

MARSTON

PLANNING CONSULTANCY

Senior Administrative Officer,
Planning Department,
South Dublin County Council,
County Hall,
Town Centre,
Tallaght,
Dublin 24

Our Ref: 16008

23rd May 2023

Re : Planning and Development Act 2000-2022 and the statutory regulations (as amended). Application by EdgeConneX Ireland Limited for permission for development at this site of 5.14hectares that is located within the townland of Ballymakailly to the west of the Newcastle Road (R120), Lucan, Co. Dublin. The development will consist of the construction of two no. adjoined single storey data centres with associated office and service areas with an overall gross floor area of 15,274sqm.

Reg. Ref. SD22A/0333

Date of additional information request: 10th October 2022

ADDITIONAL INFORMATION

Dear Sir / Madam,

We, Marston Planning Consultancy, 23 Grange Park, Foxrock, Dublin 18 are instructed by EdgeConneX Ireland Limited submit this formal response to the request for Additional Information that was dated the 10th October 2022 in relation to the planning application for the development as described above.

This response and accompanying reports and drawings, have comprehensively addressed all the elements of the Additional Information request in a reasonable manner fully justifying the development. Our response is submitted fully within the six month timeline plus additional 3 months granted by the Planning Authority under Article 33(3) of the Planning and Development Regulations, 2001 (as amended) for dealing with such issues that extended the timeline for making the to the 19th July 2023.

The response is undertaken following consultation with various departments of South Dublin County Council. The documents submitted with this Additional Information response include an updated and revised EIAR document as a matter of clarity for the Council. A full list of enclosures is included with all drawings and within the cover letter from Henry J Lyons Architects, who are the agent of the applicant.

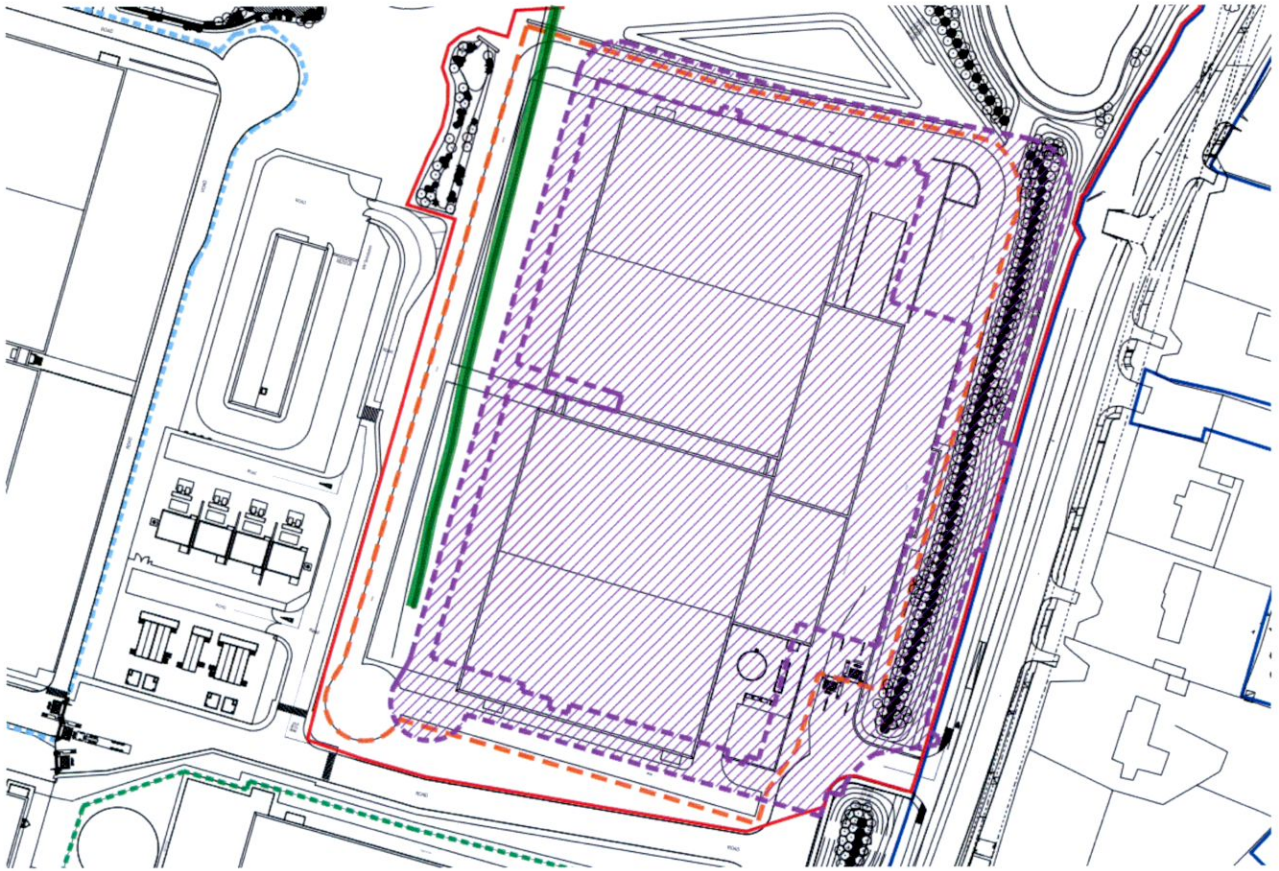
Addressing the Addition Information request

This response has comprehensively addressed the concerns of the Planning Authority in terms of all elements but particularly in relation to balancing the zoning of the site for development with the need to retain, wherever possible, and ultimately enhance the green infrastructure setting of the site and its connections into the surrounding green infrastructure of the area. It is important to set out for the clarity of the Planning Authority and justification of the design changes that have been made in comprehensively and robustly responding to the Additional Information (AI) request.

Following receipt of the Additional Information request the applicant has undertaken a comprehensive review of the overall master planning of the site in particular the request to retain the western boundary hedgerow as listed under point 7 of the AI request.

This internal review concluded that in order to retain the western hedgerow, there would be a need to move the proposed development eastwards. This would require the removal of the berming and extensive planting permitted on the eastern side of the site, alongside the R120 and to make the proposed development and

already permitted development far more visible. This would be in our considered opinion contrary to good planning principles established for the site under Planning Ref. SD19A/0042 (recently commenced) and SD21A/0042; as well as the green infrastructure policies and objectives of the South Dublin County Development Plan 2022-2028. The implications of this is shown in the drawing below, with the relocated development outlined in magenta, that indicates the clear conflict with the permitted green infrastructure on the eastern side of the site, and the western hedgerow shown in green.



Plan showing alignment of western hedgerow, proposed development as applied for (outlined in orange), and the indicative position of the proposed development (magenta shading) if the hedgerow were to be retained

The conflict of retaining the hedgerow and loss of the already permitted landscape mitigation associated with the previous permissions was discussed with the case planner (Sarah Watson). A data centre such as this is designed to maximise the efficiency of the end user requirements and whilst it was discussed and assessed, it was concluded that it would not be possible to reduce the footprint of the proposed development without severely compromising the end user requirements.

In order to mitigate this, we have sought to squeeze the external areas around the data centre that will enable the applicant to plant a new native hedgerow that would run parallel to the existing hedgerow, and which will also extend along the southern side of the data centre creating stronger biodiversity links within the site, as well as around the periphery of the site, which we were requested to provide under the original 2019 application. A full and robust justification for this is provided as part of this AI response.

No other material elements are being amended under this AI response apart from the addition of an open bio-swale that will connect the two proposed attenuation ponds to the north of the site. Despite the minimal changes and due primarily to point 17 of the AI request, the Environmental Impact Assessment Report has been reviewed and where required has been amended and updated.

In addition the Additional Information response has focussed on setting out how the scheme has positively addressed design, green infrastructure and SUDS policies and objectives of the South Dublin County Development Plan 2022-2028.

Requirement for new planning notices

We have considered the submitted Additional Information in the context of Article 35 of the Planning and Development Regulations 2001, as amended. It is our considered opinion that new notices are not required in this instance.

Our written response, which should be assessed in conjunction with the submitted details listed above, is provided below in respect of each point raised in the Council's request.

ADDITIONAL INFORMATION RESPONSE

This response is broken down point by point to address each element of the Additional Information request from the Council.

1. The applicant is requested to demonstrate compliance with the following employment policies of the SDCC County Development Plan 2022-2028:

- EDE1 Objective 6
- EDE3 Objective 5
- EDE4 Objective 4
- EDE4 SLO1

Response

Policy EDE1, Objective 6

In accordance with **Policy EDE1, Objective 6** the proposed development, with the already permitted developments on the wider site, will undertake the following to ensure compliance with the four objectives of this policy as follows:

- The Proposed Development will result in an increase in employment densities at an appropriate level that reflects the location and access to public transport services. The application site would not be an appropriate location currently to absorb higher density of employment as it would encourage car based traffic as opposed to travel to the site via public transport and other sustainable means;
- It is proposed that a Mobility Management Plan (MMP) in accordance with section 12.7.3 of the County Development Plan will be undertaken within 6 months of the commencement of the operation of the proposed development. This will set out objectives, targets and measures that promote walking, cycling and use of public transport. A Travel Plan is submitted as part of this AI response in accordance with section 12.7.3 of the County Development Plan. The MMP would include the creation of a Travel Plan co-ordinator once the proposed development is operational, to reduce car usage and maximise more sustainable methods, including car sharing, of workers getting to the Proposed Development. It would generate a full Mobility Management Plan to be implemented within 6 months of the commencement of the operation of the Proposed Development;
- The Proposed Development will source power wherever possible from renewables, and is designed so that it is future proofed to facilitate connection to a district heating system, if one becomes available. As part of this AI response a Commercial Energy Statement is submitted by Ethos Engineering that sets out how the proposed development fully complies with Policy E5 of the County Development Plan that indicates the energy efficiency of the proposal as well as how the development has adapted to Climate Change;
- The approach to the green infrastructure of this site has always been on the behest of the Planning Authority, since the original application was made and was granted under SDCC Planning Ref. SD19A/0042 / ABP Ref. PL06S.305948, in that it should be accompanied by a landscape masterplan for the overall site. This has been amended and enhanced under the subsequent permission as granted under SDCC Planning Ref. SD21A/0042, and as proposed under this application.
- The proposed development will not require any trees to be removed under this application, with the overall site that is subject to grants of permission under SDCC Planning Ref. SD19A/0042 / ABP Ref. PL06S.305948 and SDCC Planning Ref. SD21A/0042 (to be known as the permitted development) has already been permitted to allow for one tree to be removed. The proposed and permitted development will include significant levels of native tree planting. Under the current application it is proposed to plant 484 new semi-mature trees (c. 5m in height) with permitted development providing for 1,854 new semi-mature trees on the permitted development site. In addition to this it is permitted to plant 3,843 standard

trees (c. 2m in height) under the permitted development with another 912 of these trees proposed to be planted within the application boundary. In addition to this, it is permitted to plant 18,458 saplings (c. 0.5m in height) across the permitted site with a further 3,586 proposed within the application site.

- This current application proposes to remove 572m of hedgerow, which includes the western hedgerow referred to under point 7 of this AI request that will be replaced by 250m of new native hedgerow under this application, and with 1,113sqm of new hedgerow already permitted under the permitted development. This AI response includes an evaluation of the quality of this hedgerow, and an assessment of its removal against the level of planting being proposed.
- The overall permitted and proposed development has sought and has previously been permitted to achieve a net green infrastructure gain within the site, and there is no basis for the claim under Point 13 of the AI request that the layout and design in relation to green infrastructure, biodiversity and sustainable drainage is in some way in material contravention of these policies of the County Development Plan. The proposed development, in combination with the already permitted developments on the overall site, will improve biodiversity connections to the canal corridor and surrounding environment, and will significantly improve and contribute to the established and permitted green infrastructure network in this part of the County fully in accordance with the various GI objectives and policies of the County Development Plan.

Policy EDE3, Objective 5

This objective requires the delivery of places and communities that encourage workers and employers to live in the County in close proximity to their places of work that promote sustainable travel and a good quality of life. The application site is located in close proximity to the Clonburris Planning Scheme that has received significant Government funding to deliver strategic infrastructure under its first phase as part of its redevelopment to deliver 9,416 homes, schools, parks and commercial space. The south-western corner of the SDZ is within 150m of the application site.

In addition, the south-eastern corner of the new suburb of Adamstown is located c. 700m to the north with its new suburban station, which is connected to the site by an off carriageway cyclepath. The quality of the permitted and proposed development includes a permitted new public park to the north, with connections from the canal and from the R120.

These all combine to create and deliver a development that is accessible by sustainable travel and will deliver a high quality workplace for local residents within the above two developing areas, as well as being well connected through the cycle paths along the New Nangor Road and the R120 with the existing population of Clondalkin to the east. This connectivity will be further increased by the development of the greenway along the Grand Canal.

When these factors are considered in the context of the permitted and proposed development of this site, it is evident that the high degree of landscaping and planting will deliver a place of work that will encourage local employees in a location that is accessible by sustainable modes of transport fully in accordance with Policy EDE3, Objective 5.

EDE4 Objective 4

We respectfully submit that the level of office space proposed is 1,701sqm, and is therefore above the 1,000sqm that therefore requires the applicant to show compliance with Policy EDE4, Objective 4 of the County Development Plan.

As a matter of clarity for the Planning Authority as part of the Additional Information (AI) response, we can confirm that the proposed development is fully in accordance with the principles of the above policy in that the proposed main access to the proposed development site is c. 500m from bus stop no. 3413; and 800m from bus stop 7229 that serves buses travelling in both directions between Grange Castle and Santry (route 13), and Greenogue and the city centre (route 68). Route 13, in particular, is a high frequency bus service, and therefore the proposed development in being within 500m of a good quality bus service demonstrates that it is in accordance with the Permeability Best Practice Guide (2015) and fully in compliance with Policy EDE4, Objective 4 of the County Development Plan.

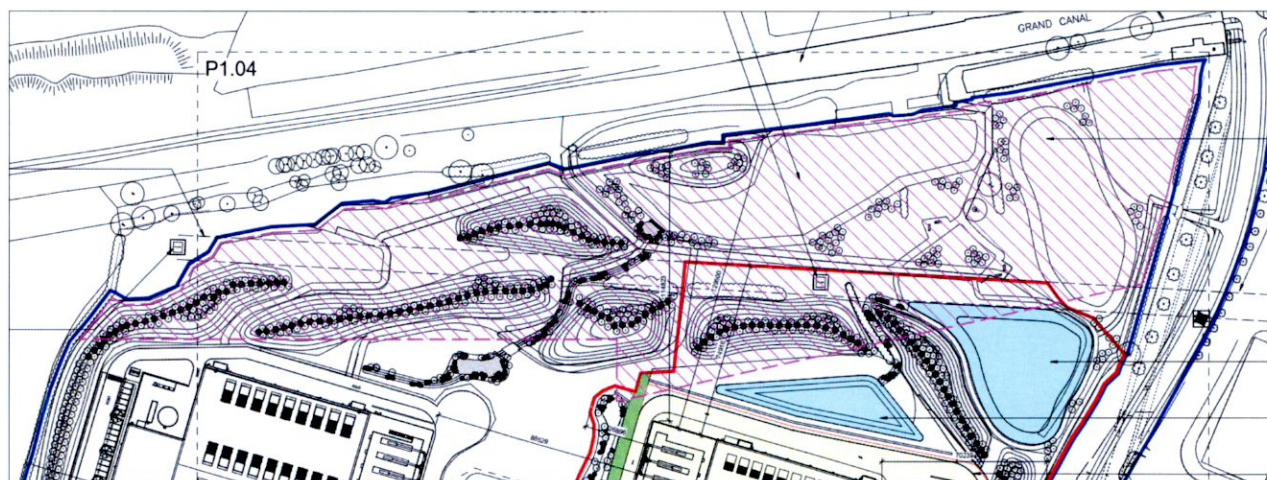
EDE4 SLO1

We respectfully submit that the permitted development has investigated and proposed a new public park to the north of the overall site within lands zoned as RU that was granted under SDCC Planning Ref. SD21A/0042. This park, which will be developed in conjunction with the development of the overall site will aid the connection of the canal towpath to the immediate west of the 12th Lock, which does not form part of the overall site, with the R120 and its cycle and footpaths to the east. This park will aid the potential development of the 12th Lock as a hub, and the overall development does not impinge on the ability to further utilise the southern banks of the canal outside of the applicants control. Furthermore, the master planning of the site has ensured that the potential of the lock and buildings is not impacted in any way by the set-back of the proposed development from the northern boundary, its overall single storey height and significant landscape treatment will ensure that the development will not visually impact or from a land use perspective on the ability to develop the 12th Lock as a hub for tourism and other uses in accordance with Policy EDE4, SL01 of the County Development Plan.

2. It is noted that an element of the site is zoned 'RU'. The applicant is requested to submit a plan indicating the delineation of this area and also to detail what works would take place within 'RU' zoned lands.

We can confirm that all built elements of the proposed development are located within the EE zoned lands (Please refer to Drawing no. P1-03 by Henry J Lyons Architects) submitted as part of this AI response of which an excerpt is shown below. The boundary between the EE and RU zoned lands marked by way of a pink dashed line clearly indicates all built elements are outside of the RU zoned lands. This delineation was previously accepted by the Planning Authority under the previous applications and permissions granted by the County Council on the overall site.

We can confirm that all landscaping and attenuation ponds to the north-east of the site were permitted under the application granted under SDCC Planning Ref. SD19A/0042 / ABP Ref. PL06S.305948 and SD21A/0042 and are located within the RU zone. The only new elements within the RU zone are part of one of the two new attenuation ponds that is located centrally within the north-east corner of the application boundary of the site and shaded blue in the excerpt below; as well as the proposed public access, as previously granted (which was amended by condition). We confirm that only landscaping and attenuation is proposed within the RU zoned lands fully in accordance with the precedent set under the 2019 and subsequently slightly amended under the 2021 permissions, and therefore the proposed development is fully in accordance with the principles and objectives of the RU zoning.



Excerpt from Drawing no. P1-03 by Henry J Lyons Architects

3. Space Extensive.

The applicant is requested to demonstrate compliance with each section of the following space extensive policies of the SDCC County Development Plan 2022-2028:

- EDE7 Objective 2
- EDE7 Objective 3

EDE7 Objective 2

The Development Plan recognises the need for Space Extensive Land Uses, such as data centres, to be located at appropriate locations having regard to infrastructural, transport and environmental considerations as well as the need for orderly growth (Policy EDE7). These same principles are replicated as a requirement under section 12.9.4 of the Plan. The Proposed Development fully complies with Objective 1 of this Policy as it is located outside of the M50. Whilst the site is accessible by public transport the capacity of such services are not such that would warrant a higher density employment use on the site, particularly having regard to the overall master planning of the site. We respectfully submit that the Proposed Development is therefore fully in accordance with Objective 1 of this Policy.

We have already set out the reasons behind why and how the application is fully in accordance with the first objective. The following sets out how the applicant is meeting the requirements of Objective 2 of this Policy EDE7.

Strong energy efficiency measures to reduce carbon footprint

Energy efficient measures starts at site selection, where the applicant focuses on building orientation to maximise opportunities from the prevailing wind direction and reducing solar gain. This is followed by the design and construction of highly efficient data center campuses yielding industry leading Power Usage Effectiveness (PUE) and low water use - measured as Water Usage Effectiveness (WUE).

We can confirm that the applicant has committed to achieving net zero carbon emissions by 2030 and are creating interim reduction targets that are in alignment with the Science Based Target Initiative (SBTi) methodology. The overall design has introduced energy efficiency measures that are detailed within the updated Energy Statement prepared by Ethos Engineering that accompanies this AI response.

We can confirm that the applicant is committed to driving emission reductions across all of its activities through investment in technology; sourcing renewable energy, wherever possible; and in funding carbon removal projects. At the Dublin campus, energy efficiency measures have been integrated into the design as outlined in the attached energy statement.

The site is also future proofed to take advantage of cleaner fuels as they become available. Sourcing renewable energy is a key enabling strategy to meeting the applicant's global net zero goals.

Maximise onsite renewable energy generation

The application cannot, due to the unreliability and intermittency of renewables as a permanent source of power, be permanently powered by renewable energy generation. There is also insufficient land on the site to accommodate sufficient onsite renewable energy generation, for example a 1MW solar farm, which would provide less than 2% of the energy consumption of the facility would require 1.2 hectares. In order to maximise onsite renewable energy generation, the roof of the office component will house 230sqm of solar PV panels (50KW).

The energy strategy of the applicant has been approached in a holistic manner using the energy hierarchy "Be Lean, Be Clean, Be Green" in order to comply with NZEB, Part L 2021 requirements for energy performance and greenhouse gas emissions. Sustainable design features of the development include enhanced building fabric performance, high efficiency HVAC systems and high efficacy lighting with occupancy and daylight control where applicable. Renewable technologies including both heat pumps and photovoltaic panels are proposed. The proposed development target BER rating of "A3" has been assessed using the SBEM interface VE Compliance 7.0.13.0 in the IES software version 2019.3.2.0 which demonstrates Part L compliance in accordance with NEAP.

With the greening of the ESB grid with increased levels of wind farm connectivity, the use of electricity as a fuel source for heating and cooling the building was examined, along with other options to reduce the reliance on fossil fuel use on-site. The use of biofuel Combined Heat and Power was examined. Biogas would need to

be used in order for both heat and power to be accounted for in the RER. The availability of biogas is limited currently, and would require bulk storage on site, which is not preferred due to increased risk of accidents on site.

There is no availability for connection to a district heating system currently, so this option is discounted. The use of the multi-pipe heat pump provides the opportunity to provide all heating and cooling efficiently using electricity. This reduces the reliance on fossil fuels, and is a 'green' technology under the TGD Part L 2021, listed as one renewable energy option to meet the requirements of NZEB.

The permitted power plant as granted under SDCC Planning Ref. SD21A/0042 has a dual permitted purpose that was permitted under this previous permission, as follows:

1. to provide continuous power to the permitted and proposed data centres should the Eirgrid connection not be realised at the time of commissioning of the facility. This is expected to be a maximum of two years.
2. once the Eirgrid connection is realised the gas plant will only ever be utilised to reinforce the national grid. In that scenario the plant is only envisaged to run at the request of Eirgrid in response to a grid event as per their flexible demand policy.

The permitted plant will therefore provide security of supply to the national grid, where currently renewables cannot, by providing additional capacity under the terms of the flexible connection agreement. Currently all Data Centre connections being offered by Eirgrid in the Dublin region are being offered on a flexible basis. Flexible demand is electrical load for a data centre that must be reduced on instruction from Eirgrid via the National Control Centre (NCC).

Eirgrid have also noted the following in relation to Data Centre Connections:

1. Flexible demand will be available to customers seeking to connect in constrained areas.
2. Capacity review to be performed following the annual T-4 capacity auction to determine if additional firm access can be been made available.
3. Firm capacity will be provided for data centres where on-site dispatchable generation is made available to Eirgrid.
4. Finalised agreements for connections are based on a site achieving planning permission.
5. Flexibility will be allowed for MIC ramping in constrained areas.

These policies are driving the need for on-site generation on data centre sites to ensure security of supply for the grid as a whole, until such time as transmission and generation capacity short-falls are addressed. Eirgrid have published plans to increase the available capacity on the grid by 50% by 2030 that takes into consideration both the existing number and expected future data centres that will come on stream during this period as well as the aim to move significantly towards more renewable sources of energy generation during the same period.

Based on the policies above, to get a connection to the national grid, the stipulation of Eirgrid is that a data centre must install on-site generation, which has been permitted on the overall site. This on-site generation must be capable of running continuously for an extended period of time not limited by fuel reserves. This would be in multiple individual intervals during peak daily usage in winter that is estimated up to 500 hours per annum.

Due to this stipulation, the applicant is required to utilise gas to provide back-up power, as no other renewable or storage technology can provide this at a commercial scale and to the degree of certainty to ensure Eirgrid of the back-up that they require. Further details on this are provided in the technical note on this issue by Ethos Engineering Ltd. that accompanies this response.

The applicant is currently actively pursuing the possibility of virtual PPA's where they work with a renewable energy developer to commit to buying a portion of power that has been generated from a renewable source that is located in another region (i.e. offsite). Where they are able to source suitable renewable energy, due to the volatile nature of green energy supply, the applicant targets a maximum of 20% green energy penetration if possible. All these measures ensure that the maximum onsite renewable energy generation is achieved, and that PPA are sought and encouraged wherever possible.

Energy production

The applicant seeks to implement a cooling system design for its data centres that minimises use of water. The cooling system will place practically no demand on the local water network with minimum demand for system top up. This is a much more sustainable approach than has been taken by other data centres.

Climate Action Plan 2021 seeks to increase the proportion of renewable electricity by up to 80% by 2030, and therefore the applicant will be drawing from this reserve and this significant shift to a more renewable based electricity production to serve the national grid. The aim to also increase the capacity of the national grid to take account of data centres already subject to connection agreements is fully allowed for under the Climate Action Plan 2021. These strategies are to run parallel to each other to ensure that future connections of data centres is in alignment with sectoral emissions ceilings and support these renewable energy targets.

The use of renewables as a fuel source for heating and cooling the building was examined, along with other options to reduce the reliance on fossil fuel use on-site given the increased levels of wind farm connectivity. However, none of the other options explored were considered to adequately meet the requirements of Eirgrid that gas can provide.

In that regard, the applicant proposes to utilise the permitted high-efficiency gas engines within the back-up Power Plant. The permitted Power Plant (granted under SDCC Planning Ref. SD21A/0042) are required, irrespective of data centres, as they supply grid balancing services which in turn facilitate greater levels of renewables to connect to the grid; and to replace older, less efficient and higher carbon intensity fossil fuel generators, such as coal, peat and oil generation that are currently operating that are planned to be decommissioned over the coming years. This will aid the move across to a more renewable energy production as we move to 2030.

In addition, the Irish gas grid operator, Gas Networks Ireland, in its Vision 2050 strategy from 2020, sets out a clear trajectory for transitioning the Irish gas grid to net zero over the coming decades, which includes increased volumes of green renewable gas, carbon capture and storage along with green hydrogen production, all of which are recognised and supported in the Climate Action Plan. Therefore, as the gas grid transitions to lower carbon intensity, so too will the flexible gas generation deployed onsite for the benefit of the wider grid, including potential carbon capture and storage along with corporate power purchase agreements (PPAs) for the supply of renewable natural gas.

High efficiency gas, as is proposed to be used for the permitted Power Plant in this instance, is a lower carbon generation solution (compared to coal, peat and oil generators currently on the Irish grid) which balances the grid and provides stability and flexibility during times of low wind / solar (addressing the unreliability and intermittency of renewables), along with critical inter-seasonal capacity over a longer duration than storage, for example.

Having such flexible low carbon generation facilitates greater levels of renewable penetration, along with supporting the decarbonisation of the Irish gas grid through carbon capture and storage, green biomethane, and green hydrogen going forward. The permitted gas plant, which will be utilised by the proposed development, has the capacity to operate under other fuel sources going forward that will enable it to continue to reinforce the grid on fully green fuel supplies such as green biomethane and green hydrogen. The permitted Power Plant is therefore future proofed to utilise more renewable sources of fuel when they become readily available in Ireland.

The Climate Action Plan also notes the requirement for an additional 5000MW of new generation by 2030 at least 2000 MW coming from conventional and primarily gas fired power generation plants. By making high efficiency flexible gas generation available at scale at the immediate point of demand, this actually reduces the requirement for future grid reinforcements and relieves congestion in the locality, thus reducing cost to consumer through lower transmission reinforcement costs. The Climate Action Plan also recognises the need for a diversified portfolio of generation up to 2030 and beyond in order to deliver grid stability and system services arising from increasing renewable energy penetration. High efficiency gas engines, along with storage and interconnection are recognised as contributing to this solution and facilitating greater levels of intermittent renewables.

Furthermore, we note that it is established Government policy (as stated in the Policy Statement on Security of Electricity Supply that is dated November 2021) that it is a national priority to construct (and therefore by default grant permission for, subject of normal planning considerations) gas fired power plants to combat the

squeeze on electricity supplies in the short to medium term. The latest bid auction has identified several suppliers that will add capacity through operating on gas. The focus on gas as a short to medium term solution will enable the closure of coal and peat burning plants; and will bridge the gap to renewables achieving 80% by 2030. The Policy Statement by Minister Ryan is fully in accordance with CRU policy, and whilst recognising the significant projected growth in energy demand, which is only partly due to data centres concludes that:

- *“the development of new conventional generation (including gas-fired and gasoil/distillate-fired generation) is a national priority and should be permitted and supported in order to ensure security of electricity supply and support the growth of renewable electricity generation;*
- *it is appropriate that existing conventional electricity generation capacity, including existing coal, heavy fuel oil and biomass fired generation, should be retained until the new conventional electricity generation capacity is developed in order to ensure security of electricity supply;*
- *the connection of large energy users to the electricity grid should take into account the potential impact on security of electricity supply and on the need to decarbonise the electricity grid;*
- *it is appropriate for additional electricity transmission and distribution grid infrastructure, electricity inter-connection and electricity storage to be permitted and developed in order to support the growth of renewable energy and to support security of electricity supply; and*
- *it is appropriate for additional natural gas transmission and distribution grid infrastructure to be permitted and developed in order to support security of electricity supply.”*

This Policy Statement supports the Commission for Regulation of Utilities (CRU) and EirGrid as they carry out their statutory roles to ensure security of electricity supply in Ireland. It provides clarity to investors and Planning Authorities that the Government fully supports the actions being taken by the CRU and EirGrid, including the need to develop new gas-fired generation capacity. The permitted Power Plant, will support the further decarbonisation of the grid as more renewable sources are brought on line.

The Climate Action Plan also notes the requirement for an additional 5000MW of new generation by 2030 at least 2000MW coming from conventional generation. By making high efficiency flexible gas generation available at scale at the immediate point of demand, this actually reduces the requirement for future grid reinforcements and relieves congestion in the locality. The Climate Action Plan also recognises the need for a diversified portfolio of generation up to 2030 and beyond in order to deliver grid stability and system services arising from increasing renewable energy penetration. High efficiency engines, along with storage and interconnection are recognised as contributing to this solution and facilitating greater levels of intermittent renewables.

We respectfully submit that the energy strategy set out by the applicant is governed by Eirgrid who operate under and in accordance with Government policy and strategy that is set out under Climate Action Plan 2021.

More detailed information on the feasibility of renewable energy technology

We respectfully refer the Planning Authority to the stand alone report by Ethos Engineering that has undertaken an assessment of the current feasibility of using renewable energy technology that accompanies this AI submission.

As outlined above the permitted Power Plant has the capacity to run off green gas and/or hydrogen in the future. At present, the quantities of green gas and hydrogen produced in Ireland are low, however, GNI and the Climate Action Plan / Government policy, anticipate these volumes increasing materially up to 2030. The green gas / hydrogen produced can be injected into the grid and therefore we would not need to retrofit the existing infrastructure to convert the gas engines from natural to renewable gas, with the intention to use renewable when sufficient volumes are available.

We respectfully submit that the applicant will source 100% of their energy from the national grid through renewable sources. There is the opportunity to facilitate a mix of technologies, however, at present Eirgrid does not facilitate hybrid grid connections (i.e. connections that combine two different types of technologies such as gas engines and batteries / wind / solar), and the later are not sufficiently reliable to utilise currently. As already outlined above there are significant renewable benefits to the use of gas as back-up energy source to the national grid.

We note that it is established Government policy (as stated in the Policy Statement on Security of Electricity Supply that is dated November 2021) that it is a national priority to construct (and therefore by default grant

permission for) gas fired power plants to combat the squeeze on electricity supplies in the short to medium term. The latest bid auction has identified several suppliers that will add capacity through operating on gas. The focus on gas as a short to medium term solution will enable the closure of coal and peat burning plants; and will bridge the gap to renewables achieving 80% by 2030.

Sufficient capacity

We can confirm that the applicant has received and executed a grid connection agreement with Eirgrid to connect their permitted substation (known as Kishoge) into the national grid. This offer was made by Eirgrid on the 21st August 2020 in the full knowledge of the constraints within the Greater Dublin area. Given this was made following both the 'Data Centre Connection Offer Process and Policy' Document published in July 2019 by Eirgrid and the National Climate Action Plan 2019; it is only reasonable to conclude that the locational requirements and other criteria in place at the time, were considered to have been met. The nature of this offer is that it will facilitate the gas plants permitted under the previous permission, as granted under SDCC Planning Ref. SD21A/0042 to supply and reinforce the national grid in c. Q1, 2024.

The applicant also has a gas connection agreement from Gas Networks Ireland (GNI) to supply the permitted Power Plant.

We can also confirm that the applicant submitted a Pre-Connection Enquiry and received a positive response from Irish Water, i.e. a Confirmation of Feasibility (Ref. CDS21000754) in respect of a water supply connection to the proposed development. A further Confirmation of Feasibility (Ref. CDS21008013) in respect of the private foul water network connection, which will drain into the wider public network, has also been received from Irish Water.

Measures to support the just transition to a circular economy

The Proposed Development seeks to support the transition to a Circular Economy. The application included an outline construction and demolition waste management plan (Chapter 15 of the EIAR), that addressed construction waste and a number of the factors required under the transition to a circular economy. This Draft Plan seeks to lower embodied carbon; conserving resources; sustainable material sourcing; designing to eliminate waste; longevity of design, flexibility and adaptability in design; and indicates design for disassembly. We would request that an updated version of this Plan is requested as a condition of a permission to be provided prior to the commencement of development.

Measures to facilitate district heating

We refer the Planning Authority that a district heating system may be available in the region in the future and we can confirm that there is sufficient space on site to connect to a waste heat recovery building in such a scenario. The development of the Clonburris SDZ Planning Scheme is recognised in the SDCC Climate Change Action Plan as having been developed in conjunction with the Clonburris Energy Master Plan. This Master Plan identifies a range of delivery mechanisms that include the creation of local heat networks. It is notable that the Planning Scheme boundary runs to the new bridge over the Grand Canal to the immediate north-east of the site. The implementation of such a scheme within Clonburris, or elsewhere, would enable heat rejected by the processes on the application site, to be provided to the surrounding area should sufficient demand exist for this.

The use of the VRF heat pump provides the opportunity to provide all heating and cooling efficiently using electricity. This reduces the reliance on fossil fuels and is a 'green' technology under the TGD Part L 2021, listed as one renewable energy option to meet the requirements of NZEB.

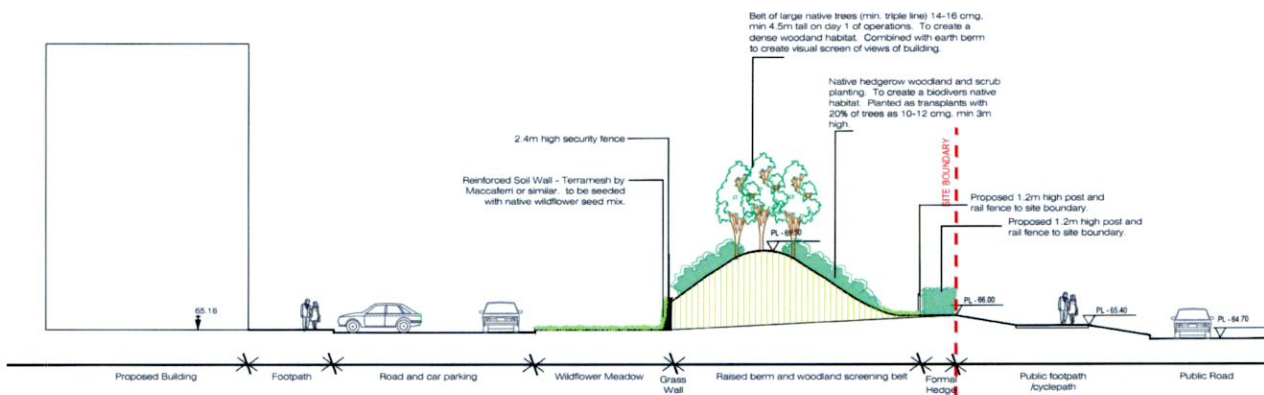
High quality design

The design of the data center is predicated on the experience and precedent that was accepted under SDCC Planning Ref. SD19A/0042 and SD21A/0042. The nature of the overall design has been informed by a site analysis of environmental issues prior to the original application on the overall site in 2019; and the enhancement and creation of new bio-diversity corridors to fully integrate the scheme into the surrounding environment to ensure that direct and cumulative effects on biodiversity are addressed in the overall design. Suitable attenuation and sustainable drainage systems have also informed the design. This mitigation of design as already permitted, also significantly increases native tree planting within the site from its current

position. The design incorporates SUDS fully in accordance with policies of the Plan. The permitted landscaping around the site will be in place prior to the commencement of construction of the Proposed Development.

The scale and form of this single storey data centre was informed by the site position. The highest element of the Proposed Development are the flues that are associated with the back-up generators that are located to the west of the data centre, and will therefore only be visible from distant views. A parapet is proposed around any plant at roof level so that the majority of the building will read as being 12.9m in height, with the office element to the east being 9.33m in height, and the generator screen being 9.2m in height.

The highest element is set-back from the eastern boundary along the R120 by over 65m; with the lower office admin element being set-back by 41.77m. These significant set-backs help to reduce the visual scale and massing of the building, which is further aided by the permitted planting that includes low tree and other planting either side of a row of triple staggered semi-mature trees planted along the top of the 4-5m berms (see below). This provides a high degree of visual screening of the proposed development from local and medium distance views. The removal of this visual screening, by retaining the western hedgerow would be untenable and wholly unjustified as outlined within this response.



In addition vertical shaded cladding elements are provided to the north, south and east elevations (that face the internal road, canal and the R120 that help to create a higher end finish to the data center and extend from the upper level that help to visually integrate and break down the scale of the development. This design approach has been accepted through the overall site under the previous permissions granted on the overall site.

In addition, a green wall is proposed to the east and south of the plant to the south of the admin element to help to further visually integrate the development.

The high quality design and plan approach is reflected and outlined in the Design Statement that accompanies this AI Response. This outlines the context of the area, and how the Proposed Development will connect into the existing public realm, and is being undertaken at an appropriate building height (similar to that already granted permission on the overall site), as well as including detail on materials, colours and textures that were accepted by the Planning Authority under the 2019 and 2021 application fully in accordance with section 12.5.2 of the County Development Plan.

The architects have also taken a universal design approach as required under section 12.5.1 of the County Development Plan. This ensures adequate disabled car parking spaces, and a level of access into the site, and the Proposed Development that caters for all.

Employment

Once operational, c. 30 full time employees will be present on site daily in the Data Centre facilities. Security staff (6 no. total) will be required at all times as well as service staff from outside the data centre facility particularly in relation to the Power Plant creating employment of up to 40 people. During the night shift a reduced number of staff will be required with 10 in the data centre facilities with similar.

The facility will operate on 3 no. 8 hour shift basis (8am to 4pm; 4pm-12am and 12am-8am). Working hours are expected to be 24 hours a day, 7 days a week. The total persons anticipated to travel to and from the site over a 24 hour period, and therefore employed directly on site, is therefore c. 100. Additional service staff and other deliveries etc. would be addition to this.

Levels of traffic during construction and operation

The details in relation to the level of traffic that the construction and operational phase of the Proposed Development are fully set out within Chapter 12 of the EIAR undertaken by Pinnacle that accompanied the application, and now form Chapter 13 of the updated EIAR. This concludes that the peak demolition and construction period would be in 2024 with a maximum of 20 demolition and construction vehicle movements per day 10 arrivals and 10 departures each day. The effects of the demolition and construction traffic would be temporary, medium, negative and not significant. The proposed development would be fully operational in late 2024 and is anticipated to generate a maximum of 60 vehicle trips (arrivals and departures) during the am peak and none during the pm peak each day, and its impact is not considered to be significant on the surrounding road network.

Provide evidence of sign up to the Climate Neutral Data Centre Pact

We can confirm that Edgeconnex are signatories of the Climate Neutral Data Centre Pact. We refer the Planning Authority to <https://www.climateneutraldatacentre.net/signatories/> that identifies that Edgeconnex are a signatory fully in accordance with this element of this objective.

EDE7 Objective 3

We respectfully submit that the landscaping and site layout of the proposed development, as established and permitted under the two main permissions on site under SDCC Planning Ref. SD19A/0042 and SD21A/0042 has fully ensured, as far as is practical that the overall landscape and biodiversity strategy enables its integration into the existing and permitted Green Infrastructure (GI) network. The permitted Landscape Master Plan by Kevin Fitzpatrick Landscape Architecture (Drawing no. 201) indicates the native woodland planting, medium or large native deciduous and coniferous tree planting; wildflower and wetland meadows; native hedgerow planting; existing native hedgerow being retained as well as existing trees to be retained within the application site and the overall site,

We respectfully submit that the biodiversity quality of the application site is poor. The applicant's approach has always been to maximise biodiversity enhancements within the site, and particularly along the north adjacent to the canal; as well as along the boundaries of the site and has included substantial green walls and a west to east hedgerow that passes centrally within the site, to further enhance the permitted biodiversity corridors under previous permissions.

The overall scheme, as now amended, will incorporate further biodiversity measures within the scheme that will include a new hedgerow to the west of the proposed development that will link from the planting within the RU zone and canal corridor to the north, and will extend to the south of the proposed development also in close proximity to the east to west permitted hedgerow as well as the boundary planting to the east and west. This will improve biodiversity corridors within the overall site, and its connections to surrounding green infrastructure.

In addition, it is noteworthy that in accordance with best practice all security fencing is proposed internally to the landscaping with only post and rail fences to the boundaries. This enables full biodiversity corridors with no need for mammal connections within fence lines. The permitted and proposed landscaping and green infrastructure will create improved green infrastructure connectivity within and through the site. Additional bird boxes and bat boxes can be provided, by condition if it is deemed appropriate.

In addition, the planting and ponds being proposed will help to support both the local bat population and the wider local ecology. This will ensure that the overall scheme is fully in accordance with the Green Infrastructure Strategy set out in Chapter 4 and Policy EDE7, Objective 3 of the County Development Plan.

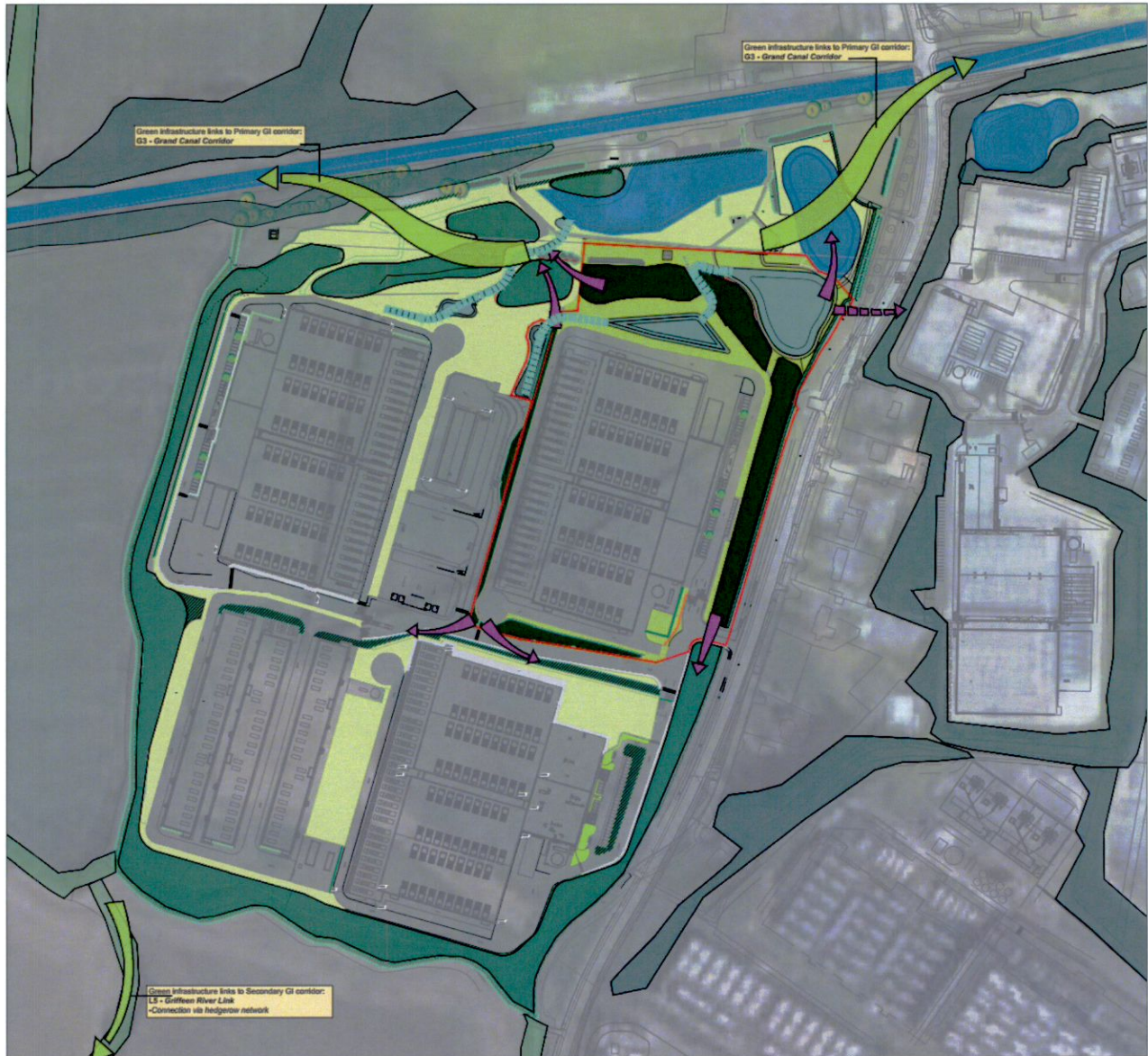
4. Implementation.

The applicant is requested to demonstrate compliance with various sections of the SDCC County Development Plan 2022-2028, as follows:

12.4.2 Green Infrastructure and Development Management

The Proposed Development has sought to demonstrate under this application and now this AI Response how it will positively contribute to the protection and enhancement of Green Infrastructure (GI) in the County. This follows on from the principles of the permitted landscape plans as granted under Planning Ref. SD19A/0042 and SD21A/0042.

In accordance with this a green infrastructure plan (Drawing no. 203 prepared by Kevin Fitzpatrick Landscape Architecture) indicates how the green infrastructure of the proposal will integrate with surrounding Green Infrastructure both immediately adjacent (see below) and within the wider GI network. Chapter 3 and 12 of the EIAR that accompanies this AI response addresses and sets out in detail how the proposed development complies with the various Green Infrastructure objectives of the new County Development Plan.

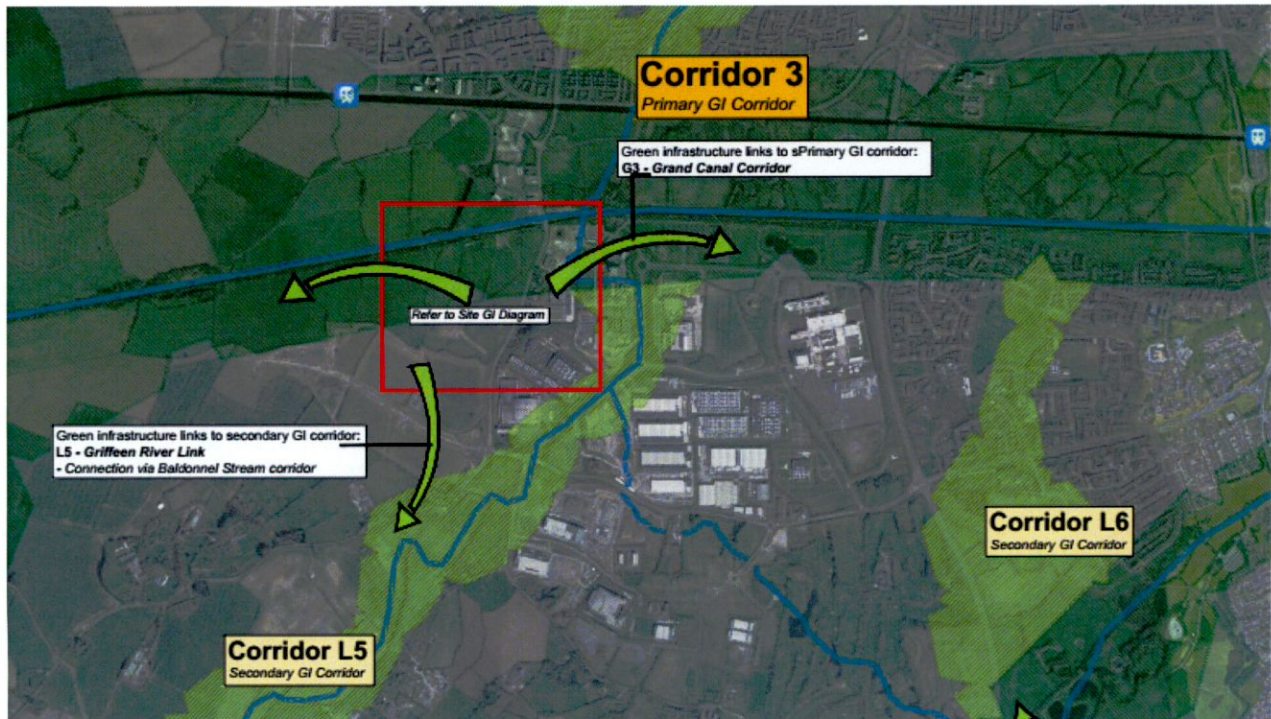


Green Infrastructure Plan at site

It is notable that the site is not located within a defined riparian corridor as identified under Map 13 of the County Development Plan. It is notable that the Grand Canal is located to the immediate north and the approach of the design team has always been to protect and enhance the canal as a GI asset, and to connect it into other surrounding GI corridors in accordance with the principles of section 12.4.2 of the County Development Plan.

The approach of the design team has been to create enhanced ecological corridors that will create pathways for wildlife into the nearest designated GI corridors, as well as adding an amenity to the setting of the Proposed Development.

In accordance with the requirements of section 12.4.2 of the Development Plan a Green Infrastructure Plan and Landscape Master Plan drawings are submitted with this AI Response by Kevin Fitzpatrick Landscape Architecture (Drawings 203 and 201). The GI Plan indicates how the Proposed Development will link into the surrounding wider GI network (see below).



Green Infrastructure Plan indicates linkages into the wider GI network

Under the current application it is proposed to plant 484 new semi-mature trees (c. 5m in height) with the already permitted development providing for 1,854 new semi-mature trees on the permitted development site. In addition to this it is permitted to plant 3,843 standard trees (c. 2m in height) under the two main permitted developments already granted on site with another 912 of these trees proposed to be planted within the application boundary. In addition to this, it is permitted to plant 18,458 saplings (c. 0.5m in height) across the permitted site and with a further 3,586 proposed under this application.

This current application proposes to remove 572m of hedgerow, which includes the western hedgerow referred to under point 7 of this AI request, that will be replaced by 250m of hedgerow under this application, and with 1,113sqm of new hedgerow already permitted under the permitted development.

We respectfully submit that there will be a significant net hedgerow and tree cover gain as a result of the Proposed Development. The GI Plan is informed by an Arboricultural Impact Assessment undertaken by Tree File Ltd. that accompanies this AI response and is included also as part of Appendix 12.2 of the EIAR.

The approach to Green Infrastructure within the site will ensure that the highest possible biodiversity provision is secured for the overall development of the site in accordance with Policy NCBH11, Objective 3. The GI Plan (Drawing no. 203) indicates the key links that the proposed new planting will provide in linking the green infrastructure proposed with the surrounding green infrastructure that contribute positively to the biodiversity and landscape character as well as the overall amenity of the area in accordance with Policy NCBH11, Objective 4 of the County Development Plan. Chapters 3 and 12 of the EIAR also set out how the proposed development complies with Policy GI2, objectives, 2, 4 and 5 of the County Development Plan.

The landscape approach in providing berms, mature native planting of new hedgerows and planting, are aimed at both providing wildlife and biodiversity corridors around the site that will connect with existing planting and hedgerows that form surrounding green infrastructure, but also will provide a natural screen to the Proposed

Development, even at year 1 of operations. However, given the already permitted landscaping around the site, which will be implemented as part of the permission granted under SDCC Planning Ref. SD19A/0042, which has recently commenced, the majority of the landscaping could be close to 5 years or more prior to the proposed development coming into operation, and therefore the assessment included within the EIA whilst based on best practice, significantly underplays the degree of screening of the proposed development.

The landscape plan accompanying this application proposes mature and heavy landscaping throughout with initial tree planting being in rows of three trees at c. 4.5m height across the top of the landscape berms. The maturity of the trees at planting will aid the visual integration of the Proposed Development within this commercial area.

The Green Space Factor for the overall site is 0.4, which whilst just below the suggested 0.5 for such lands, contains a public park and significant new planting on a very large site, and it has already been established under previous permissions that the landscape features are above the minimum requirements. The applicant would be willing to undertake a bat and bird box programme within the overall site to further improve biodiversity and the green space factor interventions as set out under page 462 of the County Development Plan in addition to the public park and significant GI interventions already permitted on site.

Existing hedgerows and other vegetation will be retained wherever possible and strengthened with native planting. This will create commuting and foraging corridors within the Proposed Development site for a range of fauna species that will connect into existing GI surrounding the site. This will be further aided by proposed bat boxes and bird boxes. All of these measures, will ensure that the Proposed Development fully accords with green infrastructure policies and objectives of the County Development Plan and provide a net biodiversity gain for the site.

12.5.1 Universal Design

The architects Henry J Lyons have taken a universal design approach to the proposed development as required under section 12.5.1 of the County Development Plan. This ensures adequate disabled car parking spaces, and a level of access into the site, and the Proposed Development that caters for all. The car parking allows for the development Plan requirement of disabled car parking spaces; tactile paving and provision of surfaces that are accessible to all fully in accordance with section 12.5.1 of the County Development Plan. This is further detailed in the Design Statement submitted as part of this AI Response.

12.5.2 Design Considerations and Statements

In accordance with the provisions of Policy QDP7, Objective 1; this AI Response is accompanied by a Design Statement to address and show compliance with the design policies of the County Development Plan. This Design Statement by Henry J Lyons primarily addresses the various components of point 5 of the AI request in a comprehensive manner. This is fully set out under our response to point 5 of the AI request and Design Statement.

12.5.3 Density and Building Heights

The Proposed Development has had full regard to the density and building height of the adjacent permitted development and other surrounding developments in formulating its design in accordance with section 12.5.3 of the County Development Plan. These are further detailed in the accompanying Design Statement undertaken by Henry J Lyons Architects that accompanies this AI Response.

12.5.4 Public Realm: (at the site level)

The primary public realm element of the wider development has already been permitted in the form of a park that connects the Grand Canal through part of the RU zoned lands to the R120, under Planning Ref. SD21A/0042. This park and the overall RU zone, within which there is no development proposed, provides a natural and enhanced ecological buffer to the canal. The landscape design of the park that now incorporates an additional attenuation pond facilitates access to the wetland and woodland habitat areas within the northern lands of the overall site.

The permitted and proposed layout is designed, via the internal layout and connection to cycling infrastructure along the R120; and location relative to public transport to facilitate workers to utilise sustainable forms of transport to access the site. The car parking layout is designed to be located behind the already permitted

berms so that they cannot be seen from the public realm. The materials to be utilised in this application, including the provision of green walls will enable the development to be constructed to the highest standard in accordance with the best design principles already established under the previous two applications.

12.5.5 Healthy Placemaking and Public Realm: (At the Neighbourhood Level) and Table 3.18 Key Principles for Healthy Placemaking and Public Realm at Neighbourhood level

We respectfully submit that the application includes high quality features and landscaping that will significantly enhance the public realm and the Green Infrastructure of the site. Whilst the development is not a form of neighbourhood level development, a number of the principles applied conform and ensure that the development is fully in accordance with section 12.5.5 of the County Development Plan.

The proposed development utilises palettes of materials and finishes already utilised on the site under the permitted developments. Planting is proposed in establishing a significant landscape buffer and green infrastructure both around and through the wider overall site. All of the permitted and the current proposed development are accessible on foot and bicycle connecting into the existing footpath and cycling infrastructure of the area.

12.7.3 Travel Plans

A Travel Plan by Pinnacle Consulting Engineers accompanies this Additional Information response. This is required in accordance with the floor area specifications set out under Table 12.24 of the South Dublin County Development Plan 2022-2028. The Plan sets out measures to encourage sustainable travel modes and reduce car borne traffic being generated by the proposed development. These initiatives will be implemented by the applicant through an appointed travel plan co-ordinator and its success will be monitored. These are all fully set out in the Travel Plan.

12.8.6 Public Art

We respectfully submit that the only reasonable and appropriate location for any public art on the overall site is within the permitted public park to be located within the RU zoned lands primarily to the north of the current application site.

The applicant is willing to contribute towards the commissioning of a public piece of art that could enhance a public amenity such as the Grand Canal and this connected park. The applicant is willing to contribute €10,000 towards this artwork above the section 48 development contribution that would be applicable if permission is granted.

12.9.2 Enterprise and Employment Areas

Table 12.27: Key Principles for Development within Enterprise and Employment Zones

The Proposed Development has also had regard to Table 12.27 as set out in section 12.9.2 of the County Development Plan.

<p>Access and Movement</p>	<p>The proposed staff parking is located to the east of the proposed data centre that with the landscaping berms and planting will ensure that it is not visible from the public realm or from the Grand Canal. The parking is also sub-divided by tree planting to aid its integration into the site. The proposed development also includes covered cycling spaces towards the east of the site that are located as close as possible to the security gate. The location of the Proposed Development is positioned to maximise accessibility to public transport and use of cycling infrastructure due to the closeness of the nearest bus stop and excellent off-road cycling infrastructure in the area.</p>
<p>Open Space and Landscape</p>	<p>A detailed Landscape Plan accompanies the application and this AI Response that sets out that important natural features, wherever possible will be retained and reinforced, and that new planting will be of native species that link into existing and permitted GI assets. The security fencing is located to the rear of the landscape screening of the site, with a post and rail fence located around the perimeter of the overall site. The security fencing will not be visible from the public domain or from the Grand Canal. The landscape design will maintain the parkland like setting established on adjacent sites that will provide a high quality landscape setting when viewed from the Grand Canal and from the R120.</p>

Green Infrastructure	As outlined in our response to point 7 of this report, the application includes full details in relation to Green Infrastructure provision and how it will connect into the GI network in accordance with section 12.4.2 of the Plan.
Built Form and Corporate Identity	The scale of the Proposed Development is reflective of the already permitted data centres that have been granted on the overall site under Planning Ref. SD19A/0042 and SD21A/0042, so that it fully integrates with the already permitted landscaping on the site. The finishes and materials as well as the use of vertical panelling, is the same that was proposed and accepted under the above permissions on the site to the south and west.

12.9.4 Space Extensive Enterprises

The County Development Plan recognises the need for Space Extensive Land Uses, such as data centres, to be located at appropriate locations having regard to infrastructural, transport and environmental considerations as well as the need for orderly growth (Policy EDE7). These same principles are replicated as a requirement under Policy EDE7 that have already been comprehensively addressed under section 3 of this report. The Proposed Development fully complies with Objective 1 of this Policy as it is located outside of the M50. Whilst the site is accessible by public transport the capacity of such services are not such that would warrant a higher density employment use on the site. We respectfully submit that the Proposed Development is therefore fully in accordance with section 12.9.4 of the Plan.

12.10.1 Energy Performance in New Buildings - The applicant has provided a Commercial Energy Statement. The applicant is requested to address the matters not covered in the submitted statement.

An updated Energy Statement by Ethos Engineering accompanies this FI response that addresses the following:

12.10.2 Low Carbon District Heating Networks

The accompanying Ethos report addresses this section (12.10.2) and Policy E5 of the County Development Plan. Whilst there is currently no local district heating network, the applicant will consider and accept a condition that requires them to future proof the site to facilitate connection to a district heating system, if one becomes available in the future. This would entail allowing internal space and alignment for the laying of pipework to facilitate such a connection.

12.10.3 Energy from Waste

The ability to utilise energy from waste was rejected due to the risk of sourcing sufficient tonnage of black bag waste, which was considered to be significant in the medium to long-term. The Ethos report reviewed the potential for current waste heat recovery and concluded that it is not currently feasible but the proposed development has been future proofed to provide for any connection to a district heating network in the future.

12.11.1 Water Management

A Flood Risk Assessment was submitted as part of the application by Pinnacle Consulting Engineers. The application also seeks to incorporate SUDS throughout that includes tree pits, open bioswales, and permeable paving. The proposed development also includes an air to heat pump system that will provide domestic hot water to the office / administrative area of the proposed development. Further details on water management within the proposed development are provided within the Energy Statement submitted by Ethos Engineering as part of this AI response.

12.11.3 Waste Management

A revised and updated waste management chapter and updated resource waste management plan within the appendix of the EIAR is submitted as part of this AI response. This sets out recycling and details of construction and waste management in relation to the proposed development. This also set out how waste will be treated and dealt with during the construction and operation process under the various legislation that covers such operations. He premise is that the majority of waste will be used for landscaping on site

No demolition is proposed as part of this application, and given that this forms the third phase of development on the overall site, it would seem appropriate that any grant of permission is conditioned to require a

Construction and Demolition Waste Management Plan to be undertaken prior to the commencement of development.

5. Design.

(a) The applicant is requested to demonstrate compliance with the following design policies of the SDCC County Development Plan 2022-2028:

- QDP2 Objective 1
- Policy QDP3: Neighbourhood Context and objective 1
- QDP4 Objective 2
- QDP7 Objective 6
- QDP7 Objective 7
- QDP7 Objective 8
- QDP8 Objective 1
- Policy QDP11: Materials, Colours and Textures and objectives 1 and 2

We refer the Planning Authority to the accompanying Design Statement prepared by Henry J Lyons Architects that accompanies this AI response. This design statement indicates that the design and form of the proposed development has been informed by the surrounding development in terms of materials and finishes; and how the overall approach will help in achieving a successful and sustainable neighbourhood by integrating with existing green infrastructure within and outside of the site, and in linking into cycle paths and footpaths in accordance with Policy QDP2, Objective 1 of the County Development Plan.

The proposed development in providing elevation treatments to the north, east and south of the main data centre building; lower form of the office / admin element closest to the public road, and enhanced green infrastructure treatments than the existing weak boundaries to the north and along the public road will ensure the proposed development contributes in a positive manner to the industrial and business park setting of the area fully in accordance with Policy QDP3 Objective 1 of the County Development Plan (Please refer to the Design Statement prepared by Henry J Lyons Architects for greater detail).

The overall site will be accessible to the public only along its northern boundary with the Grand Canal, as already has been granted permission under Planning Ref. SD21A/0042, where a park is permitted to connect the Grand Canal corridor with the R120 and its associated cycling and footpath infrastructure to the east. The application site includes part of this park and upholds its principles established under the above permission. The proposed development also facilitates workers to access the site on foot or by bicycle also, ensuring that it aids accessibility for all.

The creation of strong green buffers in the form of bunding and higher quality finishes, including green walls and variegated green vertical cladding from the parapet of the main data centre building, will provide a high quality finish in accordance with Policy QDP4, Objective 2 of the County Development Plan (Please refer to the Design Statement prepared by Henry J Lyons Architects for greater detail).

We note the provisions of Policy QDP7 Objective 6, 7 and 8 of the County Development Plan. The proposal includes no public roads or paths but will integrate with existing excellent road, footpath and cycling infrastructure that connects from the permitted entrance into the site to the north and south. This includes connecting to the strategic cycle-path along the Grand Canal. The landscaping bunds and planting along the public road will contribute positively to the street and ensure that the cycle and footpaths along the R120 are maintained as set out under the Design Manual for Urban Streets and road (DMURS (2019)).

The development provides both adequate mobility impaired parking spaces, and access to all regardless of age, ability or disability consistent with RPO 9.12 and 9.13 and Policy QDP7 Objective 6, 7 and 8 of the County Development Plan (Please refer to the Design Statement prepared by Henry J Lyons Architects for greater detail).

In accordance with Policy QDP 8 Objective 1 the AI Response is accompanied by a Design Statement. The Design Statement includes a detailed analysis of the proposal and a statement based on the permitted and surrounding building heights and density of development. As already outlined, the scale and form of the data centre is broken down through the use of variegated green vertical cladding from the parapet, green walls and green roof above the admin element. (Please refer to the Design Statement prepared by Henry J Lyons Architects for greater detail)

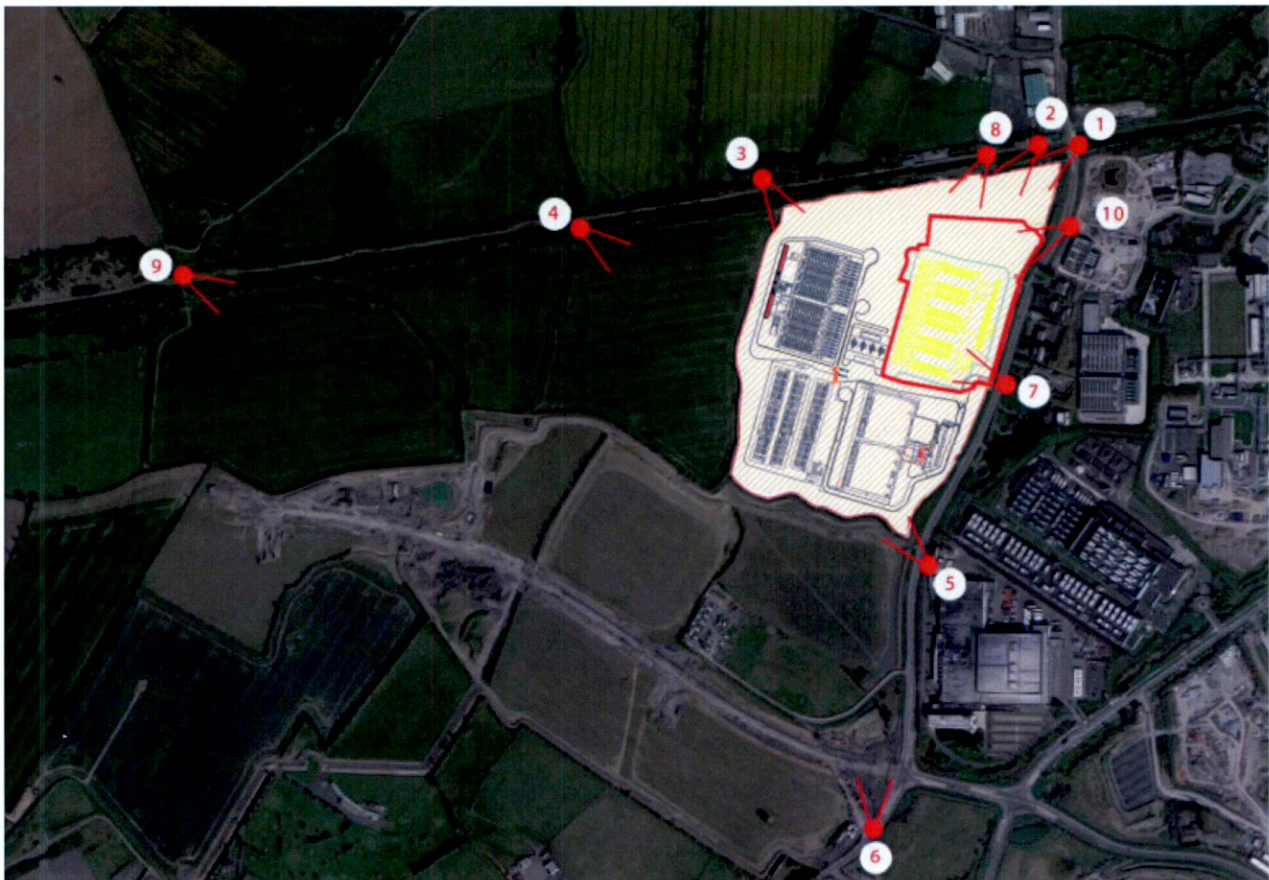
We can therefore confirm that the Design Statement confirm the plan approach that has been taken by the design team in the design of the proposed development, and how this approach has formulated this AI response in accordance with section 12.5.2 of the County Development Plan.

(b) The applicant is requested to provide details / photomontages of the visual impact without screening. The applicant is also requested to indicate the length of growing time required to achieve the desired landscape mitigation. Photomontages of the development from closer angles where the development would be most notable in the surrounding landscape are also requested.

Best LVIA practice requires that the visual impact assessment of the proposed development is assessed on day one of operation. However, given the above request, an additional set of photomontages indicating the proposed development without screening is included separately for the information of the Planning Authority. These photomontages are not reflective of the impact of the proposed development or best practice, and we would request that they be dismissed by the Planning Authority as in anyway informing the impact of the proposed development.

All bunds will be extensively planted with rows of mature planting that will be between 4.5m and 5.5m in height on day of planting, with younger trees to be planted on the slopes of the berms. The desired landscape mitigation is designed to provide a significant level of screening on day one of operations (within the first year after planting).

A review of the position of the ten photomontages was also undertaken as part of the AI response that were focussed on nearside views from the canal to the north, and from the R120 to the east; as well as medium distance views to the west along the canal and from the south (see locations below).



Photomontage locations

It was concluded that View 7 (excerpt below) provided the view where the proposed development would be most notable in the surrounding landscape, and that any views along the R120 to the north of this view would not provide any views of the proposed development due to proximity to landscape berming and planting, and height of the nearest element of the proposed data centres.



Excerpt from view 7 from east on R120

View 10 on higher ground closer to the canal indicates this and the quality of the screening in a clear manner and clearly indicates where the data centre will be most highly visible as well as the use of the materials and green shaded cladding to the exterior. It was therefore concluded that no additional photomontages were required or justified in this instance.



Excerpt from view 10 from north-east on R120

(c) The applicant is requested to provide full details of fencing and signage.

A full fencing plan is submitted as part of this AI Response and is fully detailed on Drawing no. P1.05 submitted by Henry J Lyons Architects. This sets out that the 2.4m high security fence will be located to the rear of the permitted berms and landscaping. A post and rail around the wider perimeter of the site has already been permitted under the parent 2019 application for the site. No signage is subject of the current application.

6. An acoustic assessment must be undertaken by a suitably qualified acoustic consultant describing and assessing the impact of noise emissions from the proposed development to include accumulative noise impacts. The investigation must include, but not be necessarily limited to, the following:

- (a) The identification of any neighbouring noise sensitive receivers who may be potentially impacted by the proposal**
- (b) The identification of all operations conducted onsite as part of the development proposal that are likely to give rise to a public nuisance for the neighbouring noise sensitive receivers.**
- (c) An assessment of the existing background (LA90, 15 min) and ambient (L_{Aeq}, 15 Min) acoustic environment at each receiver locations representative of the time periods that any noise impacts may occur. NOTE: For the purposes of the assessment background noise includes; noise of the surrounding environment excluding all noise sources currently located on-site.**
- (d) Distances between the development and the nearest noise sensitive receiver and the predicted level of noise (L_{aeq}, 15min) at each receiver for each development activity. These noise predictions must be conducted for all operational noise and the construction noise activities. The predicted level of noise should be assessed at the boundary of each receiver.**
- (e) A statement outlining any recommended acoustic control measures that should be incorporated into the development to ensure the use will not create adverse noise impacts on the occupiers of any neighbouring noise sensitive properties**

(f) The applicant is required to demonstrate whether the proposed development can meet the standards set out by South Dublin County Council as detailed in Councils Standard condition below:

Noise due to the normal operation of the proposed development, expressed as Laeq over 15 minutes at the façade of a noise sensitive location, shall not exceed the daytime background level by more than 10 dB(A) and shall not exceed the background level for evening and night time. Clearly audible and impulsive tones at noise sensitive locations during evening and night shall be avoided irrespective of the noise level.

A technical note on all acoustic measures is submitted by AWN Consulting as part of this AI Response. Prior to them formulating this response AWN had a virtual meeting with Kate Kivlehan, who is the environmental health officer within the HSE advising on the application for the Planning Authority. The findings of this meeting and assessment by the acoustic team within AWN Consulting was that the issues raised were addressed within Chapter 9 of the originally submitted EIAR that assessed the impact of the proposed development in terms of Noise and Vibration. The technical note attached to this AI Response outlines where each of the requested information items is contained in the chapter and provides greater clarification as to how the assessments have been compiled.

7. 1. Arboricultural Impact of the Proposed Development

The proposals involve the removal of all hedgerows on site including boundary hedgerow which is contrary to the objectives of the SDCC County Development Plan 2022-2028, in particular:

NCBH11 Objective 3: To protect and retain existing trees, hedgerows, and woodlands which are of amenity and / or biodiversity and / or carbon sequestration value and / or contribute to landscape character and ensure that proper provision is made for their protection and management taking into account Living with Trees: South Dublin County Council's Tree Management Policy (2015-2020) or any superseding document and to ensure that where retention is not possible that a high value biodiversity provision is secured as part of the phasing of any development to protect the amenity of the area.

NCBH11 Objective 4: To protect the hedgerows of the County, acknowledging their role as wildlife habitats, biodiversity corridors, links within the County's green infrastructure network, their visual amenity and landscape character value and their significance as demarcations of historic field patterns and townland boundaries. (Refer also to Chapter 4: Green Infrastructure).

GI1 Objective 4: To require development to incorporate GI as an integral part of the design and layout concept for all development in the County including but not restricted to residential, commercial and mixed use through the explicit identification of GI as part of a landscape plan, identifying environmental assets and including proposals which protect, manage and enhance GI resources providing links to local and countywide GI networks.

GI2 Objective 1: To reduce fragmentation and enhance South Dublin County's GI network by strengthening ecological links between urban areas, Natura 2000 sites, proposed Natural Heritage Areas, parks and open spaces and the wider regional network by connecting all new developments into the wider GI Network.

GI2 Objective 2: To protect and enhance the biodiversity and ecological value of the existing GI network by protecting where feasible (and mitigating where removal is unavoidable) existing ecological features including tree stands, woodlands, hedgerows and watercourses in all new developments as an essential part of the design and construction process, such proactive approach to include provision to inspect development sites post construction to ensure hedgerow coverage has been protected as per the plan.

GI2 Objective 4: To integrate GI, and include areas to be managed for biodiversity, as an essential component of all new developments in accordance with the requirements set out in Chapter 12:Implementation and Monitoring and the policies and objectives of this chapter.

GI2 Objective 5: To protect and enhance the County's hedgerow network, in particular hedgerows that form townland, parish and barony boundaries recognising their historic and cultural importance in addition to their ecological importance and increase hedgerow coverage using locally native species including a commitment for no net loss of hedgerows on any development site and to take a proactive approach to protection and enforcement.

i. Revised proposals that include the western boundary hedgerow into the layout by moving the building proposals eastward.

As set out in the start of this response report, the applicant undertook a comprehensive review of the overall master planning of the site in particular the request to retain the western boundary hedgerow as listed under this part of the AI request.

This internal review concluded that in order to retain the western hedgerow, there would be a need to move the proposed development eastwards. This would require the removal of the berming and extensive planting

permitted on the eastern side of the site, alongside the R120 that would make the proposed and already permitted developments far more visible from the public realm. We respectfully submit that this would be contrary to good planning principles established for the site under Planning Ref. SD19A/0042 and SD21A/0042; as well as the green infrastructure policies and objectives of the South Dublin County Development Plan 2022-2028, as listed above.

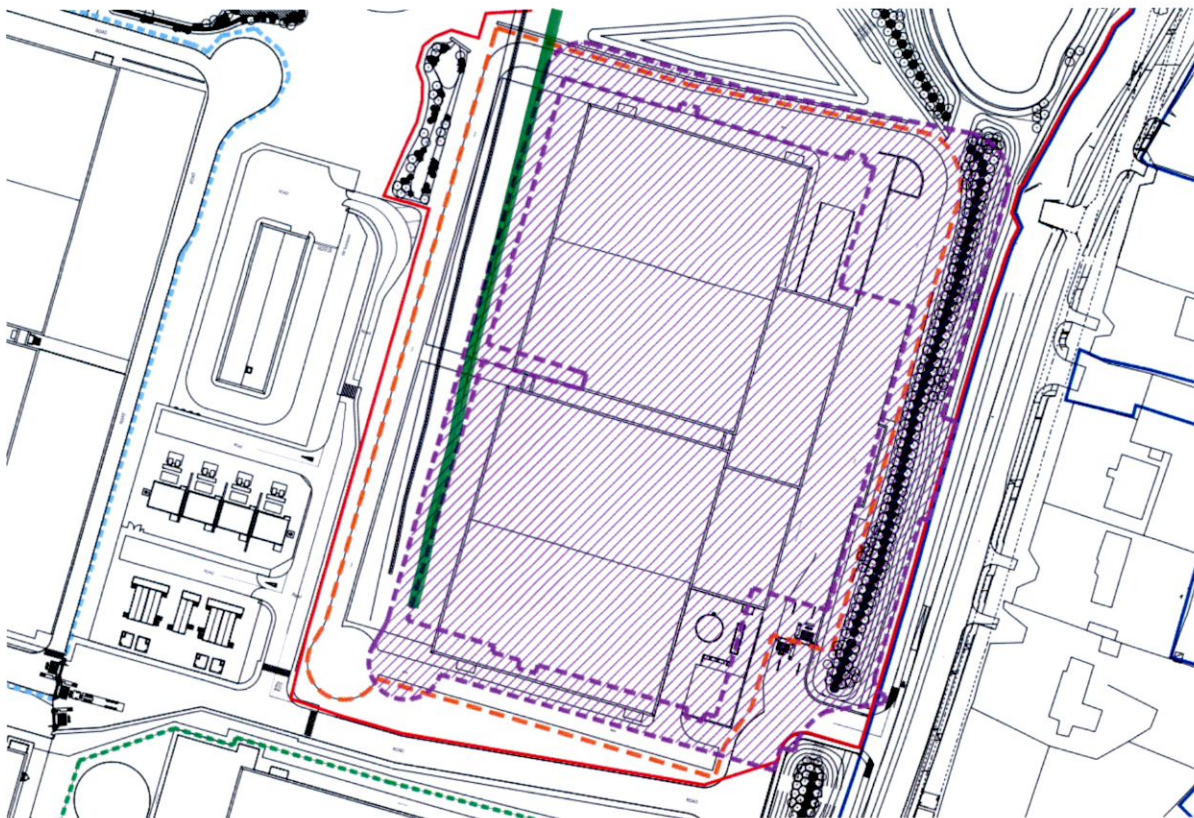
The implications of this is shown in the drawing below, with the relocated development outlined in pink, that indicates the clear conflict with the permitted green infrastructure on the eastern side of the site, and the western hedgerow shown in green.

The conflict of retaining the hedgerow and loss of the already permitted landscape mitigation associated with the previous permissions was discussed with the case planner (Sarah Watson). A data centre such as this is designed to maximise the efficiency of the end user requirements and whilst it was discussed and assessed, it was concluded that it would not be possible to reduce the footprint of the proposed development in order to retain the hedgerow.

In order to mitigate this, we have sought to squeeze the external areas around the data centre that will enable us to plant a new native hedgerow that would run parallel to the existing hedgerow, and which will also extend along the southern side of the data centre creating strong biodiversity links within the site, as well as around the periphery of the site, which we were requested to provide by the Planning Authority under the original 2019 application so that an overall landscape masterplan was provided with the first application on the wider site. This was set out under the covering planning report and EIAR that accompanied Planning Ref. SD19A/0042 and stated:

“The scheme has been designed so that it can be undertaken without further phases in terms of landscape mitigation, design and infrastructure. Its design and positioning has been undertaken to minimise impact on existing hedgerows....”

The quality of the landscape planting is reflected in the green space factor and visual screening as well as the retaining of north to south; as well as west to east biodiversity and green infrastructure corridors through the centre of the site.



Plan showing alignment of western hedgerow, proposed development as applied for (outlined in orange), and the indicative position of the proposed development (magenta shading) if the hedgerow were to be retained

ii. Revised proposals to include an updated Arboricultural Impact Report and Plan, Tree Protection Plan and Arboricultural Method Statement.

A revised arboricultural impact report and plan that includes a tree protection plan and arboricultural method statement by Treefile Ltd. accompanies this AI response and is included within the appendices of the EIAR. This fully sets out trees to be retained and removed within the site.

8. Impacts on bat commuting and foraging routes

The Environmental Impact Assessment Report (EIAR) identifies the hedgerow habitat proposed for removal as providing good commuting and foraging routes for bats, a protected species. The applicant is requested to demonstrate what mitigation is proposed for bats foraging along these routes which are to be kept dark.

In response to this part of the request we refer the Council to the accompanying technical note from Scott Cawley, and their updated Biodiversity Chapter within the accompanying and revised EIAR (Chapter 6). The technical note concludes that the effects of hedgerow loss on commuting and foraging bats has been determined not to be significant at any geographic scale, there was not a requirement to provide mitigation.

The provision of new hedgerows, tree shelter belts, ponds and wet meadows will enhance the suitability of those parts of the proposed development site for foraging bats. The provision of shelter belts and hedgerows is likely to have a neutral effect on common species such as common pipistrelle bat, soprano pipistrelle bat and Leisler's bat, as their installation is not anticipated to result in a change to the number of bats of these species that will use the site for foraging and commuting.

The provision of 2 no. attenuation ponds within the proposed development site, and associated riparian planting will enhance the site for bat species associated with waterways and open water, specifically Daubenton's bat *Myotis daubentonii* which are known to occur along the adjacent Canal. Upon their establishment, which is likely to take 2-3 years following construction, the ponds will provide stepping stone sites for this species, which uses the adjacent Grand Canal ecological corridor for foraging. The effects of enhancement of the proposed development site for this species is likely to be significant at the local scale, e.g. the proposed development site will contain high quality habitat for this species that was not present prior to its development.

The EIAR Biodiversity Chapter has been amended to include consideration of ecological enhancement on bats, as outlined in paragraphs 6.206 and 6.207.

9. The EIAR identifies the 'hedgerows located along field boundaries' forming 'part of a wider ecological corridor network which connects the site to the surrounding area...and beyond'. The submitted plans propose removal of these hedgerows, in conflict with the County's Green Infrastructure Strategy.

Please refer to Chapter 4 of the County Development Plan: [chapter-4-green-infrastructure.pdf \(sdcc.ie\)](http://chapter-4-green-infrastructure.pdf(sdcc.ie)).

GI1 Objective 4: To require development to incorporate GI as an integral part of the design and layout concept for all development in the County including but not restricted to residential, commercial and mixed use through the explicit identification of GI as part of a landscape plan, identifying environmental assets and including proposals which protect, manage and enhance GI resources providing links to local and countywide GI networks.

GI2 Objective 2: To protect and enhance the biodiversity and ecological value of the existing GI network by protecting where feasible (and mitigating where removal is unavoidable) existing ecological features including tree stands, woodlands, hedgerows and watercourses in all new developments as an essential part of the design and construction process, such proactive approach to include provision to inspect development sites post construction to ensure hedgerow coverage has been protected as per the plan.

GI2 Objective 4: To integrate GI, and include areas to be managed for biodiversity, as an essential component of all new developments in accordance with the requirements set out in Chapter 12: Implementation and Monitoring and the policies and objectives of this chapter.

GI2 Objective 5: To protect and enhance the County's hedgerow network, in particular hedgerows that form townland, parish and barony boundaries recognising their historic and cultural importance in addition to their ecological importance and increase hedgerow coverage using locally native species

including a commitment for no net loss of hedgerows on any development site and to take a proactive approach to protection and enforcement.

This development has not considered the impacts on Green Infrastructure and is in direct conflict with the above objectives. Additional Information is requested to address this.

The response and technical note by Scott Cawley comprehensively addresses this point of the AI request and indicates how the proposed development is in accordance with the various Green Infrastructure policies and objectives as set out under Chapter 4 of the South Dublin County Development Plan 2022-2028. This technical note refer to paragraphs 6.195 through 6.198 of the EIAR Biodiversity Chapter, which provides clarity for the competent authority in relation to the linkages between the proposed development site and the surrounding area, including the local green infrastructure network.

We refer the Planning Authority to the fact that the two primary permissions on this site have already been granted for developments to the west and south of the proposed development site under Planning Ref. SD19A/0042 and SD21A/0042. These developments include some removal of existing hedgerows but also include the provision of significant shelter belts of trees and new hedgerows that will provide enhanced connectivity between the development site and the surrounding landscape.

The existing hedgerow along the western boundary of this site provides connectivity to another boundary hedgerow further west of the proposed development site, however this hedgerow will be lost arising from the construction of the consented development SD21A/0042. The point of connectivity with a viable ecological corridor (e.g. a corridor that remains continuous), is with the Grand Canal to the north of the proposed development site.

The proposed development also includes provision of attenuation ponds in the north of the proposed development site, and the provision of planting of hedgerows / woodland planting with native tree species on berms that separate the site from the adjacent Grand Canal. The provision of these new habitats will offset the loss of hedgerows within the proposed development site.

Following receipt of the request for Additional Information, the landscape plan has been revised to include a new native hedgerow along the western boundary of the site (refer to Landscape Proposals Landscape Masterplan Drawing no. 201), which will be planted during the construction of the proposed development. The planting of this hedgerow will offset the loss of the equivalent length of hedgerow to be removed to facilitate the construction of the proposed development in the long term. The provision of a visual screening belt (this item has been permitted and is a condition of SDCC Planning reference SD19A/0042) on the eastern boundary of the site fronting the R120 road and along the northern boundary of the site will also offset the loss of hedgerow habitat within the proposed development site.

It is acknowledged that the loss of hedgerow habitat will not be offset by an equivalent length of habitat. However, the new habitats will provide the equivalent landscape linkages that are provided by the existing hedgerow network. The existing on-site hedgerow network, albeit forming part of the wider ecological corridor, provides poor connectivity to areas to the south and west of the proposed development site, but provide a link to the Grand Canal ecological corridor to the north. The replacement planting will continue to provide ecological connectivity to this corridor.

The existing hedgerows on site are also patchy and in many places derelict. In this context the replacement of relatively poor quality hedgerows by denser hedgerow and broader areas of immature woodland (e.g. the screening belts) comprising native species represents a neutral effect on hedgerow habitats in the long term e.g. the loss of hedgerow habitat will be offset in the medium to long term (5+ years) by the establishment of areas of higher quality habitat.

In relation to GI1 Objective 4, we submit that green infrastructure has been incorporated into the design of the proposed development, as described in paragraphs 6.195 through 6.198 of the revised EIAR Biodiversity chapter and will be delivered in the form of attenuation ponds, hedgerows in the northern part of site, and the newly planted hedgerow along the western site boundary.

The biodiversity measures included within the proposed development will provide the equivalent level of connectivity between the proposed development site and ecological corridors/green infrastructure in the surrounding area so that the proposed development can be considered as being fully in accordance with Policy GI1 Objective 4 of the County Development Plan

In relation to GI2 Objective 2 it is not feasible to retain much of the onsite vegetation within the proposed development site, whilst also delivering the development. As already documented above, and in the revised text provided in paragraphs 6.195-6.198 of the revised EIAR Biodiversity Chapter, the loss of hedgerow habitats arising from the proposed development will in the longer term be offset by the creation of new hedgerow and areas of mixed woodland planting (tree shelter belts).

Additionally, the delivery of 2 no. attenuation ponds, and swales and associated wetland planting will comprise a biodiversity enhancement for the site, by replacing low value habitats (recolonising bare ground and grassy verges) with floristically higher value wetland habitats which in turn likely support greater diversity of fauna, particularly insects so that the proposed development can be considered as being fully in accordance with Policy GI2 Objective 2 of the County Development Plan.

In relation to Policy GI2 Objective 4, the attenuation features have included the consideration of biodiversity in their design represents a biodiversity enhancement of the proposed development site that is compliant with Policy GI2 Objective 4.

In relation to GI2 Objective 5 we refer the Council to the fact that the hedgerows within the proposed development site do not form townland, parish or barony boundaries, based on review of historic maps of the lands hosted on the Ordnance Survey Ireland (OSi) website. As mentioned already, the loss of hedgerows within the proposed development site will be offset by the planting of a new hedgerow along the western boundary of the site, and the provision of new woodland planting in association with berms in the eastern and northern part of the proposed development site. While the length of these habitats is not equivalent to the relatively dense hedgerow network within the proposed development site, the existing hedgerows on site are in poor condition.

In this context the replacement of relatively poor quality hedgerows by denser hedgerow and broader areas of immature woodland (e.g. the screening belts) comprising native species represents a neutral effect on hedgerow habitats in the long term e.g. the loss of hedgerow habitat will be offset in the medium to long term (5+ years) by the establishment of areas of higher quality habitat fully in accordance with Policy GI2, Objective 5 of the South Dublin County Development Plan 2022-2028.

10. The applicant is requested to demonstrate how they contribute to the protection or enhancement of Green Infrastructure in the County through the provision of green infrastructure elements as part of the application submission, having regard to the following:

- i. In the case of small-scale developments this may consist of a simple landscape plan which includes objectives to protect or restore existing on site GI assets, provides for connection to local or primary GI corridors or includes elements which allow the site to act as a local stepping stone;**
- ii. Where the development site is located within or close to a Core or Corridor the development should, at a minimum, protect any existing GI assets and enhance same (for example, not breaking a GI Corridor but enhancing same with a connecting piece of planting, retaining hedgerows or woodlands;**
- iii. The characteristics and assets of the proximate GI Core, Corridor or Stepping Stone should be reflected within proposed development, for example continuation of hedgerows, tree planting, waterways;**
- iv. Development should seek to enhance or restore features that act as ecological corridors, particularly water features, hedgerows, tree lines, areas of un-cultivated land. These, or some element of them, should be incorporated into the proposed development to create pathways for wildlife and / or increase amenity value;**
- v. Development sites which are not located proximate to designated GI Cores or Corridors should identify the nearest designated GI Core, Corridor or Stepping Stone and make provision for GI interventions on the site which could eventually provide a link to local Stepping Stones, Cores or Corridors;**

- vi. **Developers should be aware that ecological corridors can also act to quickly spread non-native invasive species. Therefore, identification and control of invasive species site should be included in planning applications and the GI Plan.**
- vii. **All development proposals shall be accompanied by a Green Infrastructure Plan, which will normally be submitted as part of the suite of Landscape Plans that are required for a development.**

Plans shall include the following:

- viii. **Site location plan showing the development site in the context of the wider GI as shown on the Council's GI Plan for the County;**
- ix. **Site survey and analysis, identifying existing GI Infrastructure and key assets within the site;**
- x. **Indicate how the development proposals link to and enhance the wider GI Network of the County;**
- xi. **Proposed GI protection, enhancement and restoration proposals as part of the landscape plan, where appropriate, for the site; - Proposals for identification and control of invasive species.**

The proposed development site is located adjacent to the Grand Canal, which forms one of the Green Infrastructure Corridors that is referred to as Strategic Corridor 3 in the South Dublin County Development Plan 2022-2028. As documented in paragraphs 6.195-6.198 of the revised EIAR Biodiversity Chapter, the proposed development will include the provision of hedgerow and tree planting, in combination with the permitted hedgerows and tree planting permitted under Planning Ref. SD19A/0042 and SD21A/0042, will maintain the existing level of connectivity between the proposed development site and the surrounding area (Refer to the Landscape Drawing no. 203, submitted under separate cover as part of the AI response) that indicates the proposed new GI infrastructure in relation to local and wider context fully in accordance with part (viii) of this request.

The GI strategy, as well as being informed and required by the Council under the previous applications, has always been, and remains cognisant following survey and analysis (see baseline assessments within EIAR and tree survey) that identified the key GI infrastructure and key assets within and adjoining the site fully in accordance with part (ix) of this part of the AI request. This informed the overall GI strategy.

The proposals for hedgerow and treeline planting, alongside the proposal for new habitat creation (wetlands and wet meadows) represent an improvement of the sites' biodiversity value relative to the existing baseline with respect to diversity and value of habitat types. The wetland habitats are complementary to the habitats found along the Grand Canal, and will provide a stepping stone function for wetland bird species and over time, for insect fauna associated with wetlands fully in accordance with part (x) of this part of the AI request.

An identification of invasive species on site was undertaken in 2021 and 2022 as part of the current and to inform the application (Table 6.3 of EIAR). This sets out how and under what legislation invasive species will be dealt with.

The application and this AI response clearly identifies all GI to be protected, the enhancements and restoration proposals both under the current application, as well as under the previously permitted schemes on the overall site in accordance with part (xi) of this part of the AI request.

11. The applicant has not submitted any information in relation to the Green Space Factor.

GI5 Objective 4: To implement the Green Space Factor (GSF) for all qualifying development comprising 2 or more residential units and any development with a floor area in excess of 500 sq m.

Developers will be required to demonstrate how they can achieve a minimum Green Space Factor (GSF) scoring requirement based on best international standards and the unique features of the County's GI network. Compliance will be demonstrated through the submission of a Green Space Factor (GSF) Worksheet (see Chapter 12: Implementation and Monitoring, Section 12.4.2).

The quantity and quality of green infrastructure provided by new development will be improved by the implementation of a Green Space Factor (GSF) for South Dublin. The GSF is a measurement that describes the quantity and quality of landscaping and GI across a defined spatial area. This measurement comprises a ratio that compares the amount of green space to the amount of impermeable 'grey' space in a subject site. As a planning tool, this ratio is used to assess both the existing green cover within a site and the impact of new development, based on the quantity and quality of new green space provided. Greening factors have been adopted and implemented across the UK, Europe and the United States to help ensure that new development makes a positive

contribution to the local environment. By ensuring that new development meets minimum standards for the provision of GI the GSF aims to secure a positive contribution to biodiversity, amenity, air quality, stormwater management, temperature regulation and other ecosystem services. The GSF prioritises the retention of existing GI features within a subject site, in order to support the protection of the County's existing GI network. At the same time, the GSF will ensure that new development incorporates new landscaping and GI features, contributing to the enhancement of the overall GI network. Chapter 12, section 12.4.2 provides further detail on the requirements for the GSF as part of planning applications.

The calculation of the Green Space factor for the overall site accompanies this AI response. As already outlined by Scott Cawley, Consulting Ecologists, the proposed development will result in a net biodiversity gain for both the existing application site and overall site. Given the request by the Planning Authority that there was a need for a master planning approach to the landscaping (green infrastructure) of the overall site, which were made prior to the current Development Plan being adopted, we remain of the opinion that the principles of that approach should be upheld, with the noticeable inclusion of a new hedgerow to the west and south of the current application site, in calculating the Green Space Factor in this instance. Kevin Fitzpatrick Landscape Architecture, in consultation with Pinnacle, Consulting Engineers and Henry J Lyons Architects have calculated that the Green Space Factor for the site would be 0.4. The method of calculation as per the overall site, is provided on the following page for this large 22.1ha. site.

The proposed development will contribute positively to the urban greening of the area and has utilised green roofs, green walls, significant tree planting, permeable paving etc. The applicant is conscious that the green space factor calculation tool is not a perfect mechanism but wishes to outline that already within the overall site they have provided in accordance with best practice, a public park, and a level of unprecedented tree planting both mature and young, and new hedgerows that will materially improve the biodiversity of the site, and its linkages to surrounding GI network.

Calculation of Green Space Factor

Green Space Factor Tool
South Dublin County Council



Comhairle Contae
Átha Cliath Theas
South Dublin County Council

User input indicated by Orange fields

User Input	
Zoning lookup	Minimum GI Score
EE	0.5

1. Enter Development Site Area m ² HERE ▶			
51808			
Surface Type (see tab for detailed descriptions)	Factor	Proposed Surface Area m ²	Factor Values
1. Short Lawn	0.3	0	0
2. Tall Lawn (wild, not mown)	0.5	3124	1562
Permeable Paving	0.3	2400	720
Vegetation			0
4a. Vegetation-Shrub below 3m	0.4	2977	1190.8
4b. Vegetation-Shrub / Hedgerow above 3m	0.5	4261	2130.5
4c. Vegetation-Pollinator friendly perennial planting	0.5	2977	1488.5
4d. Vegetation-Preserved hedgerow	12	4727	5672.4
Trees			0
5a. New trees	0.6	22856	13713.6
5b. Preserved trees	12	203	2436
7. SuDS intervention (rain garden, bioswale)	0.6	13578	8146.8
Green Roof			0
9a. Green Roof - Intensive green roof (substrate is 200-1200mm in depth)	0.7	0	0
9b. Green Roof - Extensive green roof (substrate is 80-200mm in depth)	0.6	600	360
10. Green wall	0.4	3500	1400
11. Retained Open Water	2	0	0
12. New open water	15	10639	15957
Total Equivalent Surface Area of Greening Factors		139,161.00	

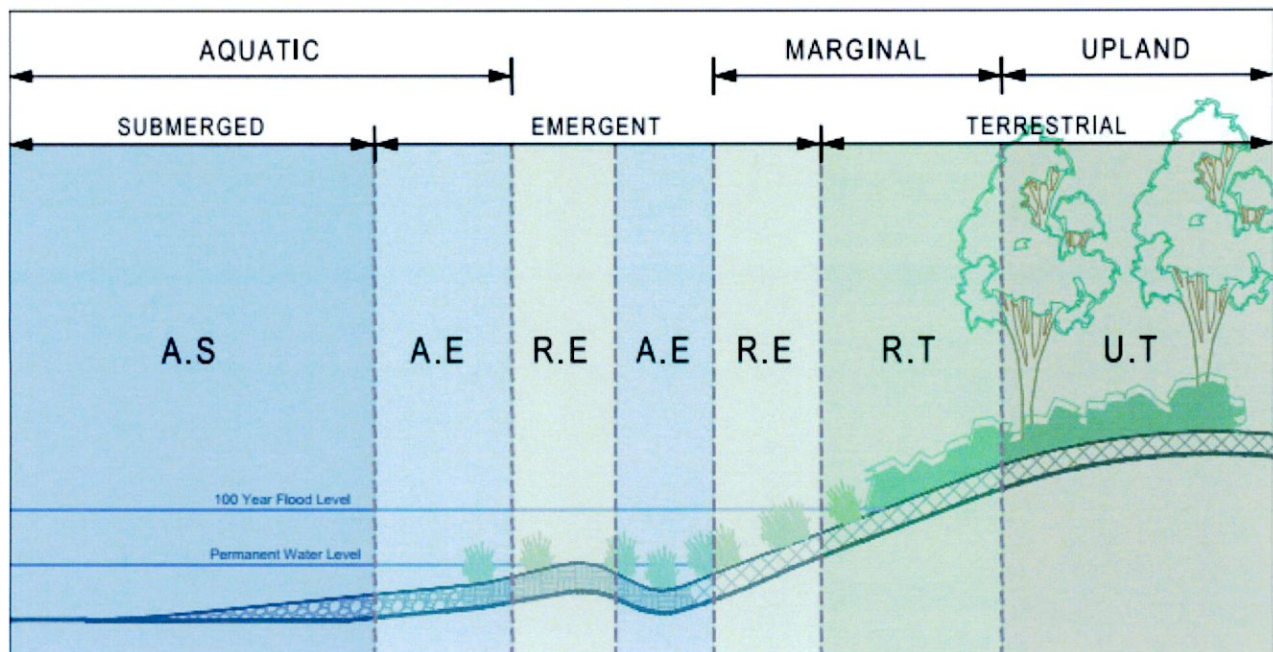
Green Factor Numerator 86146.20

Minimum Required GI score	Final GI score	Result
0.5	0.40	Fail

To maximise the level of connectivity of GI infrastructure and biodiversity corridors, all planting is proposed outside of the security fencing and with only a post and rail fence proposed at the boundary of the site. The applicant has also utilised bioswales and tree pits throughout the application site; and there is clearly a significant tree gain within the overall site. In addition, the applicant would be willing to accept a condition that requires bird and bat boxes to be provided, in accordance with the advice of the project architects, within the overall site. These measures will ensure that the proposed development is fully in accordance with the section 12.4.2 of the County Development Plan.

12. Resolution of the variations between landscape architect's pond edge detail and planting plan indicating shallow planting and varied slopes and those shown in the engineer's drawings (steep section which doesn't allow for a stepped profile with varied habitat is required. The applicant is requested to submit pond proposals and details to demonstrate delivery of the four pillars of SuDS: amenity, biodiversity, water treatment and attenuation. Refer SDCC Sustainable Drainage Explanatory Design and Evaluation Guide 2022.

A review of the pond edge details and planting plan was undertaken and accompany this submission. Further details on SUDS measures are provided within the note by Pinnacle, Consulting Engineers. We refer the Planning Authority to Drawing no. 202 by Kevin Fitzpatrick Landscape Architecture that was undertaken in consultation with Pinnacle, Consulting Engineers that provides a typical section through a bio-swale that applies to the originally proposed bio-swale to the north-west, and new bio-swale to the north. The pond edge detail (see section 02 and 03 of Drawing no. 202 by Kevin Fitzpatrick Landscape Architecture – see below) provides certainty of the gently sloped detail of the wetland being proposed. The applicant would welcome a condition that ensures that the pond detail is as per the attached Drawing no. 202. The engineering statement from Pinnacle Consulting also confirms this is the correct design approach to the pond detail.



We also refer you to the submitted note from Pinnacle Consulting Engineers that outline that they agree with the pond and bio-swale details as submitted as part of this AI response. Further details on SUDS measures are provided by Pinnacle within their note that accompanies this AI response.

13. The proposed development in its current configuration would have a significant detrimental impact on hedgerows and biodiversity and lacks a green infrastructure strategy. The proposed development would materially contravene policies and objectives for green infrastructure, biodiversity, sustainable drainage, in SDCC County Development Plan (2022-2028).

The Public Realm Section is requesting that the applicant alter the layout of the proposed development providing:

- i. Proposals that retain the western boundary hedgerow

- ii. **Proposals that mitigate the loss of commuting and foraging routes for bats**
- iii. **a green infrastructure strategy**
- iv. **green space factor**
- v. **landscape architect and engineer proposals for pond profile and habitat proposals to be in accord - demonstrate all four pillars of SuDS can be achieved**

We respectfully refer the Planning Authority to our various responses under points 8, 9, 10 and 11 of this AI Response; as well as elsewhere within this covering report and accompanying EIAR that comprehensively addresses all of the above points and issues.

We respectfully submit that there is no basis for the AI request to claim that the proposed development, whether considered individually or collectively with other permitted developments on the overall site of 22.1ha. would amount to a material contravention of the County Development Plan. We note that no specific policy or objective is cited in this regard, and we therefore refer the Planning Authority to the overall response that addresses all policies relating to green infrastructure, biodiversity, sustainable drainage under the County Development Plan.

This response has comprehensively shown that the proposed development is of the highest standard in terms of Green Infrastructure, biodiversity, sustainable drainage that ensures that it unequivocally fully in accordance with the policies relating to these matters under the South Dublin County Development Plan 2022-2028.

The loss of the western hedgerow, which has already been justified twice under this response, is mitigated by the proposal for a new hedgerow to the west and south, and informed by a survey of the lack of bat activity along the hedgerow; and the negative implications of relocating the proposed development to the east that would be contrary to the permitted developments as granted under Planning Ref. SD19A/0042 and SD21A/0042.

The GI strategy, as well as being informed and required by the Council under the previous permissions, has always been, and remains cognisant following survey and analysis (see baseline assessments within EIAR and tree survey) that identified the key GI infrastructure and key assets within and adjoining the site. This informed the overall robust GI strategy that will result in a net GI gain on the overall site.

The proposals for hedgerow and treeline planting, alongside the proposal for new habitat creation (wetlands and wet meadows) represent an improvement of the sites' biodiversity value relative to the existing baseline with respect to diversity and value of habitat types.

Full details of pond profiles and the replacement of a pipe with an open bio-swale are addressed under our response, and the referenced documents, under Point 12 above. We respectfully submit that when all elements are considered, it cannot be considered in any way that given the biodiversity gain, and green infrastructure improvements throughout the application and overall site that the proposal is in any way contrary to the policies and objectives of the County Development Plan.

14. a. The applicant is requested to submit a drawing in plan and cross sectional views clearly showing additional Sustainable Drainage Systems (SuDS) features for the development. SuDS features could include but are not limited to:

- Swale
- Tree pits
- Permeable Paving
- Grasscrete
- Green roofs
- Planter Boxes
- Other such SuDS

Note: Instead of using oil interceptors use swales and /or reed bed type biodiversity SuDS to replace oil interceptors. Refer to SuDS Guide [sdcc-suds-explanatorydesign-and-evaluation-guide.pdf](#)

Where practical replace pipe with Swales or other such SuDS systems.

b. The applicant is requested to Submit a CFRAM Flood Risk Drawing showing the location of proposed site on flood map. The applicant is requested to outline the boundary of site with a red line on flood map

We refer the Planning Authority to the technical note from Pinnacle Consulting Engineers that accompanies this AI response. This sets out the sustainable drainage approach to the site, and additional measure being proposed under the AI response. In addition, this note includes within Appendix A of it, a CFRAM Flood Risk Drawing showing the location of the proposed site on the flood map fully in accordance with part (b) of the above.

15. (a) Submit a Pre connection enquiry with Irish Water for both water supply and wastewater for the proposed development.

(b) The applicant is requested to submit a copy of the letter of confirmation from Irish Water as mentioned in the "Engineering Planning Report" which states the foul network on site is under the charge of SDCC.

We can confirm that the applicant submitted a Pre-Connection Enquiry and received a positive response from Irish Water, i.e. a Confirmation of Feasibility (Ref. CDS21000754) in respect of a water supply connection to the proposed development. A further Confirmation of Feasibility (Ref. CDS21008013) in respect of the private foul water network connection, which will drain into the wider public network, has also been received from Irish Water. This is fully set-out under the note from Pinnacle Consulting Engineers that accompanies this AI response.

16. The applicant is requested to submit:

- **A wildlife aviation impact assessment**
- **Aviation impact assessment on all potential emissions**

We respectfully refer the Planning Authority to the accompanying reports by Wind Farm Aviation Safeguarding Ltd., who are experts in this field that include an Aviation Impact Assessments that included a Wildlife, Emissions and Solar aviation impact assessment that conclude that the proposed development would not negatively impact upon the safety and workings of the Casement Aerodrome.

17. EIAR.

(a) Whilst the Planning Authority consider that the applicant has considered alternatives, it is noted that there are concerns regarding compliance with policy in relation to space extensive uses and also Green Infrastructure. It is therefore considered that further assessment of alternatives is required, once overall policy considerations have been incorporated.

(b) It is considered that the information contained within the EIAR requires amending following any changes in the scheme following additional information to ensure the proposed development allows for adequate assessment of the potential impacts of the proposed development on the receiving environment and complies with the requirements of Article 94 of the Planning and Development Regulations 2001 (as amended).

In particular, amendments should include update to the noise assessment, updates to GI plan and layout of the scheme / siting design, changes following assessment against spaces extensive policies and other policies that require further consideration. Further assessment of cumulative impacts in terms of data centres permitted close to the site should also be undertaken.

(c) Also, additional data and more comprehensive analysis is requested in the EIAR in relation to the impact of the development (i) by itself and (ii) in combination with other data centres - permitted and existing; locally and nationally - on the power generation and supply network (Material Assets) during the operational phase of the development. In particular, the powering of the proposed data centres by the national grid in the medium term (unspecified time horizon) should be considered.

Existing off grid material assets that are to be used in the short-term should also be included in the assessment report. Additional consideration should focus on available technology in the first instance, before any consideration is given to emerging/potential future technologies. Justification for the absence of renewable energy generation on-site or other measures in operation elsewhere, such as the use of waste heat from data centres should be provided. Energy consumption off-setting within

the national grid may also be considered where related proposals have been fully conceived, can be inextricably linked to these proposals and are readily deliverable.

(d) The applicant is requested to assess the development in light of July 2022 Department of Enterprise, Trade and Employment 'Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy'

The updated EIAR that accompanies this AI response has further considered alternatives as required under part (a) of this part of the AI request. This fully addresses compliance with the policy of the County Development Plan having regard to space extensive uses under section 12.9.4 and the various objectives under Policy EDE7 as well as how the proposed development complies with the new Green Infrastructure policies of the County Development Plan. .

Despite the minimal changes to the scheme it was felt that it remained appropriate and in the interest of a comprehensive analysis to undertake a review of each of the EIAR chapters. This resulted in only minimal changes to most chapters but the biodiversity chapter was informed by new surveys (as requested under point 8 of the AI request); the noise impact assessment was reviewed in the context of point 6 of this AI request; and the Air Quality and Climate chapter (previous chapter 10, was sub-divided into two chapters to reflect the importance of Climate in terms of the current environment. Every subsequent chapter is therefore covered under the chapter number +1.

Furthermore, the cumulative effect on Material Assets during the Operational Phase in relation to the Electricity grid and Gas networks, and how it will be met with reference to the connection agreement that is in place is also fully detailed. The application is also considered within the EIAR in the context of the July 2022 Department of Enterprise, Trade and Employment 'Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy' and this concludes that the proposed development is fully in accordance with this strategy in that it facilitates, with the permitted Power Plants, the transition to a renewable energy network by 2030 as is required under the Climate Action Plan 2021; as well as ensuring that the required digital infrastructure is in place to drive research and innovation within the Digital Ireland Framework over the next 10 years and beyond.

In addition the EIAR has been amended to address any changes within the proposed development made in responding to this Additional Information request. The revised EIAR is fully in accordance with the requirements of Article 94 of the Planning and Development Regulations 2001 (as amended).

18. The applicant is requested to provide justification for the proposed 10 year permission duration.

The application is for five years, and this appears to have been raised by a third party. We refer the Planning Authority to the originally submitted statutory planning notices, planning report and EIAR, within which a ten year permission is not referred to. As this application is for a five year permission, no further need to respond to this point is required.

CONCLUSION

It is our respectful submission that this response has comprehensively addressed all the issues raised by the Planning Authority in the Additional Information request.

In conclusion, for all of the foregoing arguments, reason and considerations, South Dublin County Council are invited to assess the subject scheme and our Additional Information response on its own individual merits and to grant planning permission for this development on the basis that by its nature and extent, the proposal would accord with the proper planning and sustainable development of this area including the preservation and improvement of amenities thereof.

We trust that everything is in order and look forward to a favourable decision in due course.

Yours faithfully,



Anthony Marston (MIPI, MRTPI)
Marston Planning Consultancy

