

# HERBATA DATA CENTRE, NAAS - RESPONSE TO REQUEST FOR FURTHER INFORMATION ("RESPONSE TO RFI") FROM KILDARE COUNTY COUNCIL

## ADDENDUM TO CHAPTER 4 DESCRIPTION OF THE PROJECT AND NEED FOR THE PROJECT



NI2615  
01  
June 2025

# ADDENDUM TO CHAPTER 4 DESCRIPTION OF THE PROJECT AND NEED FOR THE PROJECT

## 4.1 Introduction

This Addendum to Chapter 4 Description of the Project and Need for the Project of the EIAR (dated June 2024) submitted to Kildare County Council as part of the planning application for the Project on 13<sup>th</sup> August 2024, is provided in response to the Request for Further Information (RFI) from Kildare County Council and this addendum chapter sets out some design amendments proposed to the Project, in response to the Kildare County Council RFI.

This Addendum to Chapter 4 of the EIAR should be read in conjunction with the previously submitted Chapter 4 of the EIAR Description of the Project and Project Need and its associated figures and appendices. Further, Chapter 4 of the EIAR comprises of a description of the Project in line with the requirements of the EIA Directive and implementing regulations, and the Environmental Protection Agency (EPA) *Guidelines on the information to be contained in Environmental Impact Assessment Reports (EIAR)* (May 2022) and this addendum chapter sets out design amendments in response to the Kildare County Council RFI but the Project remains fundamentally unchanged subject to the design amendments described below.

## 4.2 The Project - Design Amendments

As noted in Addendum to Chapter 1, while some design amendments are proposed, the Project remains fundamentally unchanged. The description of the Project as set out in the submitted EIAR, therefore remains unchanged with the exceptions as stated below:

### 4.2.1 Types of Data Centre

Each Data Centre building has a regular rectangular shape with the admin block located to the front, data hall in the middle and external plant yard to the rear.

The layout of each Data Centre is the same however, three Data Centres are mirrored to accommodate the location of the loading bays throughout the site. The Data Centres are distinguished by 4 types – A, B, C and D. Types A, B and C were included within the submitted planning application - Data Centre 4 is now as Type D and is reflective of the amendments set out in Section 4.2.2.

Data Centre 4 (Type D) as detailed in Section 4.2.2, has a smaller footprint and a L-shape external plant yard to the rear, to avoid the exclusion zone of the archaeological findings.

Each Data Centre is identified by Type in the table below.

Table 4.1: Data Centres by Number and Type (extract 22217-RKD-XX-XX-RP-A-0001 Revised Architectural Design Statement)

Data Centre Number	Data Centre Type
DC 1	TYPE A
DC 2	
DC 3	
DC 4	TYPE D
DC 5	TYPE C
DC 6	TYPE B

It should be noted that only Data Centre 4 (Type D) differs in terms of overall footprint to the remaining five Data Centres (1 – 3, 5 and 6) which remain unchanged as set out in the submitted EIAR. For the avoidance of doubt, the total areas for the separate components of each building are as follows:

Data Centres 1 – 3, 5 and 6 (Types A, B and C):

- Admin Block: 2,505 m<sup>2</sup>
- Data Hall: 24,756 m<sup>2</sup>
- External Plant Yard: 6,164 m<sup>2</sup>
- Total Area: 27,261 m<sup>2</sup>

Data Centre 4 (Type D):

- Admin Block: 2,505 m<sup>2</sup>
- Data Hall: 13,683 m<sup>2</sup>
- External Plant Yard: 6,065 m<sup>2</sup>
- Total Area: 16,188 m<sup>2</sup>

Further description of the amendments to Data Centre 4 are set out in Section 4.2.2 below.

## 4.2.2 Data Centre 4 – Amended Design

### 4.2.2.1 Rationale for Amended Design of Data Centre 4

In consideration of the information presented within the submitted EIAR, relative to cultural heritage and specifically, sub-surface archaeological remains, the Kildare County Council RFI requested at Item No 25 of the Kildare County Council RFI *a comprehensive interrogation of design options to determine the feasibility of facilitating preservation in situ of this (the enclosure feature in Field 8) monument and submit a detailed report detailing the results of an assessment of all design options.*

In consideration of the request, the Project design team reviewed the design options in order to determine the feasibility of facilitating preservation in situ of the enclosure feature.

In order to retain the overall feasibility of the Project and the delivery of six Data Centres, a design was developed which would ensure Data Centre 4 could be retained as part of the proposal whilst simultaneously ensuring the preservation in situ of the enclosure feature in Field 8.

Relocation, reconfiguration and amendments in the orientation of Data Centre 4 were considered whilst giving due consideration to the *knock on* implications of any such amendments to adjacent Data Centre buildings, roads and drainage infrastructure, earthworks and landscaping. The proposed amendment to Data Centre 4 represents the optimal layout to retain the operational viability of the Data Centre whilst facilitating preservation in situ of the enclosure feature. The assessment of the amended design of Data Centre 4 in respect of cultural heritage is provided in the addendum to Chapter 10 of the EIAR.

### 4.2.2.2 Description of Amended Design for Data Centre 4

The amended design for Data Centre 4 is primarily in respect of the external plant yard (to the rear of the building) and subsequently, the overall shape of the building and an overall reduction in the area of the building.

In order to accommodate the amended design of Data Centre 4 building, minor amendments to the layout of ancillary elements (such as security fencing, access road, drainage etc) which are within immediate vicinity of the building, are proposed. The component elements of Data Centre 4, the location within the overall site, building height, materials and finishes, remain unchanged.

Data Centre 4 retains the *templated design*, common to Data Centres 1 – 3, 5 and 6 but with a reduced gross internal area (GIA), reflective of the amended shape of the building, as noted below:

**Amended Design for Data Centre 4 – Key Dimensions and Features:**

- Total Area – 16,188m<sup>2</sup> (previously 27,261m<sup>2</sup>)
- Height to parapet – 18m – unchanged
- Height to flue – 19m – unchanged
- Building height - c.19m – unchanged

RECEIVED: 23/06/2025

- 30 car parking spaces – unchanged
- Smoking shelters of 9m<sup>2</sup> – unchanged
- Total number of 16 bicycle spaces – unchanged

For the purpose of comparison, Figures 4.1 and 4.2 below, illustrate the previously submitted *Overall Proposed Site Plan* and (amended) proposed site context plan, respectively.

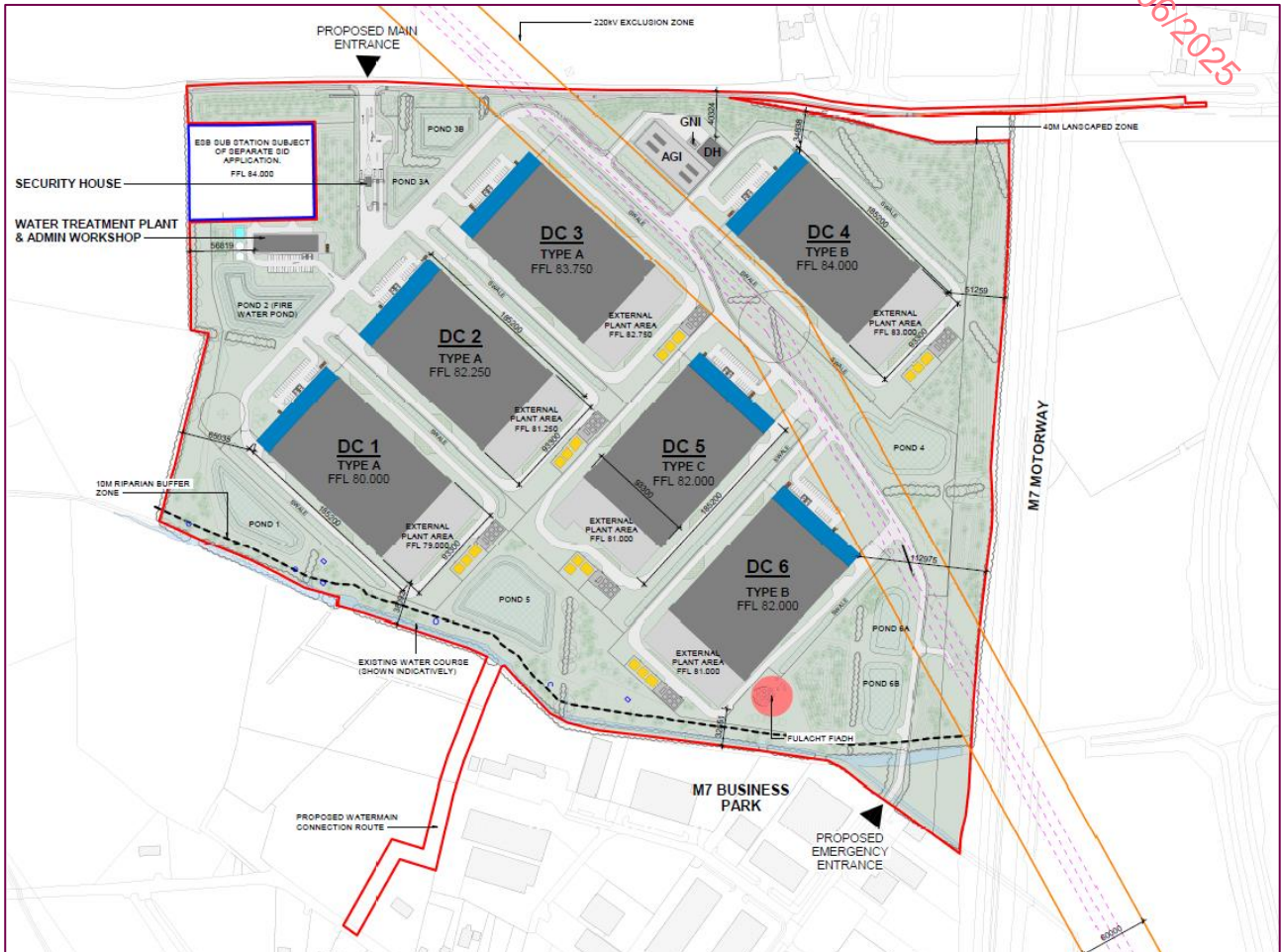


Figure 4.1: Previously Submitted Overall Proposed Site Plan (extract of submitted drawing 22217-RKD-ZZ-ZZ-DR-A-1010-OVERALL PROPOSED SITE PLAN)



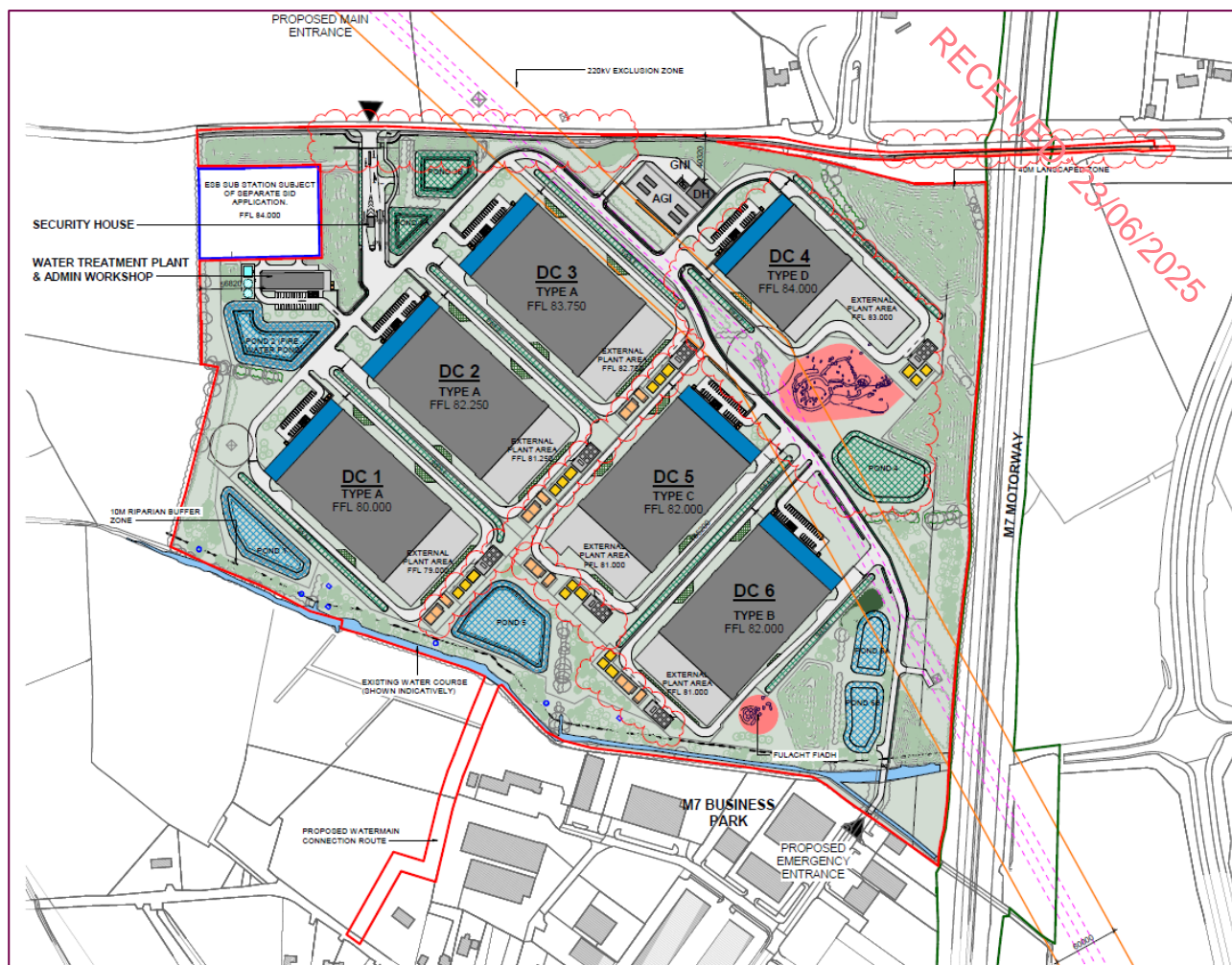


Figure 4.2: Amended Overall Proposed Site Plan (extract of now submitted drawing 22217-RKD-ZZ-ZZ-DR-A-1010-OVERALL PROPOSED SITE PLAN)

Drawing 22217-RKD-ZZ-ZZ-DR-A-1010-OVERALL PROPOSED SITE PLAN is provided in Volume III Figures and Drawings and as part of the design drawing package submitted in response to the RFI from Kildare County Council.

For the purpose of comparison in respect of the amended design of Data Centre 4, Figures 4.3 and 4.4 below, illustrate the previously submitted site plan detail for Data Centre 4 and amended proposed layout detail for Data Centre 4 respectively.

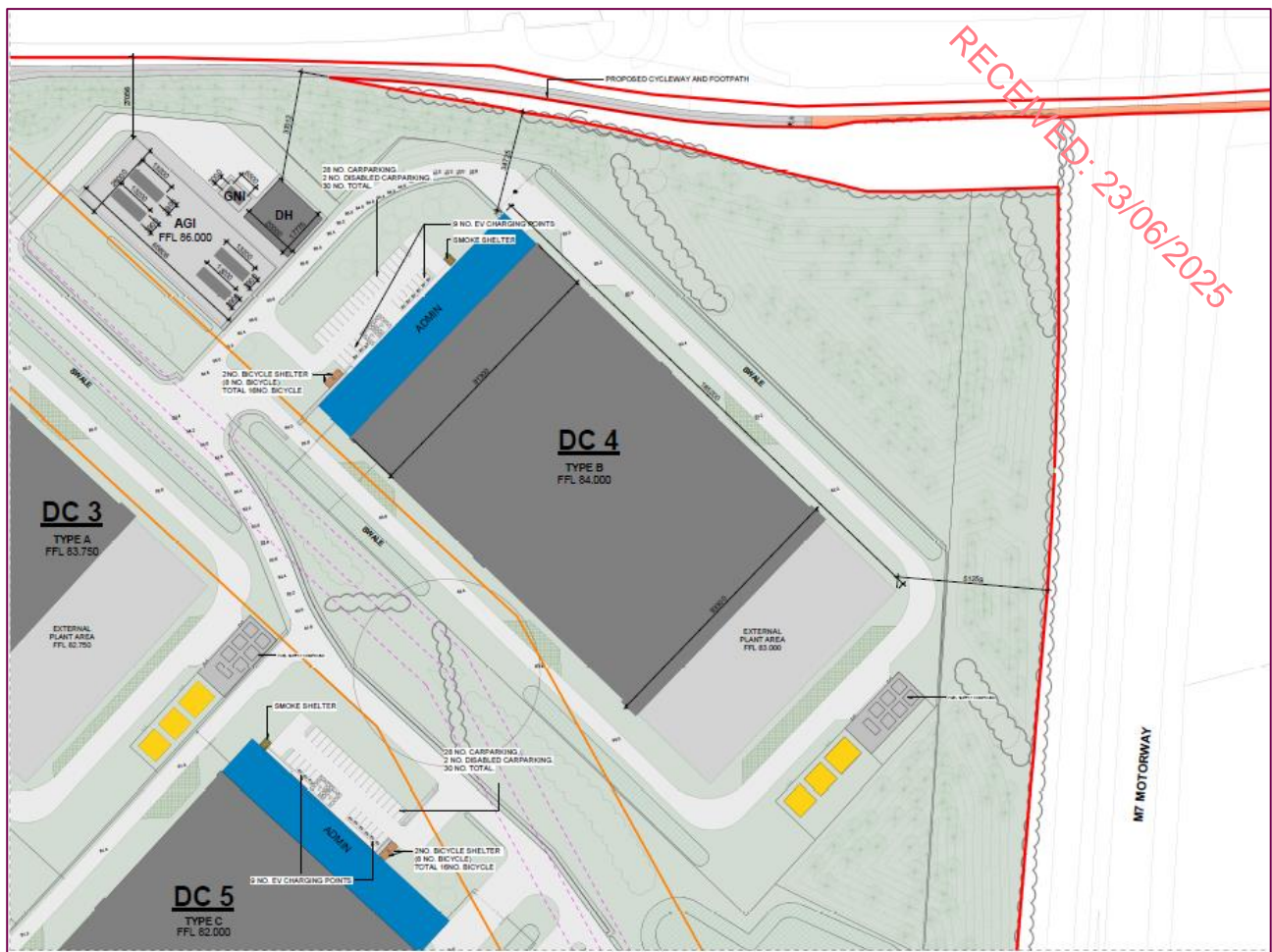


Figure 4.3: Previously Submitted Proposed Site Plan B (extract of submitted drawing 22217-RKD-ZZ-ZZ-DR-A-1012-PROPOSED SITE PLAN B)



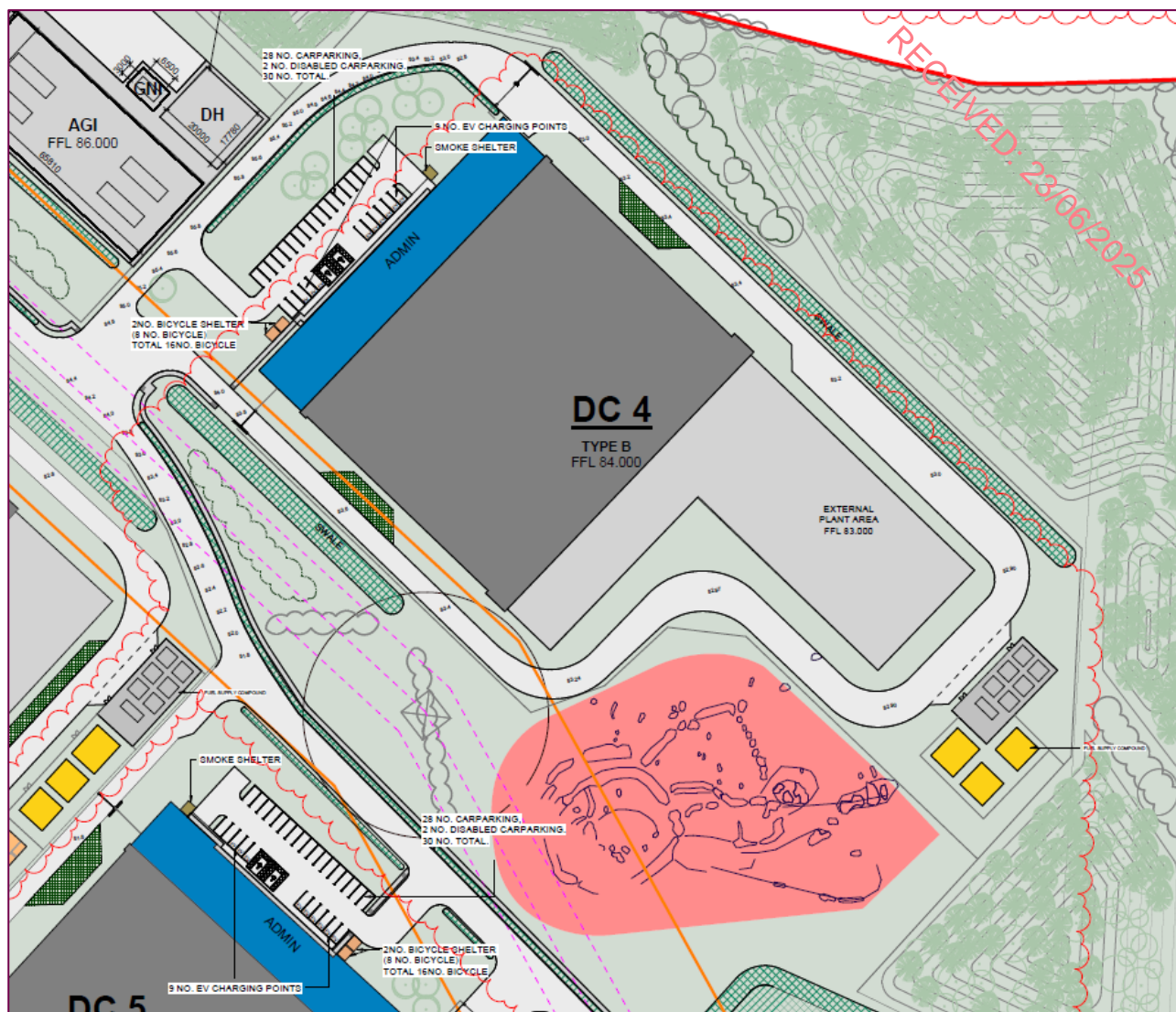


Figure 4.4: Amended Proposed Site Plan (extract of now submitted drawing 22217-RKD-ZZ-ZZ-DR-A-1012-PROPOSED SITE PLAN B)

Drawing 22217-RKD-ZZ-ZZ-DR-A-1012-PROPOSED SITE PLAN B is provided in Volume III Figures and Drawings and as part of the design drawing package submitted in response to the RFI from Kildare County Council.

A Revised Architectural Design Statement is provided in Volume II, Appendix 4.1 Revised Architectural Design Statement 22217-RKD-XX-XX-RP-A-0001. The updated Statement has been prepared by RKD Architects as part of the RFI response and highlights the proposed amendments to the previously submitted Statement.

#### 4.2.2.3 Data Centre 4 Buildings and Processes

Along with Data Centres 1 – 3, 5 and 6, Data Centre 4 will comprise of its own secure site boundary, encompassing the main building with dedicated car parking to the fore of the building; this remains consistent with the description set out in the submitted EIAR.

Each Data Centre will have a 30MW Information and Communications Technology (ICT) capacity with the exception of Data Centre 4 which, due to the amended design, will have a 15MW ICT capacity.

Each Data Centre will have 8no. data halls with the exception of Data Centre 4 which, due to the amended design, will have 4no. data halls.

The external plant gantry and enclosed yard to the rear (encompassing the building energy infrastructure) of Data Centre 4 remains largely consistent with the description set out in the submitted EIAR however the



Data Centre 4 will maintain the proposed solar photovoltaic (PV) arrays, located on the roof top albeit with a reduction in the number of panels, due to the amended design of the building. The amended design of Data Centre 4 comprises solar PV arrays with an area of 1800m<sup>2</sup> whilst the remaining data centres retain the submitted area of solar PV of 3600m<sup>2</sup>. Figure 4.6 below illustrates the arrangement of solar PV panels on Data Centre 4 due to the amended design in comparison to the arrangement of solar PV panels on the adjacent, Data Centre 3.



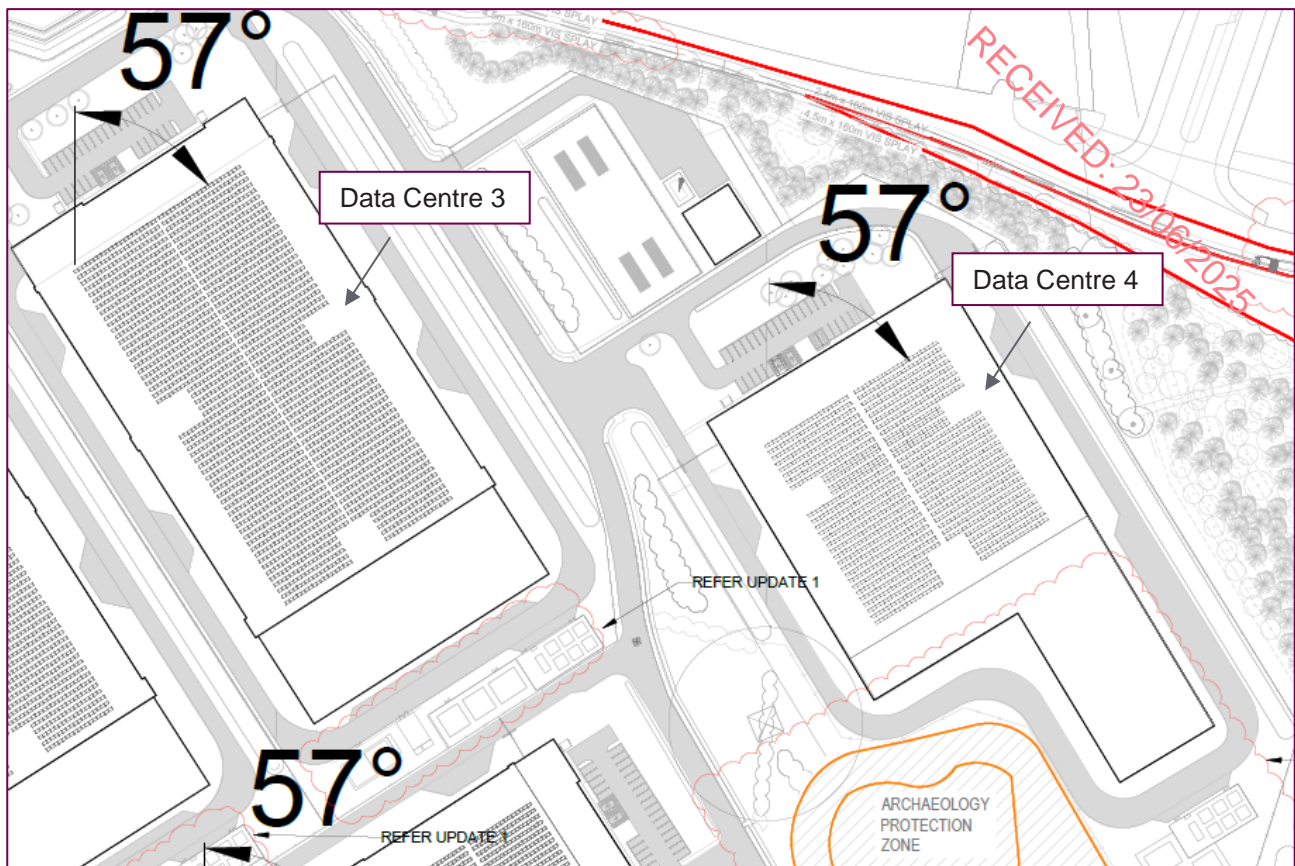


Figure 4.6: Amended Solar PV Arrays, Data Centre 4 (extract of now submitted drawing 10360452-HDR-ZZ-02-DR-E-602003)

Drawing 10360452-HDR-ZZ-02-DR-E-602003 Site Plan PV Layout is provided in Volume III Figures and Drawings and as part of the design drawing package submitted in response to the RFI from Kildare County Council.

The energy strategy (as set out in Section 4.2.3 below) sets out the relevant information in respect of the proposed amended turbine arrangements and type. In summary, Data Centre 4 has 4no. turbines whilst all of the other Data Centres, 1 - 3, 5 and 6 have 7no. turbines.

All other elements of Data Centre 4 remain consistent with the description of the Data Centres as set out in the submitted EIAR (Volume I, Chapter 4 Description of the Project and Need for the Project).

#### 4.2.2.4 External Plant Compounds

Due to the amendment to the Project Energy Strategy (as detailed further in Section 4.2.3) and specifically in respect of the proposed Combined Cycle Gas Turbines (CCGTs), amendments have been made by way of additional compounds to the rear of each Data Centres 1 - 3, 5 and 6. The amendments include the provision of air cool condensers and a steam turbine, adjacent to the fuel supply and sprinkler supply compounds (as proposed in the submitted planning application). Figure 4.7 below illustrates the layout and an elevation of the condensers and steam turbines.

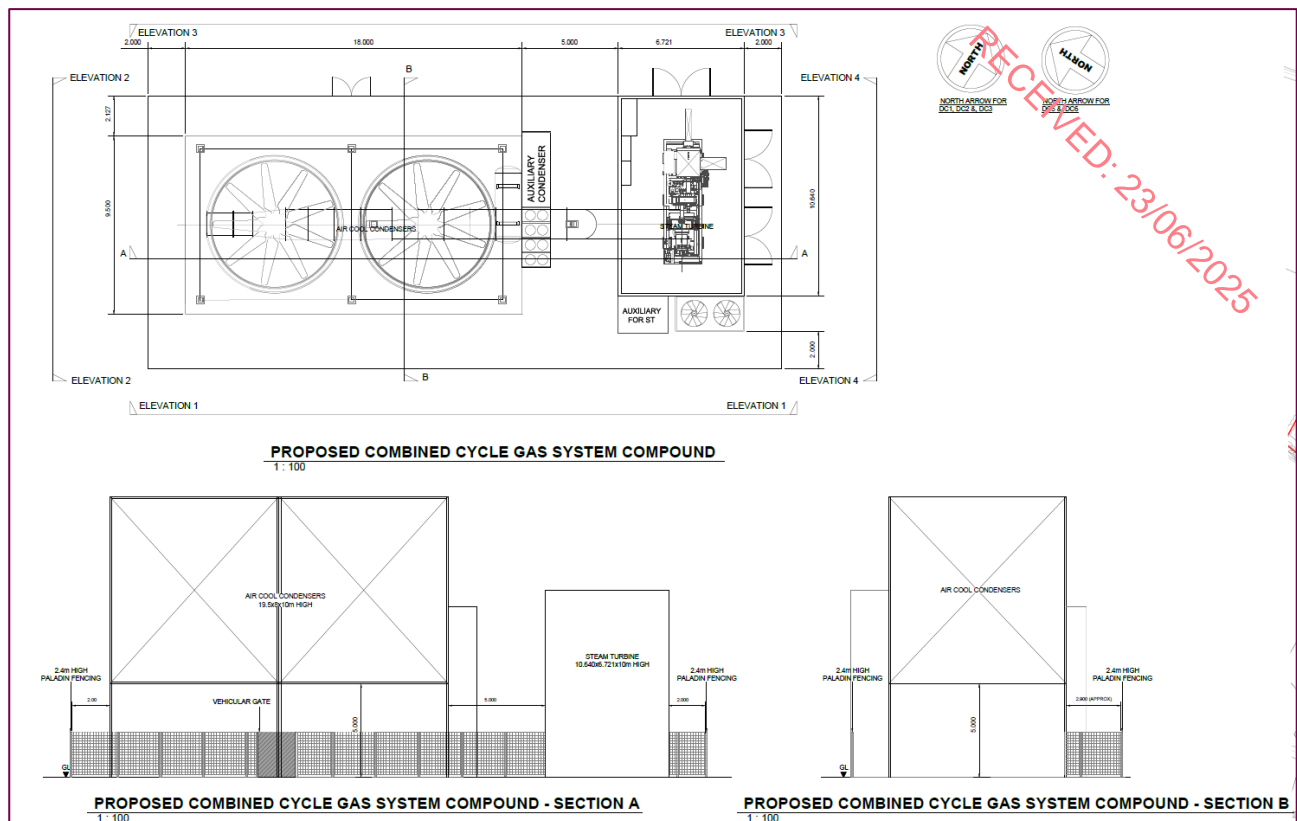


Figure 4.7: Proposed Air Cool Condensers and Steam Turbine (extract of now submitted drawing 10360452-HDR-XX-XX-DR-C-082111)

Drawing number 10360452-HDR-XX-XX-DR-C-082111 COMBINED CYCLE GAS SYSTEM COMPOUND is provided in Volume III Figures and Drawings and as part of the design drawing package submitted in response to the RFI from Kildare County Council.

#### 4.2.2.5 Lighting

The amendment to Data Centre 4 does not result in any material change to the lighting design of the Project. The Project comprises a lighting design which has been sensitively designed to prevent excess lighting associated with the operational phase of the Project. The Project will operate as a Dark Site with minimal and controlled lighting at the entrance / parking areas, together with low level lighting around the site only used for emergency; the proposed design amendments do not alter the proposed lighting design.

As stated in the submitted EIAR, in respect of proposed lighting, the significance of effect is predicted to be negligible. An updated Lighting Assessment Report is provided in Volume II, Appendix 4.2, Lighting Assessment Report 10360452-HDR-XX-XX-RP-E-630001.

#### 4.2.2.6 R409 Improvements

Amendments are proposed in respect of the Kildare County Council Roads Department for a footpath and cycle path as part of the proposals, along the R409 Caragh Road, which traverses the M7 motorway on an overbridge. The amendments to provide a footpath and associated line markings and replacement of the traffic barriers will be undertaken on the R409 (where it traverses the M7 motorway) are detailed in the now submitted drawing 2232-DOB-ZZ-ZZ-DR-C-1600 PROPOSED R409 ROAD VRU IMPROVEMENTS.

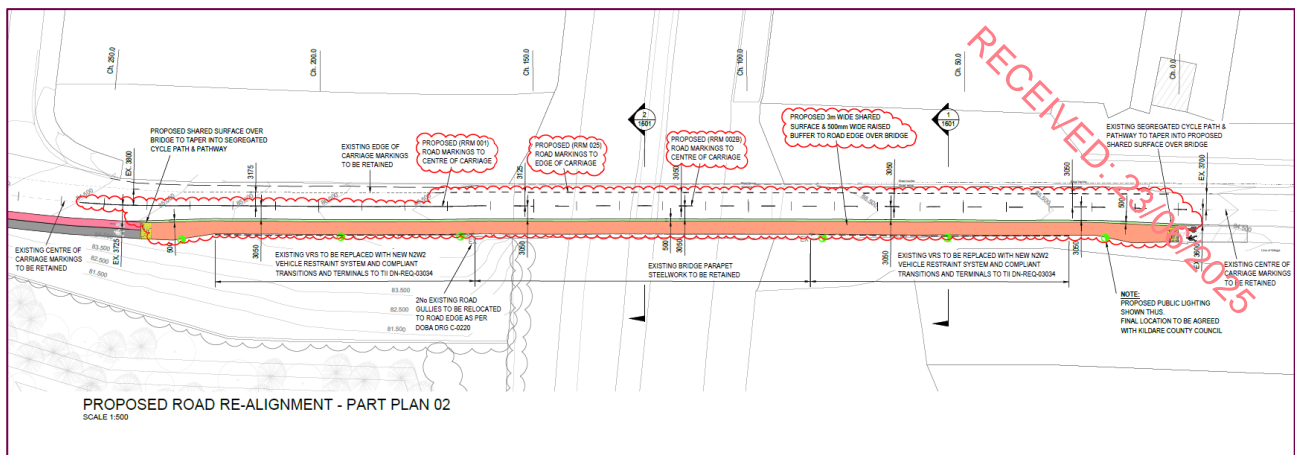


Figure 4.8: Detail of Proposed R409 Improvements (extract of now submitted drawing 2232-DOB-ZZ-ZZ-DR-C-1600)

Drawing 2232-DOB-ZZ-ZZ-DR-C-1600 PROPOSED R409 ROAD VRU IMPROVEMENTS is provided in Volume III Figures and Drawings and as part of the design drawing package submitted in response to the RFI from Kildare County Council.

The proposed amendments comprise of the provision of a 3m shared surface (with a 500mm buffer) across the bridge and a reduction in the carriageway width from 7.8m to 6.1m, across the bridge; by comparison, the submitted application proposed a 2m shared surface (with no buffer).

The amended proposals are comparable to pedestrian improvement works previously undertaken on the L2030 bridge (adjacent to the M7 Business Park) and on the L3014 Sallins Road bridge (KE M07-036.00), both of which bridges also cross over the existing M7 motorway, above the MMarC area. In both cases, the bridge structures are identical to that on the R409, and there is no technical impediment to providing improved pedestrian facilities on the R409 in a similar manner.

Engagement with Kildare County Council National Roads Office and Transport Infrastructure Ireland has informed the proposed amendments and both parties are considered in agreement with the same.

### 4.2.3 Energy Strategy

The energy strategy of the Project has been looked at again in response to the RFI from Kildare County Council to further improve the energy strategy and specifically in response to matters set out within the Kildare County Council RFI (Items 1 – 3), the following amendments have been made in respect of the Project energy strategy:

- Use of higher efficiency turbines (than those proposed in the submitted planning application and EIAR)
- Commitment to increase level of energy from off-site renewable energy sources from 30% (as committed to in the submitted planning application and EIAR) to at least 50%

The Updated Energy Policy Compliance Report and Updated Energy Strategy Report (provided in Volume II, Appendix 4.3 and 4.4 respectively) set out in detail, the proposed energy strategy for the Project.

The Applicant has committed that 50% of the on-site generation of electricity will be from renewable sources (secured via Corporate Power Purchase Agreements [CPPAs]) from wind and solar projects supplemented by PV arrays located on the roof tops of each Data Centre and the energy from external renewable sources, secured via CPPAs will be obtained via the 110kV electrical grid connection which forms part of the Project.

Furthermore, as set out in the Updated Energy Strategy Report (Volume II, Appendix 4.4) and the Response to Further Information Report, Herbata have agreed to be conditioned by way of planning condition to commit to now procuring 50% (it was 30% in the original submitted application) of the required, on site energy from CPPAs from renewable sources.

The on-site generation of electricity will primarily use Combined Cycle Gas Turbines (CCGTs) to provide for 50% of the energy required, supplement by Open Cycle Gas Turbines (OCGTs) and smaller reciprocating engines (for load stepping).

Table 4.2 below illustrates the schedule of turbines for each Data Centre.



Table 4.2: Schedule of Turbine Types per Data Centre

Data Centre	OCGT	CCGT	Total Turbines
1	4	3	7
2	4	3	7
3	4	3	7
4	2	2	4
5	4	3	7
6	4	3	7
<b>Totals</b>	<b>22</b>	<b>17</b>	<b>39</b>

Energy sources will be utilised in a hierarchical manner as shown below, with the top of the listing the most preferred:

- Renewable energy via CPPAs using the grid connection
- On-site CCGTs
- On-site OCGTs
- Reciprocating Engines

#### 4.2.4 Heat Recovery and District Heating

Each of the data centre buildings will have either two or three CCGT (Closed Cycle Gas Turbines), all with waste heat thermal boilers installed within their exhaust flues to recover the medium to high grade heat from the turbines. Normally the heat will be taken to a steam turbine to allow additional electricity capacity to be generated, lifting the overall efficiency of the OCGTs to around 44%.

As an alternative to the heat being used to run the steam turbines, the heat can be used to supply an off-site district heating system. The heat from the thermal boilers from each building will then be pumped via heat exchangers to the perimeter of the data centre campus, to enable district heating pipework to be connected. Each turbine as a nominal electrical output rating of 5MWe, the available maximum heat output is assumed at 10MWth per turbine, the District Heating network heat exchangers will be sized to provide a total capacity of 20MWth when the CCGT turbines are available and running. These turbines will be prioritised in terms of running whenever possible.

As set out within the Updated Energy Policy Compliance Report (Volume II, Appendix 4.3) it is assumed that the average electrical load of the site associated with ICT (information and communications technology) and cooling, when fully operational, is likely to max out at 230MW, however typically data centres don't achieve 100% utilisation of the power, more normally they max out at 70-80% so in this case with all phases completed an annual power demand from the on-site generation of around 100MW is anticipated. It is acknowledged that this load is unlikely to be present on the first operational day, with a phased approach being employed by the data centre developer, and on-site power generation will be ramped-up in tandem, in accordance with the draft LEU Connection Policy.

Having established the quantum and form of the heat that can be made available to the local area, a heat mapping assessment included within the Updated District Heating Feasibility Assessment (Volume II, Appendix 4.7) has been developed to identify where the heat could be best used in: existing facilities; significant facilities that have recently received planning; and areas of development that again would benefit from using a connection to a district heating system.

### 4.3 External Boundary Treatments and Landscaping

#### 4.3.1 Landscape Planting

The matters raised within the Kildare County Council RFI (Items 29 and 30) have been comprehensively addressed and clarifications provided in the Response to Further Information Report; as explained in the document (at sections 4.29 and 4.30), the response has not necessitated any significant amendments to the landscape design rationale and the approach as submitted with the planning application and the proposed landscape planting design, has not changed significantly.

The clarification provided (in response to the Kildare County Council RFI Items 29 and 30 within the Response to Further Information Report), states that landscape planting and screening has already been maximised to the fullest extent within the constraints of the Project and it is not therefore possible to incorporate any further additional planting or additional retention of trees and hedge rows. Screen mounds have been placed wherever feasible around the perimeter of the site, avoiding/retaining/protecting existing hedgerows and trees. The slopes of the mounds are maximised to the maximum height within the space available with the mounds to be planted with a dense screen/native woodland planting mix with advanced/semi-mature trees.

As also set out in Response to Further Information Report, due to the scale and nature of the Project, there will be a loss of existing hedgerows in the centre of the site which will include the removal of a significant proportion of the trees and hedges across the centre and north of the site. Boundary hedges along the eastern, southern and western boundaries of the site are proposed to be left intact. A significant native tree replanting scheme is proposed with over 5.4 ha of woodland and 0.56ha of native scrub planting as outlined within the landscape documentation submitted with the planning application.

In broad terms, the matters raised within the Kildare County Council RFI have not resulted in significant amendments to the landscape design rationale and approach as submitted with the planning application.

The amended design for Data Centre 4 has resulted in some minor amendments to landscape proposals within the immediate vicinity of the building; these however are minor in nature and do not alter the proposals as submitted in respect of retention of existing vegetation, proposed mounding and landscape planting along the site boundaries.

There have been a number of other minor amendments within wider the site, which have been updated in the landscape design drawings; these relatively minor amendments do not however significantly change the landscape proposals along the site boundaries. Figure 4.9 (extract from landscape masterplan, drawing number BSM-ZZ-ZZ-DR-L-0301) below illustrates the landscape proposals, relative to amended design of Data Centre 4.

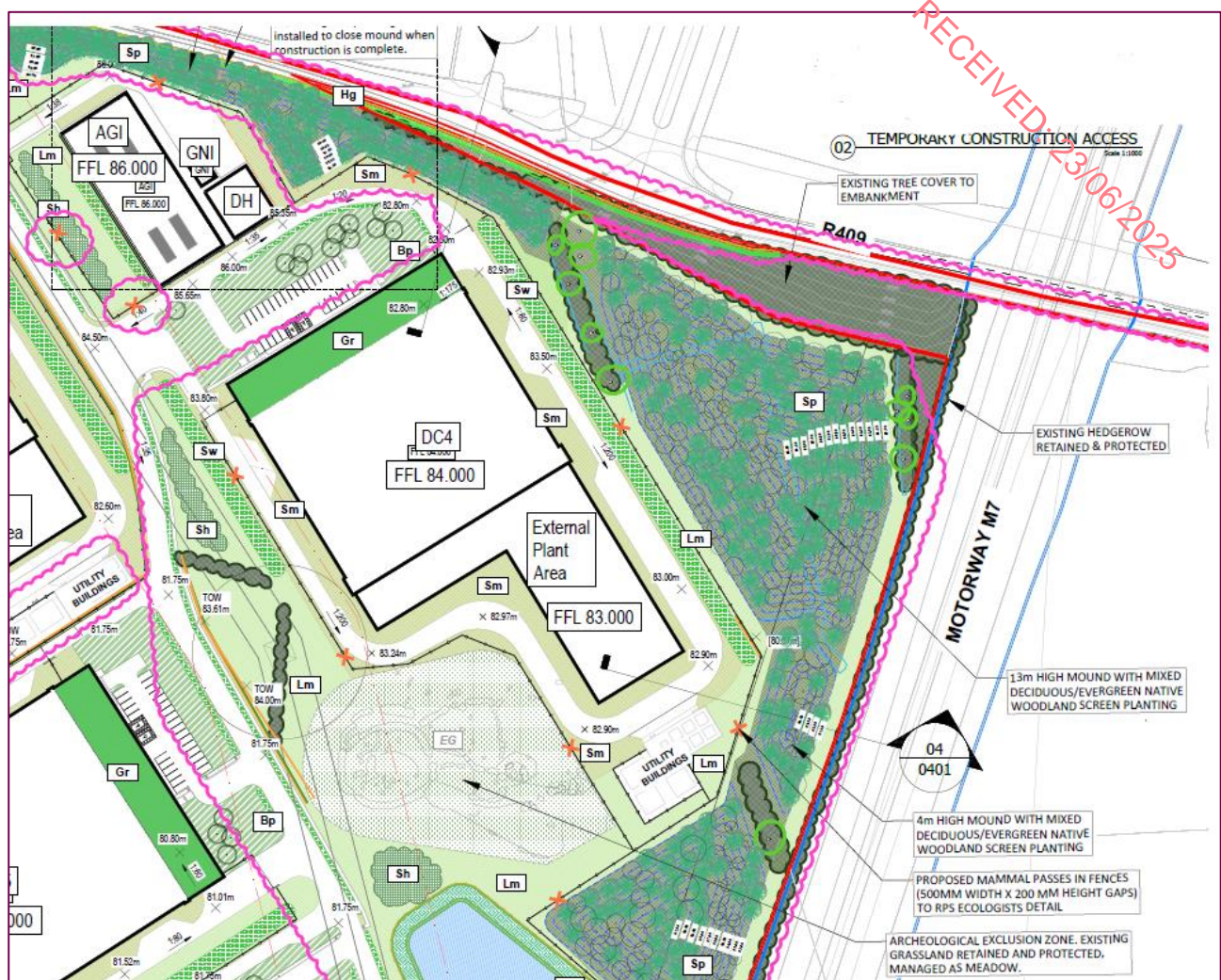


Figure 4.9: Landscape Proposals Relative to Amended Design of Data Centre 4 (extract of now submitted drawing BSM-ZZ-ZZ-DR-L-0301)

Drawing BSM-ZZ-ZZ-DR-L-0301 Landscape Masterplan is provided in Volume III Figures and Drawings and as part of the design drawing package submitted in response to the RFI from Kildare County Council.

### 4.3.2 Mammal Pass Fencing

In consideration of the request for inclusion of a fencing arrangement *to allow for wildlife access and passage through the site*, an amendment has been made to the proposed Landscape Masterplan to include mammal passes in fences throughout the full extent of the site. The number, location and dimensions of the mammal passes was established following engagement between the project ecology and landscape team. The inclusion of the mammal passes has not required changes to the submitted landscape planting proposals.

Mammal passes are proposed at locations throughout the site including all *perimeter* fences and *internal* fences within the site (for example around each Data Centre building). A gap at the foot of the proposed fencing, of 500mm (width) x 200mm is determined sufficient for all potential mammal species and should ensure access and passage throughout the site. There are no proposed amendments to the overall height, materials or layout of the proposed fencing.

Figure 4.10 below (extract of drawing number BSM-ZZ-ZZ-DR-L-0311 Landscape Boundary Treatments Plan) illustrates the location of the mammal passes; Figure 4.11 below (extract of drawing number 22217-RKD-ZZ-ZZ-DR-A-1400 Proposed Boundary and Fence Details) illustrates the detailed dimensions of the fencing.



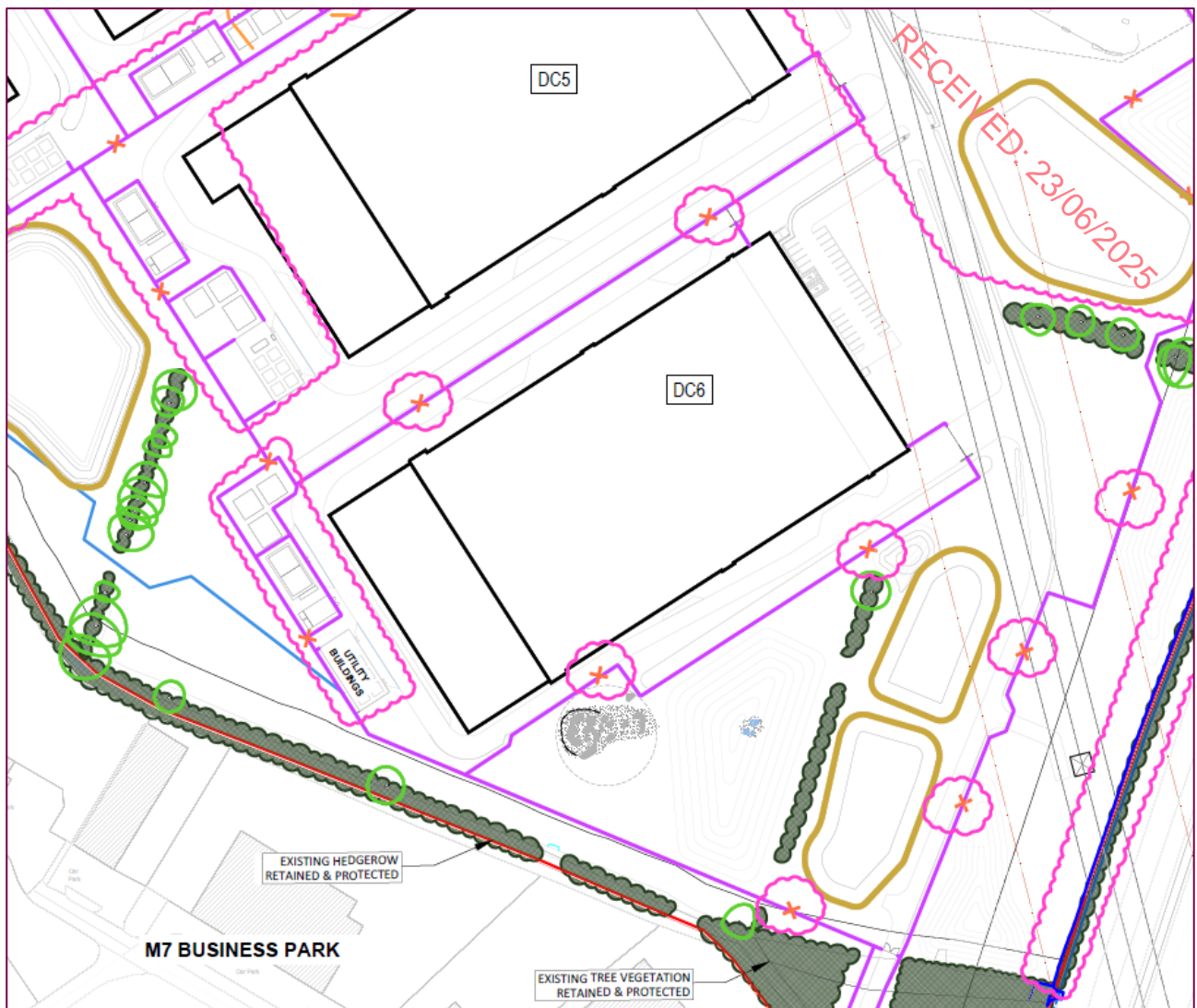


Figure 4.10: Locations of Mammal Passes in Palisade Security Fencing (extract of now submitted drawing BSM-ZZ-ZZ-DR-L-0311)

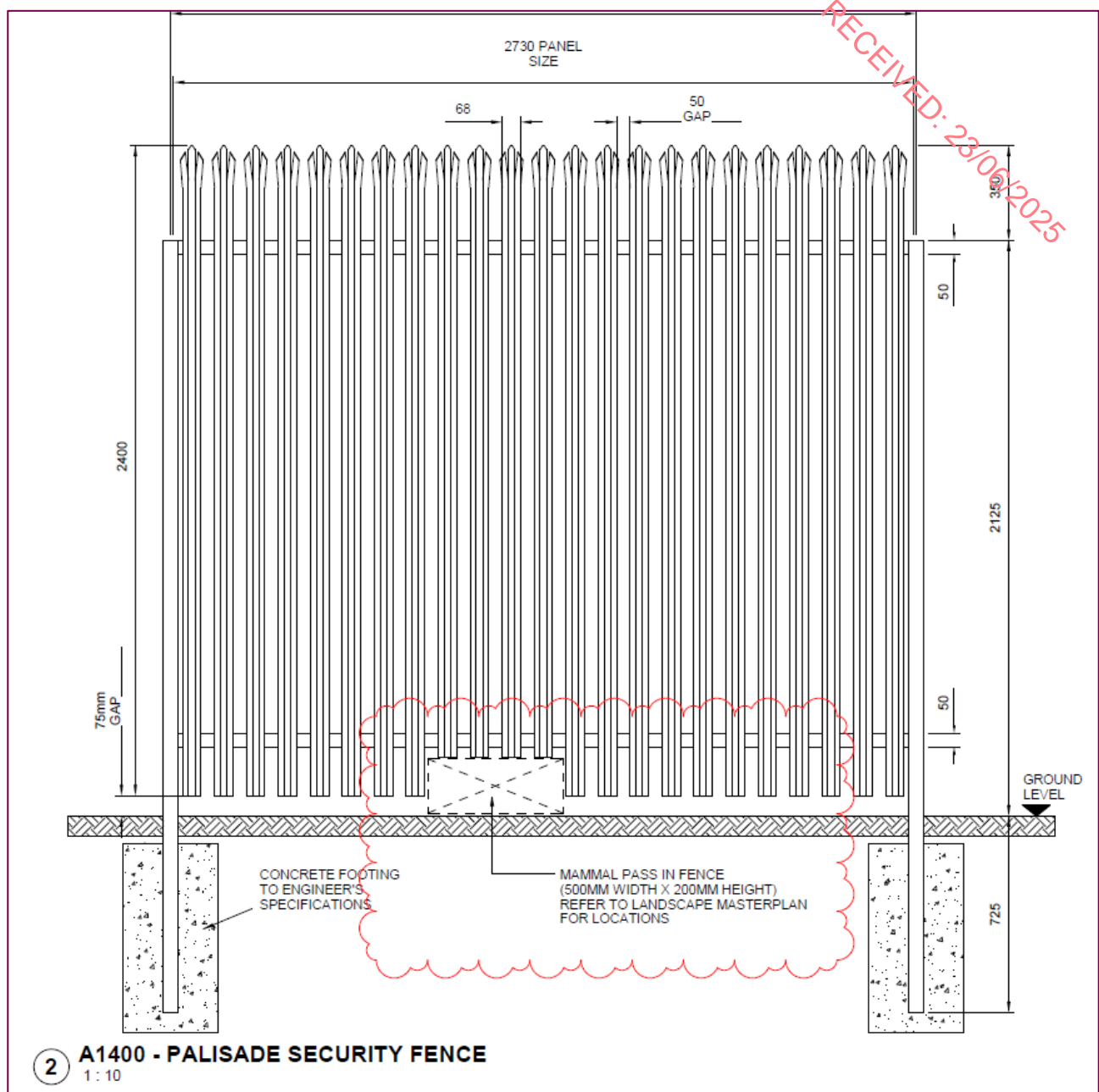


Figure 4.11: Mammal Pass in Palisade Security Fencing (extract of now submitted drawing 22217-RKD-ZZ-ZZ-DR-A-1400-PROPOSED BOUNDARY AND FENCE DETAILS)

Drawing numbers BSM-ZZ-ZZ-DR-L-0311 Landscape Boundary Treatments Plan and 22217-RKD-ZZ-ZZ-DR-A-1400-PROPOSED BOUNDARY AND FENCE DETAILS are provided in Volume III Figures and Drawings and as part of the design drawing package submitted in response to the RFI from Kildare County Council.

## 4.4 Construction Phase Overview

### 4.4.1 Project Phasing

Site phasing is proposed for the construction of the Project and remains unchanged from that set out within the submitted EIAR. The proposed construction programme remains an estimated 8 years and 9 months however an amended commencement date of January 2026 has been presented, serving as an indicative start date in order to illustrate the construction milestones. A final commencement date will be subject to the timescales for the Project in obtaining all necessary consents. An Updated Construction Environmental Management Plan (CEMP) and an Updated Construction Traffic Management Plan (CTMP) are provided in

## REPORT

Volume II, Appendix 4.5 and 4.6 respectively; these documents are also provided in provided in response of the RFI from Kildare County Council

Table 4.3 below provides an amended, indicative construction phase programme for key milestones; this proposed construction programme is derived from the amended Construction Traffic Management Plan (CTMP) 10360452-HDR-XX-XX-RP-T-000002 (Volume II, Appendix 4.6).

Table 4.3: Construction Programme (Indicative) (extract from CTMP 10360452-HDR-XX-XX-RP-T-000002), Volume II, Appendix 4.6

Phases	Construction Program	Start Date	End Date
Herbata Data Campus Overall Construction Program		08/01/2026	27/03/2034
Phase 1	Enabling Works Overall Construction Program	08/01/2026	27/07/2026
	ESB Substation Overall Construction Program	01/06/2026	28/03/2027
	AGI Building Overall Construction Program	01/06/2026	28/07/2027
	DC 1 Overall Construction Program	01/06/2026	17/07/2028
	R409 Road Improvement works that include the cycle lane, pedestrian walkway to both sides of the road.	08/12/2027	17/07/2028
	DC 2 Overall Construction Program	16/07/2027	01/09/2029
Phase 2	DC 3 Overall Construction Program	31/08/2028	16/10/2030
	DC 5 Overall Construction Program	15/10/2029	30/11/2031
Phase 3	Construct Secondary Construction Compound around the site and remove the existing construction carpark	05/10/2031	30/01/2032
	DC 6 Overall Construction Program	27/11/2030	13/07/2033
	DC 4 Overall Construction Program	11/01/2032	27/08/2034
	Site Wide Works Overall Construction Program	01/03/2033	27/09/2034

Whilst the proposed site phasing remains consistent with that set out within the submitted EIAR, the amended design for Data Centre 4 has necessitated an amendment to the construction compound (parking and material storage) in the vicinity of Data Centre 4.

For the purpose of comparison, Figures 4.12 and 4.13 below, illustrate the previously submitted layout detail for Data Centre 4 and (amended) proposed layout detail for Data Centre 4 respectively as set out in the now submitted Updated CTMP (Volume II, Appendix 4.6).



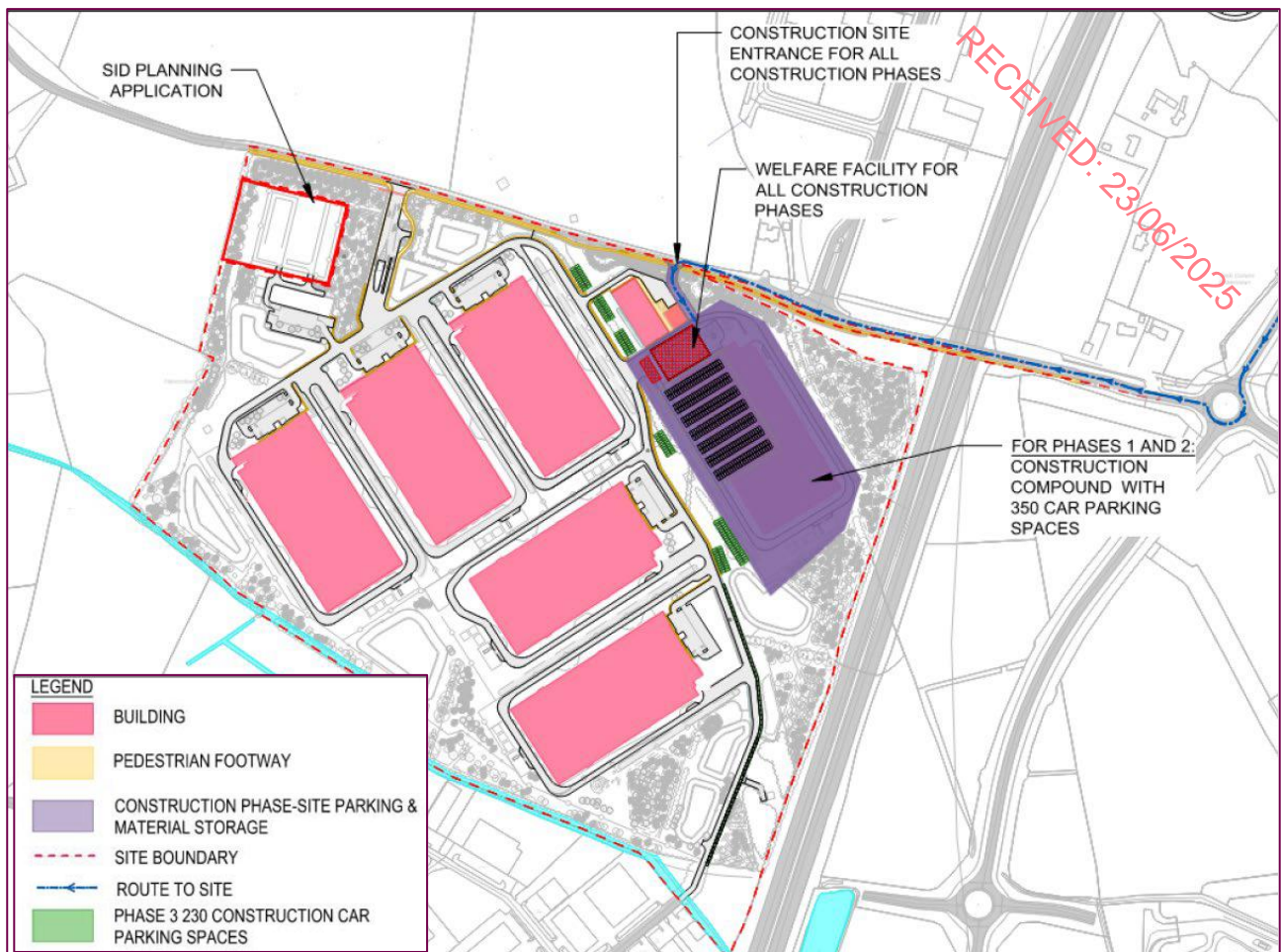


Figure 4.12: Previously Submitted Construction Phase Layout (extract from previously submitted CTMP)

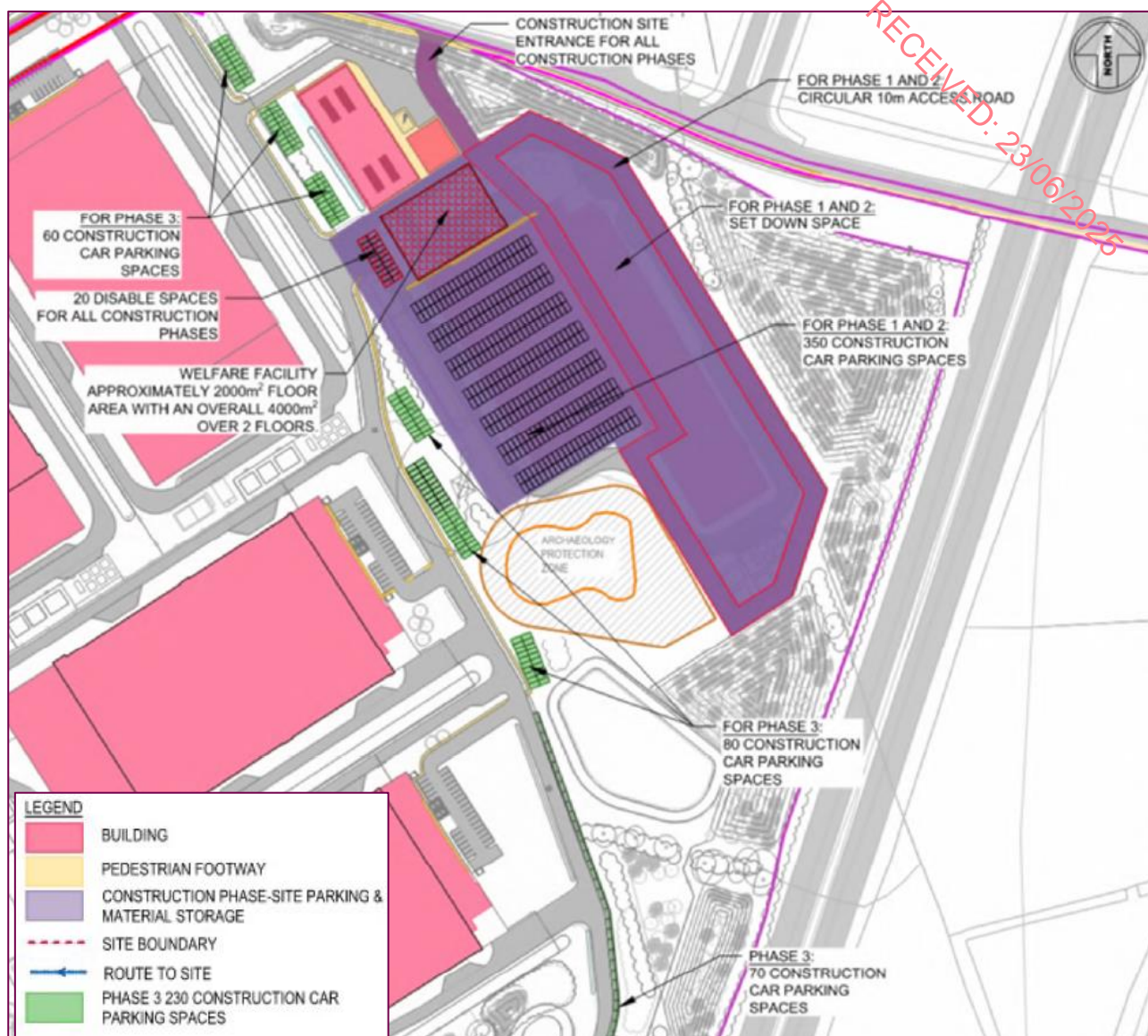


Figure 4.13: Amended Construction Phase Layout (extract from now submitted Updated CTMP, Volume II, Appendix 4.6)

## 4.5 Need for the Project

### 4.5.1 Data Centre Need

The need for the Project is set out in the submitted EIAR (Chapter 4, Section 4.8); it is contended that the need case is still valid.