5 Approach to Assessment

5.1 EIA Process

5.1.1 As set out in Chapter 1, EIA is a process through which the likely significant environmental effects of a development proposal can be identified and, where possible, adverse effects prevented, reduced or offset.

5.1.2 The overarching aim of this Environmental Statement (ES) is to present an objective, transparent and proportionate account of the likely significant environmental effects of the Proposed Development. The ES assesses the capacity of the Site and the surrounding environment to accommodate these effects. The ES also describes the mitigation measures envisaged to avoid, prevent, reduce or offset identified significant adverse effects.

5.1.3 This chapter sets out the overarching methodology adopted for the EIA. It explains the process used to determine the environmental topics included within the assessment and describes the approach taken to identifying, characterising and evaluating the significance of environmental effects arising from the Proposed Development.

5.2 EIA Screening

5.2.1 The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 ("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 Part 10 (a) "Industrial estate development projects". The criterion to be considered for Part 10 (a) Industrial Estate Development Projects is given in column 2 as "the area of the development exceeds 5 hectares". The EIA Scoping Opinion identifies that the Site could also fall under Part 10 (b) "Urban Development Projects" in which the criteria is: '*The development includes more than 1 hectare of urban development which is not dwellinghouse development; or, the development includes more than 150 dwellings; or, the overall area of the development exceeds 5 hectares'* .

5.2.4 Given the nature and scale of the Proposed Development, and as the Site extends to approximately 6.9 hectares, the Applicant considered that the scheme was likely to give rise to significant environmental effects. As such, no formal request for a Screening Opinion was sought from the London Borough of Hillingdon (LBH), and the Applicant elected to undertake a voluntary EIA.

5.3 EIA Scoping

5.3.1 An EIA Scoping Request was submitted to LBH in August 2026 identifying the environmental topics considered likely to be relevant.

5.3.2 As part of the scoping process pre-application engagement with the Local Planning Authority (LPA) provided a clear steer regarding the environmental topics requiring assessment.

5.3.3 The formal Scoping Opinion of LBH was received on the 12 October 2026 and is provided as Appendix 5.2.

5.3.4 Table 5.1 sets out the scope for the EIA.

Table 5.1 EIA Scope

No.	Environmental Topic	Scoped In / Scoped Out
5	Approach to Assessment	Scoped Out - Major Accidents and Disasters; Agricultural Land Quality and Soil Resources; Waste and Resources; Lighting; Wind Microclimate.
6	Air Quality and Odour	Air Quality Scoped In
		Odour Scoped Out
7	Archaeology and Built Heritage	Archaeology Scoped In
		Built Heritage Scoped Out
8	Climate Change and Greenhouse Gases	Scoped In
9	Daylight and Sunlight	Scoped Out
10	Ecology	Scoped Out
11	Ground Conditions and Contamination	Scoped Out
12	Hydrology, Flood Risk and Drainage	Scoped Out
13	Landscape, Townscape and Visual Impact	Scoped In
14	Transport and Access	Scoped Out
15	Noise and Vibration	Scoped In
16	Summary	N/A

5.3.5 As a result of the scoping exercise five topics, Air Quality (Chapter 6), Archaeology (Chapter 7), Climate Change and Greenhouse Gases (Chapter 8), Landscape, Townscape and Visual Impact (Chapter 9) and Noise and Vibration (Chapter 10) were carried forward and assessed in full within the EIA.

5.3.6 Table 5.2 provides a summary of the EIA Scoping Opinion alongside a summary of how, and where, these have been addressed within the ES.

Table 5.2 EIA Scoping Opinion Summary and Response Table

Topic Area	Summary of Comments	Applicant Response to Comments	Page No. of Opinion	ES Chapter
Introductory Chapters				
Chapter 1 – Introduction	It is stated that the EIA will be undertaken in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (the 'EIA Regulations 2017'). The regulations were amended in 2018 by the Town and Country Planning and Infrastructure Planning (Environmental Impact Assessment) (Amendment) Regulations 2018.	The Environmental Impact Assessment Planning Practice Guidance refers to the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended) as the relevant EIA Regulations.	10	Chapter 1
Chapter 2 – Site and Local Context	A comprehensive description of the site should be provided in the ES in due course. All aspects of the site relevant to the assessments scoped into the EIA should be clearly described.	See Chapter 2 – Site and Local Context.	11	Chapter 2
	Include the orientation of the site location plan.	See Chapter 1 – Introduction, Figure 1.1.	11	Chapter 1
	The EIA Scoping Report states that a new electricity connection will be established with Laleham Substation and that this new cable route will comprise 'associated development'. This should therefore be assessed in combination with the Proposed Development in the ES. Known information and assumptions regarding the cable route, including its location and the associated area boundary being considered, should be included in the ES.	The new grid connection to Laleham Substation is expected to comprise 2no. HV circuits rated to 95 MVA at 132 kV each. Whilst the grid connection would be delivered separately by the statutory undertakers and under a separate consenting regime, the EIA is required to assess the full extent of the Project. At present, details of the cable route and its delivery are unknown however, it is assumed that this would be routed under existing road/transport routes. Given the current uncertainty around the cable, consideration is necessarily high level and proportionate to the information available.	11	Chapter 2

Topic Area	Summary of Comments	Applicant Response to Comments	Page No. of Opinion	ES Chapter
Chapter 3 – The Proposed Development	Clarification required on whether the 54MW capacity refers to IT load capacity, gross facility demand, firm import capacity, or an aspirational campus capacity. A 54MW IT load could require materially higher grid import once cooling and electrical losses are included.	The 54MW capacity refers to IT load capacity however, the connection would be delivered separately by statutory undertakers and under a separate consenting regime which ensure sufficient capacity in the network for the operation of the Proposed Development.	11	Chapter 3
	Parameter plans to include maximum building footprints/envelopes as well as maximum parameters regarding floorspace quanta, car parking spaces and datacentre power capacity. Parameter plans should be assessed with the illustrative masterplan provided for context.	See Chapter 3 – Proposed Development and parameter plans at Figures 3.1 to 3.7	11 - 12	Chapter 3
	Construction phase assessments should assess the worst-case demolition and construction phase effects on each relevant receptor across the programme. Any construction mitigation measures that inform the effect significance must be provided in full.	This has been undertaken in individual chapters as a worst-case scenario and an Outline Construction Environmental Management Plan (OCEMP) is provided, setting out measures which assessments have taken into consideration.	12	Chapter 3
Chapter 4 – Consultation, Site Selection and Alternatives	The ES should provide a summary of pre-application discussions and a summary of the public consultation exercises undertaken.	See Chapter 4 – Consultation, Alternatives and Design Evolution which sets out this detail.	12	Chapter 4
Chapter 5 – Approach to Assessment	Topic specific sensitivity and magnitude criteria should be provided in each chapter.	This is provided in each technical chapter.	13	Chapters 6-10
	Incorrect use of the term ‘effects’ in the criteria description for a high impact magnitude. The ES should clearly differentiate between impacts and effects i.e. an impact is the change caused by the proposed development, whereas an effect is the consequence of that change for a particular environmental receptor, taking into account the sensitivity of that receptor.	Chapter 5 – Approach to Assessment (this chapter) is clear that impact magnitude and effects are distinct. Noted and agreed. Text is included in this chapter (at Section 5.6) to make this clear.	13	Chapter 5

Topic Area	Summary of Comments	Applicant Response to Comments	Page No. of Opinion	ES Chapter
	The matrix indicates a scale ranging from negligible to substantial, rather than neutral to substantial. The methodology should be clearly and consistently defined and applied within and across the ES.	This should read as negligible to substantial and was included in error in the EIA Scoping Request. This is set out in the matrix tables below.	13	Chapter 5
	Likely effects to be described as either short, medium and long-term	Topic specific methodology sets out how temporal scope has been applied for each individual assessment. As this is different for each topic, it is not possible to determine a generic temporal scope for the entire ES.	13	Chapters 5-10
	Each additional mitigation measure should describe how it is to be secured.	This is undertaken in each chapter and is detailed in Appendix 11.2.	13	Appendix 11.2
	Alignment with legislative requirements cannot be assumed and any and all measures considered as embedded mitigation must be clearly stated.	This is undertaken in each technical chapter under the Inherent Mitigation heading.	13	Chapters 6-10
	The list of inter-development cumulative effects should also include schemes that have been submitted but are not yet approved, as there is a reasonable likelihood that they could be consented before the Proposed Development. Additionally, it appears that only forthcoming datacentre schemes have been considered whereby other development types could also potentially result in cumulative effects in combination with the Proposed Development. The cumulative context should be reviewed and updated to include local non-datacentre development projects, taking into account applications that have been submitted but not yet approved.	Although not generally considered as 'existing or approved projects' as per the EIA Regulations, in line with best practice, it is agreed that nearby schemes, within the criteria set out in Section 5.5, which are pending a decision by the Local Planning Authority are included. Given the potential for other cumulative effects, we have included schemes within a search area of 2.5km for other developments. Beyond this radius, impacts from other residential/commercial schemes are considered unlikely to interact with the same receptors given distance, intervening land uses and its urban context. Therefore,	13	Chapter 5

Topic Area	Summary of Comments	Applicant Response to Comments	Page No. of Opinion	ES Chapter
		significant cumulative effects are not considered likely with the proposed data centre use and these have been scoped out of detailed assessment within the Cumulative Effects Assessment. As such, since the submission of the EIA Scoping Request, additional residential/commercial schemes have been added to the list of cumulative schemes to allow for other developments (OD) and these schemes are listed in Table 5.6. This includes any residential schemes above 50 dwellings and any other development with more than 1,000 m^2 of new floorspace. Further justification for this approach is provided below.		
	Request for expansion of Heathrow Airport and the third runway to be included within the inter-development cumulative sites assessment.	The Applicant acknowledges that the Site falls within the area identified with Heathrow Airport Limited's (HAL) emerging proposals for expansion and that there is consequently potential for interaction between the two developments. At the time of preparation of the ES, the expansion of Heathrow Airport is at pre-application consultation stage and there is no submitted Development Consent Order (DCO) application. Consequently, the detailed design, construction programme and environmental effects of the proposals are not fixed and it is, therefore, uncertain as to what form the Heathrow Expansion will take. In the absence of a submitted DCO application and	13-14	Chapter 5

Topic Area	Summary of Comments	Applicant Response to Comments	Page No. of Opinion	ES Chapter
		sufficiently defined proposals against which a robust assessment could be undertaken, inclusion of Heathrow Expansion within the cumulative assessment introduces a substantial degree of uncertainty. Therefore, we do not consider Heathrow Airport to be an 'existing or approved project' for the purposes of the Cumulative Effects Assessment. If the Proposed Development is approved by the time Heathrow Airport's Expansion is submitted, then the Proposed Development would be considered within the cumulative or baseline position for Heathrow Airport's DCO submission.		
	Consideration of climate change resilience and in-combination climate change impacts which should be included within each technical chapter.	This has been undertaken within each technical chapter.	14	Chapters 6-10
Agreed to be scoped out				
Major Accidents and Disasters	ISEP Guidance on Major Accidents and Disasters in EIA: A Primer (2020) applies. Generally low risk of occurrence of major environmental hazards in the UK. Consideration of Unexploded Ordnance Risk (UXO) has been identified. A risk of Terrorist and cyber attacks should also be considered and justification for why significant effects are not anticipated should be provided.	See section below on 'Proposed Scoped out Topics'. ISEP Guidance and definitions added below. A Phase 2 UXO Risk Assessment will be secured and submitted at discharge of condition stage to set out any detailed mitigation measures prior to work commencing on Site. Consideration of physical and cyber terrorist attacks is provided below.	14-15	Chapter 5
Agricultural Land Quality	Further evidence required to demonstrate that	An Agricultural Land Classification Report has	15	Chapter 2

Topic Area	Summary of Comments	Applicant Response to Comments	Page No. of Opinion	ES Chapter
and Soil Resources	likely significant effects not anticipated and should be supported by robust justification in the ES.	been prepared and is appended to the ES at Appendix 2.1 which details that the Site is not Grade 1 agricultural land but rather ranges from Grade 2 to Grade 4. Further consideration is provided below.		& Chapter 5
Waste and Resources	Scoping does not provide sufficient assurance that significant effects related to waste resources can be avoided. Baseline landfill capacity data and a preliminary assessment of effect significance of waste generated by the Proposed Development during construction and operational phases should be provided based on industry benchmarks.	Chapter 3 sets out the predicted waste arisings for the construction and operational phases of the Proposed Development. A Circular Economy Statement (Appendix 3.2) and the Whole Life Carbon Assessment, submitted with the planning application, and set out in detail, predicted waste arisings and the re-use of the Site with a recommendation of a Site Waste Management Plan at detailed design stage.	15-16	Chapter 3 & Chapter 5
Lighting	Agree with approach, no comments.	Further justification provided below and within submitted Lighting Assessment.	16	Chapter 5
Utilities	Clarification required over 54MW load (see comment above on Chapter 3).	The 54MW capacity refers to IT load capacity.		
	The following connection evidence will need to be provided alongside the planning application: accepted grid offer, single-line diagram, connection voltage, import/export capacity, required upstream works, delivery milestones and conditions precedent.	At the time of writing, the grid offer is in the process of being accepted. A single-line diagram is not available for Laleham Substation as there is no route identified at this stage (see elsewhere on cable routing). Connection voltage will be 132kV with an import capacity of 95MVA. The required upstream works are part of the Laleham Substation upgrades. The delivery will be in place by 2030, at which point the Proposed Development will become operational.	16	Chapter 5

Topic Area	Summary of Comments	Applicant Response to Comments	Page No. of Opinion	ES Chapter
	The construction/occupation period overlaps with the stated earliest permanent connection availability, with first occupation anticipated in 2029-2030 and the proposed permanent grid connection not available until 2030. This means that the site is planned to be operational before the grid connection is available, which can only be achieved if temporary power is provided from another source.	This is correct in that the grid connection to Laleham Substation will not be available until 2030. The Site will be under construction for a period of 24 months between December 2027 and November 2029. The Site will not be able to operate until the grid connection at Laleham Substation is available and will remain inoperative until such a time as that connection becomes available.	16	Chapter 5
	The project needs a clear energisation and phasing plan, including whether building completion, partial commissioning and tenant occupation are driven by the grid connection date, or whether temporary generation or another power source will be used to bridge the gap. It is recommended that this information is provided to LB Hillingdon for review and comment during the pre-application stage.	The Proposed Development will not be operational until the grid connection becomes available and therefore, no temporary power generation is intended to be provided.	16	Chapter 5
	The approximate 8 km cable corridor remains undefined. The proposed Utilities Assessment should address route options, highway-/third-party land rights, utility congestion, environmental constraints, crossings, construction impacts, diversion requirements, consenting and programme risk.	As stated above, the new grid connection to Laleham Substation is expected to comprise 2no. HV circuits rated to 95 MVA at 132 kV each. Whilst the grid connection would be delivered separately by the statutory undertakers and under a separate consenting regime, the EIA is required to assess the full extent of the Project. At present, details of the cable route and its delivery are unknown however, it is assumed that this would be routed under existing road/transport routes. Given the current uncertainty around the cable, consideration is necessarily high level and proportionate to the information available.	16	Chapter 5

Topic Area	Summary of Comments	Applicant Response to Comments	Page No. of Opinion	ES Chapter
	The EIA Scoping Report mentions demand-side management and load shifting, but does not say the scale or impact this would have. The Applicant should determine whether the operator will offer flexible workload scheduling, curtailment capability, battery/UPS flexibility, or participation in DNO/ESO flexibility arrangements.	This will remain with the final operator of the data centre and will be confirmed at a later date.	17	Chapter 5
	The following should be provided by the Applicant in the planning application: PUE/WUE targets, annual MWh demand, hourly load profile, energy-procurement strategy, evidence of renewable additionality, and a quantification of operational emissions against London/UK carbon budgets.	These figures are included in the following documents: • PUE/WUE targets, annual MWh demand, hourly load profile – Energy and Sustainability Statement (ESS) • Energy-procurement strategy- VIRTUS is committed to procuring 100% renewable energy. This is achieved through the procurement of REGOs and Corporate Power Purchase Agreements (CPPAs). VIRTUS intends to apply the same strategy to this Site. • Evidence of renewable additionality – This is not able to be committed to at this stage but will be evaluated alongside other market solutions during detailed design stage. • Quantification of operational emissions against London/UK Carbon budgets – Chapter 8: Climate Change and Greenhouse Gases	17	Chapter 3; Chapter 8; and, Various
	The EIA Scoping Report recognises the opportunity for heat reuse but does not demonstrate delivery. A credible appraisal would identify viable customers, heat quantity/temperature, seasonal mismatch,	A range of demand reduction measures have been incorporated into the development including high-efficiency cooling, LED lighting and mechanical ventilation with heat recovery as well as through highly efficient cooling	17	Chapter 3 & ESS

Topic Area	Summary of Comments	Applicant Response to Comments	Page No. of Opinion	ES Chapter
	route/land rights, commercial structure, interface responsibility and whether a future-ready heat-export connection will be installed.	systems. See Energy and Sustainability Statement for further details.		
	The power proposed for the data centre is relatively large and given the exact size, 54MW, suggests that this is the available power locally rather than a specific size of data centre development. If this is the headroom at the substation then any future developments will face delays and increased costs as significant reinforcement works will be required to create more capacity. On this basis, and taking into account the potential for inadequate provision of power for the development at the commencement of the operational phase, there is considered to be the potential for significant adverse effects to arise. Recommendation that a stand-alone Utilities (Energy Infrastructure) technical chapter is scoped into the ES.	54 MW refers to the total drawdown capacity of the data centre for the size and specification proposed and has not been driven by the remaining capacity in the network as opposed to the headroom available at the substation, as assumed in the EIA Scoping Opinion. The Proposed Development will not be able to operate without sufficient supply in the National Grid. On this basis, the Applicant considers that significant effects are not likely and consideration of any supply and demand can be considered within the submitted Utilities Statement. As such, Utilities has not formed an Environmental Statement chapter.	17	Chapter 3 & Utilities Statement
	An energisation and phasing plan should be provided to LBH for review and comment.	It is not possible to provide an energisation and phasing plan at present however, this can be provided once the grid connection is confirmed. A ramping plan can follow this however, it is uncertain as to what this would look like at this stage.	17	Chapter 5
Wind Microclimate	Agree with approach, no comments.	Further justification provided below and Pedestrian Wind Microclimate Assessment submitted with the planning application.	16	Chapter 5
Built Heritage	Although, Historic England has not raised any	A Historic Environment Desk-Based	19-20	Chapter

Topic Area	Summary of Comments	Applicant Response to Comments	Page No. of Opinion	ES Chapter
	concerns with the proposed approach to scoping out built heritage from the ES, the Council's Conservation Officer noted the potential for impacts on the setting of locally and statutory listed buildings and has requested that the Historic Environment Desk-Based Assessment should be supported by photographs/visualisations to support the impact assessment judgements. Should the report indicate significant effects could arise, the topic should be scoped into the EIA.	Assessment is appended to the ES at Appendix 7.1 and addresses built heritage impacts associated with the Proposed Development. Further justification is provided below.		5; Chapter 7; and, Appendix 7.1
Daylight, Sunlight & Overshadowing	A daylight and sunlight assessment technical report is proposed to be submitted alongside the planning application to illustrate that the Proposed Development does not cause unacceptable loss of amenity. Should the report indicate significant effects could arise, the topic should be scoped into the EIA.	Further justification provided below and Daylight, Sunlight & Overshadowing Assessment submitted with the planning application. Significant effects are unlikely to arise and therefore, the topic is scoped out of the EIA.	22	Chapter 5
Ecology and Biodiversity	Agree that significant ecological effects on statutory designated sites are unlikely. There are no obvious potential pathways for direct habitat loss, fragmentation or recreational disturbance affecting designated sites. However, further justification should be provided within the planning application documentation to demonstrate this robustly. The proposed approach to ecology is generally proportionate to the nature of the Site and the findings of the ecological surveys to date. Subject to receipt of the outstanding survey and impact assessment results and implementation of the recommendations set out in the Opinion, ecology	See EIA Scoping Request (Appendix 5.1) for further justification. A Preliminary Ecological Appraisal (PEA) has been submitted with the planning application and detailed summaries of the PEA are provided in Chapter 2 and Chapter 3. The PEA sets out that it is unlikely that significant ecological effects will occur, sets out these likely effects and details any required mitigation measures to address these. Please see the PEA submitted with the	22-24	Chapter 2 & Chapter 3

Topic Area	Summary of Comments	Applicant Response to Comments	Page No. of Opinion	ES Chapter
	could be scoped out of the EIA. However, should the outstanding survey results indicate the potential for likely significant effects, ecology should be scoped into the EIA.	planning application for further details. As such, significant effects are unlikely to arise and therefore, the topic is scoped out of the EIA.		
Ground Conditions and Contamination	On the basis that the Preliminary Risk Assessment and Ground Investigation reports clearly evidence that significant residual effects are not anticipated, it is considered acceptable to scope this topic out of the ES. Should the reports indicate significant effects could arise, the topic should be scoped into the EIA.	See EIA Scoping Request (Appendix 5.1) for further justification and the Land Contamination Preliminary Risk Assessment submitted with the planning application. Significant effects are unlikely to arise and therefore, the topic is scoped out of the EIA.	24	Chapter 5
Hydrology, Flood Risk & Drainage	The applicant should confirm the proposed cooling strategy and quantify anticipated annual and peak water demand, including potable and non-potable requirements associated with cooling, process uses and staff. The planning application should also provide evidence that sufficient public water supply capacity is available to accommodate the Proposed Development. On the basis that water demand can be appropriately minimised, and that a suitable and deliverable water supply is available without significant effects on water resources, a standalone water resources chapter would not be required.	See EIA Scoping Request (Appendix 5.1) and the Flood Risk Assessment & Drainage Strategy (FRA & DS) submitted with the planning application for further details. Cooling water flows into the foul network are not expected at this stage. Annual and peak water demand have also been quantified within the FRA & DS. Sufficient capacity in the network is confirmed within the Utilities Statement. As such, significant effects are unlikely to arise and therefore, the topic is scoped out of the EIA.	25-26	Chapter 3 FRA & DS; Utilities Statement
Transport and Access	Provided that the Transport Assessment (TA) clearly evidences that significant residual effects on the local transport network during the operational phase are not anticipated, it is	See EIA Scoping Request (Appendix 5.1) and submitted Transport Statement (TS) and Travel Plan (TP).	26-27	Chapter 3 & Transport Statement

Topic Area	Summary of Comments	Applicant Response to Comments	Page No. of Opinion	ES Chapter
	acceptable to scope out transport as an assessment topics. Given the TA will focus only on operational phase, further justification for scoping out an assessment of construction phase transport effects should be reported in the ES. This should anticipate peak construction vehicle movement figures, as well as any mitigation. Should this indicate significant effects could arise, the topic should be scoped into the EIA.	Given the scale and significance of the transport issues, a Transport Statement has been submitted rather than a TA. Nevertheless, the submitted TS details both construction and operational effects from the Proposed Development. The TS details sufficient mitigation. For example, the Outline CEMP details measures to protect the environment and prevent any adverse impacts during the construction of the Proposed Development. The TS then concludes that the Proposed Development is not expected to result in any severe adverse impacts on the transport network.		
Additional Topics Not Considered in EIA Scoping Report				
Socio-economics and Human Health & Wellbeing	The EIA Scoping Request does not identify or consider potential socio-economic or human health and wellbeing effects. The Applicant should justify why significant socio-economic and human health and wellbeing effects are not expected to arise. If it cannot be suitably justified, these topics should be scoped into the EIA.	A Data Centre Needs Assessment is submitted as part of the planning application which details socio-economic benefits of the Proposed Development. See below for further detailed justification.	27	Chapter 5
Aviation	Aviation-related consequences can fall within EIA when they constitute likely significant operational, effects of the Proposed Development. Given the proximity of the site to Heathrow Airport and the advice provided by HAL in its consultation response, potential aviation effects should be considered.	Consideration of Heathrow Airport, as an existing receptor, has been undertaken as part of the wider baseline context within the technical chapters, where relevant. See below for further detailed justification for HAL response in detail.	28-30	Chapters 5-10

Topic Area	Summary of Comments	Applicant Response to Comments	Page No. of Opinion	ES Chapter
	If significant effects are not considered likely to arise, this should be justified by the Applicant and included in the ES in due course. If it cannot be suitably justified, this topic should be scoped into the EIA.			
Scoped in				
Air Quality	Specific technical comments provided on the scope of the ES Chapter for the baseline, cumulative assessment, assessment scenarios and operational scenarios.	These comments are addressed within Chapter 6 – Air Quality.	17-18	Chapter 6
Archaeology	Approach to archaeology agreed with a request to consider the GLAAS consultation when preparing the chapter.	These comments are addressed within Chapter 7 – Archaeology.	18-20	Chapter 7
Climate Change and Greenhouse Gases	Technical comments on the climate change chapter approach and consideration of quantitative lifecycle GHG assessment, approach to assumptions within the assessment, contextualisation against local carbon budgets, consideration of upstream and downstream emissions, and a standalone in-combination climate change impact assessment.	These comments are addressed within Chapter 8 – Climate Change and Greenhouse Gases. A qualitative In-Combination Climate Change Impact assessment is undertaken within each technical chapter providing due consideration to the effects from Climate Change.	20-22	Chapters 6-10
Landscape, Townscape and Visual Impact	Incorrect use of the term 'effects' in the impact magnitude criteria and accompanying text. The ES Chapter should clearly differentiate between impacts and effects.	These comments are addressed within Chapter 9 – Landscape, Townscape and Visual Impact.	26	Chapter
Noise and Vibration	Criteria for receptor sensitivity, impact magnitude and effect significance should be provided in the ES chapter. The technical methodology should be set out in detail and consider all relevant aspects of the Proposed Development that could	These comments are addressed within Chapter 10 – Noise and Vibration.	27	Chapter

Topic Area	Summary of Comments	Applicant Response to Comments	Page No. of Opinion	ES Chapter
	create noise (e.g. generators, cooling infrastructure)			

Proposed Scoped out Topics

5.3.7 In line with the EIA Scoping Opinion, the EIA for the Proposed Development focuses on those topics scoped into the assessment as the only topics likely to result in significant environmental effects. All other environmental topics have been scoped out on the basis that, no likely significant effects are anticipated. The justification for scoping out these topics is summarised below and is included in Appendix 5.1 – Former Sipson Garden Centre – EIA Scoping Request.

5.3.8 For those topics proposed to be scoped out, further justification is presented below for the following topic areas:

- Major Accidents and Disasters;
- Agricultural Land Quality and Soils;
- Waste and Resources;
- Lighting;
- Wind Microclimate;
- Daylight, Sunlight & Overshadowing;
- Built Heritage.

Topics not considered in the EIA Scoping Report

- Socio-economics and Human Health & Wellbeing;
- Aviation.

5.3.9 Additional justification is also provided where there is a conflict between the EIA Scoping Opinion and the proposed approach:

- Utilities.

Major accidents and disasters

5.3.10 The governing body for EIA, the Institute of Sustainability and Environmental Professionals (ISEP) provides EIA-specific guidance which, alongside a range of sources providing guidance related to the topic, has been reviewed, including:

- Major Accidents and Disaster in EIA: A Primer (2020)[1]
- Cabinet Office National Risk Register (NRR) of Civil Emergencies 2017 Edition[2];
- UK Government Emergency Response & Recovery Guidance[3]; and

[1] ISEP (2020) Major Accidents and Disasters in EIA: A Primer. September 2020. [Online] Available at: https://www.isepglobal.org/resources/blogs/2020/09/23/isep-isep-major-accidents-and-disasters-in-eia-guide/
[2] Cabinet Office. (2017) National Risk Register of Civil Emergencies. [Online]. https://www.gov.uk/government/publications/national-risk-register-of-civil-emergencies-2017-edition.

[3] International Federation of Red Cross and Red Crescent Societies, "The Red Cross Red Crescent approach to disaster and crisis management: Position paper," http://www.ifrc.org/PageFiles/91314/1209600-DM-Position-Paper-EN.pdf 2011.

- International Federation of Red Cross & Red Crescent Societies Disaster and Crisis Management Guidance[4].

5.3.11 The ISEP guidance defines a disaster as: *'a natural hazard (e.g. earthquake) or a man-made/external hazard (e.g. act of terrorism) with the potential to cause an event or situation that meets the definition of a major accident"* and a 'Major Accident' can be defined as *"Events that threaten immediate or delayed serious environmental effects to human health, welfare and/or the environment and require the use of resources beyond those of the client or its appointed representatives to manage. Whilst malicious intent is not accidental, the outcome (e.g. train derailment) may be the same and therefore many mitigation measures will apply to both deliberate and accidental events'*.

5.3.12 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.

5.3.13 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 can be appropriately mitigated through embedded design measures and through compliance with statutory design guidelines. As such, significant effects related to Health and Safety and as a result of major accidents and/or disasters associated with the Proposed Development are not considered likely.

5.3.14 The EIA Scoping Opinion has requested specific consideration of the potential for significant effects from Unexploded Ordnance (UXO) Risk, Terrorist Attacks and Cyber Attacks. The Opinion advises that, where it can be demonstrated that potential risks and effects would be appropriately mitigated, that these topics can be scoped out of the ES.

Unexploded Ordnance (UXO)

5.3.15 Due to historic WWII military activities on or affecting the Site, a potential UXO Risk has been identified. A Stage 2 UXO Risk Assessment will be secured via a suitably worded planning condition and undertaken prior to commencement to identify any potential UXO Risk on Site. Appropriate investigation work will then be carried out prior to commencement on Site to remediate any potential UXO.

5.3.16 As such, with the proposed mitigation, it is unlikely that this would result in significant effects requiring assessment as part of the EIA and therefore, can be considered to be scoped out and undertaken as part of the planning application submission.

Terrorist Attacks and Cyber Attacks

5.3.17 Security is an inherent part of VIRTUS Data Centres' design and operation for Data Centres. VIRTUS sites have seven layers of physical security including, perimeter fencing, access control, internal and external CCTV, restricted pass-code access and controlled access arrangements with an impact-rated security gate and fence protecting the Site from any

[4] International Federation of Red Cross and Red Crescent Societies, "What is a disaster?," http://www.ifrc.org/en/what-we-do/disaster-management/about-disasters/what-is-a-disaster/ 2017.

vehicular attacks. Additionally, digital security measures also include access to Distributed Denial of Service (DDoS) through specialist digital security providers.

5.3.18 As such, the potential for malicious acts, including terrorist and cyber attacks, would therefore be managed through the physical and digital security measures incorporated into the design and operation such that no pathway has been identified whereby terrorist or cyber attacks would give rise to likely significant environmental effects requiring assessment through EIA and therefore, have been scoped out of further assessment.

Summary

5.3.19 In line with the EIA Scoping Opinion, the EIA therefore does not include major accidents and disasters as a specific chapter.

Agricultural Land and Soil Resources

5.3.20 Soil is an important component of the ecosystem and also has a role as a store of carbon. Its functions can be impaired or lost as a result of development if it is not managed properly. The inherent quality of soil, as distinct to its agricultural value, is recognised in the Government's *'Soil Strategy for England - Safeguarding our Soils'* [5] which seeks to encourage the sustainable management of soil resources. Appropriate management of soil resources during construction can help with the re-establishment of soil functions following their storage or movement.

5.3.21 In the first instance, development should seek to avoid or prevent the loss of the Best and Most Versatile (BMV) agricultural land. However, if this is not possible the primary measures to mitigate damage to or loss of soil resources include measures to re-use as much as possible of the soils displaced during the construction phase within the landscaping and to ensure that the quality of soils retained on-site and any that has to be removed off-site is maintained by following best practice guidance on soil handling, as described in the *'Code of practice for the sustainable use of soils on construction sites'* [6].

5.3.22 As set out within Chapter 2 – Site and Local Context, the quality of agricultural land varies between Grade 2, 3a, 4 and Urban. Grade 2 and 3a comprise Best and Most Versatile (BMV) agricultural land. The Proposed Development would result in the loss of approximately 1.96 ha of Grade 2 and 0.85 ha of Grade 3a agricultural land. As such, this results in the permanent loss of 2.81 ha of BMV agricultural land which is not considered likely to give rise to a significant environmental effect.

5.3.23 Soil resources displaced through construction could, where practicable, be retained and reused within the Proposed Development, including as part of landscaping. Having regard to the extent of BMV land affected and the measures proposed for reuse of soil resources, no likely significant effects on agricultural land quality or soil resources are anticipated and have been scoped out of further assessment. As such, a separate chapter on agricultural land quality is not included in the EIA. However, an Agricultural Land Classification Report accompanies the application and is appended to the ES (Appendix 2.1).

[5] Department for Environment, Food and Rural Affairs (Defra) (2009) Safeguarding our Soils: A Strategy for England. Department for Environment, Food and Rural Affairs.
[6] Department for Environment, Food & Rural Affairs (DEFRA) (2018) Code of practice for the sustainable use of soils on construction sites [Online] Available at: https://www.gov.uk/government/publications/code-of-practice-for-the-sustainable-use-of-soils-on-construction-sites

Waste and resources

5.3.24 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.

5.3.25 Chapter 3 sets out the predicted waste arisings associated with the construction and operational phases of the Proposed Development. Further consideration of waste generation, management and circular economy principles is provided within Appendix 3.2 - Circular Economy Statement.

5.3.26 During construction, the Circular Economy Statement estimates that demolition, excavation and construction would generate approximately 16,150 tonnes of waste, comprising approximately 10,722 tonnes of demolition waste, 3,351 tonnes of excavation waste and 2,077 tonnes of construction waste. A minimum of 95% of waste would be diverted through reuse or recycling, with the remaining 5%, approximately 807 tonnes, directed to other appropriate waste-management routes. No demolition, excavation or construction waste is currently anticipated to be disposed of to landfill.

5.3.27 During operation, approximately 172 tonnes of municipal waste per annum is anticipated, based on the planning-stage estimate within the Circular Economy Statement. A minimum waste recycling rate of 65% is targeted, with remaining waste directed to other disposals. The operational waste strategy also commits to at least 75% business waste recycling, with operational waste anticipated to principally comprise packaging, cardboard, pallets, metals and waste electrical and electronic equipment (WEEE), alongside office and amenity waste associated with the relatively low operational occupancy of the Proposed Development.

5.3.28 Given that no demolition, excavation or construction waste is currently anticipated to be disposed of to landfill, no material demand on available landfill capacity has been identified as a result of the Proposed Development. Waste arising from the Proposed Development would be managed in accordance with the waste hierarchy, prioritising prevention, reuse, recycling and recovery over landfill. On this basis, no likely significant effects on waste management infrastructure or landfill capacity are anticipated.

5.3.29 The Circular Economy Statement and Whole Life Carbon Assessment are appended to the ES at Appendices 3.2 and 3.3, respectively and set out, in detail, predicted waste arisings and the application of circular economy principles to the Proposed Development. The Circular Economy Statement notes that all construction waste will be separated on site with as much as possible being recycled. The mixed waste which is not suitable for on-Site separation will be sent to a waste separation centre where it is further separated and any material that can be recycled is removed.

5.3.30 In order to minimise the volume of waste generated, a Site Waste Management Plan (SWMP), forming part of the CEMP, would be prepared. The Site Waste and Resource Management Plan (SWMP) will be prepared and implemented by the appointed contractor (and secured by planning condition), including procedures and commitments to sort and divert waste from landfill. The CEMP (which should be prepared in discussion with the appointed contractor) would be agreed with the Council prior to commencement of works at the Site and the appointed contractor(s) would be required to comply with the requirements of the CEMP. Such adherence would ensure that significant adverse effects from the management of waste would be unlikely.

5.3.31 Therefore, a specific waste chapter has not been incorporated into the ES. However, in accordance with the EIA Regulations, the Proposed Development description, upon which the EIA for each application has been based, includes estimated volumes of waste associated with construction activities (Construction, Demolition and Excavation waste) and the operational phase of the Proposed Development (Municipal Solid Waste, Commercial Waste).

Lighting

5.3.32 As per the Institution of Lighting Professionals (ILP) guidance, the Proposed Development is located in *Environmental Zone E3 – Suburban* which is characterised by relatively high-levels of existing artificial illumination and elevated ambient brightness during hours of darkness and therefore, has a lighting environment with medium distinct brightness. The Site is surrounded by existing light emitting sources such as the Holiday Inn Hotel, M4 Spur Motorway and residential properties and is in a suburban location that is not particularly sensitive to sky glow which might be expected from the introduction of a data centre development.

5.3.33 As set out in the Lighting Strategy submitted as part of the planning application, the Proposed Development's lighting scheme will be sensitively designed around the constraints of the Site, aiming to minimise light spill in such a way that significant effects are not anticipated. Mitigation in the form of good lighting design with luminaries to be in line with approved standards, utilising back shields, glare cowls, louvres or similar to minimise or obscure intensity towards the adjacent hedges and nearby residences, confining lighting to the development Site and ensuring low colour temperature lamps.

5.3.34 As such, a separate lighting chapter is not included within the EIA but will be taken into account in the assessment of Landscape, Townscape and Visual effects, in line with the EIA Scoping Request.

Wind Microclimate

5.3.35 The building heights of the Proposed Development are expected to be up to 20m, and therefore, a wind microclimate assessment has been undertaken and is submitted with the planning application.

5.3.36 There are no tall buildings within immediate proximity of the Site which would exacerbate high-wind conditions. The Wind Microclimate Assessment demonstrates that all areas around the Proposed Development met the desired comfort and distress levels in the model such that no adverse effects are anticipated. Therefore, wind microclimate is proposed to have been scoped out of the EIA.

5.3.37 A wind microclimate assessment has been undertaken in support of the planning application and is submitted as part of the suite of planning application documents.

Daylight, Sunlight and Overshadowing

5.3.38 In addition to the above, buildings cast shadows which increase as a building gets taller. A Daylight, Sunlight and Overshadowing Assessment has been undertaken and is submitted with the planning application.

5.3.39 At 20m the proposals, are required to make an assessment on the amenity of neighbouring properties. The assessment of daylight or sunlight effects finds that the Proposed Development is unlikely to result in significant effects.

5.3.40 An initial 25-degree angular assessment (whereby a 25-degree angle from residential windows is taken and drawn to the building) finds that there are no intersections and therefore, adequate daylight levels are expected which are expected to remain consistent with the existing situation.

5.3.41 Those buildings closest to the Proposed Development at 33 and 35A Russell Gardens would not experience a significant new obstruction from new buildings and structures. Therefore, sunlight to windows serving habitable rooms are expected to remain consistent with the existing situation.

5.3.42 Additionally, no new shadowing will be introduced to properties south of the Proposed Development and sunlight access to exterior garden amenity will be consistent with existing sunlight performance. A minor increase in shadowing in the early morning is expected to the west of the Proposed Development but is expected to clear within 2 – 2.5 hours of sunrise. Sunlight access to existing exterior amenity is otherwise unchanged. In line with the Buildings Research Establishment Guidance (BRE), residential gardens will still receive 2 hours or more direct sunlight on 21 March (Spring Equinox). As such, it is expected that all assessed gardens continue to benefit from good levels of sunlight throughout the year. As such, the proposals are expected to have a neutral effect on sunlight availability and overshadowing, with no significant adverse effects identified for neighbouring residential properties.

Built Heritage

5.3.43 Although, Historic England has not raised any concerns with the proposed approach to scoping out built heritage from the ES, the Council's Conservation Officer noted the potential for impacts on the setting of locally and statutory listed buildings and has requested that the Historic Environment Desk-Based Assessment (HEDBA) should be supported by photographs/visualisations to support the impact assessment judgements.

5.3.44 The HEDBA has made an interim assessment of the visual impacts of the Proposed Development being limited in relation to the setting of built heritage assets. A full HEDBA has been prepared and is appended to this ES at Appendix 7.1.

5.3.45 This provides a comprehensive review of the effect of the Proposed Development on the significance of built heritage assets. The assessment concludes that it is not considered to result in significant effects based on limited intervisibility and the proposed landscape buffers around the Site.

5.3.46 As such, built heritage is considered unlikely to result in significant effects and can be scoped out of a standalone assessment as part of the ES.

Socioeconomics and Human Health & Wellbeing

Socioeconomics

5.3.47 The potential socio-economic effects have been considered and are contained within the supporting Data Centre Needs Assessment.

5.3.48 The Needs Assessment identifies beneficial effects associated with construction and operational employment through the creation of an estimated 1,110 gross on-Site construction jobs per annum over the assumed two-year construction period. Additionally, 55 full-time equivalent (FTE) jobs and approximately £116 million in direct gross value added (GVA) annually.

5.3.49 Whilst beneficial socio-economic effects are anticipated, no likely significant *adverse* socio-economic effects have been identified which require separate assessment through the Environmental Statement.

5.3.50 As such, a standalone socio-economic ES chapter is not considered necessary.

Human Health & Wellbeing

5.3.51 Human Health, in the context of EIA, is influenced by a range of wider determinants of health, which span bio-physical, social, behavioural, economic and institutional factors[7].

5.3.52 Potential pathways capable of affecting human health and wellbeing have been considered through the relevant technical assessments within the ES and subsequently reviewed through the assessment of interaction effects, specifically on the population receptor group, as reported in Chapter 11 – Summary of Mitigation, Residual and Interaction Effects.

5.3.53 The interaction assessment concludes that, during both construction and operation, the identified effects associated with air quality, physical climate risks and noise and vibration are unlikely to combine to result in a significant effect on the population receptor.

5.3.54 As such, it is considered that no likely significant effects on human health and wellbeing have been identified, either individually or through the interaction of environmental effects. A standalone human health and wellbeing chapter is therefore, not considered necessary.

Aviation

5.3.55 Heathrow Airport is approximately 1km south of the Site. Comments have been received through the EIA Scoping Opinion from HAL.

5.3.56 The potential for aviation effects has been considered, where relevant, within the scope of the individual technical chapters. The matters raised by HAL primarily relate to detailed design and aviation safeguarding matters. The building heights parameter plan limits the Proposed Development to a maximum of 49m AOD, below the Obstacle Limitation Surfaces (OLS), identified by HAL. The Proposed Development will be subject to consultation with HAL at the detailed design stage to determine the appropriate measures which need to be in place in relation to Instrument Flight Procedures, management of bird-strike risk, building and roof design, landscaping and attenuation features, crane operations and any proposed renewable energy infrastructure. A Bird Hazard Management Plan will also be secured by a suitably worded planning condition.

5.3.57 The matters detailed in HAL's response comprise aviation safeguarding and detailed design requirements which can be suitably controlled through the planning process. Aviation considerations have been taken into account throughout the EIA, where relevant, and no likely significant environmental effects associated with aviation have been identified. A standalone technical aviation assessment is therefore not considered necessary, and aviation is scoped out as a standalone topic within the ES.

[7] ISEP (2022) Institute of Environmental Management and Assessment (IEMA) Guide to: Effective Scoping of Human Health in Environmental Impact Assessment.

Utilities (National Grid Connection)

5.3.58 For the purposes of the proposals, it is currently understood that a grid connection will be made to Laleham substation.

5.3.59 Whilst this grid connection would be delivered separately and under a separate consenting regime, the EIA is required to assess the full extent of the project, including any associated infrastructure, insofar as reasonably possible based on the information currently available. This connection is expected to comprise two HV circuits rated to 95 MVA at 132 kV however, the detailed alignment and construction methodology to Laleham Substation have not yet been determined.

5.3.60 In the absence of a confirmed route, the assessment has necessarily been undertaken at a proportionate level and on the assumption that existing infrastructure and public highway corridors would be utilised, where practicable. The potential for environmental effects associated with construction of the connection has been considered within the relevant technical assessments.

5.3.61 Given the anticipated nature of the works any effects are expected to be localised and temporary, and no likely significant environmental effects have been identified on the basis of the information currently available.

5.3.62 Once further information is known on the grid connection route and method, there may be a requirement for further environmental information to accompany the applicable application for consent.

5.3.63 The conclusions in relation to the proposed grid connection are subject to the limitations associated with the absence of a confirmed cable alignment and construction methodology at the time of assessment. A high-level consideration for each technical topic chapter has been undertaken below.

Air Quality

5.3.64 The proposed grid connection has the potential to impact on local air quality during the construction phase only.

5.3.65 During construction works, emissions to air of particulate matter generated by construction activities have the potential to impact on receptors within 250m of the works, potentially harming amenity through the soiling of property, and human health through public exposure to increased short-term concentrations of PM10 and PM2.5. There will also be some combustion-related emissions to air associated with construction vehicles and site plant. However, given the nature of the works, combustion emissions from such sources will be limited, intermittent and present at one location for just days at a time.

5.3.66 With regards to emissions of dust and finer particulates, those mitigation measures included in Chapter 6 of this ES that are practical for use with the linear construction works required of the proposed grid connection, will be capable of controlling emissions to the extent that the effect of any impact will not be significant.

Archaeology

5.3.67 In connection with the proposed electricity connection between the Site and Laleham Substation, located approximately 8km south of the Site, it is considered that the effect on archaeological receptors would be negligible and therefore not significant. This assessment is based on the assumption that the cable route would follow existing public rights of way and

service routes, where the ground has already been subject to substantial disturbance and any archaeological remains are likely to have been removed. This conclusion assumes that the proposed groundworks will be confined to previously disturbed areas and will not extend beyond the existing depth or extent of disturbance.

5.3.68 However, given that the electricity connection route is expected to pass through the Heathrow Archaeological Priority Zone and areas of known archaeological activity, this assessment should be reviewed once the exact route, extent, depth and methodology of the groundworks have been confirmed. A more detailed assessment may be required at that stage to determine whether any archaeological receptors could be affected.

Climate Change and Greenhouse Gases

5.3.69 Based on initial assumptions, significant construction-stage impacts on the climate from the cable routing to the Laleham Substation are not expected, due to the magnitude of additional materials which would be required for the construction of the cable route.

5.3.70 The cable route would not present any additional significant operation-stage greenhouse gas impacts than those already stated in Chapter 8 Climate Change & Greenhouse Gases. As such, the proportion of additional emissions expected from the cable route is not expected to alter the conclusion of significance presented within the chapter as the vast majority of emissions will be represented by the construction and operation of the data centre itself.

5.3.71 The cable routing is also not expected to experience significant adverse from the climate in respect to climate change impacts. Underground cabling infrastructure is typically more resilient to climate change than overground routing. As this is the expected option for the proposed connection, vulnerability to climate change impacts is considered to be low with no significant climate change risks anticipated.

5.3.72 It should be noted that, as the routing of the cable is unknown at this stage, the impacts of this cannot be certain.

Landscape, Townscape and Visual Impact

5.3.73 Landscape, Townscape and Visual Impacts associated with the proposed electricity grid connection are not considered to be significant based on these cables being installed below ground and routed under existing highways. This is also based on the understanding that no new structures or features would be introduced to the landscape and that the works would not result in the removal of existing vegetation, particularly associated with the Site.

5.3.74 The construction operations to implement the connection are anticipated to be localised and temporary and mainly associated with the existing highway corridor with limited long-term operational impacts as a result.

Noise and Vibration

5.3.75 At present, the design of the connection route has not been developed; however, it is understood that the connection could comprise either an overhead line or an underground cable. There is potential for temporary noise and vibration effects during construction of an overhead line or an underground cable connection. Although such works are generally of relatively low noise magnitude and short duration, significant effects are unlikely provided that best practicable means are adopted to control noise and vibration. However, if the connection is installed using trenchless techniques to avoid surface features, there is potential for continuous working during the sensitive night-time period. The potential for significant effects would depend on the duration of any continuous works, the location of launch and reception

shafts, and their proximity to noise-sensitive receptors. Given the current uncertainty regarding the cable route and construction methodology, a detailed construction noise and vibration assessment should be secured through an appropriately worded planning condition and undertaken once sufficient design information becomes available.

5.3.76 During operation, underground cables would not generate perceptible surface noise. Similarly, a 132 kV overhead line would generate only very low levels of operational noise and would not be expected to cause disturbance at nearby receptors. Operational noise effects associated with the electrical connection are therefore anticipated to be negligible and not significant.

Summary

5.3.77 As such, taking into account that the grid connection and routing are unknown at this stage, all topics are not anticipating that significant effects would be likely to occur as a result of the grid connection.

5.4 EIA Methodology

5.4.1 The assessments presented in the ES consider the potential for significant environmental impacts to affect the baseline conditions as a direct / indirect result of the Proposed Development.

5.4.2 A description of the aspects of the environment likely to be significantly affected by the Proposed Development is a requirement of the 2017 Regulations. The baseline conditions are defined as the current state of the environment (within schedule 4, section 3 of the 2017 Regulations) and how it may develop in the future in the absence of the proposals and with certain committed developments included. In order to forecast potential future effects, it is necessary to make predictions. To ensure that predictions are as accurate as possible, a description of the methods used to assess the effects of the Proposed Development is also required by the EIA Regulations.

5.4.3 Unless specifically stated otherwise, the assessments have been undertaken in accordance with best practice guidelines published by the relevant professional bodies. Each technical chapter in this report provides full details of the baseline and assessment methodology employed for that topic area alongside terminology used in the context of that technical discipline.

5.4.4 Where there is no topic specific guidance available, a generic framework of assessment criteria and terminology has been developed to enable the prediction of potential effects and their subsequent presentation. The development of this framework has drawn upon the experience of Savills and project team of undertaking EIA.

Generic Assessment Framework

5.4.5 Each technical chapter of the ES details the methodology used for its assessment. Unless otherwise specified in the specific technical chapter the ES generally follows the generic assessment framework detailed below.

Receptor Sensitivity and Impact Magnitude

5.4.6 'Receptors' are those aspects of the environment sensitive to changes in baseline conditions. The sensitivity of a particular receptor depends upon the extent to which it is susceptible to such changes.

5.4.7 'Impact magnitude' is determined by predicting the scale of any potential change in the baseline conditions. Where possible, magnitude is quantified however where this is not possible a fully defined qualitative assessment is undertaken. The assessment of magnitude is carried out taking account of any inherent design mitigation in the proposal that forms part of the development description.

Table 5.3 Receptor Sensitivity

Sensitivity of Receptor	Typical Description
High	High importance and rarity, national scale, and limited potential for substitution.
Medium	Medium or high importance and rarity, regional scale, limited potential for substitution.
Low	Low or medium importance and rarity, local scale.
Negligible	Very low importance and rarity, local scale.

Table 5.4 Magnitude of Impact and Typical Descriptions

Magnitude of Impact		Typical Description
High	Adverse	Loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features or elements.
	Beneficial	Large scale or major improvement of resource quality; extensive restoration; major improvement of attribute quality.
Medium	Adverse	Loss of resource, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements.
	Beneficial	Benefit to, or addition of, key characteristics, features or elements; improvement of attribute quality.
Low	Adverse	Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements.
	Beneficial	Minor benefit to, or addition of, one (maybe more) key characteristics, features or elements; some beneficial impact on attribute or a reduced risk of negative impact occurring.
Negligible	Adverse	Very minor loss or detrimental alteration to one or more characteristics, features or elements.
	Beneficial	Very minor benefit to or positive addition of one or more characteristics, features or elements.
No Change		No loss or alteration of characteristics, features or elements; no observable impact in either direction.

Level of effect

5.4.8 As shown in the table below, the effect is determined by combining the predicted magnitude of impact with the assigned sensitivity of the receptor.

Table 5.5 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

5.4.9 As required by the EIA Regulations, the likely significant effects of the Proposed Development are described as:

- Adverse or beneficial
- Direct or indirect
- Temporary or permanent
- Short -, medium- or long-term, where relevant and based on topic-specific temporal definitions provided in each chapter
- Reversible or irreversible
- Cumulative

5.4.10 Adverse effects are undesirable and result from negative impacts. Beneficial effects are desirable and result from positive impacts.

5.4.11 Each effect has a source originating from the Proposed Development, a pathway and a receptor. Effects which operate in this direct way are regarded as direct effects. Effects on other receptors via subsequent pathways are regarded as indirect effects.

5.4.12 The definition of the level of significance at which a significant effect arises is provided within the topic method section of each chapter of the ES. Unless stated otherwise, effects of moderate significance or above are considered to be significant in EIA terms.

Initial and Residual Effects

5.4.13 As stated previously, the EIA process enables the likely significant effects of a proposed development to be identified so that, where possible, adverse effects predicted to arise as a result of the proposal can be avoided or mitigated through the adoption of suitable measures. Additionally, enhancement measures can be incorporated to maximise the beneficial effects of the development. The adoption of mitigation and enhancement measures results in initial and residual effects. These can be defined as:

- Initial Effects: Effects occurring as a result of the Proposed Development prior to the adoption of any additional mitigation or enhancement measures.
- Residual Effects: Effects occurring as a result of the Proposed Development taking into account the adoption of identified additional mitigation or enhancement measures.

5.4.14 Additional mitigation and enhancement is defined as a measure that is additional to the Proposed Development as initially proposed. Measures that design out significant effects that form an inherent part of the Proposed Development as proposed, known as inherent mitigation, are considered in the initial impact.

5.4.15 For example, many environmental constraints, such as flood risk, must be designed out of a project for it to be viable and it would be impractical to consider the Proposed Development without such measures in place.

5.5 Cumulative assessment

5.5.1 Schedule 4 paragraph 5 of the EIA Regulations requires:

'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, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources'. The text goes on to state that 'the description of the likely significant effects on the factors specified in regulation 5(2) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the development'.

5.5.2 The EIA for the Proposed Development assesses the cumulative effects ("*inter-project effects*") of the Proposed Development and other development projects at both the construction and operational phases.

5.5.3 The summary chapter of the ES provides an analysis of the in-combination effects ("*intra-project effects*") that might arise where receptors experience multiple potentially non-significant effects from a range of impacts, which taken together might become significant – for example, noise and visual effects experienced in combination.

5.5.4 Cumulative effects comprise the combined effects of the Proposed Development with other existing and/or reasonably foreseeable developments. This ES 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. Identified cumulative developments that have been assessed in relation to the Proposed Development are listed below and shown in Figure 5.1.

5.5.5 To enable a reasonable and proportionate assessment, the following criteria have been used to identify schemes which could result in potential cumulative effects with the Proposed Development:

- projects under construction;
- permitted application(s), but not yet implemented; and,
- submitted application(s), not yet determined.

5.5.6 Planning applications that have been refused and are not subject to appeal, and applications that have been withdrawn, have not been considered, as their implementation is not considered to be reasonably foreseeable.

5.5.7 These schemes have been identified through a GIS-based search of the Glenigan planning application database, which was first undertaken on 25 June 2026 and has been updated on a regular basis throughout the preparation of the planning application. The final cut off point for the last search which has been undertaken is the 13 October 2026, any applications after this point have not been included in the assessment.

5.5.8 The cumulative search methodology, along with the initial list of schemes identified for inclusion, was submitted to the Council as part of the EIA Scoping Request (Appendix 5.1) for review and agreement (Appendix 5.2). Following their consideration, the Council requested that residential and commercial schemes were also included.

5.5.9 The search criteria included any data centre applications within 5km of the Site Boundary, given the potential for cumulative effects associated with National Grid capacity. Schemes within 2.5km of the Site Boundary for residential developments over 50 dwellings and commercial, industrial and logistics schemes over 1,000 m^2 of new floorspace have been included.

5.5.10 Given the potential for other cumulative effects, we have included schemes within a search area of 2.5km for other developments. The 2.5 km radius provides the initial screening area for other development types. Individual technical assessments apply topic-specific study areas where a wider geographical extent is required.

5.5.11 Beyond this initial screening area, residential and commercial developments are generally considered unlikely to affect receptors common to the Proposed Development, having regard to distance, intervening land uses and the urban context. Nevertheless, individual technical assessments consider developments beyond the initial screening area where a credible pathway to a common receptor has been identified.

Table 5.6 Cumulative Sites

Map ref.	Location	Application Reference	Description	Distance from Site	Status
01	Land at Manor Farm and Land north of Wraysbury Reservoir, Slough	P/10076/013	Demolition of existing buildings and redevelopment to comprise a Data Centre (Use Class B8) and Battery Energy Storage System (BESS) with ancillary substation, offices, associated plant, emergency backup generators and associated fuel storage, landscaping, sustainable drainage systems, car and cycle parking, and new and amended vehicular and emergency access from Poyle Road and other associated works.	4.7 km southwest (Slough Borough Council)	Pending Decision
02	Thorney Business Park, Iver, Buckinghamshire, SL0 9EE	PL/22/1775/FA	Hybrid application to be delivered in phases and to comprise: demolition of existing buildings and structures and preparatory works; detailed application for construction of commercial building to comprise data centre, ancillary offices, associated plant, equipment and emergency backup generators and associated fuel storage, landscaping, sustainable drainage systems, parking, new vehicular access from Thorney Lane South and new emergency access route to Hollow Hill Lane; outline planning application (all matters reserved except for access) for construction of commercial buildings to comprise data centre use including ancillary office space and associated plant, equipment and backup generation, car parking, landscaping and pedestrian access	4.6 km northwest (Buckinghamshire Council)	Approved 29 May 2024 No Start
03	Thorney Business Park, Iver, Buckinghamshire, SL0 9EE	Extant consent: PL/24/3532/OA	Outline planning application (all matters reserved except for Access) for demolition of existing buildings and structures and construction of commercial buildings to comprise data centre use, including ancillary office space and associated plant, equipment and backup generation, car parking, landscaping, new vehicular access and new emergency access route.	4.8 km northwest (Buckinghamshire Council)	Approved, no start
		New consent:	Demolition of the existing building and structures on site, and all other associated site clearance works. Construction of two data centre buildings (Class B8) with ancillary offices, associated plant, equipment		Pending Decision

Map ref.	Location	Application Reference	Description	Distance from Site	Status
		PL/25/4316/FA	and emergency backup generators, ancillary buildings and substation with vehicular access from Thorney Lane South and emergency access route onto Hollow Hill Lane together with internal circulation areas, car and cycle parking, hard and soft landscaping and other associated works and ancillary site infrastructure.		
04	Ridgeway Distribution Centre The Ridgeway Iver Buckinghamshire	PL/25/4351/FA	Demolition of all existing units and structures on site and redevelopment of site to provide data centre development comprising data centre building, MV building, 1 sprinkler water tank and pump building, security hut, substation compound including 2 switchrooms and electrical infrastructure, generator yard with 27 back-up generators, 1 diesel tank and re-fuelling area, water tanks, bin store, perimeter security fencing, car and cycle parking and associated ancillary site infrastructure.	4.5 km northwest (Buckinghamshire Council)	Pending Decision
05	Court Lane Industrial Estate, Court Lane, Iver, Buckinghamshire	PL/22/4145/OA (RM: PL/26/02874/DE)	Outline planning application with all matters reserved for the demolition of the Court Lane Industrial Estate and the redevelopment of the site to comprise a data centre (Use Class B8 (Data Centre)) of up to 65,000sqm (GEA) (excluding generator yard) (each phase being an independent act of development). The data centre buildings will include ancillary offices, internal technical spaces and technical equipment. The development may also include car and cycle parking; external plant and equipment; hard and soft landscaping; security perimeter fencing; lighting; earthworks; waste and recycling; and for the laying out of the building, routes and open spaces.	3.9 km northwest (Buckinghamshire LPA)	Approved. Reserved Matters application submitted. No start.
06	DC5 and DC6 Prologis Park West, Iron Bridge Road North, Hillingdon, London, UB11 1BT	39207/APP/2026/1283	Partial deconstruction and adaptation of the existing buildings, including the installation of mezzanines and new gantry decks to accommodate MEP plant, a substation and fire suppression infrastructure, together with associated alterations to the site layout and ancillary works. The proposed development is subject to an Environment Impact Assessment (Notice under Regulation 19 of the	2.1 km north (London Borough of Hillingdon)	Pending Decision

Map ref.	Location	Application Reference	Description	Distance from Site	Status
			Town and Country Planning (Environmental Impact Assessment) Regulations 2017).		
07	Union Park UP4, NORTH HYDE GARDENS, HAYES, UB3 4QQ	75111/APP/2025/739	Redevelopment of site to deliver extension to existing Union Park data centre campus consisting of (a) free standing data centre building; (b) energy, power, and water infrastructure; (c) site access and internal roads; (d) site security arrangements; (e) hard and soft, green landscaping; and (f) other ancillary and auxiliary forms of development.	3.3 km northeast (London Borough of Hillingdon)	Resolution to grant.
08	UNIT 4, SILVERDALE INDUSTRIAL ESTATE, SILVERDALE ROAD, HAYES	49261/APP/2024/2904	Demolition of the existing building and structures on site, and all other associated site clearance works. Construction of a data centre building (Class B8) with plant at roof level with an emergency generator (1no.) and associated flue (provided within an external compound adjoining the data centre building), sprinkler tank and pumphouse, security guard house, and provision of one kiosk substation and MV Building. The development also comprises the construction of a new access and internal road and circulation areas, footpaths, provision of car and bicycle parking, hard and soft landscaping and other associated works and ancillary site infrastructure.	3.3 km northeast (London Borough of Hillingdon)	Approved. No start.
09	Land at Bulls Bridge Industrial Estate, NORTH HYDE GARDENS, HAYES, UB3 4QQ	75111/APP/2020/1955	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.	3.4 km northeast (London Borough of Hillingdon)	Under construction.
10	Haslemere Heathrow Estate, Silver Jubilee Way,	P/2025/3669	Outline planning permission with all matters reserved except access. A demolition phase and phased redevelopment (each phase being an independent act of development) comprising data centre use (Use	4.0 km southeast	Pending Decision.

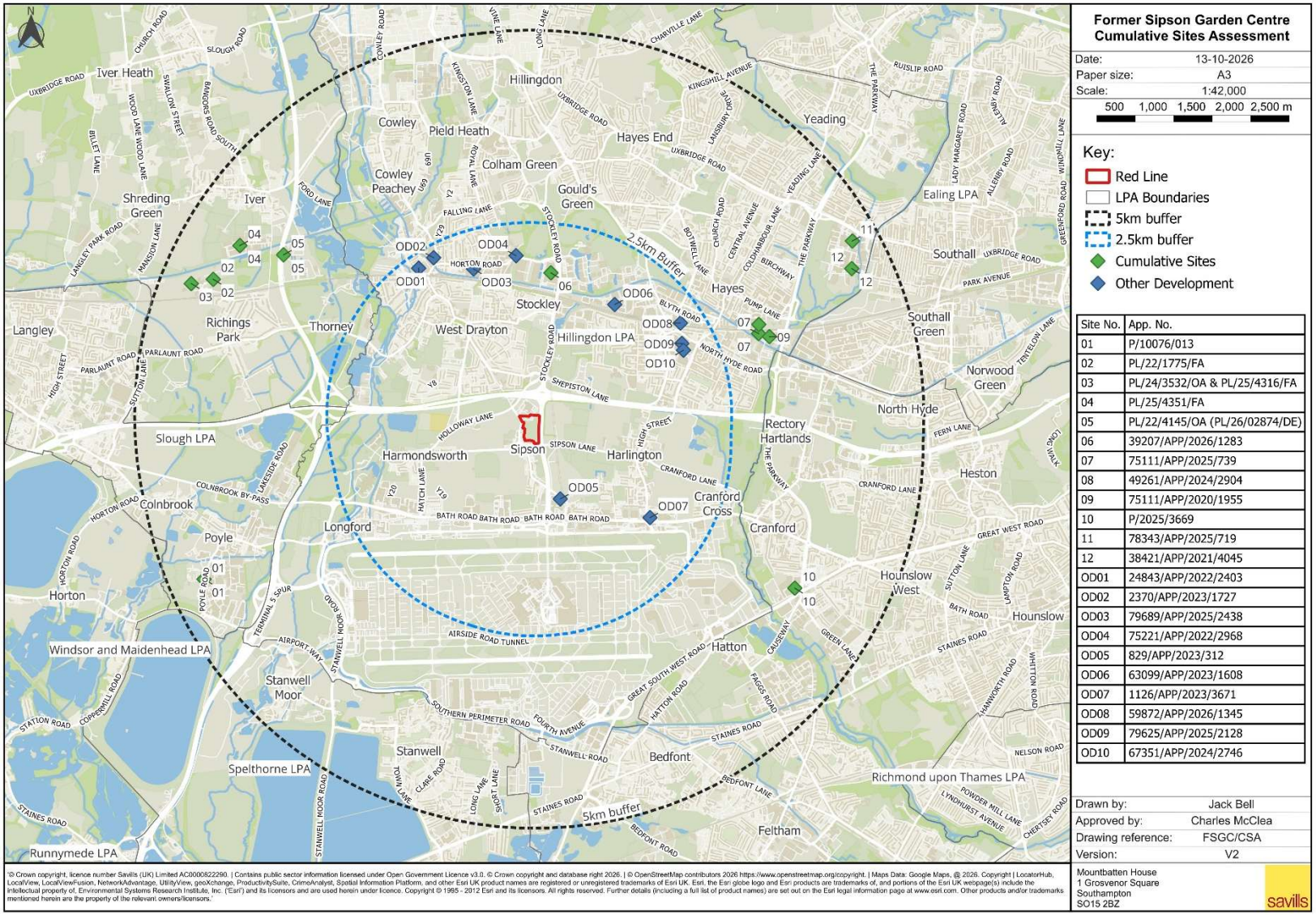
Map ref.	Location	Application Reference	Description	Distance from Site	Status
	Hounslow, TW4 6NF		Class B8) of up to 50,000 sqm GEA, including ancillary offices, internal plant and equipment (including flues), and substation. In addition up to 4,150sqm GEA of work units (Use Class E(g)(i-iii), B2, B8); car parking; provision of external plant and equipment (including flues); creation of servicing areas and provision of associated services, including waste, refuse, cycle storage, and lighting; and for the laying out of the buildings; routes and open spaces within the development; and all associated works and operations including but not limited to: demolition; earthworks; provision of attenuation infrastructure, engineering operations. This application is for a phased development, each phase being an independent act of development, capable of coming forward in distinct and separable phases and/or plots in a severable way. Development shall be in accordance with the approved Development Parameters Schedule, Design Code Document and Plans; the details of appearance, landscaping, layout and scale reserved for later determination.	(London Borough of Hounslow)	
11	Hayes Bridge Retail Park And Heathrow Interchange, Uxbridge Road, Hayes	78343/APP/2025/719	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 building; (b) energy, power, and water infrastructure; (c) internal roads; (d) site security arrangements and security fencing; (e) hard and soft,	4.9 km northeast (London Borough of Hillingdon)	Approved. No Start.

Map ref.	Location	Application Reference	Description	Distance from Site	Status
			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).		
12	Land At Tudor Works Beaconsfield Road Hayes	38421/APP/2021/4045	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.	4.7 km northeast (London Borough of Hillingdon)	Under Construction
OD01	COMAG TAVISTOCK ROAD YIEWSLEY UB7 7QE	24843/APP/2022/2403	Erection of building comprising 105 residential dwellings (Use Class C3) and 99sq.m (GIA) Community Hub (flexible Use Class E/F.1/F.2), ranging from two to seven storeys together with associated accesses, car parking, cycle parking and hard and soft landscaping (REVISED PLANS 23.11.22)	2.44 km northwest (London Borough of Hillingdon)	Under Construction
OD02	MORRISON SUPERMARKET 41-67 HIGH STREET YIEWSLEY	2370/APP/2023/1727	Phased demolition of the existing buildings and the redevelopment of the site for a replacement foodstore (Class E), 158 residential units (Class C3), car parking, servicing and access arrangements and associated works.	2.48 km northwest (London Borough of Hillingdon)	Pending Decision
OD03	ORBITAL INDUSTRIAL ESTATE HORTON ROAD YIEWSLEY UB7 8JL	79689/APP/2025/2438	Demolition of existing buildings and structures and redevelopment of the site to provide modern employment units (for flexible use across classes E(g)(iii), B2, B8 with ancillary office space) alongside car parking, service yards, landscaping, ancillary structures and all other associated works.	2.03 km northwest (London Borough of Hillingdon)	Pending Decision

Map ref.	Location	Application Reference	Description	Distance from Site	Status
OD04	BEACHES YARD HORTON ROAD YIEWSLEY	75221/APP/2022/2968	Redevelopment of the site to provide a flexible warehouse facility (Use Class B2/B8) and ancillary office space, with associated HGV loading and servicing bay, car and cycle parking, access arrangements, landscaping and infrastructure.	2.18 km northwest (London Borough of Hillingdon)	Approved. No Start.
OD05	560 SIPSON ROAD WEST DRAYTON	829/APP/2023/312	Redevelopment of the site to accommodate a 7-storey 108-room hotel incorporating communal functions on the ground floor level and a basement level with associated parking and external landscaping works including coach parking, servicing areas, and planting.	750 m southeast (London Borough of Hillingdon)	Pending Decision
OD06	84 Swallowfield Way, Hayes, London, UB3 1DQ	63099/APP/2023/1608	The demolition of existing structures and redevelopment for Use Classes E(g)(iii), B2 and B8 (applied flexibly) including hard and soft landscaping, servicing and associated works.	1.73 km northeast (London Borough of Hillingdon)	Approved. No Start.
OD07	Ariel Hotel 118 BATH ROAD HEATHROW UB3 5AJ	1126/APP/2023/3671	Reconfiguration, alteration, and extension of existing hotel (providing additional hotel rooms) (Use Class C1), together with erection of a new apart-hotel building (Use Class C1) on car park land to the north (AMENDED PLANS)	1.65 km southeast (London Borough of Hillingdon)	Pending Decision
OD08	THE RECORD STORE PRESSING LANE HAYES UB3 1DH	59872/APP/2026/1345	Proposed change of use from Office (Class E(g)(i)) and construction of roof extension to provide 121 Residential (Class C3) units, including residential amenities. Construction of an external roof terrace, alterations to elevations and provision of rear external area for private gardens and a shared resident's terrace. Further associated provision of refuse storage, hard and soft landscaping and associated development.	2.18 km northeast (London Borough of Hillingdon)	Pending Decision
OD09	Land at HPH2, HPH5, and Multistorey Car Park Hyde Park Hayes	79625/APP/2025/2128	Outline planning permission (with all matters reserved excluding access) for demolition of existing buildings (above basement level) and phased delivery of residential development (Class C3), flexible commercial / community floorspace, new public realm, landscaping, play space, car parking, cycle parking and associated works.	1.98 km northeast (London Borough of Hillingdon)	Pending Decision

Map ref.	Location	Application Reference	Description	Distance from Site	Status
	MILLINGTON ROAD UB3 4AZ				
OD10	BUILDING HPH1 HYDE PARK HAYES UB3 4AZ	67351/APP/2024/2746	Change of use from offices (Use Class E) to residential (Use Class C3) to create 75no. self-contained flats under Schedule 2, Part 3, Class MA of the Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended)	1.98 km northeast (London Borough of Hillingdon)	Approval. No Start.

Figure 5.1 Cumulative Sites Assessment (see separate Figure 5.1 for full size drawing)



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5.6 Assumptions and Limitations

5.6.1 The following key assumptions have been made in preparing the ES:

- Each of the baseline reviews were based on information readily available at the time of the assessment, the published documents referenced and the site visits undertaken.
- The assessment of effects prior to the adoption of mitigation measures will assume that the Proposed Development will be constructed in accordance with industry standard techniques. Such techniques will therefore not be considered as mitigation.
- Where further assumptions have been made for individual topic assessments these have been identified within the relevant topic chapters.
- Any limitations or uncertainties associated with impact prediction or the sensitivity of receptors due to the absence of data or other factors will give rise to uncertainty in the assessment. Any such limitations have been referred to in the relevant technical chapters of the ES.