Iron Bridge Road

# EIA Scoping Opinion Request

October 2025

Prepared on behalf of Prologis UK Ltd


savills

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| **Document title:** | EIA Scoping Request |
| **Project:** | Redevelopment of Units 1 & 2, Iron Bridge Road, Hillingdon |
| **Client:** | Prologis UK Ltd |
| **Job number:** | 731544 |
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# Contents

# 1 Introduction

## 1.1 Introduction

1.1.1 This Environmental Impact Assessment (EIA) Scoping Report has been prepared by Savills (UK) Limited ('Savills'), with input from the EIA project team (see section 1.2), on behalf of the Prologis UK Ltd ('the Applicant'). The report supports a request for the EIA Scoping Opinion of the London Borough of Hillingdon ('LBH' / 'the Council'), as the Local Planning Authority (LPA).

1.1.2 The Applicant intends to submit a full planning application to the LBH seeking planning permission for the Redevelopment of Units 1 & 2, Iron Bridge Road, Hillingdon. **Chapter 3 - The Proposed Development** provides a description of the anticipated proposals.

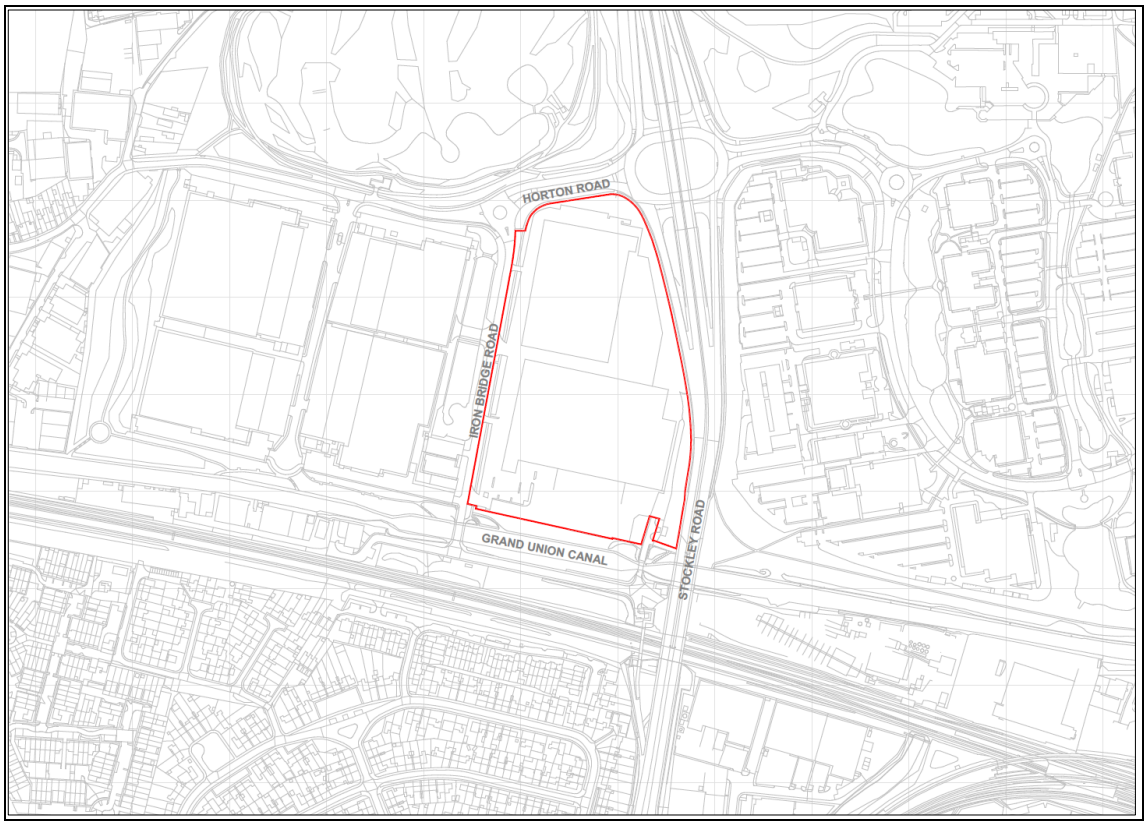
1.1.3 Before submitting the planning application, the Applicant will undertake an EIA for the Proposed Development. The EIA will be undertaken in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (the 'EIA Regulations').

1.1.4 This report provides preliminary environmental information in relation to the Proposed Development at Units 1 & 2 Iron bridge Road, Hillingdon (the "Site") and suggests the scope of key issues that the subsequent EIA will need to examine. Regulation 15 enables a person to ask the relevant planning authority to confirm in writing its opinion as to the scope, and the level of detail, of the information that should be provided in the Environmental Statement (ES).

1.1.5 For the purposes of EIA Scoping, the Proposed Development comprises partial deconstruction and adaptation of existing buildings; installation of new gantry decks housing MEP, a sub-station and fire suppression infrastructure; and associated physical works including alterations to the layout of the Site.

1.1.6 The Site to which this scoping request relates is shown on the Location Plan – Figure 1.1.

**Figure 1.1 – Site Location**




### EIA Project Team

1.1.7 The EIA project team has been led by consultants Savills, with input from other specialists both internal and external to the company. The project team comprises:

**Table 1.1 The EIA Project Team**

| Chapter | Environmental Topic | Author |
|---|---|---|
| 1 | Introduction | Savills |
| 2 | Site Description | |
| 3 | The Proposed Development | |
| 4 | Consultation, Site Selection and Alternatives | |
| 5 | EIA Approach | |
| 6 | Air Quality and Odour | SLR Consulting Limited |
| 7 | Climate Change and Greenhouse Gases | Red - Eng |
| 8 | Conclusion | Savills |

## 1.2 Proposed Scope of EIA

1.2.1 The proposed scope of the EIA is summarised within Table 1.2. Further details can be found in Chapter 5. Details on specific elements within each of the below environmental topics which are proposed to be scoped in are detailed within Chapters 6 and 7.

**Table 1.2 Scope of the EIA**

| Topic | EIA Scoping Report Chapter | Scoped In / Out |
|---|---|---|
| Air Quality | 6 | Scoped in |
| Climate Change and Greenhouse Gases | 7 | Scoped in |
| Ground Conditions and Contamination | 5 | Scoped out |
| Townscape and Visual | 5 | Scoped out |
| Heritage | 5 | Scoped out |
| Archaeology | 5 | Scoped out |
| Biodiversity | 5 | Scoped out |
| Transport | 5 | Scoped out |
| Hydrology | 5 | Scoped out |
| Noise | 5 | Scoped out |
| Major accidents and disasters | 5 | Scoped out |
| Waste | 5 | Scoped out |
| Utilities | 5 | Scoped out |
| Wind microclimate, daylight overshadowing | 5 | Scoped out |
| Human Health | 5 | Scoped out |

1.3.2 The Council is experienced in dealing with major data centre developments in its Borough and this proposal has been discussed as part of ongoing consultation between the Applicant, the EIA Project Team and the Council. Through these discussions, it has been suggested that the key elements to be considered are Air Quality and Climate Change & Greenhouse Gases.

1.3.3 Technical Notes on these two topics were submitted to the Council as part of the formal pre-application process.

1.2.2 To determine the likely scope of the EIA, this report identifies:

- the key characteristics of the Site and the environmental baseline.
- survey work that is proposed.
- the extent and scope of the Proposed Development.

- initial consideration of the potential sources and nature of environmental impacts; and
- the assessment methodologies proposed to be used in each study area.

1.2.3 Regulation 15(2) of the EIA Regulations identifies that a request seeking a scoping opinion must include:

*(i) a plan sufficient to identify the land.*

*(ii) a brief description of the nature and purpose of the development, including its location and technical capacity.*

*(iii) an explanation of the likely significant effects of the development on the environment; and*

*(iv) such other information or representations as the person making the request may wish to provide or make.'*

1.2.4 This information is contained in this scoping report, which is structured into Chapters as follows:

- **Chapter 2** - describes the Site, the surrounding context, and identifies sensitive receptors.
- **Chapter 3** - provides information about the development proposed.
- **Chapter 4** – provides approach to consultation, site selection and alternatives.
- **Chapter 5** - outlines the approach that will be undertaken in preparing the EIA and identifies the effects considered to be insignificant, and 'scoped out' of the EIA.
- **Chapters 6 and 7** - provide a review of the relevant baseline, outline the potential environmental effects and the proposed scope of the assessment, under the individual topic headings of Air Quality and Climate Change and Greenhouse Gases ; and
- **Chapter 8** - provides and summarises the proposed scope and lists the proposed ES contents.

1.2.5 On receipt of this report, the Council should consult with statutory bodies (Regulation 2(1)) before adopting their formal EIA Scoping Opinion. The Scoping Opinion will confirm the key environmental considerations to be assessed.

# 2 The Site and Local Context

## 2.1 The Site

2.1.1 This chapter provides a description of the Site and its setting. Further details relevant to the proposed scope of the technical assessments are provided in Chapters 6 and 7.

2.1.2 The Site (as shown in Figure 1.1) is located in West Drayton in the London Borough of Hillingdon. It is located 1 km north of Junction 4 of the M4 (Heathrow Airport exit) and close to the M25, with direct access via Stockley Road (A408).

2.1.3 The Site is the eastern section of Prologis Park West London and comprises 6.3 hectares. It currently includes two vacant B8 warehouse buildings (Unit 1 and 2), which were granted permission in 2021 and completed in 2023. The wider estate comprises a total of six, large scale industrial buildings of which the Site contains the eastern two.

2.1.4 There are strips of mature landscaping along the northern, eastern and southern boundaries of the Site. To the south is the Grand Union Canal with its towpath, which adds to the accessibility and setting of the Site.

2.1.5 The two existing buildings on the Site have dedicated car parking and service yards, accessed directly from Iron Bridge Road. Three storey office elements are integrated into both buildings – Unit 1 faces onto Iron Bridge Road and Unit 2 faces onto Horton Road.

2.1.6 Unit 1 and 2 are single storey warehouse units having floorspaces of 18,063 sq. m and 13,290 sq. m respectively. Each building has an overall height of 18m.

2.1.7 The existing buildings are currently vacant but benefit from flexible use with use classes B1c/B2/B8.

2.1.8 The existing site and its surroundings are shown the Site Location Plan (Figure 1.1).

2.1.9 **Relevant Planning History**

2.1.10 On 24 June 2021, planning permission was granted for: *Redevelopment of the site to provide two industrial units providing industrial floorspace (Use Class B1c/B2/B8) and ancillary offices together with associated parking, access arrangements, landscaping and infrastructure* (Ref: 39207/APP/2020/218) ('**2021 Permission**').

2.1.11 The 2021 Permission was granted subject to 26 conditions. Condition 20 allows the floorspace to be used flexibly within Class E(g), Class B2 and Class B8. Recent decisions made by the Secretary of State confirm that a 'data centre' operation falls within Use Class B8.

## 2.2 Site Context

2.2.1 The four buildings adjacent to the west of the Site were originally designed and constructed for industrial and logistic use and were subsequently converted to data centres

2.2.2 To the east, on the other side is Stockley Road (A408), is a series of large 2 and 3 storey office buildings, known as Stockley Park. To the north is a belt of significant mature landscaping with Stockley Country Park and Stockley Golf Course beyond.

2.2.3 To the south of the Site, between the Grand Union Canal and mainline railway, lies a cluster of industrial yards that include car parking and storage facilities. Beyond is the closest area of residential development.

2.2.4 The Site has a Public Transport Accessibility Level (PTAL) Rating of 1b and 2 and is located within Flood Zone 1, as defined by the Environment Agency.

2.2.5 The Site forms part of Stockley Park Registered Park and Garden (RPG) (Grade II). The original buildings and layout of the Site, which was the subject to the listing (made in August 2020), has been superseded by the more recent redevelopment.

## 2.3 Aspects to be considered in the scheme design and environmental assessment

2.3.1 It has been agreed with the Council as part of the pre-application engagement and advice that the ES will need to include detailed chapters dealing with:

- Air Quality; and
- Climate Change and Greenhouse Gases

2.3.2 As set out above, technical scoping notes have been provided by the Applicant in respect of each of these main topics to help establish the approach and methodology for any detailed assessment.

2.3.3 In addition to the scoped in topics, other relevant issues in relation to the project have been considered within Chapter 5 and include:

- Noise and vibration in relation to occupiers of nearby existing dwellings/commercial premises in proximity to the Site;
- The townscape and landscape character of the Site, and its surrounding environs;
- Heritage as a result of the nearby Registered Park & Garden – Stockley Park, the boundary of which still includes the Site;
- Users of local roads, transport services and public rights of way both on and in proximity to the Site:
- Ecological Habitats and species present both on and in proximity to the Site;
- Sensitive receptors that would be introduced to the Site as a result of the Proposed Development, including site workers and nearby residents and their children, tenants and other site users who would be present during either the construction phases or upon completion of the development (the operational phases).
- Surface water regimes both on and in proximity to the Site, including Site drainage characteristics.

# 3 The Proposed Development

3.1.1 The planning application will seek full planning permission for a series of physical works to adapt the existing buildings on the Site to create two new data centres (to be referred to as Data Centre 01 ('DC01') and Data Centre ('DC02').

3.1.2 The proposed works (as currently envisaged) can be summarised as follows:

- Partial deconstruction of Unit 2.
- 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 site layout including provision for new water tanks, perimeter security, parking, access and other associated hard and soft landscaping works.

3.1.3 In terms of the proposed suite of generators, the current concept includes the installation of a low-voltage, standby generator to support the critical power infrastructure.

3.1.4 A total of 32 generators is currently proposed to be installed at the Site as follows:

- 20 units will be installed in Building DC01; and
- 12 units will be installed in Building DC02.

3.1.5 The total proposed floorspace (GIA) of the Proposed Development is:

**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

3.1.6 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 |

3.1.7 A new external substation is proposed at the north-west corner of DC01. It will be designed to sit within the envelope of the original building with louvred panels to ensure it remains visually recessive and sympathetic to the existing architecture.

3.1.8 Both buildings are proposed to have a three-tier gantry deck extension which will sit below the existing ridge height of the building (estimated to be approximately 16.3m 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. The flues serving the generators will measure approximately 17.65m at max height which is also within the established ridge height of the existing buildings.

3.1.9 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 suggested to be retained. The final approach to and detail of all perimeter treatment and any alterations to hard and soft landscaping (including green walls) will be the subject to further consideration.

3.1.10 The Existing and Proposed Site Layout Plan are included as **Appendix 2 and 3** (respectively).

**Indicative Phasing**

3.1.11 The phasing of the Proposed Development is yet to be confirmed. However, it is currently envisaged that the proposed works would be delivered in two distinct phases.

- **Initial Demolition Phase** – Targeted removal of elements such as loading bay docks, doors, and the eastern section of Unit 2
- **New Construction Phase** – Upgrading and adapting the buildings for use as Data Centres, aligned with updated design and performance criteria.

3.1.12 The EIA will consider impacts arising from the deconstruction, construction and operational phases of the Proposed Development. Whilst elements will be redeveloped, replaced and renewed over time, the Proposed Development is designed as a permanent provision and therefore a future demolition/decommissioning phase is not applicable.

## 3.2 Mitigation and controls

***Control of construction activities***

3.2.1 The assessment of effects prior to the adoption of additional mitigation measures will assume that construction will proceed in accordance with industry standard best practice techniques and that all legislative requirements will be met. Standard measures can be secured through planning conditions and will therefore not be repeated as mitigation in the ES. These include site waste management; construction and environment management; construction traffic management.

3.2.2 The development proposal involves the adaptation of the two existing buildings into Data Centre 01 (DC01) and Data Centre 02 (DC02). The emerging design prioritises the preservation of the buildings' existing appearance, minimising demolition and reusing the existing structures and materials wherever feasible. The proposals are consistent with the adaptation works successfully completed in the four buildings directly to the west of the Site.

3.2.3 The existing buildings' street facing facades and site entrances will remain largely unchanged. The number of parking spaces will be reduced due to internal reconfigurations required for the new use and its lower building occupancy. Internally, the building will be partitioned to facilitate its conversion into a data centre.

***Procedure for dealing with contaminated material***

3.2.4 As part of previous development, it has been identified that the Site has low risk of contamination and, where necessary remediation has taken place. A summary of the ground conditions and works relating to remediation is being undertaken by Pinnacle and will be submitted with the planning application.

3.2.5 In the event that contaminated material is identified during site preparation, the contractor would follow standard procedures to:

- notify the Environmental Health department of the discovery.
- secure the area / take action to prevent the release of contamination.
- appoint a specialist to carry out the necessary analysis to identify the substance and appropriate containment/disposal options.
- dispose of the material in accordance with applicable legislation after obtaining the necessary consents and / or licenses; and
- record waste transfer / disposal certificates.

# 4 Consultation, Site Selection and Alternatives

## 4.1 Development Alternatives

4.1.1 Schedule 4, paragraph 2 of the EIA Regulations requires Environmental Statements to include:

*'A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.'*

4.1.2 In selecting the Site, the Applicant considers that it represents an environmentally preferable option. The proposal seeks to repurpose and adapt existing buildings, thereby avoiding the need for full demolition and new construction, which would result in significantly higher embodied carbon emissions and construction waste. The conversion approach makes efficient use of existing infrastructure and materials, minimising resource consumption and environmental disturbance.

4.1.3 The existing floorspace is already suitable for use within Class B8, benefits from established grid capacity and fibre resilience, and forms part of a well-established employment location adjacent to an existing data centre campus. The reuse of vacant built floorspace ensures that the development delivers modern operational capability while limiting environmental impacts associated with new build alternatives.

4.1.4 The existing floorspace is already suitable for use within Class B8, benefits from established grid capacity and fibre resilience, and forms part of a well-established employment location adjacent to an existing data centre campus. The reuse of vacant built floorspace ensures that the development delivers modern operational capability while limiting environmental impacts associated with new build alternatives. Given the significant and immediate need that exists for additional data centre floorspace[1], as there are no suitable alternative sites within the Applicants' control, alternative sites will not be considered by the Applicant or assessed in the EIA.

4.1.5 Given the nature and purpose of the Proposed Development, the assessment of alternatives to the development that will be presented in the ES will consider options within the following categories.

- 'Do Nothing': under this scenario no development is implemented at the Site and baseline conditions continue in their current trends.
- A different design: under this scenario the Proposed Development is realised with alternative scales and layout, often in the context of development constraints present at the Site.

[1] See the conclusions on 'need' for data centre capacity by the Secretary of State in: APP/P1940/W/24/3346061.

## 4.2 Consultation

4.1.6 In the lead up to the planning application and throughout the development design, a programme of consultation has and will continue to be undertaken with the Council. Dialogue has taken place and continues. Meetings have been held on 28 May, 6 August, 12 August, 18 September 2025. Further technical consultation will also be undertaken as part of the ongoing planning and EIA process, including consultation with authority officers.

4.1.7 A summary of relevant consultation will be presented in the introductory sections of the ES. This will provide details of any environmental issues raised and provide an audit trail of how the EIA process has responded to these issues. Consultation that is specific to particular topics will be reported, where relevant, within the corresponding chapters of the ES.

4.1.8 Details of technical consultation, directly related to the production of this Scoping Report are provided in the methodology and baseline sections of each topic chapter.

# 5 Approach to Assessment

## 5.1 The Proposed EIA

5.1.1 EIA is a process through which the likely significant environmental effects of a development proposal can be identified and, where possible, adverse effects avoided or mitigated. This process is reported in an ES, which is submitted with a planning application.

5.1.2 The Applicant accepts the Proposed Development is EIA development, requiring EIA to be undertaken. This Section of the Scoping Report sets out the scope of the proposed EIA and identifies the proposed structure for the chapters of the ES. The ES will consider various environmental parameters as required by Schedule 4 of the EIA Regulations.

5.1.3 Environmental Statements are required to identify those aspects of the environment likely to be 'significantly affected' both directly and indirectly by the development proposed. An ES should then describe the nature of those significant effects taking account of the magnitude of the impact and sensitivity of the receptor. These assessments will identify mitigation where appropriate and evaluate residual effects with this in place.

5.1.4 The environmental effects of the Proposed Development will be considered during both the construction and operational phases. The findings of the EIA will be presented in a main written statement, supported by figures and appendices. A non-technical summary of the ES will be provided as a separate document.

## 5.2 EIA Screening

5.2.1 The EIA Regulations require that before consent is granted for certain types of development, an EIA must be undertaken. The EIA Regulations set out the types of development which must always be subject to an EIA (Schedule 1 development) and other developments which will only require assessment if they are likely to give rise to significant environmental effects (Schedule 2 developments). Guidance and thresholds are available to help to decide whether EIA is required for a Schedule 2 development. This decision process is known as 'screening'.

5.2.2 The selection criteria for screening Schedule 2 development are provided in Schedule 3 of the EIA Regulations. Schedule 2 projects require EIA if they are likely to have significant effects on the environment by virtue of their nature, size or location. The potential for likely significant effects on 'sensitive areas', as defined in Regulation 2(1) of the EIA Regulations, is a particularly important consideration.

5.2.3 The Proposed Development falls within Schedule 2 of the EIA Regulations. Whilst data centres are not explicitly listed within Schedule 2, they are typically considered under Section 10: Infrastructure Projects. Either falling under subcategory 10(a)[2] – Industrial estate development projects or subcategory 10(b)[3] Urban development projects.

[2] Schedule 2 - 10(a) The area of development exceeds 5 hectares
[3] Schedule 2 - 10(b) More than 150 dwellings, and/or more than one hectare of non dwellinghouse development and/or the overall area of the development exceeds five hectares.

5.2.4 Under either consideration the Proposed Development would exceed the relevant screening threshold as the area of development is circa 6.3 hectares and therefore would qualify as EIA development if significant effects were likely to occur.

5.2.5 Given the size and nature of the Proposed Development, it is considered that some significant effects are likely to arise. As such, as agreed with the Council, an EIA will be undertaken for the Proposed Development, and the Planning Application will be accompanied by an Environmental Statement.

## 5.3 EIA Scoping

5.3.1 Environmental Statements are required to identify those aspects of the environment likely to be 'significantly affected' both directly and indirectly by the development proposed. An ES should then describe the nature of those significant effects taking account of the magnitude of the impact and sensitivity of the receptor. These assessments will identify mitigation where appropriate and evaluate residual effects with this in place.

### Study Area and temporal scope

5.3.2 Each assessment topic will define its study area geographically and indicate the timescales over which the environmental effects will be considered. The temporal scope will consider the construction phase, and thereafter when the development is completed and occupied (often referred to as the 'operational' phase). For example, the Air Quality Assessment considers the residual effects at a future time when mitigation works have been included within the scheme.

5.3.3 It is envisaged that construction will commence in 2026. The Proposed Development is designed as a permanent provision, i.e., decommissioning is not an aspect that will be considered in the EIA.

### Technical scope

5.3.4 In order to determine the likely scope of the EIA, the process has identified:

- The key characteristics of the Site and the establishment of the environmental baseline through a series of desk and field studies;
- Gaps in the baseline and the further survey work required to address this;
- Initial consideration of the potential sources and nature of environmental impacts; and
- Definition of the assessment methodologies to be used in each study area (where available).

5.3.5 A series of baseline studies have been undertaken to establish the baseline environment for this Scoping Report. Where necessary, studies are ongoing or are being undertaken and can be tailored to advice offered in response to this scoping request. The baseline and assessment work undertaken as part of preparing this Scoping Report is set out within the following Sections.

5.3.6 In Schedule 4, Paragraph 4 of the EIA Regulations require an ES to provide "*A description of the factors specified in regulation 4(2) likely to be significantly affected by the development: population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydro morphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape.*"

5.3.7 As part of the EIA scoping process, issues within certain topic areas that are identified as unlikely to give rise to significant environmental effects can be omitted ('scoped out') from the EIA and, where justified, it is reasonable to propose a reduced scope of topic areas where initial assessment clearly indicates significant effects are unlikely.

5.3.8 As a result of ongoing consultation with the local planning authority (LPA), topics **scoped in** are:

- **Air Quality; and**
- **Climate Change and Greenhouse Gases**

5.3.9 In line with best practice, this is considered to be proportionate to the likely significant effects of the Proposed Development.

5.3.10 Chapters 6 and 7 provide further detail on the scoped in topics - proposed assessment methodology, high level baseline, key points of assessment (construction/operation) etc.

5.3.11 As part of the EIA scoping process, environmental topics and issues within the topic areas above that are identified as unlikely to give rise to significant environmental effects can be omitted ('scoped out') from the EIA and, where justified, it is reasonable to propose a reduced scope of topic areas where initial assessment clearly indicates significant effects are unlikely.

5.3.12 As a result of ongoing consultation with the local planning authority (LPA), topics **scoped out** are:

**Ground Conditions and Contamination**

5.3.13 The Site is considered to be low risk with regards to contaminated land. The Site was previously part of Stockley Park and since the existing buildings were erected there have been no new polluting uses. Gound conditions were assessed and where necessary remediated prior to the erection of the current buildings on the Site pursuant to the 2021 Permission.

5.3.14 A report summarising the ground conditions and remediation works undertaken is being prepared by Pinnacle to accompany the planning application.

5.3.15 The LPA has not identified this as an issue which needs to scoped in. It is proposed that this topic is **scoped out** of the EIA**.**

**Townscape and Visual**

5.3.16 A Landscape Visual Impact Assessment was carried out and approved as part of the 2021 Permission.

5.3.17 A Townscape and Visual Assessment (TVIA) is being undertaken by Savills as part of the suite of documents accompanying the planning application. Two buildings already exist on the Site, and this proposal only seeks to adapt them to meet the operational requirements of the data centre use.

5.3.18 The proposed addition of new plant and associated equipment via gantry decks will result in some change to the appearance of the buildings (but noting that existing maximum building height will not be exceeded and will be reduced in some areas). The initial work undertaken to help inform the evolution of the design demonstrates that there is limited change to any of the longer or localised viewpoints and where there are changes the views are not particularly sensitive.

5.3.19 The LPA has not identified this as an issue which needs to scoped in. It is proposed that this topic is **scoped** out of the EIA**.**

**Heritage**

5.3.20 The Site is part of the Stockley Park RPG. However, planning permission was granted for the erection of the existing warehouse buildings by the 2021 Permission and the boundaries of the RPG have not been amended subsequently. As set out above, the proposed development simply seeks the adaptation of the existing buildings.

5.3.21 The Site is an established industrial area and there no significant nearby listed buildings or conservation areas. Given the scale and nature of the Proposed Development and the established built form at the Site, the proposals are not likely to have a significant environmental effect in the context of EIA. It is proposed that this topic is **scoped out** of the EIA. Consideration of heritage impacts will be provided within the TVIA.

**Archaeology**

5.3.22 The Site contains no nationally designated buried heritage assets and does not lie within an Area of Archaeological Priority as designated by the Council and the archaeological potential of the Site is not considered to be of high significance.

5.3.23 In its statutory response issued in respect of the 2021 Permission, GLAAS stated that historic maps showed the Site being quarried for brickearth in the early 20th century. GLAAS concluded that '*…it is unlikely that significant archaeological remains will survive. No further assessment or conditions are therefore necessary*'.

5.3.24 Given this lack of archaeological potential of the Site, it is considered that the proposals are not likely to have a significant environmental effect in the context of EIA. It is proposed that this topic is **scoped out** of the EIA.

**Biodiversity**

5.3.25 The Site itself is not subject to any statutory nature conservation designations. All statutory ecological designations in the surrounding area are well separated from the Site by existing development.

5.3.26 All other non-statutory designations in the surrounding area are well separated from the Site by existing development and given the nature and scale of the proposals, these designations are unlikely to be affected by the proposals.

5.3.27 A Phase 1, Preliminary Ecological Assessment was undertaken for the Site which established that it is dominated by ornamental planting, buildings and hardstanding, which is not considered to be of ecological importance. The habitats within the Site do not appear to offer particularly suitable opportunities for protected rare or notable species. Opportunities to deliver at least the mandatory 10% biodiversity net gain on the Site and Urban Greening are being explored as part of the continued design development.

5.3.28 Formal arboricultural and ecological assessments, species specific surveys and biodiversity net gain calculations are being prepared by FPCR and will form part of the planning application.

5.3.29 The proposals are not likely to have a significant environmental effect on ecology in the context of EIA. It is proposed that this topic is **scoped out** of the EIA.

**Transport**

5.3.30 During the demolition and construction phases of the Proposed Development, transport and access related issues will be managed and mitigated through construction and logistics management plans.

5.3.31 In terms of the operational phase, a reduction in trips compared to the baseline is forecast in the AM and PM peak hours as a result of the Proposed Development. The baseline in this instance is the established, flexible employment use of the existing buildings (which includes Classes B1(c), B2 and B8). The Proposed Development is forecast to result in a net reduction in total person and vehicle movements and therefore no adverse impact expected on the network or mitigation is required.

5.3.32 A Transport Statement and Framework Travel Plan is being prepared by TPA and will accompany the planning application.

5.3.33 The proposals are not likely to have a significant environmental effect in relation to transport in the context of EIA. It is proposed that this topic is **scoped out** of the EIA.

**Hydrology**

5.3.34 The Site falls within Flood Zone 1 on the Environment Agency's Flood Map. However, there are small pockets of surface water flooding shown on the EA's Surface Water Flood Map. These areas do not reflect the current layout of the Site (with some falling within the footprint of the existing buildings). Other areas are closer to the boundary of the Site with the canal to the South and Iron Bridge Road North to the West.

5.3.35 The proposed development will not materially change the risk or effects of flooding or the surface water storage capacity of the Site. New SUDS features will be incorporated into the final design.

5.3.36 A Flood Risk Assessment and Drainage Strategy is being prepared by Pinnacle and will accompany the planning application.

5.3.37 The proposals are not likely to have a significant environmental effect in relation to water resources or hydrology in the context of EIA. It is proposed that this topic is **scoped out** of the EIA.

**Noise**

5.3.38 Noise impacts from construction will be managed through the implementation of a CEMP which will mitigate noise impacts on nearby noise sensitive receptors. All works will comply with good practice in terms of approach and hours to minimis any potential impacts.

5.3.39 The noise impact of the Proposed Development has been assessed on the basis of both historical noise survey information for its existing approved use, and from and additional empirical data of the site and any background levels.

5.3.40 The Proposed Development will be assessed against its primary noise sources to the nearest noise sensitive receptors. In that regard it is noteworthy that the surrounding area is a designated 'Employment Area' and is commercial in nature. The nearest noise sensitive receptors (residential dwellings) are at their closest circa 150 metres away to the south, across the railway line. There is a good level of separation distance between the noise generating elements of the Proposed Development and the noise sensitive receptors.

5.3.41 An ongoing assessment, utilising acoustic modelling, is being developed to inform the Proposed Development and the associated planning application. A robust design approach, through appropriate plant and other equipment selection and mitigation measures (including for example acoustic enclosures) will protect the amenity of relevant receptors in line with Council guidance for the area.

5.3.42 The assessment will consider the impact of the proposed development having due regard to the potential cumulative noise impacts of operation having due regard to the existing data centre buildings directly to the west of the Site.

5.3.43 A Noise Impact Assessment is being prepared by Sharps Redmore and will also accompany the planning application.

5.3.44 The Proposed Development is not likely to have a significant environmental effect in relation to noise the context of EIA and therefore, it is proposed that this topic is **scoped out** of the EIA.

**Major Accidents and Disasters**

5.3.45 In the absence of recognised guidance on this subject in the context of EIA, a range of sources providing guidance related to the topic has been reviewed, including:

- Cabinet Office National Risk Register (NRR) of Civil Emergencies 2017 Edition
- UK Government Emergency Response & Recovery Guidance ; and
- International Federation of Red Cross & Red Crescent Societies Disaster and Crisis Management Guidance.

5.3.46 A disaster can be defined as "*a sudden, calamitous event that seriously disrupts the functioning of a community or society and causes human, material, and economic or environmental losses that exceed the community's or society's ability to cope using its own resources. Though often caused by nature, disasters can have human origins". An accident can be defined as "an unfortunate incident that happens unexpectedly and unintentionally, typically resulting in damage or injury*".

5.3.47 The Site's location within the UK is such that natural disasters are not considered to represent a likely risk to the Proposed Development. For example, it is considered that the likelihood of an earthquake with a magnitude sufficient to cause damage to buildings and/or loss of life occurring and impacting the site is extremely low. Furthermore, the topography of the Site is not considered to be sufficiently steep such that a major mass movement disaster could arise.

5.3.48 It is therefore considered that whilst there is always a potential risk that an accident, fire or natural disaster could result in a significant environmental impact, this risk is being appropriately mitigated through the location of the Proposed Development in an existing industrial area, embedded design measures recognising all manufacturers requirements and through compliance with statutory design guidelines.

5.3.49 The Proposed Development and its future operation will also include emergency response and monitoring to minimise any risk of any major accident. Monitoring will include:

- BMS and EPMS systems provide real-time monitoring and remote control of all critical systems
- Redundant power and controls systems to ensure resilience during any incidents
- Security and access control integrated with fire alarm and emergency systems.

5.3.50 Proposed on-site fuel storage is relatively small, being under Health and Safety Executive (HSE) quotas and any issues in respect of this would likely only be localised within the site. Notwithstanding, the applicant will adopt an emergency plan for the operational phase of the development, as guided by the HSE.

5.3.51 Based on the above, significant effects related to health and safety and as a result of any possible major accidents and/or disasters associated with the Proposed Development are not considered likely. As such, it is proposed that this topic is **scoped out** of the EIA.

**Waste**

5.3.52 Developments result in both construction and operational (municipal & commercial) waste arisings. Waste Disposal Authorities are responsible for ensuring that the Waste Local Plan provides for sufficient facilities to exist to manage anticipated waste arisings (this includes ensuring that sufficient sites exist for merchant facilities for the management of construction and commercial waste). Waste Collection Authorities are responsible for ensuring that sufficient infrastructure exists for the collection of anticipated municipal waste arisings.

5.3.53 Therefore, the management of waste arisings from an urban development project should be considered as a policy issue and not a development specific environmental issue. Given the project specifics, it is not envisaged that there will be a significant generation of waste either at

5.3.54 Waste can be suitably controlled through a CEMP or other appropriate management document or other form of control.

5.3.55 Waste as a specific topic is proposed to be **scoped out** of the EIA. However, in accordance with the EIA Regulations, the description and detail of the Proposed Development upon which the EIA is been, will include estimated volumes of waste associated with construction activities (Construction, Deconstruction and Excavation waste) and the operational phase of the Proposed Development (Municipal Solid Waste, Commercial Waste).

**Utilities**

5.3.56 In terms of resources, these are existing buildings with utilities already connected. In terms of electricity, a new sub-station is being proposed on Site which will require new connections to the network. A Utilities Statement will accompany the planning application.

5.3.57 It is proposed that this topic is **scoped out** of the EIA.

**Wind Microclimate, Daylight and Overshadowing**

5.3.58 The heights of the Proposed Development do not exceed the existing maximum of the host buildings (18m). The proposed physical works are not anticipated to trigger any material change to the local wind microclimate which, as part of an established commercial estate. Is not considered to be a sensitive location.

5.3.59 With regard to potential impacts on Daylight and Overshadowing; again, the works do not extend beyond the established maxima of the existing buildings. There will be no material impact on any adjoining land or uses in terms of any loss of light or overshadowing.

5.3.60 The proposals are not likely to have a significant environmental effect in the context of EIA. It is proposed that this topic is **scoped out** of the EIA.

**Human Health**

5.3.50 The proposed development seeks planning permission to physically adapt two existing buildings such that they can accommodate a 'data centre' operation. The existing floorspace already has planning permission to be used flexibly within Classes: B1c/B2/B8 which is sufficient for the proposed land use.

5.3.51 The Council has indicated that Air Quality and Climate Change and Greenhouse Gases are the two major issues to be scoped in for EIA purposes having due regard to the proposed use and installation of associated equipment. Human health issues are considered in respect of Air Quality and Climate Change and Greenhouse Gases which are covered in more detail in Chapters 6 and 7.

5.3.52 Other matters that can have implications for human health, such as noise, are proposed to be scoped out of the EIA. As set out above however, an assessment of impacts on noise sensitive receptors during construction and operational phases will be undertaken as part of the Noise Impact Assessment.

5.3.53 Other risks are primarily likely during the demolition and construction phases and all workers on Site will have appropriate training (including health and safety) to minimise the scope for risk to human health. Any other visitors to the Site during this phase will be actively managed.

5.3.54 It is proposed that this topic is **scoped out** of the EIA.

## 5.4 Assessment methodology

5.4.1 The ES will include the assessment methodology used for the specific assessment topic, using relevant guidance where this is in place, and wherever possible and predict environmental effects in a standard framework.

5.4.2 Each ES chapter on a specific topic will identify those receptors relevant to the issue, and they will be assessed to determine their sensitivity to change as a result of the project from the known baseline. The receptors will be attributed a sensitivity level ranging from high to low as set out in Table 5.1 below.

**Table 5.1 Sensitivity of a generic environmental receptor to change**

| Sensitivity | Receptor type |
|---|---|
| High | Receptors of high importance with a high susceptibility to change and limited potential for substitution or replacement. |
| Medium | Receptors with some sensitivity to change and medium importance. Often have relevance at a regional scale with some opportunity for substitution or replacement. |
| Low | Receptors with low importance and sensitivity to change, often of relevance at a local scale. |
| Negligible | The receptor has very low importance / is not sensitive to change. |

5.4.3 The magnitude of impact affecting each receptor will then be considered. This can be positive or negative as well as temporary or permanent. The nature of each will be analysed based on quantitative and qualitative techniques and a magnitude assigned ranging from no/negligible change to high change, as set out below.

### Table 5.2 Criteria for the magnitude of environmental impact

| Magnitude | Description of criteria |
|---|---|
| High | Effects will be of a consistently high magnitude and frequency and cause severe damage to key characteristics, features and elements or even total loss; or<br>Major improvement to characteristics, features and elements of receptor. |
| Medium | Adverse loss of resource or damage to characteristics, features or elements but limited impact on integrity; or<br>Benefit or addition to characteristics, features and elements that improve the receptor. |
| Low | Some measurable changes that are noteworthy and material. Minor benefit or minor loss/detrimental change to the receptor's characteristics, features or elements. |
| Negligible | Very minor changes that are not noteworthy or material. |

5.4.4 Having identified the sensitivity of the receptor and the magnitude of the impact, the standard matrix set out below will be used to indicate the predicted level of effect, ranging from neutral to substantial. For the purposes of the ES, unless specifically defined otherwise in an ES chapter, effects of moderate and higher are considered to be significant effects.

### Table 5.3 Framework for identifying environmental effects

| | | Magnitude of Impact | | | |
|---|---|---|---|---|---|
| | | **High** | **Medium** | **Low** | **Negligible** |
| **Sensitivity** | **High** | **Substantial** | **Major** | **Moderate** | Negligible |
| | **Medium** | **Major** | **Moderate** | Minor | Negligible |
| | **Low** | **Moderate** | Minor | Minor | Negligible |
| | **Negligible** | Negligible | Negligible | Negligible | Negligible |

5.4.5 The likely effects of the Proposed Development will be described as:

- Adverse / beneficial.

- Direct / indirect.
- Temporary / permanent.
- Reversible / irreversible.

### Baseline assessment

5.4.6 Each topic-based chapters of the ES will identify the current baseline scenario, and where relevant the future scenario, against which the environmental effects of the Proposed Development will be measured. The baseline assessment will involve describing the current state and circumstances of the identified receptors and changes that might be expected to occur as a result of the Proposed Development.

### Assessment of environmental effects

5.4.7 Having identified receptors that are likely be affected (taking into account inherent mitigation), the assessments will outline the potential impacts that could arise in the absence of any additional mitigation. Where adverse effects are identified, the ES will set out the mitigation measures considered necessary to minimise the potential effect. Residual effects will be evaluated, and their significance will be reported based upon the magnitude of impact against the sensitivity of the receptor.

### Assumptions and limitations

5.4.8 In the preparation of the ES, it is assumed that all legislative requirements will be met, and the proposed development will be constructed in accordance with industry standard techniques and best practice methods implemented on-site. It is therefore not necessary to re-consider this as mitigation that will be evaluated in the assessment of residual effects. Further details are set out in the following Sections.

### Assessment of cumulative effects

5.4.9 The requirement for cumulative effects assessment (CEA) is set out in Schedule 4 of the EIA Regulations. At Schedule 4(5), the EIA Regulations require ‘A description of the likely significant effects of the development on the environment resulting from, inter alia: …(e) the cumulation of effects with other existing and/or approved projects, considering any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources.

5.4.10 Cumulative impact comprises the combined effects of the Proposed Development with other existing and/or approved development. It is proposed that the EIA will consider other planning permissions that are not yet constructed or operational (PPG Reference ID 4-024-20170728), along with allocated schemes where there is a reasonable degree of certainty that they will proceed within 3 years (PPG Reference ID: 42-014-20140306).

5.4.11 The identification of schemes for the cumulative assessment focuses on consented schemes of more than 1,000 m2 (GEA) of commercial/industrial/logistics space, with professional judgement applied for schemes outside of the thresholds. Initially a 4km threshold was applied on the basis that beyond this distance significant cumulative effects are not considered to be likely, therefore primary consideration is given to schemes within this radius. Consideration has been given to developments outside this radius on a site by site basis if the size or nature of the proposals are considered likely to result in cumulative effects.

5.4.12 As part of the review, residential developments within the area have also been considered. However, due to the nature of the Proposed Development, cumulative effects are more likely

to arise from similar types of developments. This is because such developments tend to generate comparable impacts and affect the same receptors and receptor groups. Table 5.5 outlines the developments proposed to be included within the CEA.

5.4.13 This EIA scoping considers the potential for cumulative effects when the construction and operational phases could be concurrent, and where there are sensitive receptors common to other developments.

5.4.14 The scope of the committed schemes to be included within the CEA will be agreed with the LPA as part of the EIA scoping process.

**Table 5.5 Cumulative sites**

| Address | Description | Planning Reference | Status |
|---|---|---|---|
| Optimium Data Centre, Tudor Works, North Of Beaconsfield Road, Hillingdon, London, UB4 0SL | Redevelopment of the site to deliver data centre campus including: two data centre buildings (Use Class B8); associated energy and electricity infrastructure, buildings, and plant; security gatehouse, systems and enclosures; works to the highway, car parking and cycle parking; hard and soft landscaping; as well as associated infrastructure, ancillary office use, and associated external works. | 38421/APP/2021/4045 | No Start. Expires Nov 2025. |
| North Hyde Gardens, Bulls Bridge Industrial Estate, Hillingdon, London, UB3 4QQ | Site clearance and preparation, including the demolition of remaining buildings, and the redevelopment of the site to provide: a new data centre (Use Class B8), two MV Energy Centres (including stand-by generation plant and gas storage), a HV Sub-Station, a visitor reception centre, plant, the creation of a new footpath and cycleway link to the canal towpath, works to the highway, car parking, cycle parking, associated infrastructure, enclosures and necessary physical security systems, hard and soft landscaping (including works to the River Crane) and ancillary uses, as well as associated external works. | 75111/APP/2020/1955 | Under Construction |
| Hayes Bridge Retail Park, Uxbridge, Hillingdon, London, UB4 0RH | Hybrid planning application for a four-phased redevelopment to deliver a data centre campus comprising of: Phase 1 - Full planning permission for (a) a data centre building; (b) energy, power, and water infrastructure; (c) site access and internal roads including a vehicular and pedestrian link between Uxbridge Road and Bullsbrook Road; (d) site security arrangements and security fencing; (e) hard and soft, green and blue, infrastructure; and (f) other ancillary and auxiliary forms of development; Phase 2 - Outline planning permission for (a) an Innovation Hub; (b) hard and soft, green and blue, infrastructure; and (c) other ancillary and auxiliary forms of development (all matters reserved); Phase 3 - Outline planning permission for (a) a data centre | 78343/APP/2025/719 | Pending Decision |

| | | | |
|---|---|---|---|
| | building; (b) energy, power, and water infrastructure; (c) internal roads; (d) site security arrangements and security fencing; (e) hard and soft, green and blue, infrastructure; and (f) other ancillary and auxiliary forms of development (all matters reserved); and Phase 4 - Outline planning permission for (a) a data centre building; (b) energy, power, and water infrastructure; (c) internal roads; (d) site security arrangements and security fencing; (e) hard and soft, green and blue, infrastructure; and (f) other ancillary and auxiliary forms of development (all matters reserved). | | |
| Woodlands Park Landfill Site, Land South Of Slough Road, Iver, Buckinghamshire | Outline planning application with all matters reserved except for principal points of access for the redevelopment of the former landfill site to comprise a data centre development (Use Class B8) of up to 72,000 sqm (GEA) delivered across 2 buildings to include ancillary offices, internal plant and equipment and emergency back-up generators and associated fuel storage. Cycle and car parking, internal circulation routes, soft and hard landscaping, security perimeter fence, lighting, earthworks, sustainable drainage systems, ancillary infrastructure and a substation. | PL/24/0754/OA | No Start. Expires July 2028. |

# 6 Air quality

## 6.1 Introduction

6.1.1 This chapter of the EIA Scoping Request has been produced by SLR Consulting Ltd (SLR).

6.1.2 An assessment of potential impact on air quality is proposed to be scoped into the EIA, following pre-application discussions with the LPA. This chapter describes the air quality sub-topics that are to be scoped in, or scoped out, of the air quality assessment.

### Scope of Chapter

6.1.3 The scope of the chapter encompasses:

- A review of relevant legislation, policy and guidance that should inform the scope of the assessment.
- A description of the assessment methodology that will be employed.
- A description of key characteristics of the site surroundings, including sensitive receptors and current and projected baseline air quality conditions; and
- A review of potential significant air quality effects to inform whether sub-topics are scoped in or scoped out.

## 6.2 Legislation, Policy and Guidance

### Legislation

6.2.1 A dual set of regulations, separately applicable to National and Local Government, are currently operable within the UK.

#### *National Obligations*

6.2.2 The Air Quality Standards Regulations 2010[1] (AQSR) transpose both the EU Ambient Air Quality Directive (2008/50/EC), and the Fourth Daughter Directive (2004/107/EC) within UK legislation. The AQSR includes Limit Values which are legally binding ambient concentration thresholds, for which compliance is assessed by measurements at specific locations (Schedule 1: AQSR)[2].

6.2.3 Following the UK's withdrawal from the EU, the Environment (Miscellaneous Amendments) (EU Exit) Regulations 2020[3] were introduced to mirror revisions to supporting EU legislation. As a result, the fine particulate matter ($PM_{2.5}$) Limit Value was reduced from 25µg/m$^3$ to 20µg/m$^3$ (to be met by 2020).

[1] The Air Quality Standards Regulations (England) 2010, Statutory Instrument No 1001, The Stationary Office Limited.

[2] Schedule 1 of the 2010 AQSR provides the locations of the sampling points where the AQSR Limits Values can be assessed.

[3] The Environment (Miscellaneous Amendments) (EU Exit) Regulations 2020, Statutory Instrument No. 1313, The Stationary Office Limited.

6.2.4 The responsibility of achieving the AQSR is a National obligation for Central Government who undertake assessments on an annual basis. Local Authorities have no statutory obligation to achieve the AQSR or the European equivalent Directives, unless otherwise instructed to assist Central Government under Ministerial Direction.

Environmental Targets (Fine Particulate Matter) Regulations

6.2.5 The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023[4] introduced by the Government an annual mean concentration target of 10µg/m$^3$ to be met across England by 2040. Central Government is responsible for meeting this future target, whereas Local Authorities have no statutory obligation within the Local Air Quality Management (LAQM) framework to achieve these targets.

***Local Obligations***

6.2.6 Part IV of the Environment Act 1995 (as amended by the Environment Act 2021) requires the Secretary of State to review the national Air Quality Strategy (AQS) every five years and modify this if necessary. It also established the system of LAQM for Local Authorities to regularly review and assess air quality within their respective administrative areas.

6.2.7 The Air Quality (England) Regulations 2000 (as amended) ('the Regulations') provide the statutory basis for the Air Quality Objectives Local Authorities must adhere to under LAQM in England.

6.2.8 $PM_{2.5}$ is not currently cited within the Regulations. However, as per the national AQS, Local Authorities are required to work towards reducing $PM_{2.5}$. To support this, the Department for Environment, Food and Rural Affairs (Defra) released '$PM_{2.5}$ Targets: Interim Planning Guidance' [5] which Local Authorities are encouraged to apply when determining planning applications, to ensure national obligations are considered.

6.2.9 The Air Quality Objectives apply at locations where members of the public are regularly present and might reasonably be expected to be exposed to pollutant concentrations over the relevant averaging period (referred to as 'relevant exposure'). Table 6.2 provides an indication of those locations. Where any of the prescribed Air Quality Objectives are not likely to be achieved, the authority must designate an Air Quality Management Area (AQMA). For each AQMA, the local authority is required to prepare an Air Quality Action Plan (AQAP), which details measures the authority intends to introduce to deliver improvements in local air quality and achieve compliance.

6.2.10 The latest AQS for England was published in 2023[6]. The AQS provides the delivery framework for air quality management across England for local authorities and summarises the air quality standards and objectives operable within England for the protection of public health and the environment.

***Air Quality Assessment Levels***

6.2.11 The ambient air quality standards of relevance to this assessment (collectively termed Air Quality Assessment Levels (AQALs) throughout this report) are provided in Table 6.1. These

[4] The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023. UK Statutory Instruments 2023 No. 96.

[5] Defra, PM2.5 Targets: Interim Planning Guidance, (2024).

[6] Defra, Air Quality Strategy: Framework for Local Authority Delivery, April 2023.

are primarily based upon the Air Quality Objectives Local Authorities are responsible for achieving. The $PM_{2.5}$ AQSR AQAL has also been included for completeness.

Table 6.1 Relevant Ambient AQALs

| Pollutant | AQAL (µg/m$^3$) | Averaging Period | Reference |
|---|---|---|---|
| Nitrogen dioxide ($NO_2$) | 40 | Annual mean | Air Quality (England) Regulations 2000 |
| | 200 | 1-hour mean (not to be exceeded on more than 18 occasions per annum) | |
| Particles (as $PM_{10}$) | 40 | Annual mean | |
| | 50 | 24-hour mean (not to be exceeded on more than 35 occasions per annum) | |
| Particles (as $PM_{2.5}$) | 20 | Annual mean | Air Quality Standards Regulations (as amended) |
| | 10 | Annual mean (by 2040) | Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 |
| | 10 | Annual mean (by 2030) | Mayor of London (London Environment Strategy) |

Table 6.2 Human Health relevant Exposure

| AQAL Averaging Period | AQALs Should Apply At | AQALs Should Not Apply At |
|---|---|---|
| Annual mean | Building facades of residential properties, schools, hospitals etc. | Facades of offices<br>Hotels<br>Gardens of residences<br>Kerbside sites |
| 24-hour mean | As above together with hotels and gardens of residential properties | Kerbside sites where public exposure is expected to be short term |
| 1-hour mean | As above together with kerbside sites of regular access, car parks, bus stations etc. | Kerbside sites where public would not be expected to have regular access |

***Environmental Permitting Regulations***

6.2.12 The Site would be regulated by the Environment Agency under the Environmental Permitting (England and Wales) Regulations 2016 (as amended) (EPR).

6.2.13 The interaction of the EPR and the NPPF is described in paragraph 6.2.16 below.

## Policy

### *Clean Air Strategy*

6.2.14 The 2019 Clean Air Strategy[7] sets out the Government's proposals aimed at delivering cleaner air in England and indicates how devolved administrations intend to make emissions reductions. It sets out the comprehensive action that is required from across all parts of government and society to deliver clean air.

### *Environmental Improvement Plan 2023*

6.2.15 The 2023 Environmental Improvement Plan[8] is the first revision of the UK Government's 25 Year Environmental Plan (25YEP) – planned on a five-year rolling cycle. This document sets out the 5-year delivery plan to improve the natural environment. The 2023 Environmental Improvement Plan builds on the 2019 Clean Air Strategy by setting environmental targets and commitments to reduce air pollution. Goal 2 of the 25YEP is Clean Air – which relates to improving air quality.

### *National Planning Policy*

6.2.16 The 2024 update to the National Planning Policy Framework (NPPF)[9] sets out planning policy for England. In specific relation to air quality policy, the document states:

**Chapter 15 – Conserving and Enhancing the Natural Environment**

Paragraph 187: "*Planning policies and decisions should contribute to and enhance the natural and local environment by: […]*

*e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of .. air, … pollution […]. Development should, wherever possible, help to improve local environmental conditions such as air […]."*

*Paragraph 199: "Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan.*"

6.2.17 The NPPF is accompanied by web based supporting Planning Practice Guidance (PPG)[10] which includes guiding principles on how planning can take account of the impacts of new development on air quality. The November 2019 update details several factors that may need

[7] Defra, The Clean Air Strategy, (2019).

[8] Defra, Environmental Improvement Plan 2023, (2023).

[9] National Planning Policy Framework, Ministry of Housing, Communities & Local Government. December 2024.

[10] Planning Practice Guidance Air Quality, Ministry of Housing, Communities & Local Government. November 2019.

to be considered within an air quality assessment. Assessments and mitigation options need to be proportionate to the nature and scale of development proposed and potential impacts (taking into account existing conditions).

6.2.18 With respect to developments that fall under Environmental Permitting Regulations, paragraph 201 states:

"*The focus of planning policies and decisions should be on whether proposed development is an acceptable use of land, rather than the control of processes or emissions (where these are subject to separate pollution control regimes). Planning decisions should assume that these regimes will operate effectively. Equally, where a planning decision has been made on a particular development, the planning issues should not be revisited through the permitting regimes operated by pollution control authorities.*"

***Regional Update***

London Environment Strategy

6.2.19 The London Environment Strategy[11] is a strategic planning policy document developed by the Mayor of London. The strategy aims to tackle the environmental pressures associated with an ever-growing London populace. With particular regard to air quality, the policies that are set out in the London Environment Strategy aim to achieve the best air quality of any major world city by 2050, requiring the following primary actions:

- Reducing exposure of Londoners to harmful pollution across London – especially at priority locations like schools – and tackling health inequality;
- Achieving legal compliance with UK and EU limits as soon as possible, including by mobilising action from the London boroughs, government, and other partners; and
- Establishing and achieving new, tighter air quality targets for a cleaner London, meeting World Health Organisation (WHO) health-based guidelines by 2030 by transitioning to a zero emission London.

London Plan 2021

6.2.20 The London Plan[12] was formally adopted by the Greater London Authority (GLA) on 2nd March 2021. The London Plan is the overall strategic plan for London, setting out an integrated economic, environmental, transport and social framework for the development of London over the next 20-25 years (to the period 2041) and contains policies which are harmonious to those of Development Plan Documents to the 32 London boroughs.

6.2.21 The following policy relating to air quality is contained within the London Plan:

"***Policy SI 1 Improving air quality***

*A. Development Plans, through relevant strategic, site-specific and area-based policies, should seek opportunities to identify and deliver further improvements to air quality and should not reduce air quality benefits that result from the Mayor's or boroughs' activities to improve air quality.*

[11] GLA, May 2018, London Environment Strategy.

[12] Mayor of London, The London Plan, (2021).

*B. To tackle poor air quality, protect health and meet legal obligations the following criteria should be addressed:*

*1. Development proposals should not:*

*a) lead to further deterioration of existing poor air quality*

*b) create any new areas that exceed air quality limits or delay the date at which compliance will be achieved in areas that are currently in exceedance of legal limits.*

*c) create unacceptable risk of high levels of exposure to poor air quality.*

*2. In order to meet the requirements in Part 1, as a minimum:*

*a) development proposals must be at least Air Quality Neutral.*

*b) development proposals should use design solutions to prevent or minimise increased exposure to existing air pollution and make provision to address local problems of air quality in preference to post-design or retro-fitted mitigation measures.*

*c) major development proposals must be submitted with an Air Quality Assessment. Air quality assessments should show how the development will meet the requirements of B1.*

*d) development proposals in Air Quality Focus Areas or that are likely to be used by large numbers of people particularly vulnerable to poor air quality, such as children or older people should demonstrate that design measures have been used to minimise exposure.*

*C. Masterplans and development briefs for large-scale development proposals subject to an Environmental Impact Assessment should consider how local air quality can be improved across the area of the proposal as part of an air quality positive approach. To achieve this a statement should be submitted demonstrating:*

*a) how proposals have considered ways to maximise benefits to local air quality, and*

*b) what measures or design features will be put in place to reduce exposure to pollution, and how they will achieve this.*

*D. In order to reduce the impact on air quality during the construction and demolition phase development proposals must demonstrate how they plan to comply with the Non-Road Mobile Machinery Low Emission Zone and reduce emissions from the demolition and construction of buildings following best practice guidance.*

*E. Development proposals should ensure that where emissions need to be reduced to meet the requirements of Air Quality Neutral or to make the impact of development on local air quality acceptable, this is done on-site. Where it can be demonstrated that emissions cannot be further reduced by on-site measures, off-site measures to improve local air quality may be acceptable, provided that equivalent air quality benefits can be demonstrated within the area affected by the development.*"

***Local policy***

Local Plan

6.2.22 The London Borough of Hillingdon (LBoH) Local Plan (Part 1)[13] was adopted in 2012 and sets out the overall planning vision and strategic policies for the Borough until 2026. The LBoH Local Plan (Part 2)[14] was adopted in 2020 and builds on Part 1 by providing detailed policies that will form the basis of the Borough's decisions on individual planning applications.

[13] London Borough of Hillingdon, Local Plan: Part 1 (Strategy Policies), November 2012.

[14] London Borough of Hillingdon, Local Plan: Part 2 (Development Management Policies), January 2020.

6.2.23 The key policy with respect to air quality is Policy EM8: Land, Water, Air and Noise, within LBoH Local Plan (Part 1) which states:

"***Policy EM8: Land, Water, Air and Noise***

*[…]*

*Air Quality*

*All development should not cause deterioration in the local air quality levels and should ensure the protection of both existing and new sensitive receptors.*

*All major development within the Air Quality Management Area (AQMA) should demonstrate air quality neutrality (no worsening of impacts) where appropriate; actively contribute to the promotion of sustainable transport measures such as vehicle charging points and the increased provision for vehicles with cleaner transport fuels; deliver increased planting through soft landscaping and living walls and roofs; and provide a management plan for ensuring air quality impacts can be kept to a minimum.*

*The Council seeks to reduce the levels of pollutants referred to in the Government's National Air Quality Strategy and will have regard to the Mayor's Air Quality Strategy. London Boroughs should also take account of the findings of the Air Quality Review and Assessments and Actions plans, in particular where Air Quality Management Areas have been designated.*

*The Council has a network of Air Quality Monitoring stations but recognises that this can be widened to improve understanding of air quality impacts. The Council may therefore require new major development in an AQMA to fund additional air quality monitoring stations to assist in managing air quality improvements. […]*"

6.2.24 Within the LBoH Local Plan (Part 2), the most relevant policy to air quality is DMEI 14 which states:

"***Policy DMEI 14: Air Quality***

*A) Development proposals should demonstrate appropriate reductions in emissions to sustain compliance with and contribute towards meeting EU limit values and national air quality objectives for pollutants.*

*B) Development proposals should, as a minimum:*

*i) be at least "air quality neutral";*

*ii) include sufficient mitigation to ensure there is no unacceptable risk from air pollution to sensitive receptors, both existing and new; and*

*iii) actively contribute towards the improvement of air quality, especially within the Air Quality Management Area.*"

***LBoH Air Quality Action Plan***

6.2.25 The current published LBoH Air Quality Action Plan covers the period 2019-2024[15]. A consultation draft is currently available on the LBoH website for the period 2025-2030[16]. The most relevant actions contained within the AQAP are as follows:

- "*Action 8: Require all new developments (where applicable) are as a minimum air quality neutral applying the DEFRA damage cost approach for those that cannot achieve compliance within the development"*
- "*Action 9: Require all new major developments located in Air Quality Focus Areas to be air quality positive (i.e. result in improvements) and applying the DEFRA damage cost approach for those that cannot achieve compliance within the development*"
- "*Action 20: Ensuring that data centres utilise the most low polluting fuel for back up generators and that proposals for their operation are assessed on a reasonable worse case scenario, with clear plans in place for testing and reporting.*"

## Guidance

6.2.26 This assessment has been informed by the principles contained within the guidance documents below.

- Defra: Local Air Quality Management Technical Guidance (TG22) (LAQM.TG22)[17];
- Defra: $PM_{2.5}$ Targets: Interim Planning Guidance[18];
- GLA: London Local Air Quality Management Technical Guidance (LLAQM.TG(19))[19];
- GLA: London Plan Guidance, Air Quality Neutral (the 'GLA AQN guidance')[20];
- Environment Agency (EA): Air emissions risk assessment for your environmental permit[21];
- EA: Specified generators: dispersion modelling assessment[22];
- Environmental Policy Implementation Community (EPIC) (formerly EPUK) and the Institute of Air Quality Management (IAQM): Land-Use Planning and Development Control: Planning for Air Quality[23]; and

[15] London Borough of Hillingdon, Air Quality Action Plan 2019 - 2024, May 2019

[16] London Borough of Hillingdon, Air Quality Action Plan 2025 - 2030, pre-consultation Dratf (undated)

[17] Local Air Quality Management Technical Guidance (TG22), Published by Defra in partnership with the Scottish Government, Welsh Government and Department of Agriculture, Environment and Rural Affairs. May 2025.

[18] Defra, $PM_{2.5}$ Targets: Interim Planning Guidance, published 4 October 2024.

[19] Mayor of London, London Local Air Quality Management Technical Guidance LLAQM.TG(19), (2019).

[20] GLA, London Plan Guidance, Air Quality Neutral, (2023).

[21] Environment Agency, Air emissions risk assessment for your environmental permit. Available: https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit.

[22] https://www.gov.uk/guidance/specified-generators-dispersion-modelling-assessment.

[23] EPIC (formerly EPUK) and IAQM, Land-Use Planning and Development Control: Planning for Air Quality, v1.2 2017.

- Defra: *Air quality appraisal: damage cost guidance* (hereafter referred to as the 'Defra damage cost guidance')[24].

## 6.3 Assessment Methodology

### Traffic Emissions Screening

6.3.1 The change in traffic flows as a result of the proposed development will be screened against the criteria set out in EPIC & IAQM guidance where, if exceeded, further consideration is required. If the proposed development is found not to exceed any of the relevant indicative criteria presented, then a detailed impact assessment is consequently not required. Impacts can therefore be described as having an 'insignificant' effect on local air quality.

6.3.2 The indicative screening criteria relevant for this assessment are as follows (specific to a development located inside of or within 200m of an AQMA):

- A change of Light-Duty Vehicle (LDV) flows of more than 100 as 24-hour annual average daily traffic (AADT); and/or
- A change of Heavy-Duty Vehicle (HDV) flows of more than 25 as 24-hour AADT.

### Air Quality Neutral Assessment

6.3.3 An Air Quality Neutral Assessment will be carried out in accordance with the GLA London Plan Guidance[20]. Under London Plan Policy SI1, all new developments are required to achieve at least 'Air Quality Neutral' status. The assessment will evaluate the projected emissions from both building operations and associated transport against established benchmarks for specific land-use categories. Typically, emissions from buildings and transport are assessed separately, with the goal that each independently meets the criteria for air quality neutrality.

#### *Transport Emissions*

6.3.4 Table 4.1 of the Air Quality Neutral Guidance outlines benchmark trip rates for various land-use categories. The proposed development is most appropriately assessed under the 'Storage and Distribution' or 'Industrial' classifications, both of which have a benchmark of 6.5 annual car trips per square metre. The proposed development has an approximate gross internal area (GIA) of 75,185m$^2$. As such, providing the proposed development does not generate more than 488,703 car trips per year, it can be considered as Air Quality Neutral with respect to transport-related emissions. It is anticipated that this will be the case and trip data will be confirmed within the ES Chapter.

#### *Building Emissions*

6.3.5 Table 3.1 of the Air Quality Neutral guidance does not provide benchmarks for diesel generators, the benchmarks are focused on heating and use of gas. Paragraph 3.1 states that:

*"Solid and liquid biomass/non-biomass fired appliances also emit fine particulate matter in addition to NOx. The benchmark emission rate for particulate matter is zero. Any development*

[24] Defra: *Air quality appraisal: damage cost guidance*, March 2023. Available at: https://www.gov.uk/government/publications/assess-the-impact-of-air-quality/air-quality-appraisal-damage-cost-guidance.

*that uses solid or liquid fuels for primary or secondary heating will therefore not be Air Quality Neutral and will require mitigation or offsetting (see section 5)".*

6.3.6 On the basis that the back-up generators operate on diesel or HVO, i.e. a liquid, the assessment has progressed to reviewing mitigation and off-setting payments via a Damage Cost Calculation (DCC).

6.3.7 The DCC will follow Defra's 'Air quality appraisal: damage cost guidance'[24] applying the 'Damage costs toolkit', using the Central Estimate. It is understood LBoH require a 30-year appraisal period.

### Air Quality Positive Assessment

6.3.8 'Policy DMEI 14: Air Quality' of the Local Plan, requires development proposals to "*actively contribute towards the improvement of air quality*". To support this objective, LBoH has requested the use of Defra's damage cost guidance to quantify the societal impact of emissions associated with the development. The resulting cost estimate may be secured through a Section 106 (S106) agreement, with the expectation that all funds will be allocated by LBoH to initiatives aimed at enhancing air quality in the surrounding area.

### Cumulative Impact Approach

6.3.9 A review has been undertaken for other present and future developments with the potential to result in cumulative impacts with the proposed Data Centre. Specifically, this has considered developments that may result in significant NOx and/or particulate matter combustion emissions, where those impacts could combine at a sensitive receptor. The information sources include:

- A review of the LBoH planning register, for proposed developments within 1km, the findings of which are presented in Table 6.3;
- A review of satellite imagery, National Atmospheric Emissions Inventory (NAEI), and Environmental Permits Public Register (EPPR) for existing emission sources (Table 6.4).

6.3.10 It was found that there are no proposed developments likely to have a significant cumulative impact warranting assessment. Emissions from existing industrial and commercial sources are already represented in the baseline monitoring data, and those included in the NAEI are also represented in future air quality projections. Therefore, they can be accounted for in the assessment through precautionary application of baseline ambient air quality datasets and NAEI projections. This is considered to be the case for the majority of emission sources. However, the review has considered where baseline data is unlikely to adequately account for these impacts, in particular where there is the potential for short-term impacts as a result of plumes combining. This is considered to be the case for the adjacent Virtus Data Centre to the west, due to its location and proximity.

Table 6.3 LBoH Planning Portal – Proposed Developments

| Planning Application Details | Relevant for Cumulative Impact? |
|---|---|
| Application Ref: 13641/APP/2025/936<br>Location: 57 PARK VIEW ROAD<br>Locality: HILLINGDON<br>Development: Erection of a single storey rear extension | No |

| | |
|---|---|
| Application Ref: 18547/APP/2025/1114<br>Location: 127 WHITETHORN AVENUE<br>Locality: YIEWSLEY<br>Development: Erection of outbuilding to rear garden. | No |
| Application Ref: 29420/APP/2025/1034<br>Location: 71 PRINCES PARK LANE<br>Locality: HAYES<br>Development: Erection of a single storey wraparound extension to the side and rear, following the demolition of existing garage | No |
| Application Ref: 64134/APP/2025/994<br>Location: 18 SOUTH CLOSE<br>Locality: WEST DRAYTON<br>Development: Erection of a two storey side/rear extension to 2 x 2 bed self contained flats with associated parking and amenity space | No |
| Application Ref: 27690/APP/2025/995<br>Location: 14 SIPSON ROAD<br>Locality: WEST DRAYTON<br>Development: Conversion of roof space to habitable use and creation of one additional flat above existing residential unit. | No |
| Application Ref: 42514/APP/2025/828<br>Location: 23 WEST DRAYTON PARK AVENUE<br>Locality: WEST DRAYTON<br>Development: Erection of a part single, part double storey side and rear extension following demolition of existing rear | No |
| Application Ref: 76002/APP/2025/665<br>Location: PAGET COURT<br>Locality: 3 KINGSTON LANE<br>Development: Refurbishment and replacement of fenestrations. | No |

Table 6.4 Other Emission Sources

| Emission Source | Distance from Development Site | Comments |
|---|---|---|
| Site: West Drayton<br>Operator: Hanson Quarry Products Europe Ltd | 300m ESE | The contribution from this source is included in baseline monitoring data and future projections with inclusion in NAEI. Due to distance and direction, and elevation of the single stack release, the contribution of this source can be adequately addressed through use of the baseline data (i.e. standard approach of doubling the annual mean concentration). |
| Site: CyrusOne LON2<br>Operator: CyrusOne | 720m SE | Included in baseline concentrations from monitoring data and future projections with inclusion in NAEI. There are only 7 back-up generators providing 13.2 MW IT Power[25]. Due to distance and direction, there is only a very narrow wind field where plumes could combine with the distance enhancing dispersion. Therefore, the contribution of this source can be addressed through use of the baseline data (i.e. standard |

[25] https://www.datacentermap.com/

| | | |
|---|---|---|
| | | approach of doubling the annual mean concentration). |
| Site: London 8<br>Operator: VIRTUS LONDON 8 LIMITED | 180m W (to generators) | The contribution from this source is included in baseline monitoring data and future projections with inclusion in NAEI. However, due to proximity, and number of generators (providing 89 MW IT Power)[25], there is a wide range of wind directions that could lead to plumes combining that warrant its specific inclusion in dispersion modelling. |
| Site: Drayton Garden Village Energy Centre<br>Operator: EON | 640m SW | The contribution from this source is included in baseline monitoring data and in particular monitor HIL21 which has been applied in the assessment. |

### Back-up Generator Emission Assessment

#### *Dispersion Model*

6.3.11 The US American Meteorological Society and Environmental Protection Agency Regulatory Model (AERMOD v13) dispersion model is proposed for the assessment; this model is widely used and accepted by the Environment Agency for undertaking such assessments and its predictions have been validated against real-time monitoring data.

#### *Generator Emissions and Abatement*

6.3.12 The generator emission parameters have been derived on the basis of manufacturer's design and specifications and are presented in Table 6.5. The generators will be provided with a Selective Catalytic Reduction (SCR) system to abate NOx emissions. It has been assumed that a warm-up period of 20 minutes is required before the SCR reaches a fully effective operating temperature, therefore the first hour of operation applies a time weighted-average emission.

Table 6.5 Proposed Generators (CAT 175-20) – Emission Parameters

| Parameter | Value (per generator) | | | |
|---|---|---|---|---|
| Load (%) | 100 | 75 | 50 | 10 |
| Stack Internal Diameter (m) | 0.70 | 0.70 | 0.70 | 0.70 |
| Volume Flow ($Nm^3/s$) (A) | 2.71 | 2.12 | 1.46 | 0.44 |
| Emission Temperature ($^oC$) | 460.7 | 433.4 | 422.9 | 281.2 |
| Oxygen Content (% $O_2$ dry gas) | 10.14 | 11.44 | 11.90 | 15.30 |
| Moisture content (% $H_2O$) | 8.35 | 8.35 | 8.35 | 8.35 |
| Actual Flow Rate ($Am^3/s$) per stack | 11.74 | 10.07 | 7.18 | 2.76 |
| Emission velocity (m/s) | 30.5 | 26.16 | 18.7 | 7.2 |
| NOx Concentration ($mg/Nm^3$) | 2346 | 1627 | 1631 | 2162 |
| NOx Emission (g/s) per gen-set | 6.357 | 3.450 | 2.384 | 0.949 |
| NOx Concentration with SCR ($mg/Nm^3$) | 250 | 250 | 250 | n/a(B) |
| NOx Emission with SCR (g/s) | 0.677 | 0.53 | 0.365 | n/a(B) |
| NOx Conc. SCR warm-up (1hr avg.) ($mg/Nm^3$) | 949 | 709 | 710 | n/a(B) |
| NOx SCR Warm-up Emission (g/s) (1hr avg.) | 2.571 | 1.510 | 1.038 | n/a(B) |
| PM Concentration ($mg/Nm^3$) | 4.6 | 13.5 | 27.0 | 36.0 |

| | | | | |
|---|---|---|---|---|
| PM Emission (g/s) | 0.012 | 0.03 | 0.039 | 0.016 |
| Table Note: (A) Normalised to 273K, dry, 5% O2. (B) Tests at 10% load do not operate long enough for SCR to be required. | | | | |

***Operating Scenarios***

6.3.13 The operating scenarios at the Site include the following:

- Routine Maintenance Operations – the predictable, managed testing and maintenance activity; and
- Emergency Outage Operations (whole Site) – the unpredictable emergency grid outage any time during the year requiring plant to operate for the required outage duration. Outages are typically durations of seconds to minutes, as a precautionary approach a 2-hour outage will be assessed.

6.3.14 The scenarios above will be assessed in-combination with the adjacent Virtus Data Centre.

***Model Study Area and Receptors***

6.3.15 The modelling will be undertaken using a receptor grid across Open Source mapping data of the study area. Pollutant exposure isopleths will be generated by interpolation between receptor points and superimposed onto the map. A receptor grid was applied extending 2.5km from the Site as follows:

- 200m x 200m at 20m grid resolution;
- 500m x 500m at 50m grid resolution;
- 1000m x 1000m at 100m grid resolution; and
- 2500m x 2500m at 250m grid resolution.

6.3.16 In addition, the modelling has included both discrete sensitive receptors and grids over residential areas to capture the maximum impacts in each area, as described in paragraph 6.4.3.

***Topography***

6.3.17 The presence of elevated terrain can significantly affect the dispersion of pollutants and the resulting ground level concentration in a number of ways. Elevated terrain reduces the distance between the plume centre line and the ground level, thereby increasing ground level concentrations. Elevated terrain can also increase turbulence and, hence, plume mixing with the effect of increasing concentrations near to a source and reducing concentrations further away.

6.3.18 AERMOD utilises digital elevation data to determine the impact of topography on dispersion from a source. Topography will be incorporated within the modelling using 30m resolution Shuttle Radar Topography Mission (SRTM) terrain data files. Data will be processed by the AERMAP function within AERMOD to calculate terrain heights.

***Building Downwash***

6.3.19 Building downwash occurs when turbulence, induced by nearby structures, causes pollutants emitted from an elevated source to be displaced and dispersed rapidly towards the ground, resulting in elevated ground level concentrations. Building downwash is considered for buildings that have a maximum height equivalent to at least 40% of the emission height and

which are within a distance defined as five times the lesser of the height or maximum projected width of the building.

6.3.20 The integrated Building Profile Input Programme (BPIP) module within AERMOD will be used to assess the potential impact of building downwash upon predicted dispersion characteristics.

***Dispersion Coefficients***

6.3.21 The 'urban' option for dispersion coefficients will be applied in accordance with AERMOD guidance[26].

***Meteorological Data and Preparation***

6.3.22 Meteorological data from Heathrow Airport, located approximately 8.8km to the south of the Site will be used in the assessment. The meteorological data (5 years of hourly sequential data) obtained in .met format will be converted to the required surface and profile formats for use in AERMOD using AERMET View meteorological pre-processor. Details specific to the Site location will be used to define the surface characteristics; albedo, bowen ratio and surface roughness, applied in the conversion.

***Treatment of Model Output***

6.3.23 The assessment of impacts against the AQALs as defined in paragraph 6.2.11 will be undertaken using model output as described in Table 6.6 below.

Table 6.6 Model outputs

| AQAL being assessed | Model Output – Process Contribution (PC) | Predicted Environmental Concentration (PEC) |
|---|---|---|
| $NO_2$ 1-hour mean. Not to be exceeded more than 18 times a calendar year | 99.79%ile of 1-hour means. PC factored for 15% of $NO_x$ present as $NO_2$ as per EA guidance [(a)].<br>Threshold violation file (threshold set at 200µg/$m^3$ minus 2x annual mean background, assuming 15% of $NO_x$ converted to $NO_2$) counts number of hours per annum exceeding threshold. | Probability of exceedance calculated using hypergeometric distribution. |
| $NO_2$, $PM_{10}$ and $PM_{2.5}$ annual mean | Annual mean from 5 met. years (factored for operational hours).<br>$NO_x$ PC factored for 70% conversion to $NO_2$ [(a)] | PC + annual mean background |
| $PM_{10}$ 24-hour mean. Not to be exceeded more than 35 times a calendar year | 90.41%ile of 24-hour means for $PM_{10}$ | PC + annual mean background |
| Table note: (a) AQMAU reference: AQMAU-C1457-RP0, Diesel generator short term $NO_2$ impact assessment (2016) | | |

[26] US EPA, AERMOD Implementation Workgroup, AERMOD Implementation Guide, August 3, 2015.

***Statistical Analysis of Short-term Impacts***

6.3.24 The approach to assessment of short-term impacts adopted is consistent with the EA's approach defined in the *Guidance on dispersion modelling for oxides of nitrogen assessment from generators*. The approach requires modelling the impact of the generator plant for 8,760 hours of the year in order to ensure that the operating hours coincide with the worst-case dispersal conditions.

6.3.25 In order to determine the probability of an exceedance of the hourly mean AQAL for a short-term infrequent operation, the cumulative hypergeometric distribution will be used (with the 2.5 factor applied for consecutive operating hours) to assess the likelihood of exceedance hours coinciding with the operational hours.

## Assessment of Impacts and Significance

***Annual Mean Impacts***

Descriptors for predicted annual mean impacts applied in this assessment are taken from the EPIC & IAQM guidance. The matrix for assessment against annual mean AQALs is reproduced in Table 6.7.

Table 6.7 Annual Mean Impact Descriptor Matrix

| Long Term Average Concentration at Receptor in Assessment Year | Change in Concentration Relative to AQAL | | | |
|---|---|---|---|---|
| | 1% [(A)] | 2-5% | 6-10% | >10% |
| 75% or less of AQAL | Negligible | Negligible | Slight | Moderate |
| 76-94% of AQAL | Negligible | Slight | Moderate | Moderate |
| 95-102% of AQAL | Slight | Moderate | Moderate | Substantial |
| 103-109% of AQAL | Moderate | Moderate | Substantial | Substantial |
| 110% or more of AQAL | Moderate | Substantial | Substantial | Substantial |

Note:
(A) Changes <0.5% will be described as Negligible.

***Short-terms Impacts***

6.3.26 As emissions are sporadic, and unpredictable in the case of back-up operation, the impacts will be considered in terms of the probability of an exceedance of the $NO_2$ hourly mean AQAL using the approach defined in paragraph 6.3.24. The EA guidance provides the following framework to apply to the calculated probability:

- Probabilities of 1% or less indicate exceedances are highly unlikely;
- Probabilities of less than 5% indicate exceedances are unlikely; and
- Probabilities of 5% or more indicate there is potential for the exceedances.

***Significance***

6.3.27 The EPIC & IAQM guidance requires a judgment on the significance of the 'effect' as 'significant' or 'not significant'. Primarily this is based upon the impact descriptors (i.e. it states 'it is likely that a 'moderate' or 'substantial' impact will give rise to a significant effect, and a 'negligible' or 'slight' impact will not have a significant effect'), however other considerations may also have a bearing, for example:

- The existing and future air quality in the absence of the development.
- The extent of current and future population exposure to the impacts.
- The worst-case assumptions adopted when undertaking the prediction of impacts; and
- The extent to which the Site has adopted best practice to eliminate and minimise emissions.

6.3.28 The above factors will be considered when determining the significance of effect.

## 6.4 Baseline Environment

6.4.1 Pollutant concentrations monitored during 2020 and 2021 (i.e. affected by the COVID-19 pandemic) are expected to be atypical and have not been considered for the determination of baseline conditions.

### LAQM Review and Assessment

6.4.2 The Site is located within the London Borough of Hillingdon's administrative area for LAQM. The latest publicly available LAQM report has been reviewed, which at the time of writing is the 2024 Annual Status Report[27] (ASR). The Site is located within the 'Hillingdon AQMA', which covers the southernmost two thirds of the borough. However, the Site does not lie within an Air Quality Focus Area (defined as an area that exceeds the annual mean Limit Value for NO2 and has locations with high human exposure).

### Site Setting and Sensitive Receptors

6.4.3 Sensitive receptors in the surrounding area are detailed in Table 6.8 and shown in Figure 6.1. Receptors have been selected on the basis of the criteria defined in Table 6.2. In order to capture the highest impacts over large residential areas, grid receptors have been generated (GR1 to GR7). The closest receptors not in residential areas will be modelled as discrete receptors (DR1 to DR5).

Table 6.8 Modelled Sensitive receptors

| ID | Description | Relevant Exposure Period |
|---|---|---|
| DR1 | Busy Bees Nursery | All (Long and Short Term) |
| DR2 | Horton Rd (residential property north) | All (Long and Short Term) |
| DR3 | Horton Rd (residential property south) | All (Long and Short Term) |
| DR4 | Emden Close Play Area | Short Term |
| DR5 | Travel Lodge Hotel | Short Term |
| GR1 | Stockley (residential area to south) | All (Long and Short Term) |
| GR2 | Yiewsley (residential area to west) | All (Long and Short Term) |
| GR3 | Colham Green (residential area and schools to north) | All (Long and Short Term) |
| GR4 | Goulds Green (residential area and riding School to north east) | All (Long and Short Term) |
| GR5 | Hayes (residential area and schools to north west) | All (Long and Short Term) |

[27] The London Borough of Hillingdon (2024), Air Quality Annual Status Report, 2024, May 2024.

| | | |
|---|---|---|
| GR6 | Lake Farm (Country Park and Academy) | All (Long and Short Term) |
| GR7 | Pinkwell, Bourne (residential area and Schools) | All (Long and Short Term) |

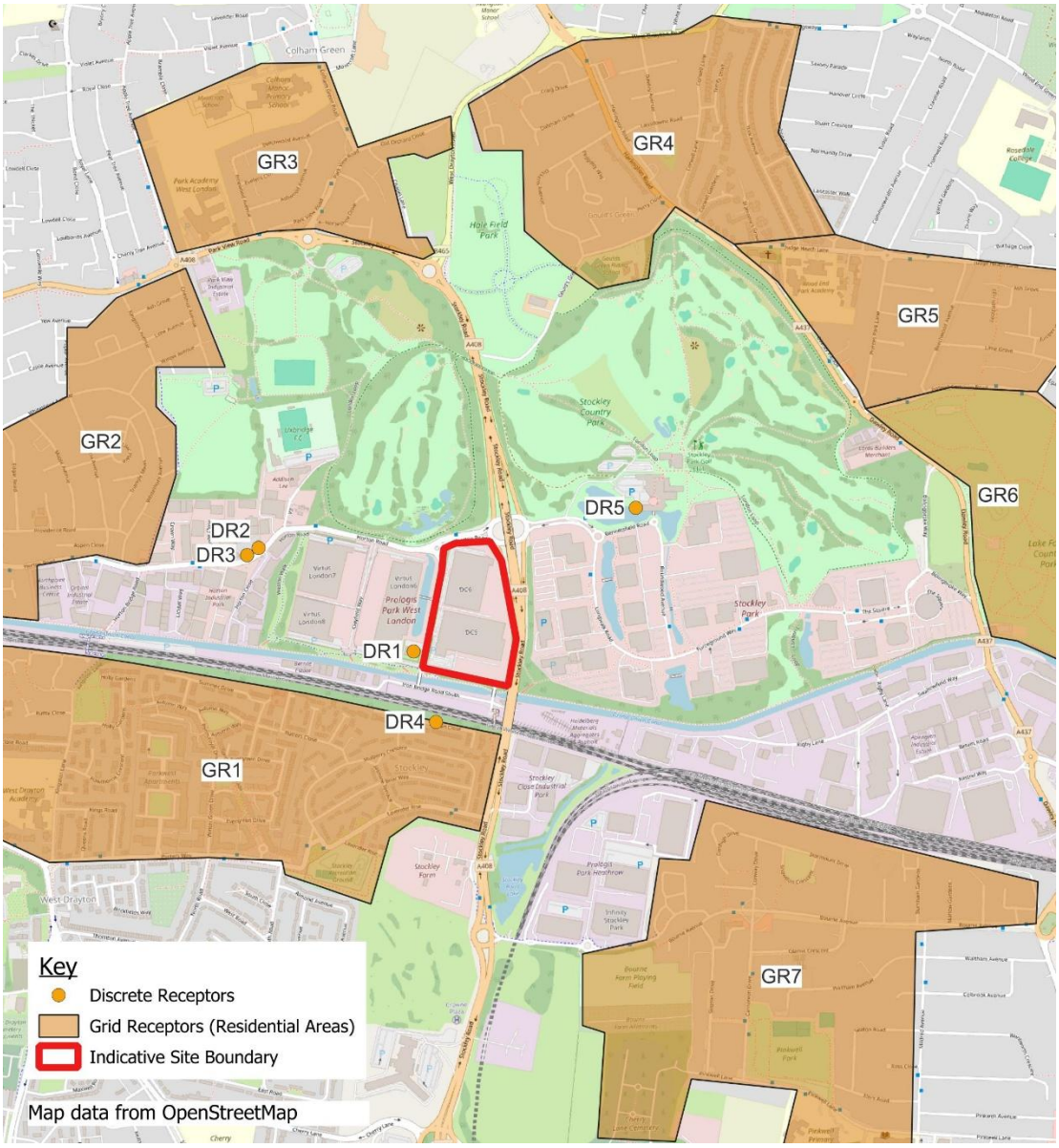



Figure 6.1 Site Setting and Receptors

## Baseline Air Quality and Future Projections

### *Automatic Air Quality Monitoring*

6.4.4 The closest continuous automatic air quality monitor is the 'Hillingdon' monitor classified as an 'urban background' site (the location (HIL 01) is illustrated in Figure 6.2). The $NO_2$, $PM_{10}$ and $PM_{2.5}$ data for 2022 – 2024 is presented in Table 6.9. There are no exceedances of the AQALs recorded at the monitor and annual mean concentrations in general show a gradual decline through the period.

Table 6.9 Automatic Air Quality Monitoring Results

| Pollutant | Year | Data Capture % | Annual Mean (µg/m$^3$) | Short-term Statistics |
|---|---|---|---|---|
| $NO_2$ | 2022 | 99.76% | 28 | 0 hourly means >200µg/m$^3$ |
| | 2023 | 98.80% | 25 | 0 hourly means >200µg/m$^3$ |
| | 2024 | 99.12% | 23 | 0 hourly means >200µg/m$^3$ |
| $PM_{10}$ | 2022 | 65.47% | 14 | 0 daily means >50µg/m$^3$ |
| | 2023 | 97.02% | 14 | 3 daily means >50µg/m$^3$ |
| | 2024 | 99.70% | 13 | 0 daily means >50µg/m$^3$ |
| $PM_{2.5}$ | 2022 | 65.47% | 7 | n/a |
| | 2023 | 97.01% | 8 | n/a |
| | 2024 | 99.70% | 7 | n/a |

***Passive Diffusion Tube Monitoring***

6.4.5 LBoH monitor annual mean concentrations of $NO_2$ using passive diffusion tubes. The locations of the closest monitoring locations are illustrated in Figure 6.2. The details and results for these monitoring locations are presented in Table 6.10.

Table 6.10 Passive Diffusion Tube Monitoring

| Site ID | Site Type | 2023 Data Capture % | Annual Mean NO2 Concentration (µg/m$^3$) | |
|---|---|---|---|---|
| | | | 2022 | 2023 |
| HIL 05 | Roadside | 100% | 27.8 | 26.7 |
| HIL 13 | Roadside | 91.7% | 21.0 | 21.3 |
| HIL 19 | Background | 100% | 28.7 | 26.2 |
| HIL 20 | Background | 100% | 34.5 | 29.2 |
| HIL 21 | Background | 100% | 27.9 | 24.5 |
| HIL 28 | Roadside | 83.3% | 27.1 | 21.4 |
| HIL 29 | Background | 100% | 25.2 | 24.1 |

6.4.6 As shown in Table 6.10, annual mean $NO_2$ concentrations have remained below the AQAL (40µg/m$^3$) at all the monitors across the period presented (2022 – 2023). There is generally a decline in annual mean concentrations between 2022 and 2023, potentially in part due to the expansion of the Ultra Low Emission Zone (ULEZ).

6.4.7 The empirical relationship given in LAQM.TG22 states that exceedances of the 1-hour mean AQAL for $NO_2$ is unlikely to occur where annual mean concentrations are <60µg/m$^3$. This indicates that an exceedance of the 1-hour mean AQAL was unlikely to have occurred at the above locations for the period assessed.

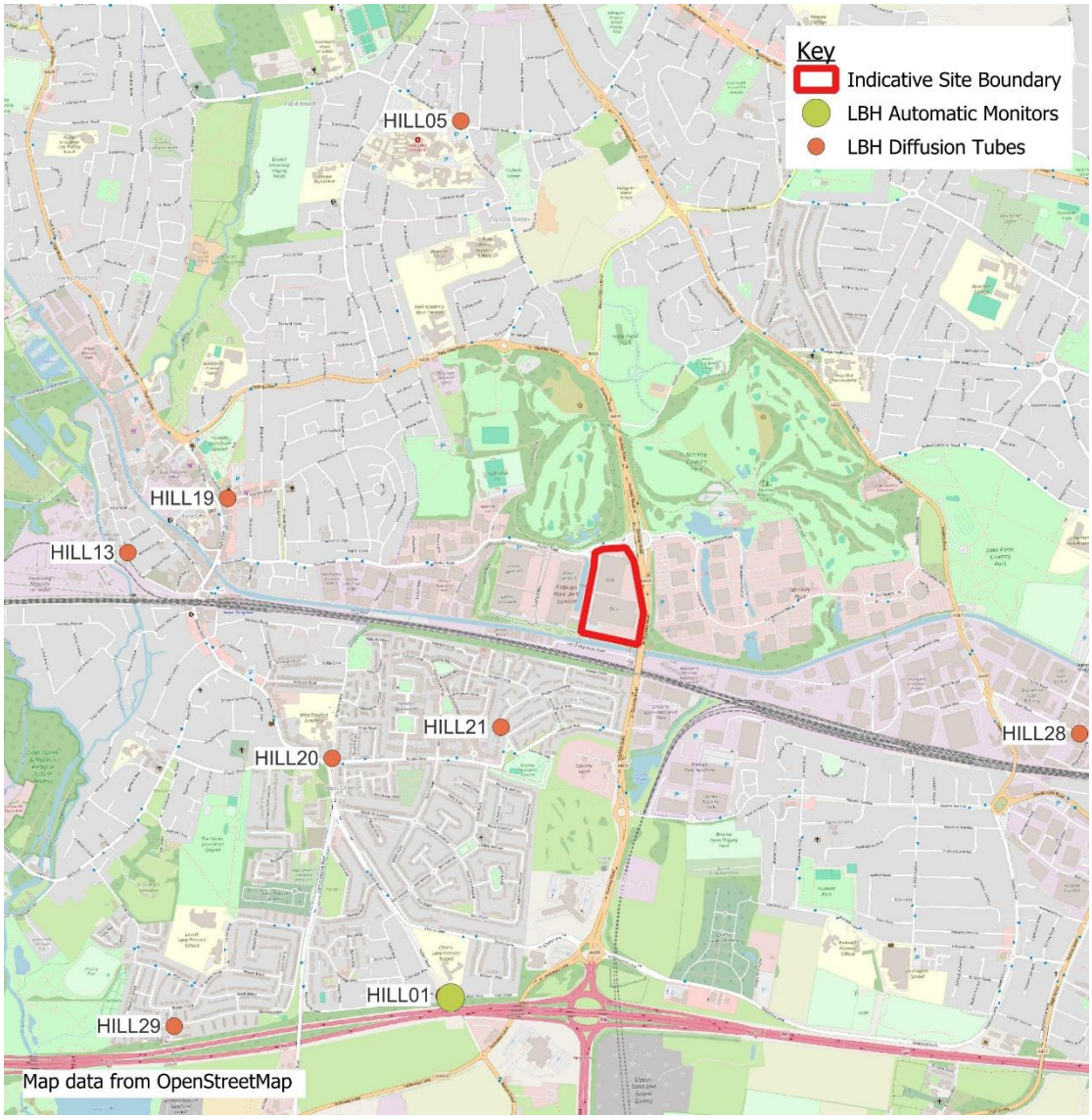



Figure 6.2 Air Quality Monitoring Locations

### London Atmospheric Emission Inventory Pollutant Maps

6.4.8 The GLAy and Transport for London provide a database of geographically referenced pollutant emissions (the London Atmospheric Emissions Inventory (LAEI)). The LAEI includes emissions from line sources (e.g., road transport), area sources (e.g. aviation, domestic and commercial fuel) and point sources (e.g. Part A and Part B processes). These emissions have been modelled to provide ground level concentration maps at a 20m x 20m resolution for key pollutants including $NO_2$, $PM_{10}$ and $PM_{2.5}$ across Greater London.

6.4.9 The projections will be presented within the ES. A review of the 2025 projections for $NO_2$, the key pollutant of concern to inform for the Scoping Report, indicates:

- Broadly from the east to southwest of the Site, annual mean concentrations are projected to be 20-25µg/m$^3$;
- Broadly from the west to northeast of the Site, annual mean concentrations are projected to be 15-20µg/m$^3$; and

- At the roadside of busier roads, e.g. A408 and Sipson Road, there are locations of 25-30µg/$m^3$.

6.4.10 These projections broadly align with the LBoH monitoring data. The mapped projections for 2030 show:

- Annual mean concentrations are projected to be 15-20µg/$m^3$ in the wider area around the Site; and
- At the roadside of busier roads, e.g. A408 and Sipson Road, there are a few locations of 20-25µg/$m^3$.

## 6.5 Potential Significant Effects Assessed

6.5.1 This scoping process has reviewed potential significant effects associated with the proposed development and scoped issues 'in' or 'out' as set out in Table 6.11.

Table 6.11 Air Quality Assessment Scope

| Air Quality Assessment Issue | Scoped In / Out |
|---|---|
| **Detailed dispersion modelling of generator emissions** – the routine testing and maintenance of the back-up generators and use in grid outage scenarios is a potential impact that requires detailed assessment. | In |
| **Cumulative Impact Assessment** – There are no developments within 1km on the planning portal requiring inclusion in a cumulative impact assessment. With respect to existing emission sources, the adjacent Data Centre to the west requires specific consideration in the detailed dispersion model with other emission sources considered through incorporation of local baseline monitoring data. | In |
| **Construction Phase Dust Assessment** – Construction operations are largely associated with alterations to buildings (including deconstruction of a section of Unit 2), fabrication and installation of plant, with no major excavation or earthworks. It is envisaged that industry standard construction dust control measures would be included in a Construction Environmental Management Plan required by planning condition. | Out |
| **Traffic Emissions Screening Assessment** – The extant use is as a logistics park, as such overall trip generation associated with the Site will not exceed the extant baseline. The trip generation during the construction and operational phases will be subject to a screening assessment. It is anticipated that the need for any detailed assessment will be screened out. | In |
| **Air Quality Neutral (AQN), Air Quality Positive and Damage Cost Calculation (DCC)** – It is anticipated that the proposed development will be demonstrated to be neutral with respect to transport-related emissions. With respect to building emissions, on the basis that the back-up generators operate on diesel or HVO, there is no building emissions benchmark approach and the AQN guidance requires the assessment to progress direct to reviewing mitigation and off-setting payments via Defra's Damage Cost Approach. There is the expectation that Section 106 funds will be allocated by LBoH to initiatives aimed at enhancing air quality in the surrounding area to support an Air Quality Positive approach.<br>The DCC will follow Defra's 'Air quality appraisal: damage cost guidance' applying the 'Damage costs toolkit', using the Central Estimate. It is understood LBoH require a 30-year appraisal period. | In |
| **Assessment of Impacts on Ecological Receptors** – The Site falls within the SSSI Impact Risk Zone for 'energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/combustion' >50MW energy input. Given the generators are operated in a back-up provision they are not considered to fall within the same category as the examples, which are continuously operating plant. For context, the nearest SSSI is 5km distant. On this basis, assessment of impacts on ecological receptors is screened out. | Out |

6.5.2 In summary, the aspects of the proposed development with a potentially significant effect requiring detailed assessment are related to the back-up generator emissions and the cumulative impact with the back-up generators in the neighbouring Data Centre. Traffic

emissions will be considered but it is anticipated that a screening assessment will demonstrate that effects would not be significant. The potential impacts from the back-up generators would be mitigated by use of abatement equipment in the form of a Selective Catalytic Reduction system. The Air Quality ES Chapter will address Air Quality Neutral and Air Quality Positive policies and include a Damage Cost Calculation to inform mitigation and off-setting requirements.

# 7 Climate change and greenhouse gases

## 7.1 Introduction

7.1.1 This chapter of the EIA Scoping Request has been produced by RED Engineering and seeks to establish the scope of the Climate Change and Greenhouse Gases Assessment that is proposed to be completed in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (the 'EIA Regulations').

7.1.2 Table 1 below details topics scoped proposed to be scoped into the EIA.

**Table 7.1 Scoped in elements**

| Topic | Elements | Scoped In |
|---|---|---|
| **Construction Phase** | Greenhouse Gases (GHG) embedded in the materials used, energy and transport emissions generated during construction and demolition (if any). | ✓ |
| **Operation Phase** | GHG emissions associated with the repair, maintenance and refurbishment of the building during its lifetime. Energy & Water use | ✓ |
| | Procured Renewable Energy | ✓ |

## 7.2 Assessment Criteria & Methodology

### Legislative Context, Technical Guidance and Best Practice

***Legislative Context***

7.2.1 The following legislation is relevant to the Proposed Development:

- Climate Change Act (2008)
- The Paris Agreement (2015)
- Environment Act (2021)

***Policy Context***

7.2.2 The following national planning policy is relevant to the Proposed Development:

- National Planning Policy Framework (2024)

7.2.3 The following planning policies are relevant to the Proposed Development:

- The London Plan (2021)
- GLA Energy Assessment Guidance (June 2022)

7.2.4 The following local planning policies are relevant to the Proposed Development:

- Hillingdon Local Plan: Part 1 and 2

- Hillingdon Council's Strategic Climate Action Plan (adopted July 2021)
- West London Waste Plan (July 2015)

***Guidance and Best Practice***

7.2.5 The following are best practice guidance and frameworks relevant to the development:

- Chartered Institution of Building Services Engineers (CIBSE) TM46 Energy Benchmarking.
- UK Green Building Council (UKGBC) Emissions Reduction Plan .
- Institute of Environmental Management & Assessment (IEMA) (2022, 2nd Edition) Assessing Greenhouse Gas Emissions and Evaluating their Significance guide.
- IEMA EIA Guide To: Climate Change Resilience and Adaptation (2020).
- The Greenhouse Gas Protocol Corporate Accounting and Reporting Standard (GHG Protocol) Committee on Climate Change (CCC), Net Zero Technical Report, 2019.
- Met Office's UK Climate Projections (UKCP18).
- Intergovernmental Panel on Climate Change (IPCC): Future Climate Projections; and
- British Council for Offices Resilient Workplace, Climate Change Risks and Opportunities
- RICS: Whole Life Carbon Assessment for Built Environment, 2nd Edition (2023).
- UKGBC Net Zero Carbon Buildings Standard 'Pilot Version' 2024

## Baseline Data Collection

7.2.6 Baseline conditions will be taken as the current conditions on the Site. Baseline information will be gathered through desk-based research and based on the current permitted use of the floorspace – B1 (C) (Light Industrial) (now classified as E(g)(iii)), B2 (General Industry) and B8 (Storage and Distribution). The baseline condition section will define and describe the existing environmental characteristics and receptors for each environmental topic that will be provided within the ES.

## Proposed Assessment Methodology

7.2.7 This section will assess the potential impact of climate change to the construction and operational phases of the Proposed Development. It will be informed by:

- Ecology and Biodiversity;
- Landscape Strategy and Management
- Flood Risk Assessment & Drainage Strategy
- Mechanical Report – Water Stress Study (WUE)

7.2.8 This section of the report will offer a qualitative assessment of the Proposed Development's resilience to climate change. The assessment methodology will be based on the recommendations from the IEMA 'EIA guide to Climate Change Resilience and Adaptation (IEMA, 2020) and will be tailored to ensure it is proportionate to the scope of the Proposed Development.

7.2.9 Currently, only provisional guidelines exist in the UK for assessing climate change impacts. The IEMA guidance (IEMA, 2020) on GHG emissions in EIA highlights that the cumulative environmental impact of GHGs contributes to environmental degradation, approaching a defined limit; therefore, it suggests that "*GHG emissions or reductions from a project might be considered significant.*" The significance level of a project's GHG impact within a Climate Change Impact Assessment (CCIA) should be contextualised and determined by a qualified practitioner, following the IEMA guidance framework, which underpins the assessment criteria used here.

7.2.10 The assessment of the Proposed Development's vulnerability to climate change will be conducted in accordance with IEMA EIA Guidance (IEMA, 2020).

7.2.11 A four-stage framework will be used for the operational assessment, examining the likelihood and consequences of impacts on each receptor, ultimately evaluating the effect's magnitude and significance:

- The first stage assesses climate effects on the Proposed Development by considering its expected lifespan and the long-term life cycle stage for which baseline projections have been provided. Climate trends from the UKCP18, including general climate conditions and extreme weather events, are identified and utilised in the assessment to determine future changes to the climate baseline;
- The second stage identifies receptors that are vulnerable to climate change;
- The third stage identifies the impacts (hazards and opportunities) for each receptor using UKCP18 data (shown in Table 7.1), considering the Proposed Development's vulnerability to both typical weather and extreme weather-related disaster scenarios;
- The fourth stage assesses the identified impacts to identify the likelihood of an event occurring (Table 7.2 defines the measure of consequences while Table 7.3 defines the impact of the climatic event on receptors, taking into account larger impacts associated with climate change.

7.2.12 Potential adverse impacts can be either seasonal or ongoing and may cause physical effects (e.g., on structural elements like buildings and roads) or operational effects (e.g., on the functioning of buildings during climate events).

**Table 7.2 Impact Magnitude Based on Receptor Sensitivity**

| Receptor Sensitivity | Magnitude of Impact | | | |
|---|---|---|---|---|
| | High | Medium | Low | Very Low |
| **High** | Major Beneficial / Adverse | Major Beneficial / Adverse | Moderate Beneficial / Adverse | Minor Beneficial / Adverse |
| **Medium** | Major Beneficial / Adverse | Moderate Beneficial / Adverse | Minor Beneficial / Adverse | Negligible |
| **Low** | Moderate Beneficial / Adverse | Minor Beneficial / Adverse | Negligible | Negligible |
| **Very Low** | Minor Beneficial / Adverse | Negligible | Negligible | Negligible |

**Table 7.3 Likelihood of Climate Events During the Operational Lifetime of the Proposed Development**

| Likelihood | Type |
|---|---|
| **Very High** | The climate event occurs multiple times during the operational lifetime of the Proposed Development (60 years) - e.g. approximately annually, 60 events. |
| **High** | The climate event occurs several times during the operational lifetime of the Proposed Development (60 years) - e.g. approximately once every 5 years, 12 events. |
| **Medium** | The climate event occurs limited times during the operational lifetime of the Proposed Development (60 years) - e.g. approximately once every 15 years, four events. |
| **Low** | The climate event occurs once during the operational lifetime of the Proposed Development (60 years) - e.g. once in 60 years. |
| **Very Low** | The climate event may occur once during the operational lifetime of the Proposed Development (60 years). |

**Table 7.4 Consequences of Impact on the Proposed Development including Infrastructure and Ecological Systems**

| Consequence of Impact | Description |
|---|---|
| **Very Large Adverse** | • Regional level (or greater) disruption to infrastructure route(s) lasting more than one week; or<br>• Disruption to the Proposed Development lasting more than one week.<br>• Very significant damage or harm to human and/or ecological systems |
| **Large Adverse** | • Regional level (or greater) disruption to infrastructure route(s) lasting more than one day but less than one week; or<br>• Disruption to the Proposed Development lasting more than one day but less than one week.<br>• Significant damage or harm to human and/or ecological systems |
| **Moderate Adverse** | • Local level (or greater) disruption to infrastructure route(s) lasting more than one day but less than one week; or<br>• Disruption to a part of the Proposed Development lasting more than one day but less than one week.<br>• Moderate damage or harm to human and/or ecological systems |
| **Minor Adverse** | • Local level (or greater) disruption to infrastructure route(s) lasting less than one day; or |

| | |
|---|---|
| | • Disruption to a part of the Proposed Development lasting less than one day.<br>• Minor damage or harm to human and/or ecological systems |
| **Negligible** | • Disruption to an isolated part of the Proposed Development lasting less than one day.<br>• Negligible damage or harm to human and/or ecological systems |

Significance Criteria

7.2.13 The magnitude of the risks identified in the assessment depends on the probability of a hazard affecting the Proposed Development and the severity of its potential impact.

***Geographical Scope***

7.2.14 The proposed development is at Unit 1 (Distribution Centre 5) and Unit 2 (Distribution Centre 6) on Iron Bridge Road North in Hillingdon (the Site).

7.2.15 The Site is approximately 1 mile north of the M4 (J4) and 2 miles north of Heathrow airport. It is also bordered by:

- Grand Union Canal to the south
- Railway to the south
- A408 to the east
- Virtus Data Centres to the west
- Stockley Country Park to the north.

## 7.3 Baseline Environment

Greenhouse Gas (GHG) emissions - Operational Carbon

7.3.1 The operational Carbon will consist of energy and transport emissions generated by the proposed use of the site, as agreed during planning, and the associated personnel.

7.3.2 Based on the Energy Assessment submitted as part of the planning application, the building's regulated and unregulated energy use was estimated at 464 tonnes of $CO_2$ per annum before any energy efficiency measures, and 352 tonnes of $CO_2$ per annum after implementing energy savings. These figures will be used as the baseline for operational carbon. An estimate of transport-related emissions (from the Transport Consultant), along with the embodied carbon associated with material and equipment replacement (Modules B1–B5), will also be included in the baseline as part of the overall GHG assessment.

| Development Phase | Footprint Element | Baseline (tonnes CO2e) |
|---|---|---|
| **Existing Development** | Embedded (Materials) (annual) | TBC* |
| | Transport (annual) | TBC* |
| | Regulated Energy (annual) | 211 |
| | Unregulated Energy (annual) | 253 |
| **Total** | | 464* |

TBC* - still to be calculated.

Climate Change Baseline

7.3.3 The Climate Change baseline of the assessment will be informed by regional scale information on historic and projected change in climate variables, and other studies undertaken relevant to the Development.

Future Baseline Conditions

7.3.4 If the proposed changes to the current development had not come forward, it is anticipated that the site would remain in the current state and therefore assumed to be as per the baseline conditions.

7.3.5 The natural evolution of the site and surrounding areas will also be qualitatively considered.

7.3.6 For Climate Change calculations, modelling of the proposed changes to the current development will be done in compliance with the Future Weather scenarios for Part L and BREEAM Hea 04 criteria .

## 7.4 Potential Environmental Impacts & Effects

***Construction Impacts and Effects***

7.4.1 The assessment of effects will discuss the total embedded carbon emissions for the Proposed Development from construction to practical completion, repair, maintenance and refurbishment during operations, which will be based on the BS EN 15978 and the RICS Methodology of calculations, 2nd edition (2023) Modules A1-A5.

7.4.2 This section will include separate carbon figures for materials, transportation, and construction.

***Occupation Impacts and Effects***

7.4.3 The assessment will consider both direct and indirect GHG emissions from the Proposed Development in the anticipated year of opening and throughout the lifetime of the Proposed Development:

- Indirect GHG emissions comprise employee commuting, IT and facility equipment, waste and end of life of IT equipment, Colocation and cloud services and unregulated energy use, and electricity for operational and colocation IT.
- Direct GHG emissions comprise facility IT load MEP equipment.

7.4.4 The lifetime emissions are assumed over an operational lifetime of 60 years in line with the RICS Methodology. GHG emissions in the assessment year (First year of operation) will represent the worst case annual GHG emissions for the Proposed Development over its lifetime since the economy will be decarbonising over time, consistent with meeting the UK's Climate Change target to be net zero by 2050, and shown also for example by historic year on year fall in emissions factors for electricity generation as the grid decarbonises.

## 7.5 Scoping Summary

7.5.1 The Climate Change and Greenhouse Gases chapter of the ES will assess the potential impacts of the Proposed Development during both construction and operational phases. The scope includes:

- Construction Phase: Assessment of greenhouse gas (GHG) emissions from embedded carbon in materials, energy use, and transport during construction and demolition.
- Operational Phase: Evaluation of GHG emissions from building maintenance, energy and water use, and procured renewable energy over a 60-year operational lifetime.

7.5.2 The assessment will be guided by relevant legislation (e.g. Climate Change Act 2008, Environment Act 2021), national and local planning policies (e.g. NPPF 2024, London Plan 2021), and best practice frameworks (e.g. IEMA, UKGBC, RICS).

7.5.3 Baseline data will be derived from current site conditions and energy assessments, with operational carbon estimated at 464 tonnes $CO_2$/year pre-efficiency measures, and 352 tonnes $CO_2$/year post-efficiency. Transport and embodied carbon will also be included.

7.5.4 Climate resilience will be assessed using UKCP18 projections and IEMA's four-stage framework, considering receptor sensitivity, likelihood of climate events, and potential consequences. Both direct and indirect GHG emissions will be evaluated, with lifetime emissions contextualised against the UK's net zero 2050 target.

# 8 Conclusion

## 8.1 Introduction

8.1.1 This scoping report provides an outline of the information that will be presented in the Environmental Statement and the intended approach to the assessment studies. It has been provided to accompany a formal scoping opinion request submitted to London Borough of Hillingdon.

8.1.2 As part of the EIA scoping process, issues that are identified as unlikely to give rise to significant environmental effects can be covered in a reduced scope of study or scoped out of the assessment. This scoping report identifies the topic areas proposed to be scoped out from the EIA or explains for which aspects a reduced scope is considered appropriate.

## 8.2 Summary

8.2.1 A summary of the effects considered likely to be significant, or insignificant is presented in Table 8.1.

Summary of proposed EIA scope including elements of proposed environmental topics proposed to be scoped out of detailed assessment

**Table 8.1 - Summary of proposed EIA scope**

| Topic | Scoped in? | | Elements scoped out of detailed assessment in the EIA |
|---|---|---|---|
| | Construction | Operation | |
| Climate Change and Greenhouse Gases | Yes | Yes | Scoped In |
| Air Quality and Odour | Yes | Yes | Scoped In<br><br>Air Quality matter scoped out<br>• Construction Phase Dust Assessment<br>• Assessment of Impacts on Ecological Receptors |
| Daylight, Sunlight, Overshadowing and Solar Glare | No | No | Scoped out |
| Major Accidents and Disasters | No | No | Scoped out |
| Lighting | No | No | Scoped out |
| Waste and Resources | No | No | Scoped out |
| Wind Microclimate | No | No | Scoped out |
| Landscape & Visual Impact | No | No | Scoped out |
| Transport and Access | No | No | Scoped out |
| Socio-Economics | No | No | Scoped out |
| Built Heritage and Archaeology | No | No | Scoped out |

| Topic | Scoped in? | | Elements scoped out of detailed assessment in the EIA |
|---|---|---|---|
| | Construction | Operation | |
| Ecology | No | No | Scoped out |
| Ground Conditions and Contamination | No | No | Scoped out |
| Hydrology, Flood Risk and Drainage | No | No | Scoped out |
| Human Health | No | No | Scoped out |
| Noise and Vibration | No | No | Scoped out |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# Appendix 1 – Location Plan

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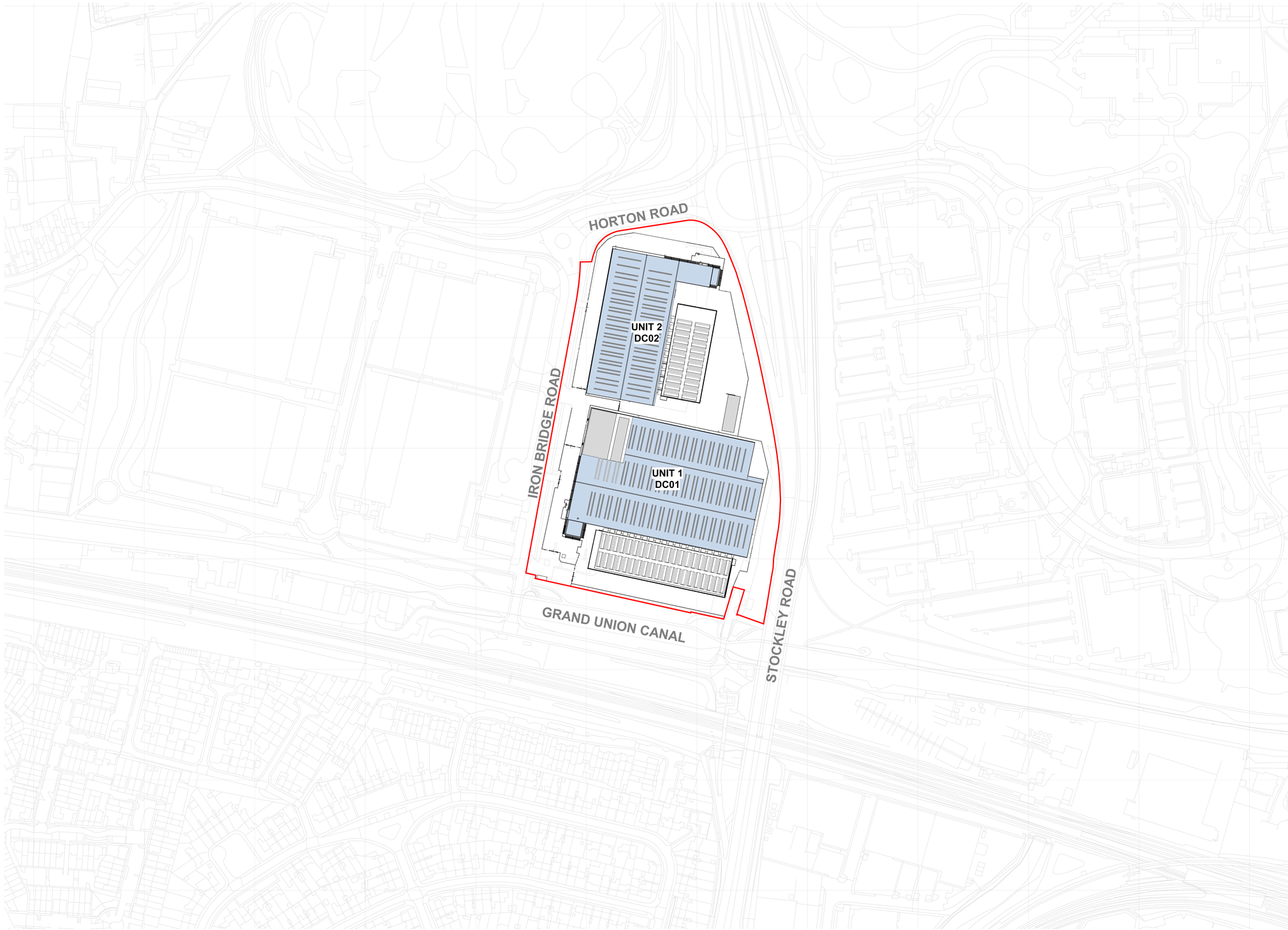


1 Site Location Plan

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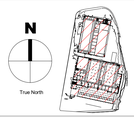


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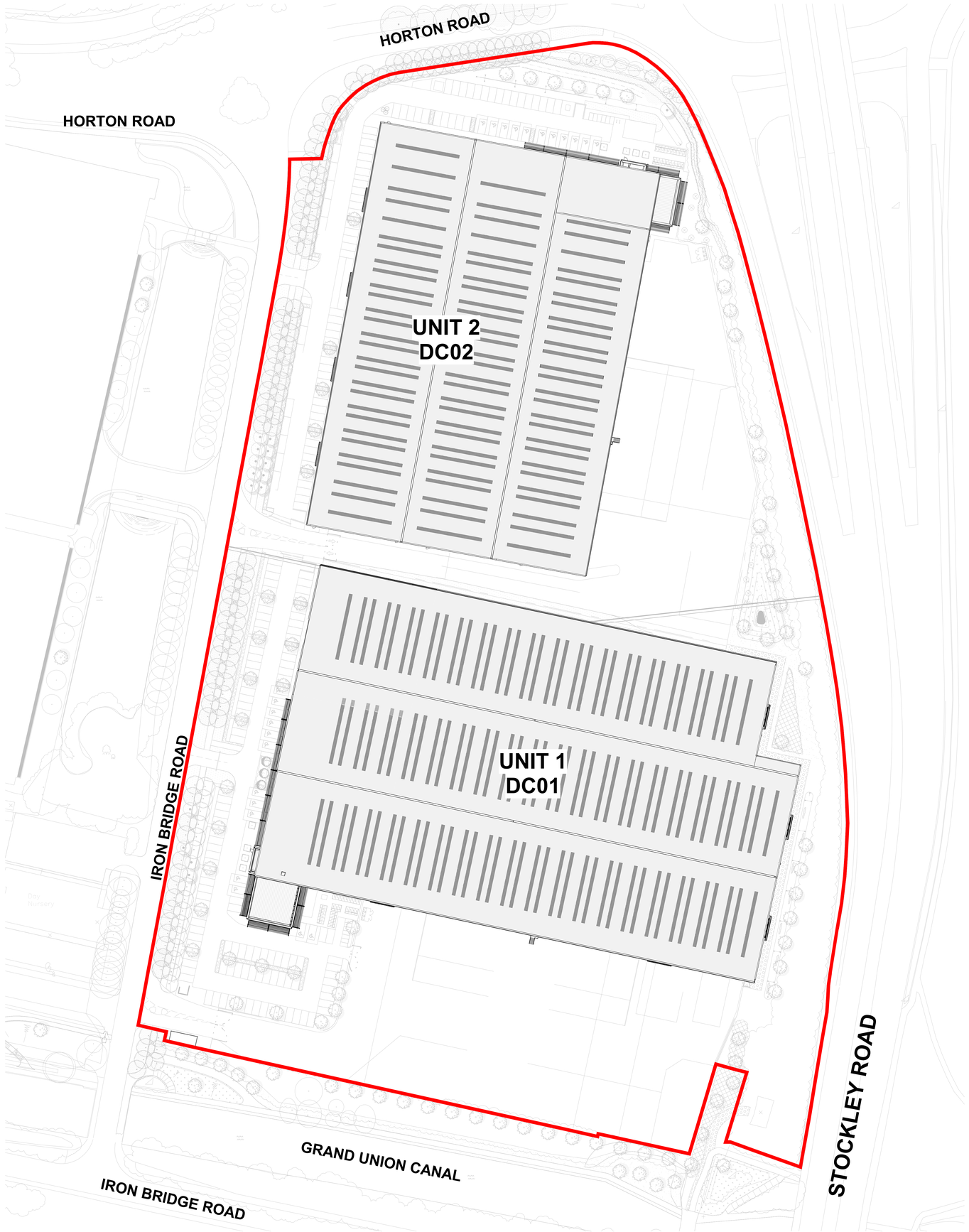
# Appendix 2 – Existing Site Layout



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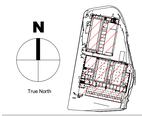


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1 Existing Site Plan

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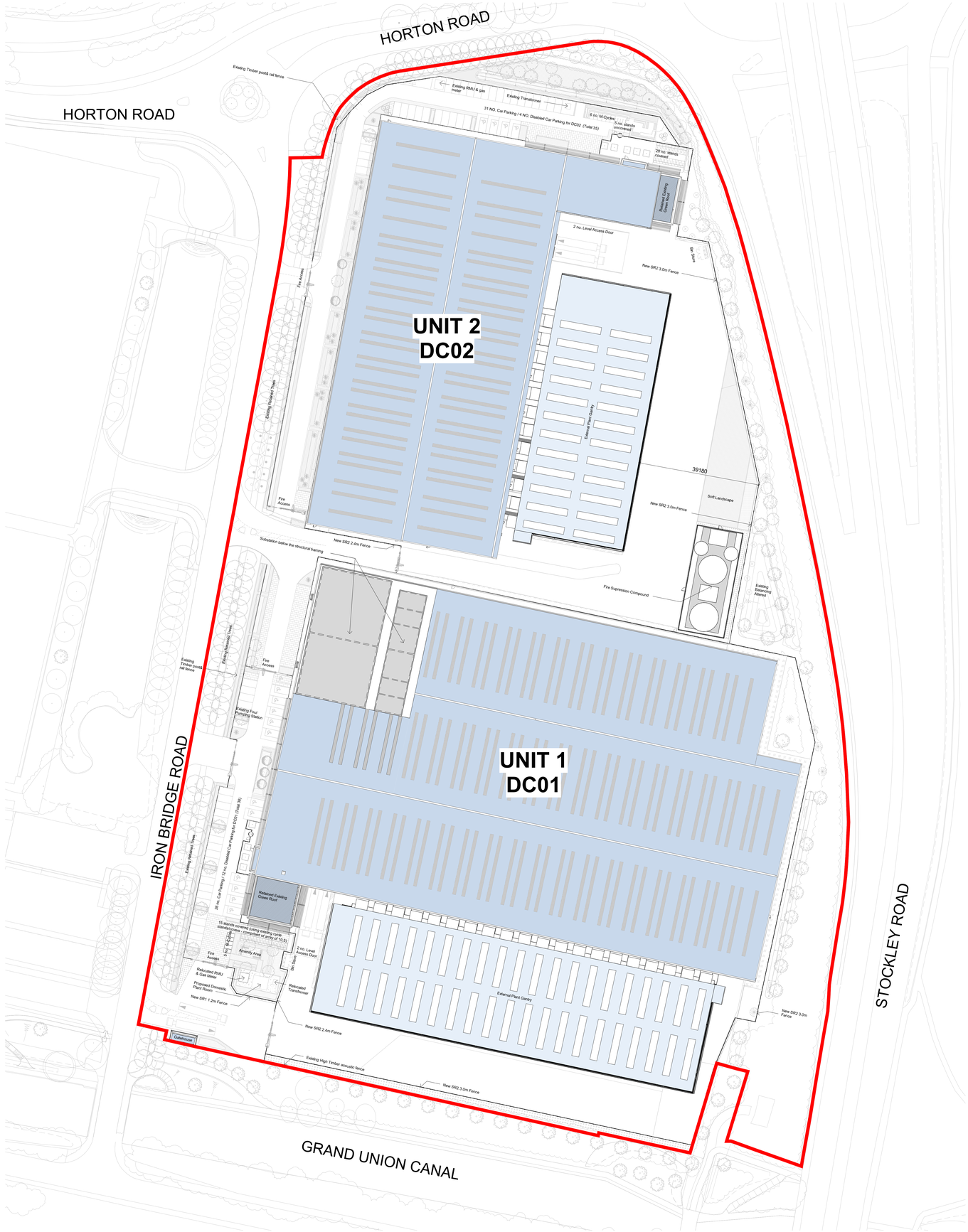
# Appendix 3 – Proposed Site Layout




1 Proposed Site Plan

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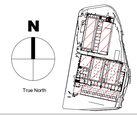


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