anticipated delivery are provided in the following sections.

3.3 Proposed Development

Overview

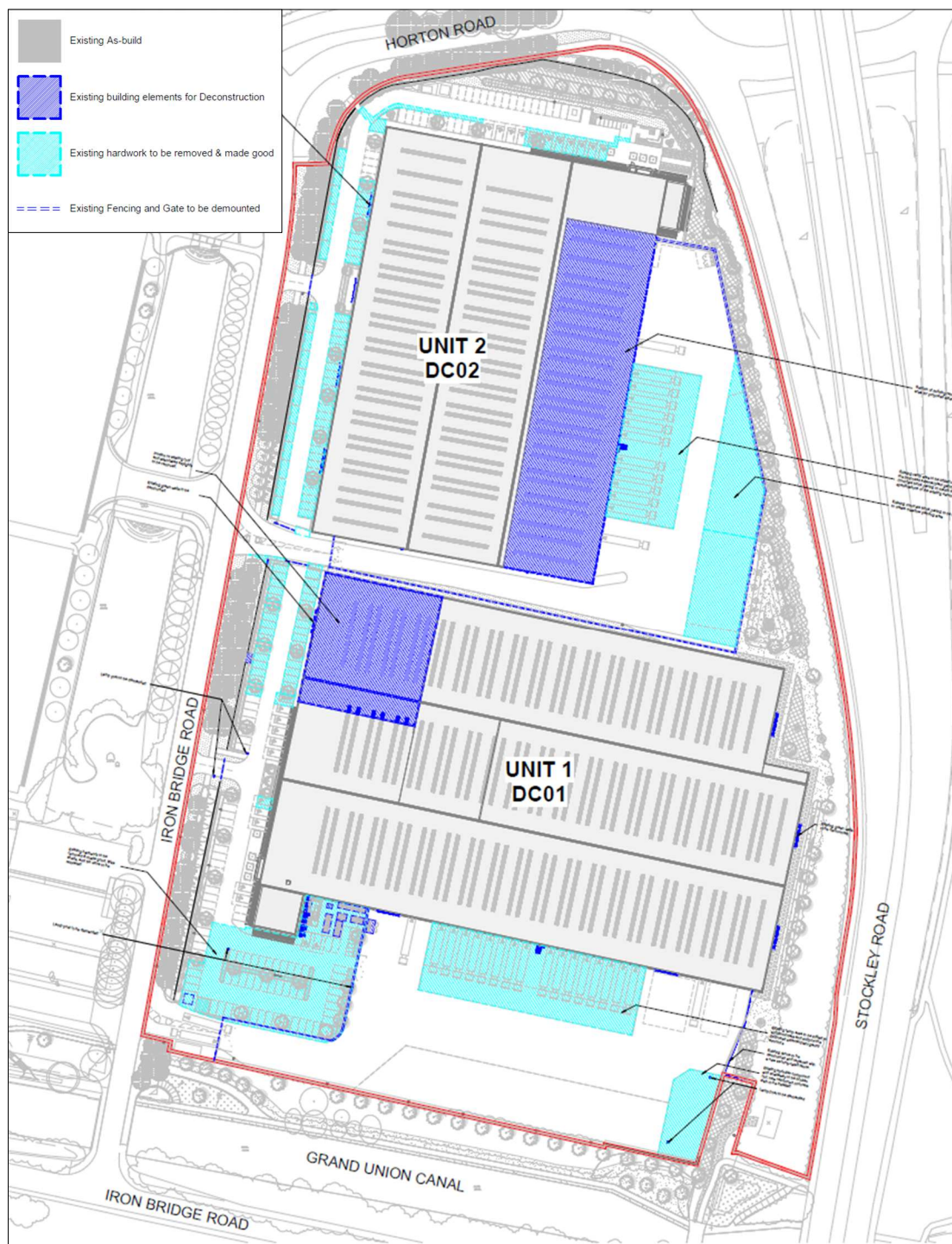
- 3.3.1 The Proposed Development comprises the conversion of two existing logistics warehouse buildings into data centre facilities (maximum capacity of 52MW – IT Load 100%), referred to as DC01 and DC02. Each building will accommodate two levels of data centre floorspace, together with an integrated three-storey office element to support administrative and technical operations.
- 3.3.2 To facilitate the proposed use, a new internal level will be introduced within each warehouse, supported by independent steel frameworks. Localised partial deconstruction will enable the installation of external three-storey gantry decks, one per building, located within the former service yard areas. A detached electricity substation will be provided to serve both data centres and will be located at the north-west corner of DC01.
- 3.3.3 Existing vehicular access points will be retained, with new access gates set back from the highway to improve vehicle manoeuvring and on-site circulation. The number of loading docks will be reduced to two per building and repositioned closer to the office elements. The proposals also include landscape enhancements, new security fencing and gates, and a fire suppression compound within the DC02 service yard, screened by louvres.

- 3.3.4 The external appearance of the buildings will largely reflect the existing warehouse form, with elevations clad in insulated metal panels arranged in bays that correspond to the structural grid. The material palette comprises muted grey tones with green accent elements. The external gantry decks will adopt a consistent design approach, incorporating complementary metal cladding profiles and colours. Office areas will be finished in curtain walling with glazed and insulated spandrel panels, with the existing office façades remaining largely unaltered.
- 3.3.5 The proposals prioritise the preservation of the buildings' existing appearance, minimising deconstruction and maximising the reuse of existing structures and materials.
- 3.3.6 The proposed works for the partial deconstruction and adaptation of the existing buildings will be completed in two phases:
- **Initial Deconstruction Phase** – Targeted removal of elements (marked in blue in Figure 3.1)
 - **New Construction Phase** – Upgrading and adapting the buildings for use as Data Centres

Deconstruction Phase

- 3.3.7 The deconstruction phase will include the removal of a portion of the existing roof and rooflights and existing green walls from the northwestern corner of Unit 1 DC1. The existing green walls will also be removed from the eastern and southern elevations. In the southeastern corner of the Site, the existing ramps will be infilled to facilitate the proposed external plant gantry structure. The existing fencing will be removed and replaced with new fencing for parts of the Site.
- 3.3.8 To the south of Unit 1 DC1, the existing sprinkler compound and soakaway will be removed and new reinforced concrete slabs will be installed. At the south western corner of the Site, the existing hardstanding area will be removed and made good, with the bike sheds and bin stores to be relocated.
- 3.3.9 For Unit 2 DC2, the deconstruction will include the removal of the eastern elevation and part of the building, along with the existing green walls on the eastern elevation. To the east of Unit 2 the existing ramp area will be infilled to facilitate the new external plant gantry structure, and the existing concrete paving to be replaced to match the existing surface.
- 3.3.10 The deconstruction works are set in drawing number - PLON01- CWO-SW-ZZ-DR-Q-30002 Sitewide – Deconstruction Plan. Figure 3.1 contains an extract of this drawing.

Figure 3.1 Extract from – Deconstruction Plan (PLON01- CWO-SW-ZZ-DR-Q-30002)



New Construction Phase

3.3.11 The proposed works can be summarised as follows:

- Installation of new, three storey gantry deck serving each building (comprising generator units, buffer tanks and chiller units);
- Alteration to elevations (to reflect new internal arrangement and facilities including an external sub-station within DC01);
- Installation of mezzanine floorspace in each unit; and,
- Alteration to the Site layout including provision for new water tanks, perimeter security and other associated hard and soft landscaping works.

3.3.12 Both buildings are proposed to have a three-tier gantry deck extension which will sit below the existing ridge height of the building (18m at max height). Each gantry will comprise generator units (ground level), buffer tanks (mid-tier level), and chiller units (top level). Each gantry will be served by two staircases. The gantry decks will be enclosed with louvred cladding to screen mechanical equipment and provide acoustic attenuation. Two new loading docks will be relocated adjacent to the office area, where a new ramp is to be constructed.

3.3.13 To meet security requirements, upgrades will be required to the perimeter fencing lines around each building. This will likely include a low-security fence at (1.2 metres height) with gates and a high security fence (2.4 - 3 metres height) with turnstiles, positioned adjacent to the buildings. Acoustic timber fencing to the canal on the south side is to be retained. A site-wide fencing plan is provided on drawing reference PLON01-CWO-SW-ZZ-DR-Q-30004 Rev. P01.

3.3.14 The Proposed Site Layout Plan for the Proposed Development is shown in Figure 3.2 and has been iteratively refined with consultation from the Council.

Gross Internal Floorspace (GIA) Breakdown

3.3.15 The Proposed Development will allow for the creation of internal mezzanine floors within both buildings.

3.3.16 The Site Layout sets out the following areas across the Site, within which the major components, as shown on the Proposed Site Layout Plan, include:

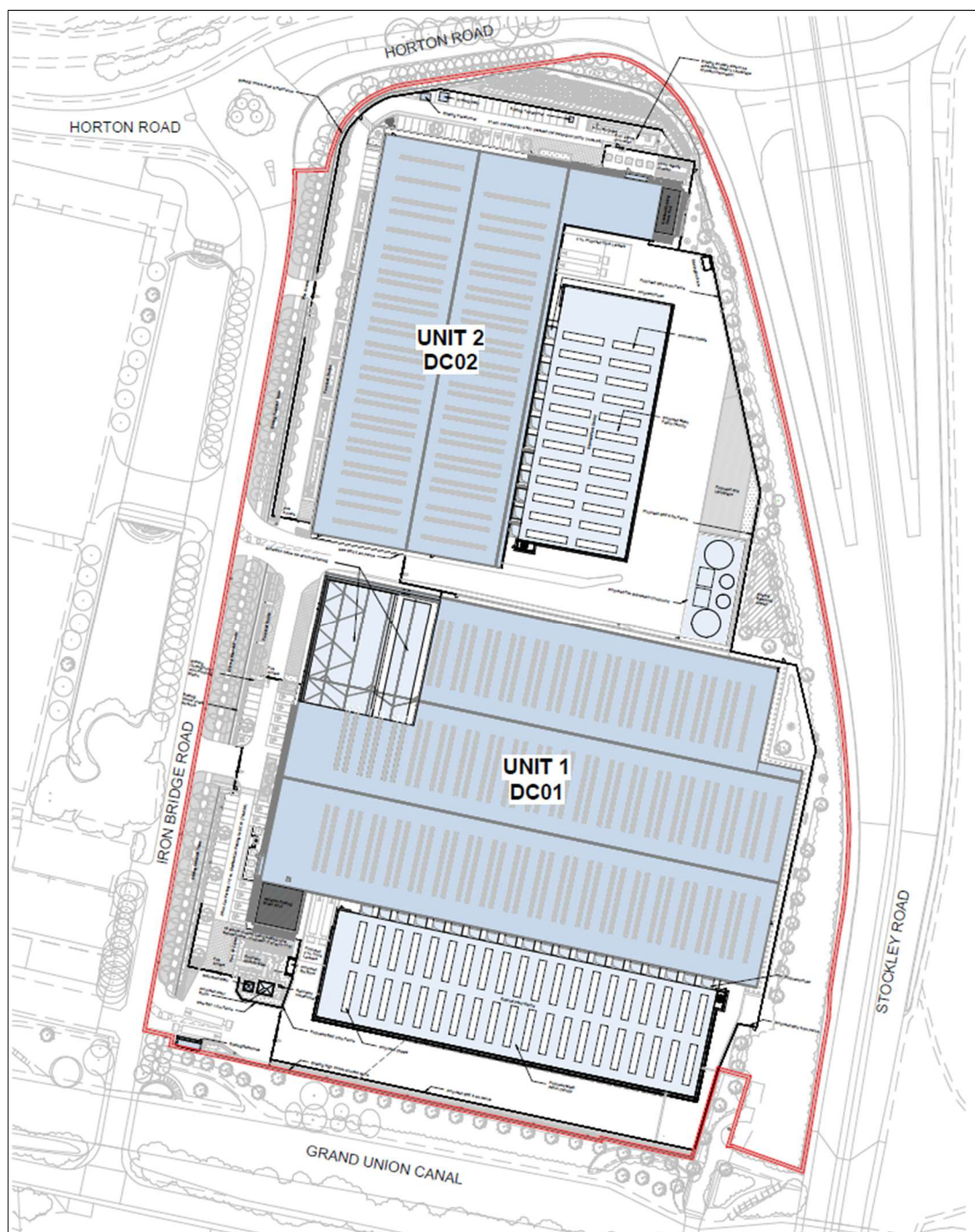
- **DC01 Total: 31,490 sqm**
 - Office: 2,002 sqm
 - Data Centre: 29,488 sqm
- **DC02 Total: 17,524 sqm**
 - Office: 1,926 sqm
 - Data Centre: 15,598 sqm

3.3.17 Given the proposed adaption of the existing buildings this represents an uplift in overall floorspace (GIA) (including the proposed mezzanine floorspace) in line with Table 3.1.

Table 3.1 Comparison between existing and proposed floorspace (GIA)

Existing Floorspace (sqm) (GIA)	Proposed Floorspace (sqm) (GIA)	Uplift (sqm) (GIA)
Unit 1 – 17,673	DC01 – 31,490	13,817
Unit 2 – 12,954	DC02 – 17,524	4,570

Figure 3.2 Proposed Site Layout Plan



Back up generators and operation scenarios

- 3.3.18 The Proposed Development includes a total of 32 CAT 175-20 back-up generators across the two buildings DC01 (20 back-up generators across 4 Data Halls) and DC02 (12 back-up generators across 2 Data Halls).
- 3.3.19 Routine testing operations for the generators will be carried out. This is envisaged to consist of the following:
- Monthly generator by generator tests (various test types taking between 15 minutes and 2 hours per test, a total of 11 hours per year per generator); and
 - Quarterly Data Hall Block tests where multiple generators operate to support the power load of a Data Hall (2-hours duration, a total of 8 hours per year per generator).

Substation

- 3.3.20 The proposed substation forms an integral component of the electrical infrastructure required to support the Data Centre Campus. Its design and siting have been carefully developed to balance technical, operational and ownership requirements, with clearly defined boundaries to allow independent delivery and future adoption. Located within the DC01 footprint, the substation remains closely integrated with the wider Site layout and operational strategy, while functioning as a self-contained facility. The design prioritises ease of access for future adopting authorities, efficient thermal management, and adherence to conventional substation design principles, ensuring the installation is functional, robust and visually appropriate within the established Site context.
- 3.3.21 The generator flues will extend to a maximum height of approximately 18 metres. This height remains within the established ridge height of the existing buildings on site, ensuring that the flues do not introduce any additional vertical prominence beyond that already present within the surrounding built form.
- 3.3.22 The main west façade of the substation compound is enclosed with a continuous-line aluminium louvre system designed to provide effective natural ventilation while maintaining a clean and unified façade appearance. The louvres incorporate slim blades with concealed mullions, creating an uninterrupted horizontal profile that complements the simple, functional character of the enclosure. This system ensures long-term performance and a consistent, well-resolved external treatment.
- 3.3.23 The north façade is subject to only minor alterations, consisting of two access doors serving the substation compound - one newly introduced and the other created by replacing the existing single leaf door with a double leaf door. Additionally, a new ventilation louvre is incorporated into the existing insulated external wall panel to provide the necessary airflow.

Transport and Access

Vehicular Access, Car, Motorcycle and Cycle Parking

- 3.3.24 The existing building entrances will utilise the existing access off Iron Bridge Road North and remain unchanged from the existing arrangement for both DC01 and DC02.
- 3.3.25 Data centre operations are significantly less employee-intensive than traditional storage and distribution uses. As a consequence, the Proposed Development results in a reduction in on-site vehicle parking provision compared to the existing arrangement. The current provision of 239 car parking spaces, together with associated motorcycle and cycle parking, will be replaced

with a total of 73 car parking spaces, including 16 disabled spaces, 11 motorcycle spaces and 80 cycle parking spaces across the Site. The proposed parking areas will be located along the northern elevation of Unit 2 (DC02) and the western elevation of Unit 1 (DC01), ensuring convenient and efficient access for staff and visitors.

Pedestrian Access & Public Transport

- 3.3.26 The Site is well connected to the surrounding area, with pedestrian links to West Drayton situated to the south via Iron Bridge and the Grand Union Canal. A number of Public Rights of Way (PRoW), as described in Chapter 2, are also present within the local area. Yiewsley town centre is located approximately 1.6 km to the east / north-east of the Site and is accessible on foot and by cycle. Pedestrian and cycle access to the Site will continue to be provided via the existing building entrances on Iron Bridge Road. Stockley Park lies immediately to the north of the Site and offers a range of leisure walking routes, which are available for use by Site occupants.
- 3.3.27 These routes also provide connections to local public transport infrastructure. Bus services are available to the immediate north of the Site, including Routes U5, 350 and A10. Due to the Site's size, layout and location, no new pedestrian routes or public transport infrastructure are proposed within the Site boundary.

Delivery, Servicing and Refuse

- 3.3.28 A Delivery, Servicing and Waste Management Plan has been submitted with the application and is appended to the ES at Appendix 3.1. The report sets out how the safe delivery, collection, servicing, refuse and recycling arrangements will be provided for the Site.
- 3.3.29 TfL provides guidance on trip generation for office deliveries (between 0.15 and 0.25 delivery and servicing trips per 100m² GIA per day) and data centre and switch room deliveries (between 0.03 and 0.07 trips per 100m² GIA per day). The development has assumed an average trip generation of 0.20 trips and 0.05 trips per 100m² GIA per day.
- 3.3.30 The majority of servicing trips will take place during the following times:
- Office deliveries – Morning peak between 08:00 - 10:00, aligned with staff occupancy and operational hours.
 - Support deliveries – Morning window 07:00 - 10:00 for scheduled maintenance and equipment deliveries; Evening window 15:00 - 18:00 for waste collection and off-peak logistics.
- 3.3.31 Due to the similarities in both building operations, it is proposed that the minimum waste store size shall be 16m² to enable the provision of two-day storage of the following containers:
- 1No. 100kg Baler
 - 1No. 1100 litre in-bin compactor
 - 1No. Hand Pallet Truck
 - 1No. 1100 litre EuroBin for Residual Waste
 - 1No 360 litre EuroBin for Paper Waste (Office)
 - 1No 360 litre EuroBin for Plastics Waste (Office)
 - 1No 360 litre EuroBin for Aluminium Waste (Office)

- 1No 360 litre EuroBin for Glass Waste (Office)
- 1No 360 litre EuroBin for Food Waste (Office)
- 4No Bales for Paper Waste (2No. Per Pallet)
- 2No Bales for Plastic Waste (2No. per Pallet)

3.3.32 The building will retain its existing waste management infrastructure, which has been designed to support efficient refuse handling and environmental compliance and waste collections will be coordinated in line with site operations to ensure smooth logistics and uphold sustainability standards.

3.3.33 Following the grant of planning permission and the appointment of a waste management contractor, the waste storage strategy will be reviewed and, where necessary, recalculated to reflect the contractor's preferred vehicle types and collection regime. In some cases, increased collection frequency may reduce overall storage capacity requirements. This review will ensure the final waste management solution is operationally efficient and tailored to the appointed contractor's logistics model.

3.3.34 The Delivery, Servicing and Waste Management Plan will be implemented and maintained by the occupier of each data centre, overseen by an appointed site management team or Facilities Management Company.

3.3.35 Further detail on waste generation is outlined below.

Drainage and Flood Risk

3.3.36 A Flood Risk Assessment and Drainage Strategy Report has been produced by Pinnacle Consulting Engineers (Appendix 3.2).

3.3.37 The Site will be drained via a series of SuDS, controlling the rainwater at source before discharging through existing connections into the Grand Union Canal. Surface water run-off from the Proposed Development will be restricted to a greenfield runoff rate of 2 l/s/ha. The total discharge rate from both proposed units is 12.5 l/s.

3.3.38 The Site is in Flood Zone 1 and therefore, is not at risk of flooding however, surface water will discharge into the Grand Union Canal to the south of the Site, via an existing Thames Water surface water sewer in the southeast corner of the Site. As such, the proposed mitigation measures show that the Proposed Development and its users, will be safe from all sources of flood risk over its lifetime.

3.3.39 Attenuation will be provided in the form of below ground attenuation tanks and permeable pavements before discharging from the Site. The strategy will modify the existing layout to remove the Tubosider attenuation pipes and offset the loss of storage through increasing the capacity in the attenuation crates.

3.3.40 The proposed drainage layouts are set out on drawing references located in Appendix E of Appendix 3.2.

Arboriculture

3.3.41 An Arboricultural Assessment has been undertaken by FPCR (reference PLON01-FCP-XX-XX-RP-N-00002). There are a total of 50 individual trees (9 Category U trees and 41 Category C trees) and 10 groups of trees and hedgerows (1 Category U, 6 Category B and, 3 Category C) within the Site boundary.

- 3.3.42 Most of these are part of the ornamental planting undertaken as part of the previous consent. As such, only one Category U tree is proposed to be removed and replaced (due to its crown dying back making it unlikely to recover) and 14 Category C trees are proposed to be relocated.
- 3.3.43 Furthermore, structured tree planting has been identified as part of the landscape proposals for the Site which has been identified within or close to hard landscaped areas.
- 3.3.44 Further details are provided within the Arboricultural Assessment submitted with the planning application reference PLON01-FCP-XX-XX-RP-N-00002.

Landscape

- 3.3.45 A Landscape Statement has been produced by MacFarlane and Associates (ref. PLON01-MFA-SW-XX-RP-L-00701) (Appendix 3.3). This details areas across the Site for new and enhanced landscaped areas as well as areas to be relocated as part of the proposals. The landscape strategy aims to minimise the loss of existing green and blue infrastructure to support biodiversity and better the greening of the Proposed Development. The soft Landscape Strategy focuses on enhancing trees, woodland, hedgerows and shrubs, SuDS and rain gardens, seeding areas and green roofs.
- 3.3.46 Existing areas of landscaping between the two units are proposed to be enhanced as well as a new area of landscaping to the north of the new substation and additional areas to the south. Ornamental hedgerow planting will also be located to the west of the proposals in order to replace car parking areas and further soften the building and other hard landscaped areas on the most prominent boundary of the Site.

Biodiversity Net Gain

- 3.3.47 A statutory 10% biodiversity net gain is required across all Sites affecting habitats on Site. Although the Site is mostly hardstanding, it does not meet any of the mandatory BNG exemptions and would be subject to a 10% biodiversity net gain. As such, a Biodiversity Net Gain Assessment is required.
- 3.3.48 There is proposed to be a 16.50% increase in area habitat units and a 54.22% increase in hedgerow units. As such, the proposals meet and exceed the 10% biodiversity net gain requirement.
- 3.3.49 A mature landscape buffer runs along the northern, southern and eastern boundaries of the Site. To the south is the Grand Union Canal and a pedestrian walkway along the canal.

Lighting

- 3.3.50 An External Lighting Assessment has been prepared by RED Engineering Design Ltd (Appendix 3.4). The Site is classified in the Environmental Zone E4 and the Proposed Development has been assessed using industry-standard modelling tools under standard operation conditions.
- 3.3.51 The Proposed Development is located within an existing urban area and is already surrounded by light-emitting sources primarily due to its setting in a well-established industrial area characterised by elevated ambient brightness and extensive commercial infrastructure. Proposed lighting levels at sensitive boundaries remain broadly consistent with the existing baseline, with reductions noted in some locations due to improved light containment.
- 3.3.52 Vertical luminance at sensitive boundaries has been assessed to remain within acceptable levels under standard operational conditions, helping to minimise environmental impact.

Additionally, the lighting layout has been designed to orient luminaries inward wherever feasible, reducing visibility and light spill whilst also providing sufficient operational and safety needs.

- 3.3.53 As such, lighting design maintains compliance with relevant planning and ecological standards. Further information can be found in Appendix 3.4.

Utilities

- 3.3.54 A Utilities Statement has been produced by RED Engineering Design Ltd. is included in Appendix 3.5. The Site contains various utility infrastructure installed as part of the previous consent.

Power / Electricity

- 3.3.55 The Site will be served by two 84MVA 132kV connections from the Uxbridge Moor National Grid substation, routed to the dedicated 132/33kV substation which is proposed to be installed to meet the high resilience requirements inherent in data centre facilities. The grid substation will distribute power to 2no. individual transformers located on Site and power will be located within the Site's primary substation control room.

Potable Water & Drainage

- 3.3.56 The Site is currently served by a utility main provided by Affinity Water. Four incoming water supplies support buildings DC01 and DC02. Each supply enters the Site via Iron Bridge Road North, where utility meters and demarcation points are located with each unit being routed with a 63mm MDPE mains cold water supply and a 160mm HDPE fire water supply.
- 3.3.57 Given that the data centres will not utilise evaporative cooling or significantly increase domestic water demand, the existing supply on Site is considered suitable for reuse.
- 3.3.58 The 160mm fire water mains, originally installed to support future sprinkler systems, will be repurposed to serve the new Site-side private hydrant and sprinkler networks. A formal application will be submitted to Affinity Water to confirm capacity and to align with future infrastructure requirements.
- 3.3.59 The Site will connect to the existing foul and surface water sewers to the Thames Water network with the same discharge restriction to greenfield runoff rate on surface water. SuDS have also been included in the development and permeable surfaces have been provided to external areas. Storm water storage has also been provided in the form of geocellular tanks. Further details can be found in the Flood Risk Assessment and Drainage Strategy Report (Appendix 3.2)
- 3.3.60 Existing connections from the development Site to Thames Water public sewers in Bullsbrook Road and Uxbridge Road will be used.

Gas

- 3.3.61 The Proposed Development does not require gas for its future operation and the planning application includes the intention to fully decommission and remove the existing gas infrastructure.

Telecommunications

- 3.3.62 There are four intake routes for the Site which will allow diversely routed fibres to enter the campus and route in the Meet Me Rooms and Main Equipment Rooms.

3.3.63 Carrier fibre cables will enter into the Site via underground Entry Vaults (EV's), with the intent of maximum separation between each EV. Additional vaults/chambers would be located throughout the whole robust fibre duct network which is proposed to be installed around each of the Data Centre buildings.

3.3.64 Full details of the existing utilities on and around the Site are provided within the Utilities Statement (Appendix 3.5).

3.4 Construction and implementation

3.4.1 This section describes the anticipated programme of deconstruction and construction works and the key activities that will be undertaken prior to completion and occupation of the Proposed Development.

Indicative Construction Duration

3.4.2 The project is anticipated to commence on site in approximately Q1 2028. An indicative programme of works is set out below which provides guidance on the likely duration of the Proposed Development.

Table 3.2 Indicative construction programme

Programme Dates – DC5/DC01	Scope of Works
01.04.28 - 30.04.28	Site mobilisation
02.05.28 - 04.08.28	Demolition
10.07.28 - 11.09.28	Piling
24.07.28 - 02.10.28	Groundworks and Substructure
18.08.28 - 17.05.29	Frame & Envelope
01.09.28 - 25.06.29	New Gantry
16.10.28 - 19.10.29	MEP/ Fitout
03.09.29 - 18.01.30	Commissioning (Cx3 to Cx5)
18.01.30	DC5 Complete
Programme Dates – DC6/DC02	Scope of Works
31.05.28 - 22.08.28	Demolition
16.08.28 - 04.10.28	Piling
07.09.28 - 18.10.28	Groundworks and Substructure
28.09.28 - 14.03.29	Frame & Envelope
23.08.28 - 22.05.29	New Gantry
23.11.28 - 11.09.29	MEP/ Fitout
03.09.29 - 18.01.30	Commissioning (Cx3 to Cx5)
18.01.30	DC6 Complete

Methods of Working

3.4.3 It is anticipated that a contractor's compound will be located as a secure area within the Site, and will be relocated where necessary, as each construction phase nears completion onto the subsequent phase. All materials and plant storage will occur on the Site and no off-site compounds are necessary.

3.4.4 The working hours are anticipated to be 07:00 – 18:00 hours in the following pattern:

- Morning arrival – 7:00 – 9:00
- Morning Break – 9:30 – 11:30
- Afternoon Break – 12:30 – 14:30

- End of day departure – 16:00 – 18:00

3.4.5 In order to maintain these working hours, the contractor(s) may require a period of up to half an hour before and up to one hour after normal working hours for start-up and close down of activities. This does not include operation of plant or machinery giving rise to noise with the potential to disturb nearby residents or the arrival of any HGV at the Site before 07:30 hours.

Construction Traffic

3.4.6 A Framework Construction Logistics Plan (FCLP) (see Appendix 3.6) has been produced and details measures to protect the environment during the construction of the Proposed Development. A final version is expected to be secured by planning condition.

3.4.7 It is anticipated that access to the Site for construction vehicles will be via Iron Bridge Road North. Details of the proposed construction routing will be agreed with LBH and the relevant highway authority prior to commencement of construction work.

3.4.8 All construction personnel will be advised of the parking restrictions in force in the vicinity of the Site and encouraged to use public transport, walk or cycle to work. Site personnel will be made aware of protocols setting out the secure entry/exit routes to the Site, travel planning details, emergency evacuation procedure and the proposed delivery management strategy during the construction phase.

3.4.9 Once finalised and approved by the Local Planning Authority, the FCLP would be held on-site. All site personnel would be made aware of its existence and undertake to adhere to the guidance within it.

3.4.10 In order to limit impacts, mitigation include, but are not limited to the following:

- All vehicles will switch off engines when stationary – a ‘no idling vehicle’ policy will be enforced on the Site.
- Using water sprays or sprinklers to keep the dust down during activities such as filling skips, breaking concrete and managing stockpiles;
- Washing the wheels of vehicles leaving the site, if they are carrying mud or waste;
- Putting up solid barriers around the Site;
- Properly covering lorries that leave the Site carrying waste;
- Cleaning the road and footpath near the site entrance when needed;
- Using dust bags, spraying water or, when using disk cutters, making the working area wet before using the machinery

3.4.11 All vehicle routes used by construction traffic will be regularly inspected for any deposits of soil/debris deposited by construction traffic and if necessary, the road will be swept using a mechanical sweeper.

3.4.12 All vehicles exiting the Site will be checked to ensure that loads are fully sheeted and secure and that no spoil is carried out to the public highway. Vehicles will pass through a wheel washing facility, which is to be installed and utilised by all contractors before they leave the Site.

- 3.4.13 Dust suppression will be achieved by ensuring that all materials transported to/from the Site are enclosed or fully sheeted. During dry periods the construction surfaces will be dampened to control the generation of dust.
- 3.4.14 To assist in timing of deliveries, larger vehicle movements will be scheduled to avoid peak hours on the local road network, wherever practicable. A suitable structure will be in place (e.g. delivery booking system) to manage delivery scheduling in accordance with these measures.
- 3.4.15 The construction compound is expected to be located within the car park of the Site with welfare facilities located in the offices on Site or within the car park areas. It is proposed that the welfare building will be close to the Site entrance.

Safe storage of fuel/oil

- 3.4.16 The safe storage and use of fuels for the plant will be a priority in site management. Drainage within the temporary, secure site compound where construction vehicles will park and where any diesel fuel will be stored, will be directed to an oil interceptor to prevent pollution should any spillage occur. Diesel storage and refuelling will be within a designated area or a self-bunded tank in accordance with the Government's Oil Storage Regulations. All oil storage tanks are proprietary self-bunded to equal quantities of oil held. This is regarded as industry standard practice and also includes mandatory legal requirements which are considered as integral to the development. Spill kits and mandatory spillage reporting are standard procedures.

Health and Safety

- 3.4.17 All work will be undertaken to relevant Health and Safety legislation. The construction of the Proposed Development will be supervised in accordance with the CDM Regulations 2015. Risk assessment will be undertaken for each work package prior to activities taking place. A dedicated banksman will assist drivers with accessing and exiting the loading areas, guide vehicles into position and help manage interactions between smaller vehicles. A Health, Safety and Wellbeing Plan (including a Fire & Emergency Plan) will be kept on Site.

3.5 Waste

- 3.5.1 A Delivery, Servicing and Waste Management Plan has been produced by RED Engineering Design Ltd. for the Proposed Development (Appendix 3.1). This report sets out the estimated waste arising from the deconstruction, construction and operational stages of the Proposed Development and sets out waste minimisation measures for the Proposed Development to comply with all relevant waste legalisation and promote strong performance in waste reuse and recycling.

Circular Economy

- 3.5.2 As the Proposed Development is required to commit to Circular Economy Principles, a Circular Economy Statement has also been produced by RED Engineering Design Ltd. (Appendix 3.7).
- 3.5.3 Circular Economy principles should be a fundamental part of the building design process and comprise: building in layers; designing out waste; designing for longevity; designing for adaptability or flexibility; designing for disassembly; using systems, elements or materials that can be reused or recycled.
- 3.5.4 To minimise deconstruction impacts, the building will be mostly retained and adapted and prioritise the diversion of any residual non-hazardous deconstruction and construction waste that would be generated on-Site. For municipal waste, the integration of adequate flexible space for waste segregation and recycling during occupation will be undertaken. A target of 20% or

more of key materials (steel, aluminium, cladding and concrete) will be recycled as part of the development.

- 3.5.5 This will all be embedded into the Site Waste Management Plan for all contractors during deconstruction and construction.

Deconstruction Waste

- 3.5.6 The Proposed Development involves the partial deconstruction of DC02, shown comparatively in the existing Site Layout plan and the Proposed Site Layout plan.
- 3.5.7 The management of deconstruction waste focuses on controlling all materials generated during deconstruction activities. This process includes carefully sorting materials for reuse or recycling, either on-Site or off-Site, as well as ensuring that hazardous waste is appropriately disposed of. Materials such as wood, metal, concrete, and both hazardous and non-hazardous substances are to be segregated at the Site. All handling of any hazardous waste will follow safety regulations.

Construction Waste

- 3.5.8 All construction waste will be separated on Site with as much as possible being recycled. The mixed waste which is not suitable for on Site separation will be sent to a waste separation centre where it is further separated and any material that can be recycled is removed. A very small percentage of overall construction waste is then sent to landfill if it is not suitable for recycling.
- 3.5.9 Construction waste arisings have been estimated using material quantities derived from the Building LCA model. Material-specific wastage ratios (ranging from 1-10%) have been applied in accordance with One Click LCA default values, reflecting typical UK construction practices. Further information is contained in the Whole Life Carbon Assessment (Appendix 7.1).

Operational Waste (Commercial Waste Generation and Storage)

- 3.5.10 When completed and occupied, there would be a decrease in the volume of waste generation but more specialised in nature compared to the consented use of the buildings. To manage waste efficiently and sustainably, the proposed operation will implement a waste collection consolidation strategy overseen by the on-Site Facilities Management team.
- 3.5.11 The Facilities Management team will coordinate across both buildings to minimise vehicular trips and improve operational efficiencies. The Facilities team will maintain records of waste volumes, collection frequency and contractor compliance to support sustainability reporting, continuous improvements of waste handling practices and adherence to local authority and environmental regulations.
- 3.5.12 As set out within the Delivery, Servicing and Waste Management Plan (Appendix 3.1), waste generation estimates have been calculated based upon from BS 5906:2005 – Waste Management in Buildings: Code of Practice and the following operational assumptions:
- Office areas generate 50 litres of waste per employee per week, with 1 employee per 10 m²;
 - Data centre areas generate 5 litres of waste per m² per week;
 - Office spaces operate 5 days per week, while data centres operate 7 days per week;
 - Waste storage is designed to accommodate two days' worth of waste for resilience;

- Waste will be collected daily, with flexibility for peak periods;
- A minimum clear headroom of 2.4m is required to accommodate 1,100 litre Eurobins and compactors.

3.5.13 The two-day waste generation and storage predictions are set out in Table 3.4.

Table 3.3 Site two-day waste generation and storage

BUILDING	DC01	DC02
Office Area (sqm)	2,002	1,926
Data Hall and Switch room Area (sqm)	29,488	15,598
Projected Occupancy	40 (30 perm + 10 Visitors)	30 (20 Perm + 10 Visitors)
Estimated Two-Day Waste Generation (Litres)	2,525.09	1,491.00

3.5.14 The development will adopt a private refuse collection strategy to manage waste generation on-site.

Hazardous Waste

3.5.15 It is anticipated that small volumes of hazardous waste will be generated during the operation. To ensure safe and compliant handling, dedicated equipment will be provided within each building's waste area for the storage and collection of specific hazardous materials. Batteries will be stored in appropriately sized containers; fluorescent bulbs will be placed in secured, rigid, closable containers; paints, solvents and chemicals will be housed in a lockable flammable safety cabinet; printer cartridges will be collected in lidded containers or via manufacturer 'take back' schemes; and waste electrical and electronic equipment will be stored in suitable wheeled or caged containers. These provisions support safe segregation and disposal in accordance with relevant regulations.

3.6 Assessment Plan

3.6.1 The below table sets out the list of assessment plans.

Table 3.4 List of Assessment Plans

Plan Reference	Plan Name
PLON01-CWO-SW-ZZ-DR-Q-30000 Rev P01	Site Location Plan
PLON01- CWO-SW-ZZ-DR-Q-30002 Rev. P01	Sitewide – Deconstruction Plan
PLON01-CWO-SW-ZZ-DR-Q-30003 Rev P01	Sitewide – Proposed Site Layout
PLON01-CWO-SW-ZZ-DR-Q-30004 Rev. P01	Sitewide – Proposed Fencing Plan
PLON01-CWO-SW-ZZ-DR-Q-50001 Rev.P01	Details – Ancillary buildings
PLON01-CWO-SW-ZZ-DR-Q-50002	Details – Bike Shed
PLON01-CWO-D1-00-DR-Q-32001 Rev. P01	DC01- Level 00 – Existing Plan
PLON01-CWO-D1-00-DR-Q-32011 Rev. P01	DC01- Level 00 – General Arrangements Plan

PLON01-CWO-D1-00-DR-Q-62001 Rev. P01	DC01- Level 00 – Deconstruction Plan
PLON01-CWO-D1-M0-DR-Q-32002 Rev. P01	DC01- Level M0- Existing Plan
PLON01-CWO-D1-01-DR-Q-32003 Rev. P01	DC01- Level 01- Existing Plan
PLON01-CWO-D1-01-DR-Q-32013 Rev. P01	DC01- Level 01- General Arrangement Plan
PLON01-CWO-D1-01-DR-Q-32012 Rev. P01	DC01- Level M0- General Arrangement Plan
PLON01-CWO-D1-02-DR-Q-32004 Rev. P01	DC01- Level 02- Existing Plan
PLON01-CWO-D1-02-DR-Q-32014 Rev. P01	DC01- Level 02- General Arrangement Plan
PLON01-CWO-D1-RF-DR-Q-32005 Rev. P01	DC01- Level RF – Existing Plan
PLON01-CWO-D1-RF-DR-Q-32015 Rev. P01	DC01- Level RF- General Arrangement Plan
PLON01-CWO-D1-RF-DR-Q-62005 Rev. P01	DC01- Level RF – Deconstruction Plan
PLON01-CWO-D1-XX-DR-Q-42001 Rev. P01	DC01 – Existing Elevations
PLON01-CWO-D1- XX-DR-Q-42005 Rev. P01	DC01 – Existing Sections
PLON01 – CWO-D1-XX-DR-Q-42010 Rev. P01	DC01 – General Arrangement - Elevation
PLON01- CWO- D1-XX- DR- Q- 42020 Rev P01	DC01- General Arrangement - Sections
PLON01-CWO-D1-XX-DR-Q-62010 Rev. P01	DC01 – Deconstruction - Elevations
PLON01-CWO-D2-00-DR-Q-32006 Rev. P01	DC02- Level 00 – Existing Plan
PLON01-CWO-D2-00-DR-Q-32016 Rev. P01	DC02- Level 00 – General Arrangement
PLON01-CWO-D2-RF-DR-Q-62002 Rev. P01	DC02 – Level 00 Deconstruction Plan
PLON01-CWO-D2-01-DR-Q-32008 Rev. P01	DC02- Level 01 – Existing Plan
PLON01-CWO-D2-01-DR-Q-32018 Rev. P01	DC02- Level 01 – General Arrangement
PLON01-CWO-D2-02-DR-Q-32009 Rev. P01	DC02- Level 02 - Existing Plan
PLON01-CWO-D2-02-DR-Q-32019 Rev. P01	DC02- Level 02- General Arrangement
PLON01-CWO-D2-M0-DR-Q-32007 Rev. P01	DC02 – Level M0 – Existing Plan
PLON01-CWO-D2-M0-DR-Q-32017 Rev P01	DC02-Level M0 -General Arrangement Plan
PLON01-CWO-D2-RF-DR-Q-32010	DC02- Level RF – Existing Plan
PLON01-CWO-D2-RF-DR-Q-32020	DC02-Level RF-General Arrangement Plan
PLON01-CWO-D2-RF-DR-Q-62006 Rev. P01	DC02 – Level RF- Deconstruction Plan
PLON01-CWO-D2-XX-DR-Q-42002 Rev. P01	DC02 – Existing Elevations
PLON01-CWO-D2- XX-DR-Q-42006 Rev. P01	DC02 – Existing Sections
PLON01-CWO-D2-XX-DR-Q-42011 Rev.P01	DC02-General Arrangement- Elevations
PLON01-CWO-D2-XX-DR-Q-42021 Rev P01	DC02- General Arrangement- Sections
PLON01-CWO-D2- XX-DR-Q-62011 Rev. P01	DC02 – Deconstruction - Elevations
PLON01-MFA-SW-XX-DR-L-03700	Proposed Landscape General Arrangement Plan
PLON01-MFA-SW-XX-DR-L-03701	Proposed Landscape Strategy

PLON01-MFA-SW-XX-DR-L-03702	Landscape Habitat Plan
PLON01-MFA-SW-XX-DR-L-03706	Proposed Tree Protection Plan and Tracking
PLON01-MFA-SW-XX-DR-L-03707	Proposed Landscaping Planting Plan
PLON01-MFA-SW-XX-DR-L-03708	Existing Green Infrastructure to be removed/replaced
PLON01-MFA-SW-XX-DR-L-03714	Proposed Tree Protection Plan and Utilities